

1 GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- .1 The work covered under this project consists of the furnishing of all plant, labour, equipment and material for Floating Plant Dredging of Class "B" underwater materials at the following locations:
 - .1 Cap Lumiere Channel
 - .2 St Edouard Channel
 - .3 Caissie Cap Channel
 - .4 Cap-Pele channel
 - .5 Barre de Cocagne channeland placing dredged material at the ocean disposal site at each of the wharf location, in the Westmorland and Kent Counties, Gulf Region New Brunswick, in strict accordance with specifications and accompanying drawings and subject to all terms and condition of contract.
- .2 Mobilization and Demobilization of all equipment necessary to make work progress for the entire contract.
- .3 Only items in the Unit Price Table will be measured for payment. All other work necessary to complete the Contract will be considered incidental to the project and will not be measured separately for payment.

1.02 DESCRIPTION OF WORK

- .1 The work will consist of but will not necessarily be limited to the following:
 - .1 Mobilization and Demobilization.
 - .2 Dredging of Class "B" underwater material from Channel with Floating plant equipment and dispose at the ocean disposal site, as shown on sketches.
 - .3 Mark floating equipment with lights in accordance with International Rules of Road and maintain radio watch on board.
 - .4 Submittal of an Environmental Mitigation Plan.
 - .5 New bathymetry will be collected in April as soon as the survey vessel can navigate the channel and work areas.
 - .6 Dredge area is to be excavated to elevation -1.8 metres below Chart Datum (Elevation 0.00).
 - .7 Dispose of dredged material to the ocean disposal site in manner approved by Departmental Representative.
 - .8 Dredging activities and disposal of dredged material will be carried out in accordance with the terms and conditions set down in the DAS Permits issued by Environment Canada pursuant to the Canadian Environmental Protection Act and Regulations there under.
 - .9 Re-dredge unsatisfactory Work and verify depths with additional Sounding to approval of Departmental Representative.

1.03 PERMIT CERTIFICATES AND FEES

- .1 Departmental Representative is responsible to obtain the CEPA (ocean dumping) permit, Quarry permit, and provide Notices to Mariners for the commencement of dredging operation.
- .2 Contractor is responsible to provide Notices to Mariners prior to the start of construction and dredging operations.
Email:NAVWARN.MCTSSYDNEY@INNAV.GC.CA
- .3 Contractor must Obtain and pay for all permits and certificates, licenses as required by Municipal, Provincial, Federal and other Authorities.
- .4 Contractor must Provide appropriate notifications of project to municipal and provincial inspection authorities.
- .5 Submit to Departmental Representative, copy of application submissions and approval documents received for above referenced authorities.
- .6 Submit to Departmental Representative, copy of quarry permit, if applicable, prior to start of quarry operations.
- .7 Comply with all requirements, recommendations and advice by all regulatory authorities unless otherwise agreed in writing by Departmental.

1.04 INSPECTION OF SITES

- .1 All bidders, before submitting their bid, are required to inspect and examine the site and its surroundings and satisfy themselves as to the form and nature of the work and materials necessary for the completion of the works, the means of access to the site, severity, exposure and uncertainty of weather, soil conditions, any accommodations they may require, and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. No allowance shall be made subsequently in this connection on account of error or negligence to properly observe and determine the conditions that will apply.
- .2 Contractors, bidders or those they invite to site are to review specification Section 01 35 29 - Health and Safety Requirements before visiting site. Take all appropriate safety measures for any visit to site, either before or after acceptance of bid.

1.05 DATUM

- .1 Elevations used in this specification and contract drawings are in metres referred to Chart Datum.
- .2 Areas to be dredged are to be referenced to vertical bench marks for each location of dredging as indicated.
- .3 Bidders are advised to consult the Tide Tables issued by Fisheries and Oceans in order to make sure of the tidal conditions affecting work.
- .4 Contractors are cautioned that any previous investigations that may be available for review, were intended to provide general site information only. Any interpolation and/or assumptions made relative to any previous investigations is the Contractor's responsibility.

1.06 EXISTING SUB-SURFACE CONDITIONS

- .1 Information pertaining to the existing sub-surface conditions may be

- available by contacting the Departmental Representative.
- .2 New bathymetry will be collected in April as soon as the survey vessel can navigate the channel and work areas.

1.07 CODES AND STANDARDS

- .1 Perform work in accordance with the latest edition of the National Building Code of Canada, FCC Standard 373 - Standard for Piers and Wharves (<http://www.hrsdc.gc.ca/en/lp/lo/fp/standards/373.shtml>), and any other code of provincial or local application including all amendments up to project bid closing date provided that in any case of conflict or discrepancy, the more stringent requirements shall apply.
- .2 Materials and workmanship must meet or exceed requirements of specified standards, codes and referenced documents.

1.08 LAYOUT OF WORK

- .1 Set grades and layout work in detail from control points and grades established by Departmental Representative.
- .2 Assume full responsibility for and execute complete layout of work to locations, lines and elevations indicated or as directed by Departmental Representative.
- .3 Use Global Positioning System (GPS), differential corrected, instrumentation valid at 1.0 metre accuracy. The contractor is responsible to ensure GPS instrumentation is verified for accuracy every three months.
 - .1 Lay out Work from bench marks and coordinates provided by Departmental Representative and be responsible for accuracy of Work relative to established bench marks ranges and baseline. Provide and maintain positioning and such other equipment as normally required for accurate dredging control.
- .4 Supply and maintain such devices as tide boards in order that proper depth of dredging can be determined. Locate tide boards so as to be clearly visible required to facilitate Departmental Representative's inspection of work.
- .5 Place and maintain in good working condition buoys, markers and/or lights required to define work and disposal areas.
- .5 Supply markers and/or buoys as survey markers required for laying out work.

1.09 WORK SCHEDULE

- .1 Immediately upon award of contract, the Contractor will submit a schedule of work to the Departmental Representative, showing anticipated progress stages and final completion of work within time required by contract documents. All entries contained in unit price table will be entered on schedule using a horizontal bar graph method.
 - .1 Channel priorities will be:
 - .1 Cap Lumiere channel to be dredged 30m wide, to elevation -1.8m below chart datum by May 30 2021.
 - .2 St Edouard Channel to be dredged 30m wide, to elevation -1.8m below chart datum by July 20 2021.
 - .3 Caissie Cap Channel to be dredged 30m wide, to elevation -1.8m

- below chart datum by July 10 2021.
- .4 Cap-Pele Channel to be dredged 30m wide, to elevation -1.8m below chart datum by July 20 2021.
- .5 Barre de Cocagne Channel to be dredged 30m wide, to elevation -1.8m below chart datum by July 20 2021.
- .2 Submit within 7 work days of notification of acceptance of bid, a construction schedule showing commencement and completion of all work within the time stated on the Bid and Acceptance Form and the date stated in the bid acceptance letter.
- .3 Provide sufficient details in schedule to clearly illustrate entire implementation plan, depicting efficient coordination of tasks and resources, to achieve completion of work on time and permit effective monitoring of work progress in relation to established milestones.
- .4 As a minimum, work schedule to be prepared and submitted in the form of Bar (GANTT) Charts, indicating work activities, tasks and other project elements, their anticipated durations and planned dates for achieving key activities and major project milestones provided in sufficient details and supported by narratives to demonstrate a reasonable plan for completion of project within designated time. Generally Bar Charts derived from commercially available computerized project management system are preferred but not mandatory.
- .5 Submit Schedule updates on a minimum monthly basis and more often, when requested by Departmental Representative, due to frequent changing project conditions. Provide a narrative explanation of necessary changes and schedule revisions at each update.
- .6 The Schedule, including updates, shall be to Departmental Representative's approval. Take necessary measures to complete work within approved time. Do not change schedule without Departmental Representative's approval.
- .7 All work on the project will be completed within the time indicated on the Bid and Acceptance Form.

1.10 ABBREVIATIONS

- .1 Following abbreviations of standard specifications have been used in this specification and on the drawings:
 - CGSB - Canadian Government Specifications Board
 - CSA - Canadian Standards Association
 - NLGA - National Lumber Grades Authority
 - ASTM - American Society for Testing and Materials
- .2 Where these abbreviations and standards are used in this project, latest edition in effect on date of bid call will be considered applicable.

1.11 SITE OPERATIONS

- .1 Arrange for sufficient space adjacent to project site for conduct of operations, storage of materials and so on. Exercise care so as not to obstruct or damage public or private property in area. Do not interfere with normal day-to-day operations in progress at site. All arrangements for space and access will be made by Contractor.
- .2 Remove snow and ice as required to maintain safe access in a manner that does not damage existing structures or interfere with the operations of others.

1.12 PROTECTION

- .1 Store all materials and equipment to be incorporated into work to prevent damage by any means.
- .2 Repair or replace all materials or equipment damaged in transit or storage to the satisfaction of Departmental Representative and at no cost to Canada.

1.13 PAYMENT

- .1 Payment for all work under this contract to be according to the "Articles of Agreement".
- .2 Dimensional changes as directed by the Departmental Representative to suit existing conditions, but not resulting in additional work or materials, will not be considered as extra to the Contract.

1.14 INSPECTION AND TESTING

- .1 The Departmental Representative may employ an inspector and/or testing company to ensure work conforms to the contract.

1.15 DISPOSAL OF DEBRIS

- .1 Debris, including construction materials not incorporated in the work, oil products and containers, and other materials of this nature will be disposed of in suitable locations off the site. Disposal is the responsibility of the Contractor.
- .2 Material from the work will not be permitted to go adrift to otherwise become a menace to navigation.

1.16 LOCATION OF EQUIPMENT

- .1 Location of buildings, tanks, equipment, fixtures, shown or specified shall be considered as approximate. Actual locations shall be as required to suit conditions at time of installation and as is reasonable. Obtain approval of Departmental Representative.
- .2 Locate equipment, fixtures and distribution systems to provide minimum interference and maximum usable space and in accordance with manufacturer's recommendations for safety, access and maintenance.

- .3 Submit field drawings to indicate relative position of various services and equipment when required by Departmental Representative.

1.17 PROJECT MEETINGS

- .1 Contractor will arrange project meetings and assume responsibility for setting times and recording minutes.
- .2 Project meetings will take place on site of work unless so directed by the Departmental Representative.
- .3 Contractor will assume responsibility for recording minutes of meetings and forwarding copies to all parties present at the meetings.
- .4 Have a responsible member of firm present at all project meetings.

1.18 ACCEPTANCE

- .1 Prior to the issuance of the Certificate of Substantial Performance, in Company with Departmental Representative, make a check of all work. Correct all discrepancies before final inspection and acceptance.
- .2 Before Work can be accepted, the Contractor must clean up the site and leave it in a condition which is acceptable to the Departmental Representative.

1.19 WORKS COORDINATION

- .1 Responsible for coordinating the work of the various trades, where the work of such trades interfaces with each other.
- .2 Convene meetings between trades whose work interfaces and ensure that they are fully aware of the areas and the extent of where interfacing is required. Provide each trade with the plans and specifications of the interfacing trade, as required, to assist them in planning and carrying out their respective work.
- .3 Canada will not be responsible for or held accountable for any extra costs incurred as a result of the failure to carry out coordination work. Disputes between the various trades as a result of their not being informed of the areas and extent of interface work shall be the sole responsibility of the General Contractor and shall be resolved at no extra cost to Canada.

1.20 CONTRACTOR'S USE OF SITE

- .1 The Contractor's use of site is limited to the work locations shown on the drawings. Any lay down areas must be coordinated with the Harbour Authority or other private land owners, and must meet or exceed environmental regulations.
- .2 Co-ordinate use of premises under direction of Departmental Representative.
- .3 Contractor is responsible for arranging the storage of materials on or off site, and any materials stored at the site which interfere with any of the day to day activities at or near the site will be moved promptly at the Contractor's expense, upon request by Departmental Representative.
- .4 Exercise care so as not to obstruct or damage public or private property in the area.

- .5 Contractor will note that fishing activity in the harbor includes fishing boats, moorings, etc. The Contractor will note that fishing boats, etc. must be able to berth in the harbor during construction operations therefore Contractor must cooperate with boats and activities in the harbor. No compensation will be paid to Contractor for loss of time or any other as a result of activities in each harbor.

1.21 INTERPRETATION OF DOCUMENTS

- .1 Supplementary to GC1.1 of the General Conditions, the Division 01 sections of the specifications take precedence over technical specifications in other divisions of the specifications.

1.22 HIGHWAY SPRING WEIGHT RESTRICTIONS

- .1 Comply with Provincial regulations for spring weight restrictions on Provincial Highway.

1.23 WORK COMMENCEMENT

- .1 Mobilization to project site is to commence immediately after acceptance of bid and submission of Site Specific Safety Plan, unless otherwise agreed by Departmental Representative.
- .2 Project work on site is to commence as soon as possible, with a continuous reasonable work force, unless otherwise agreed by Departmental Representative.
- .3 Weather conditions, short construction season, delivery challenges and the location of the work site may require the use of longer working days and additional work force to complete the project within the specified completion time.
- .4 Make every effort to ensure that sufficient material and equipment is delivered to site at the earliest possible date after acceptance of bid and replenished as required.

1.24 PROTECTION OF SERVICES

- .1 Before commencing work, establish location and extent of service lines in area of work and notify Departmental Representative of findings.
- .2 Submit schedule to and obtain approval from Departmental Representative for any shut-down or closure of active service or facility. Adhere to approved schedule and provide notice to affected parties.
- .3 Provide temporary services when directed by Departmental Representative to maintain critical facility systems.
- .4 Where unknowns services are encountered, immediately advise Departmental Representative and confirm findings in writing.
- .5 The Contractor will immediately restore any existing services disrupted as a result of his operations at no cost to the Departmental Representative.

1.25 HARBOUR AUTHORITY

- .1 Contractor to contact the respective Harbour Authorities prior to beginning of work. Contact information will be provided at the start-up meeting for this contract.
- .2 Contact the respective Harbour Authorities in advance of mobilization and negotiate berthage fees and access at facility.

1.26 OWNER OCCUPANCY

- .1 Co-operate with Harbour Users in scheduling operations to minimize conflict and to facilitate Owner usage.

1.27 EXISTING SERVICES

- .1 Notify, Departmental Representative and utility companies of intended interruption of services and obtain required permission.
- .2 Where Work involves breaking into or connecting to existing services, give Departmental Representative 48 hours' notice for necessary interruption of mechanical or electrical service throughout course of work. Minimize duration of interruptions. Carry out work at times as directed by governing authorities with minimum disturbance to Harbor Users.
- .3 Establish location and extent of service lines in area of work before starting Work. Notify Departmental Representative of findings.
- .4 Where unknown services are encountered, immediately advise Departmental Representative and confirm findings in writing.
- .5 Protect, relocate or maintain existing active services. When inactive services are encountered, cap off in manner approved by authorities having jurisdiction.
- .6 Record locations of maintained, re-routed and abandoned service lines.

1.28 DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy each document as follows:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Disposal at Sea Permit
 - .5 NB Disposal Site Management Plan, Map Book and Mitigation
 - .6 Environmental Protection Plan
 - .7 Disposal Management Plan
 - .8 Reviewed Shop Drawings.
 - .9 List of Outstanding Shop Drawings.
 - .10 Change Orders.
 - .11 Other Modifications to Contract.
 - .12 Field Test Reports.
 - .13 Copy of Approved Work Schedule.
 - .14 Health and Safety Plan and Other Safety Related Documents.
 - .15 Other documents as specified.

1.29 FACILITY SMOKING ENVIRONMENT

- .1 Comply with smoking restrictions.

2 PRODUCTS

2.01 NOT USED

- .1 Not used.

3 EXECUTION

3.01 NOT USED

- .1 Not used.

END OF SECTION

1 GENERAL

1.01 GENERAL

- .1 The bid item prices are full compensation for the work necessary to complete each item in the Contract in the Form of Tender. The prices bid are complete and separate from other or related bid items.
- .2 In the case of conflict between the instructions for measurement and payment contained in Section 01 22 00 and another Section of the Specifications, the requirements of Section 01 22 00 shall govern.
- .3 No separate payment will be made for:
 - .1 Unauthorized work beyond the limits shown.
 - .2 Field engineering survey and layout of work.
 - .3 Erosion and Sediment Control.
 - .4 Water Management.
 - .5 Dust Control.
 - .6 Temporary Facilities.
 - .7 Temporary Barriers and Enclosures.
 - .8 Traffic Control.
 - .9 Snow and ice removal as required to access the work site and for safety reasons.

1.02 DESCRIPTION OF WORK

- .1 The tendered price for work includes all items listed within the specification. Price includes all labour, materials, and equipment for complete supply and installation of the work.
- .2 Mobilization/Demobilization including all equipment, temporary facilities, security, maintenance, snow clearing, and cleaning of site and public access roads (as required), securing all necessary regulatory permits, insurance and bonding, establishing health and safety protocol, and the construction, maintenance and decommissioning of all necessary temporary access roads.
- .3 All demolition, material disposal (hazardous and non-hazardous), service disconnection/ reconnection, site excavation, construction, repairs and improvements and site restoration and landscaping, as contained in the specifications.

2 PRODUCT MEASUREMENT

2.01 GENERAL

- .1 This section details the measurement method to be used for payment purposes. Incidental items covered in the various sections of the specification are to be allowed for in the pricing of each pay item.

2.02 MEASUREMENT FOR PAYMENT

.1 Measurements for payment will be as specified in the following sections:

Section 35 20 23:

- .1 Measurement for Payment for Mobilization and Demobilization will be paid under section 35 20 23.
 - .1 Cap Lumiere channel to be dredged by May 30 2021.
 - .2 St Edouard Channel to be dredged by July 20 2021.
 - .3 Caissie Cap Channel to be dredged by July 10 2021.
 - .4 Cap-Pele Channel to be dredged by July 20 2021.
 - .5 Barre de Cocagne to be dredged by July 20 2021.
- .2 Measurement and Payment for dredging will be paid by the Cubic Meters in-place measure (CMPM) to be completed with floating plant equipment for material dredged and disposed of at the ocean disposal site. Included but not limited to the following:
 - .1 All operations in connection with field positioning of dredging equipment will not be measured separately for payment. The contractor shall be equipped with a computerized system capable of accurately displaying on a monitor the location the dredge, its digging tool, the geographic coordinates, the dredge parameter limits and the bathymetric data as provided by the departmental representative.
 - .2 No separate payment will be made for Contractor's survey vessel, equipment and crew or diving services.
 - .3 Payment will include dredging and disposal of dredge material to the ocean disposal site which will be determined from soundings taken before, after completion of dredging, the Departmental Representative will clear the section to ensure proper depth has been achieved.
 - .1 For payment of quantities, the volume will be determined by taking the difference of elevations between the pre-dredge survey and the theoretical -1.8m elevation, within the individual dredge boxes.
 - .2 For the clearing of the work, soundings, inspection and measurement of seabed will be verified by Departmental Representative after completion of each site, to ensure grades have been achieved. The contractor will assist and no extra cost.
 - .3 No Separate payment for infilling of the dredged areas from natural events, should it occur.
 - .4 No additional payment for delays incurred during fishing season operations, moving off channel to accommodate fishing vessels, inclement weather, ice removal, or during periods when no dredging is permitted.
 - .5 No additional payment for downtime and for delays caused by vessel traffic.
 - .6 No additional payment for any accumulation of sea weeds and/or kelp which may hamper the dredging operation.
 - .7 No additional payment for mooring facilities fees for dredge plant.
 - .8 Dredging equipment used for removal of obstructions will be paid for at rate negotiated in advance and authorized in writing by Departmental Representative.

FLOATING PLANT	MEASUREMENT & PAIEMENT	SECTION 01 22 00
DREDGING 2021		PAGE 3
CAP LUMIERE, ST EDOUARD,		FEBRUARY 2021
CAISSIE CAP, CAP-PELE AND BARRE DE COCAGNE		
R.001681.001		
3.01 NOT USED		

.1 Not Used.

END OF SECTION

1.01 DEFINITIONS

- .1 COSH: Canada Occupational Health and Safety Regulations made under Part II of the Canada Labour Code.
- .2 Competent Person: means a person who is:
 - .1 Qualified by virtue of personal knowledge, training and experience to perform assigned work in a manner that will ensure the health and safety of persons in the workplace, and;
 - .2 Knowledgeable about the provisions of occupational health and safety statutes and regulations that apply to the Work and;
 - .3 Knowledgeable about potential or actual danger to health or safety associated with the Work.
- .3 Medical Aid Injury: any minor injury for which medical treatment was provided and the cost of which is covered by Workers' Compensation Board of the province in which the injury was incurred.
- .4 PPE: personal protective equipment
- .5 Work Site: where used in this section shall mean areas, located at the premises where Work is undertaken, used by Contractor to perform all of the activities associated with the performance of the Work.

1.02 SUBMITTALS

- .1 Submit site-specific Health and Safety Plan prior to commencement of Work.
 - .1 Submit within five 5 work days of notification of Bid Acceptance. Provide 2 copies.
 - .2 Departmental Representative will review Health and Safety Plan and provide comments.
 - .3 Revise the Plan as appropriate and resubmit within 5 work days after receipt of comments.
 - .4 Departmental Representative's review and comments made of the Plan shall not be construed as an endorsement, approval or implied warranty of any kind by Canada and does not reduce Contractor's overall responsibility for Occupational Health and Safety of the Work.
 - .5 Submit revisions and updates made to the Plan during the course of Work.
- .2 Submit name of designated Health & Safety Site Representative and support documentation specified in the Safety Plan.
- .3 Submit building permit, compliance certificates and other permits obtained.
- .4 Submit copy of Letter in Good Standing from Provincial Workers Compensation or other department of labour organization.
 - .1 Submit update of Letter of Good Standing whenever expiration date occurs during the period of Work.
- .5 Submit copies of reports or directions issued by Federal, Provincial and Territorial health and safety inspectors.

- .6 Submit copies of incident reports.
- .7 Submit WHMIS MSDS - Material Safety Data Sheets.

1.03 COMPLIANCE REQUIREMENTS

- .1 Comply with Occupational Health and Safety Act for Province of New Brunswick, and General Regulations made pursuant to the Act.
- .2 Comply with Canada Labour Code - Part II (entitled Occupational Health and Safety) and the Canada Occupational Health and Safety Regulations (COSH) as well as any other regulations made pursuant to the Act.
 - .1 The Canada Labour Code can be viewed at:
[www.http://laws.justice.gc.ca/en/L-2/](http://laws.justice.gc.ca/en/L-2/)
 - .2 COSH can be viewed at: [www.http://laws.justice.gc.ca/eng/SOR-86-304/n e .html](http://laws.justice.gc.ca/eng/SOR-86-304/n e .html)
 - .3 A copy may be obtained at: Canadian Government Publishing Public Works & Government Services Canada Ottawa, Ontario, K1A 0S9 Tel: (819) 956-4800 (1-800-635-7943) Publication No. L31-85/2000 E or F)
- .3 Observe construction safety measures of:
 - .1 Part 8 of National Building Code
 - .2 Municipal by-laws and ordinances.
- .4 In case of conflict or discrepancy between above specified requirements, the more stringent shall apply.
- .5 Maintain Workers Compensation Coverage in good standing for duration of Contract. Provide proof of clearance through submission of Letter in Good Standing.
- .6 Medical Surveillance: Where prescribed by legislation or regulation, obtain and maintain worker medical surveillance documentation.

1.04 RESPONSIBILITY

- .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons and environment adjacent to the site to extent that they may be affected by conduct of Work.
- .2 Comply with and enforce compliance by all workers, sub-contractors and other persons granted access to Work Site with safety requirements of Contract Documents, applicable federal, provincial, and local by-laws, regulations, and ordinances, and with site-specific Health and Safety Plan.

1.05 SITE CONTROL AND ACCESS

- .1 Control the Work and entry points to Work Site. Approve and grant access only to workers and authorized persons. Immediately stop and remove non-authorized persons.
 - .1 Departmental Representative will provide names of those persons authorized by Departmental Representative to enter onto Work Site and will ensure that such authorized persons have the required knowledge and training on Health and Safety pertinent to their reason for being at the site, however, Contractor remains responsible for the health and safety of authorized persons while at the Work Site.
- .2 Isolate Work Site from other areas of the premises by use of appropriate means.
 - .1 Erect fences, hoarding, barricades and temporary lighting as required to effectively delineate the Work Site, stop non-authorized entry, and to protect pedestrians and vehicular traffic around and adjacent to the Work and create a safe environment.
 - .2 Post signage at entry points and other strategic locations indicating restricted access and conditions for access.
 - .3 Use professionally made signs with bilingual message in the 2 official languages or international known graphic symbols.
- .3 Provide safety orientation session to persons granted access to Work Site. Advise of hazards and safety rules to be observed while on site.
- .4 Ensure persons granted site access wear appropriate PPE. Supply PPE to inspection authorities who require access to conduct tests or perform inspections.
- .5 Secure Work Site against entry when inactive or unoccupied and to protect persons against harm.

1.06 PROTECTION

- .1 Give precedence to safety and health of persons and protection of environment over cost and schedule considerations for Work.
- .2 Should unforeseen or peculiar safety related hazard or condition become evident during performance of Work, immediately take measures to rectify situation and prevent damage or harm. Advise Departmental Representative verbally and in writing.

1.07 FILING OF NOTICE

- .1 File Notice of Project with pertinent provincial health and safety authorities prior to beginning of Work.
 - .1 Departmental Representative will assist in locating address if needed.

1.08 PERMITS

- .1 Post permits, licenses and compliance certificates.

- .2 Where a particular permit or compliance certificate cannot be obtained, notify Departmental Representative in writing and obtain approval to proceed before carrying out applicable portion of work.

1.09 HAZARD ASSESSMENTS

- .1 Perform site specific health and safety hazard assessment of the Work and its site.
- .2 Carryout initial assessment prior to commencement of Work with further assessments as needed during progress of work, including when new trades and subcontractors arrive on site.
- .3 Record results and address in Health and Safety Plan.
- .4 Keep documentation on site for entire duration of the Work.

1.10 PROJECT/SITE CONDITIONS

- .1 Following are potential health, environmental and safety hazards at the site for which Work may involve contact with:
- .2
 - .1 Existing hazardous and controlled products stored on site:
 - .1 none identified
 - .2 Existing hazardous substances or contaminated materials:
 - .1 none identified
 - .3 Known latent site and environmental conditions:
 - .1 Working near and over water.
 - .2 Cold weather and exposure.
 - .3 Public access to the site.
 - .4 Heavy Equipment.
 - .5 Working with lights.
 - .6 Load losses Roll overs.
 - .4 Facility on-going operations:
 - .1 none identified
- .3 Above items shall not be construed as being complete and inclusive of potential health and safety hazards encountered during Work.
- .4 Include above items in the hazard assessment of the Work.
- .5 MSDS Data sheets of pertinent hazardous and controlled products stored on site can be obtained from Departmental Representative.

1.11 MEETINGS

- .1 Attend pre-construction health and safety meeting, convened and chaired by Departmental Representative, prior to commencement of Work, at time,

- date and location determined by Departmental Representative. Ensure attendance of:
- .1 Superintendent of Work
 - .2 Designated Health & Safety Site Representative
 - .3 Subcontractors
- .2 Conduct regularly scheduled tool box and safety meetings during the Work in conformance with Occupational Health and Safety regulations.
- .3 Keep documents on site.

1.12 HEALTH AND SAFETY PLAN

- .1 Prior to commencement of Work, develop written Health and Safety Plan specific to the Work. Implement, maintain, and enforce Plan for entire duration of Work and until final demobilization from site.
- .2 Health and Safety Plan shall include the following components:
 - .1 List of health risks and safety hazards identified by hazard assessment.
 - .2 Control measures used to mitigate risks and hazards identified.
 - .3 On-site Contingency and Emergency Response Plan as specified below.
 - .4 On-site Communication Plan as specified below.
 - .5 Name of Contractor's designated Health & Safety Site Representative and information showing proof of his/her competence and reporting relationship in Contractor's company.
 - .6 Names, competence and reporting relationship of other supervisory personnel used in the Work for occupational health and safety purposes.
- .3 On-site Contingency and Emergency Response Plan shall include:
 - .1 Operational procedures, evacuation measures and communication process to be implemented in the event of an emergency.
 - .2 Evacuation Plan: site and floor plan layouts showing escape routes, marshalling areas. Details on alarm notification methods, fire drills, location of fire fighting equipment and other related data.
 - .3 Name, duties and responsibilities of persons designated as Emergency Warden(s) and deputies.
 - .4 Emergency Contacts: name and telephone number of officials from:
 - .1 General Contractor and subcontractors.
 - .2 Pertinent Federal and Provincial Departments and Authorities having jurisdiction.
 - .3 Local emergency resource organizations.
 - .5 Harmonize Plan with Facility's Emergency Response and Evacuation Plan. Departmental Representative will provide pertinent data including name of PWGSC and Facility Management contacts.
- .4 On-site Communication Plan:
 - .1 Procedures for sharing of work related safety information to workers and subcontractors, including emergency and evacuation measures.
 - .2 List of critical work activities to be communicated with Facility Manager which have a risk of endangering health and safety of Facility

users.

- .5 Address all activities of the Work including those of subcontractors.
- .6 Review Health and Safety Plan regularly during the Work. Update as conditions warrant to address emerging risks and hazards, such as whenever new trade or subcontractor arrive at Work Site.
- .7 Departmental Representative will respond in writing, where deficiencies or concerns are noted and may request re-submission of the Plan with correction of deficiencies or concerns.
- .8 Post copy of the Plan, and updates, prominently on Work Site.

1.13 SAFETY SUPERVISION

- .1 Employ Health & Safety Site Representative responsible for daily supervision of health and safety of the Work.
- .2 Health & Safety Site Representative may be the Superintendent of the Work or other person designated by Contractor and shall be assigned the responsibility and authority to:
 - .1 Implement, monitor and enforce daily compliance with health and safety requirements of the Work
 - .2 Monitor and enforce Contractor's site-specific Health and Safety Plan.
 - .3 Conduct site safety orientation session to persons granted access to Work Site.
 - .4 Ensure that persons allowed site access are knowledgeable and trained in health and safety pertinent to their activities at the site or are escorted by a competent person while on the Work Site.
 - .5 Stop the Work as deemed necessary for reasons of health and safety.
- .3 Health & Safety Site Representative must:
 - .1 Be qualified and competent person in occupational health and safety.
 - .2 Have site-related working experience specific to activities of the Work.
 - .3 Be on Work Site at all times during execution of the Work.
- .4 All supervisory personnel assigned to the Work shall also be competent persons.
- .5 Inspections:
 - .1 Conduct regularly scheduled safety inspections of the Work on a minimum bi-weekly basis. Record deficiencies and remedial action taken.

1.14 TRAINING

- .1 Use only skilled workers on Work Site who are effectively trained in occupational health and safety procedures and practices pertinent to their assigned task.

- .2 Maintain employee records and evidence of training received. Make data available to Departmental Representative upon request.
- .3 When unforeseen or peculiar safety-related hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of Province having jurisdiction and advise Departmental Representative verbally and in writing.

1.15 MINIMUM SITE SAFETY RULES

- .1 Notwithstanding requirement to abide by federal and provincial health and safety regulations; ensure the following minimum safety rules are obeyed by persons granted access to Work Site:
 - .1 Wear appropriate PPE pertinent to the Work or assigned task; minimum being hard hat, safety footwear, safety glasses and hearing protection.
 - .2 Immediately report unsafe condition at site, near-miss accident, injury and damage.
 - .3 Maintain site and storage areas in a tidy condition free of hazards causing injury.
 - .4 Obey warning signs and safety tags.
 - .5 Wear appropriate personal floatation devices.
- .2 Brief persons of disciplinary protocols to be taken for non-compliance. Post rules on site.

1.16 CORRECTION OF NON-COMPLIANCE

- .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Departmental Representative.
- .2 Provide Departmental Representative with written report of action taken to correct non-compliance of health and safety issues identified.
- .3 Departmental Representative will stop Work if non-compliance of health and safety regulations is not corrected in a timely manner.

1.17 INCIDENT REPORTING

- .1 Investigate and report the following incidents to Departmental Representative:
 - .1 Incidents requiring notification to Provincial Department of Occupational Safety and Health, Workers Compensation Board or to other regulatory Agency.

- .2 Medical aid injuries.
- .3 Property damage in excess of \$10,000.00,
- .4 Interruptions to Facility operations resulting in an operational lost to a Federal department in excess of \$5000.00.

- .2 Submit report in writing.

1.18 HAZARDOUS PRODUCTS

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS).
- .2 Keep MSDS data sheets for all products delivered to site.
 - .1 Post on site.
 - .2 Submit copy to Departmental Representative.

1.19 BLASTING

- .1 Blasting or other use of explosives is not permitted on site without prior receipt of written permission and instructions from Departmental Representative.

1.20 POWDER ACTUATED DEVICES

- .1 Use powder actuated fastening devices only after receipt of written permission from Departmental Representative.

1.21 CONFINED SPACES

- .1 Abide by occupational health and safety regulations regarding work in confined spaces.

1.22 SITE RECORDS

- .1 Maintain on Work Site copy of safety related documentation and reports stipulated to be produced in compliance with Acts and Regulations of authorities having jurisdiction and of those documents specified herein.
- .2 Upon request, make available to Departmental Representative or authorized Safety Officer for inspection.

1.23 POSTING OF DOCUMENTS

- .1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on Work Site in accordance with Acts and Regulations of Province having jurisdiction.
- .2 Post other documents as specified herein, including:
 - .1 Site specific Health and Safety Plan.
 - .2 WHMIS data sheets.

END OF SECTION

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1.01 DEFINITIONS

- .1 Hazardous Materials: product, substances or organism that is used for its original purpose; that is either dangerous goods or a material that may cause adverse health of persons, animals, or plant life when released into the environment.
- .2 Watercourse: Refers to the bed and shore of the river, estuary, stream, lake pond, marsh, or salt-water body that contains water for part of the year.
- .3 Invasive or alien species: refers to a species or subspecies introduced outside its normal distribution whose establishment and spread threaten ecosystems, habitats or species with economic or environmental harm.
- .4 Buffer zone: a vegetated land that protects watercourses from adjacent land uses. It refers to the land adjacent to watercourses, such as streams, rivers, lakes, ponds, oceans, and wetlands, including the floodplain and the transitional lands between the watercourse and the drier upland areas.

1.02 TRANSPORTATION

- .1 Transport hazardous materials and hazardous waste in compliance with Federal Transportation of Dangerous Goods Act.
- .2 Do not overload trucks when hauling material. Secure contents against spillage.
- .3 Maintain trucks clean and free of mud, dirt and other foreign matter.
- .4 Avoid potential release of contents and of any foreign matter onto highways, roads and access routes used for the Work. Take extra care when hauling dredged material and other hazardous materials. Immediately clean any spillage and soils.

1.03 HAZARDOUS MATERIAL HANDLING

- .1 Handle and store hazardous materials on site in accordance with WHMIS procedures and requirements.
- .2 Store all hazardous liquids in location and manner to prevent their spillage into the environment.
- .3 Maintain written inventory of all hazardous materials kept on site. List product name, quantity and storage date.
- .4 Keep MSDS data sheets on site for all items

1.04 PETROLEUM, OIL AND LUBRICANTS

- .1 Comply with Federal and Provincial laws, regulations, codes and guidelines for the storage of fuel and petroleum products on site.
- .2 Do not place fuel storage tanks and store fuel or other petroleum products within a 30 meter buffer zone of watercourses and wetlands. Do not fuel or lubricate equipment within this 30 meter buffer zone. Obtain approval from Departmental Representative of acceptable location on site for fuel storage and equipment service.
- .3 Do not dump petroleum products or any other deleterious substances on ground or in the water.
- .4 Be diligent and take all necessary precautions to avoid spills and contaminate the soil and water (both surface and subsurface) when handling petroleum products on site and during fueling and servicing of vehicles and equipment.
- .5 Maintain on site appropriate emergency spill response equipment consisting of at least one 250-litre (55 gallon) over pack spill kit for containment and cleanup of spills.
- .6 Maintain vehicles and equipment in good working order to prevent leaks on site.
- .7 In the event of a petroleum spill, immediately notify the Departmental Representative and the Canadian Coast Guard (CCG) at 1-800-565-1633 (24 hour report line). Perform clean-up in accordance with all regulations and procedures stipulated by authority having jurisdictions.

1.05 DISPOSAL OF DREDGE MATERIAL

- .1 Stringently follow all directives and procedures stipulated in permit for transportation and disposal of dredged material to approved disposal site.
 - .1 Dispose of dredge material at the approved Disposal at Sea (DAS) site in accordance with any/all conditions of the Canadian Environmental Protection Act (CEPA)
 - .2 A copy of the CEPA Disposal at Sea Permit must be kept on site and in the dredge at all times.
 - .3 A CEPA Disposal at Sea Permit has been applied for and it is anticipated that a permit will be received prior to contract award. No work will commence until this permit is attained.
 - .4 A Dredge Material Disposal Plan (DMDP) required by ECCC as part of permit conditions, is to be prepared by the Contractor and submitted to the *Departmental Representative* for review by ECCC 14 days prior to commencing dredging operations.

- .5 Contractor to provide daily disposal logs on excel sheet indicating cubic meter quantities and coordinates of the disposal location for each dump. The disposal log must be sent to Environment Canada and the Departmental Representative on a daily basis. Environment Canada's contact information will be provide with the Disposal at Sea Permit.
- .6 Ensure Dredging Permit is kept on site at all times.
- .2 Eliminate free board spillage when excavating, loading and hauling dredged material.
- .3 Do not overload trucks when hauling dredged material or other hazardous material. Secure contents against spillage. Clean ground spills to extent as directed by authority having jurisdiction and by Departmental Representative.
- .4 Obtain approval from Departmental Representative of the proposed route to be used to haul dredged material to the disposal site.
- .5 Place and spread dredged material at the disposal field in a uniform and well graded manner. Minimize height and slopes of the disposed material. Match slopes and contours of the existing surrounding terrain as much as possible following grades as directed by Departmental Representative.
- .6 Control disposal and runoff of water containing suspended materials or other harmful substances in accordance with requirements of authority having jurisdiction.
- .7 Suction Dredging:
 - .1 Routinely inspect pipe for any potential breach in the sediment train and keep in good leak free condition at all time.
 - .2 Should leakage occur along the pipeline immediately cease dredging operations and repair leak.

1.06 DISPOSAL OF WASTES

- .1 Do not bury rubbish, demolition debris and waste materials on site.
- .2 Do not dispose of hazardous waste, volatile materials (such as mineral spirits, paints, thinners etc...) and petroleum products into waterways, storm or sanitary sewers or in waste landfill sites.
- .3 Dispose of hazardous waste in accordance with applicable federal and provincial laws, regulations, codes and guidelines.

1.07 WATER QUALITY

- .1 Conduct dredging of a watercourse in such a manner to limit turbidity and reduce sediment suspension in the water to an absolute minimum at all times. For where the permits allow.
 - .1 Maintain appropriate production speed and momentum of the dredging equipment. Make adjustments as required and as approved by Departmental Representative.
 - .2 Strategically position dredging equipment to avoid over the water swings of excavated material whenever possible.
- .2 Where work may affect the water quality adjacent to water intake lines used by Lobster Holding Facilities, Fish Processing Facilities and other harbour users, schedule work in cooperation with the Harbour Authority as directed by Departmental Representative to minimize interference and impact to harbour users.
- .3 Visually monitor the water turbidity of the surrounding areas adjacent to the dredge area on a daily basis during the in-water work periods.
 - .1 Should excessive change occur in the turbidity beyond the dredge limit which differs from existing conditions of the surrounding water bodies, such as a distinct color difference; notify the Departmental Representative to obtain appropriate mitigation measures to be followed.
- .4 Water quality during suction dredging:
 - .1 Minimize out-fall of the dredge material at the disposal site by placing the pipeline outtake at or near the water level surface.
 - .2 Restrict vessel traffic adjacent to the disposal site to an absolute minimum to avoid the re-suspension of dredged material from propeller wash.
- .5 Do not wash-down equipment within a 30 meter buffer zone of a wetland, watercourse or other identified environmentally sensitive area.

1.08 SOCIOECONOMIC RESTRICTIONS

- .1 Abide by municipal and provincial regulations for any restrictions on work performed during the night time and on flood lighting of the site. Obtain applicable permits
- .2 Place flood lights in opposite direction of adjacent residential and business areas.
- .3 Equip equipment and machinery with purposely designed mufflers to reduce noise on site to lowest possible level. Maintain mufflers in good operating condition at all times.

1.09 BIRD AND BIRD HABITAT

- .1 Become knowledgeable with abide by the Migratory Birds Convention Act (MBCA) in regards to the protection of migratory birds, their eggs, nests and their young encountered on site and in the vicinity.
- .2 Minimize disturbance to all birds on site and adjacent areas during the entire course of the Work.
- .3 Do not approach concentrations of seabirds, waterfowl and shorebirds when anchoring equipment, accessing wharves or ferrying supplies.
- .4 During night time work, position flood lights in opposite direction of nearby bird nesting habitat.
- .5 Do not use beaches, dunes and other natural previously undisturbed areas of the site to conduct work unless specifically approved by the Departmental Representative.
- .6 Should nests of migratory birds in wetlands be encountered during work, immediately notify Departmental Representative for directives to be followed.
 - .1 Do not disturb nest site and neighboring vegetation until nesting is completed.
 - .2 Minimize work immediately adjacent to such areas until nesting is completed.
 - .3 Protect these areas by following recommendations of Canadian Wildlife Service.

1.10 FISH AND FISH HABITAT

- .1 Be aware of the risk for contamination of the fish habitat at the site as a result of alien species being introduced in the water.
- .2 To minimize the possibility of fish habitat contamination, all construction equipment which will be immersed into the water of a watercourse, or has the possibility of coming into contact with such water during the course of the work, must be cleaned and washed to ensure that they are free of marine growth and alien species.
- .3 Equipment shall include boats, barges, cranes excavators, haul trucks, pumps, pipe lines and other all miscellaneous tools and equipment previously used in a marine environment.
- .4 Cleaning and washing of equipment shall be performed immediately upon their arrival at the site and before use in or over the body of water.
- .5 Conduct cleaning and washing operations as follows:
 - .1 Scrap and remove heavy accumulation of mud and dispose appropriately.
 - .2 Wash all surfaces of equipment by use of a pressurized fresh water supply.

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- .3 Immediately follow with application of a heavy sprayed coating of undiluted vinegar or other environmentally approved cleaning agent to thoroughly remove all plant matter, animals and sediments.
 - .4 Check and remove all plant, animal and sediment matter from the all bilges and filters.
 - .5 Drain standing water from equipment and let fully dry before use.
 - .6 Upon removal from the water, drain standing water from equipment and let fully dry before removal off the site
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- .6 Do not perform cleaning and wash-down within a 30 meter buffer zone of a wetland, watercourse or other identified environmentally sensitive area.
 - .7 Record of Assurance Logbook: Record of
 - .1 Maintain an on-going log of past and present usage and wash-downs of all equipment to illustrate mitigation measures undertaken against fish habitat contamination by alien species.
 - .2 Write data in a hard cover bound logbook,
 - .3 Include the following:
 - .1 Date and location where equipment was previously used in a watercourse or wetland;
 - .2 Type of work performed.
 - .3 Dates of wash-down for each piece of equipment;
 - .4 Cleaning method and cleaning agent(s) used.
 - .8 Keep Record of Assurance Logbook updated from project to project. Upon request, submit logbook to Departmental Representative for review.
 - .9 Abide by requirements and recommendations of the Federal Department of Environment and the Department of Fisheries and Oceans - Habitat Protection and Sustainable Development Branch in cleaning and wash-down of equipment.

1.11 AIR QUALITY

- .1 Keep airborne dust and dirt resulting from the work on site to an absolute minimum.
- .2 Apply dust control measures to roads, parking lots and work areas.
- .3 Spray surfaces with water or other environmentally approved product. Use purposely suited equipment or machinery and apply in sufficient quantity and frequency to provide effective result and continued dust control during the entire course of the work.
- .4 Do not use oil or any other petroleum products for dust control.

1.12 FIRES

- .1 Fires and burning of rubbish on site is not permitted.

END OF SECTION