

- 1.1 SCOPE .1 The work covered under this contract consists of the furnishing of all plant, labour, equipment and material for Harbour Improvements at Arnold's Cove, Newfoundland and Labrador, in strict accordance with specifications and accompanying drawings and subject to all terms and condition of contract.
- 1.2 DESCRIPTION OF WORK .1 In general, work under this contract consist of but will not necessarily be limited to the following:
.1 The construction of a new 160m rubble mound breakwater which will consist of the supply and installation of approximately 32,750 m³ of core stone (0.1-200kg), 6,900 m³ of filter stone (200-600kg), 9,900 m³ of armour stone 2-6 tonne, 200 m³ of granular base and 1100 m³ granular sub-base material as shown on the drawings.
- 1.3 SITE OF WORK .1 Work will be carried out at Arnold's Cove, Newfoundland and Labrador in the location as shown on the accompanying drawings.
.2 Due to the location of this project, there are certain potential environmental impacts and recommended mitigation measures, and certain regulatory approvals in place for this project.
- 1.4 DATUM .1 Datum used for this project is Lowest Normal Tides (LNT) and is assumed to be 4.09 metres below Bench Mark PWC 1-2004.
.2 Bidders are advised to consult the Tide Tables issued by Fisheries and Oceans in order to make sure of the tidal conditions affecting work.

1.5 FAMILIARIZATION .1
WITH SITE

Before submitting a bid, it is recommended that bidders visit the site and its surroundings to review and verify the form, nature and extent of the work, materials needed for the completion of the work, the means of access to the site, severity, exposure and uncertainty of weather, soil conditions, accessability to the site, very steep location, any accommodations they may require, and in general shall 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.
- .3 Obtain prior permission from the Departmental Representative before carrying out such site inspection.

1.6 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/lp/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.

1.7 TERM ENGINEER .1 Unless specifically stated otherwise, the term Engineer where used in the Specifications and on the Drawings shall mean the Departmental Representative as defined in the General Conditions of the Contract.

1.8 SETTING OUT 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 Provide devices needed to layout and construct work.

.4 Supply such devices as straight edges and templates required to facilitate Departmental Representative's inspection of work.

.5 Supply stakes and other survey markers required for laying out work.

1.9 COST BREAKDOWN .1 Before submitting first progress claim submit breakdown of Contract price in detail as directed by Departmental Representative and aggregating contract price. Departmental Representative will provide the required forms for application of progress payment.

.2 Provide cost breakdown in same format as the numerical and subject title system used in this specification project manual and thereafter sub-divided into major work components or building systems as directed by Departmental Representative.

.3 Upon approval by Departmental Representative, cost breakdown will be used as basis for progress payment.

.4 All work items not designated in the unit price table as a measurement for payment, are

- 1.9 COST BREAKDOWN .4 (Cont'd)
(Cont'd) to be included in the lump sum arrangement, as noted on the Bid and Acceptance Form.
- 1.10 WORK SCHEDULE .1
- .1 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.
- .2 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.
- .3 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, e.g., show target dates for the placement of each type of material. Generally Bar Charts derived from commercially available computerized project management system are preferred but not mandatory.
- .4 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.
- .5 The schedule, including all 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.

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- 1.10 WORK SCHEDULE .6 All work on the project will be completed
(Cont'd) within the time indicated on the Bid and
Acceptance Form.
- 1.11 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.
- 1.12 QUARRY AND .1 Make own arrangements with Provincial
EXPLOSIVES authorities and owners of private properties,
for the quarrying and transportation of rock
and all materials and machinery necessary for
work over their property, roads or streets as
case may be.
- 1.13 SITE .1 Arrange for sufficient space adjacent to
OPERATIONS 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 and to complete project work in a
manner that does not damage existing
structures or interfere with the operations of
others.
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1.14 PROJECT
MEETINGS

- .1 Departmental Representative 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 Departmental Representative 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.

1.15 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.

1.16 EXISTING
SERVICES

- .1 Where work involves breaking into or connecting to existing services, carry out work at times directed by governing authorities, with minimum of disturbance to site operations, pedestrian, vehicular traffic, tenant operations.
- .2 Before commencing work, establish location and extent of service lines in area of work and notify Departmental Representative of findings. There are existing light poles and power lines in the area of work that may cause problems. Contractor will have to remove existing guard rail and may have to reinstall after completion of work.
- .3 Submit schedule to and obtain approval from Departmental Representative for any shut-down or closure of active service or facility. This includes disconnection of electrical power and communication services to tenant's operational

1.16 EXISTING
SERVICES
(Cont'd)

- .3 (Cont'd)
areas. Adhere to approved schedule and provide notice to affected parties.
- .4 Provide temporary services when directed by Departmental Representative to maintain critical facility systems.
- .5 Provide adequate bridging over trenches which cross walkways or roads to permit normal traffic.
- .6 Where unknown services are encountered, immediately advise Departmental Representative and confirm findings in writing.
- .7 Protect, relocate or maintain existing active services as required. When inactive services are encountered, cap off in manner approved by authorities having jurisdiction over service. Record locations of maintained, re-routed and abandoned service lines. Note: Contractor to contact Town prior to start to make sure no existing lines in place.

1.17 DOCUMENTS
REQUIRED

- .1 Maintain at job site, one copy each of the following:
 - .1 Contract Drawings
 - .2 Specifications
 - .3 Addenda
 - .4 Reviewed Shop Drawings
 - .5 List of outstanding shop drawings
 - .6 Change Orders
 - .7 Other modifications to Contract
 - .8 Field Test Reports
 - .9 Copy of Approved Work Schedule
 - .10 Site specific Health and Safety Plan and other safety related documents
 - .11 Other documents as stipulated elsewhere in the Contract Documents.

1.18 PERMITS

- .1 Obtain and pay for all permits, certificates and licenses as required by Municipal, Provincial, Federal and other Authorities.

1.18 PERMITS
(Cont'd)

- .2 Provide appropriate notifications of project to municipal and provincial inspection authorities. Contractor to meet with Town officials prior to start.
- .3 Obtain compliance certificates as prescribed by legislative and regulatory provisions of municipal, provincial and federal authorities as applicable to the performance of work.
- .4 Submit to Departmental Representative, copy of application submissions and approval documents received for above referenced authorities.
- .5 Submit to Departmental Representative, copy of quarry permit, if applicable, prior to start of quarry operations.
- .6 Comply with all requirements, recommendations and advise by all regulatory authorities unless otherwise agreed in writing by Departmental Representative. Make requests for such deviations to these requirements sufficiently in advance of related work.
- .7 Follow all Regulatory Approvals and Responses already obtained by Canada for this project.

1.19 CUTTING,
FITTING AND
PATCHING

- .1 Execute cutting, including excavation, fitting and patching required to make work fit properly.
- .2 Where new work connects with existing and where existing work is altered, cut, patch and make good to match existing work. This includes patching of openings in existing work resulting from removal of existing services.
- .3 Do not cut, bore, or sleeve load-bearing members.
- .4 Make cuts with clean, true, smooth edges. Make patches inconspicuous in final assembly.

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- 1.20 EXISTING SUB-SURFACE CONDITIONS
- .1 Information pertaining to the existing sub-surface conditions may be available by contacting the Departmental Representative.
 - .2 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.
- 1.21 LOCATION OF EQUIPMENT
- .1 Location of cleats, jib cranes, equipment, fixtures, power pedestals and outlets, shown or specified shall be considered as approximate. Actual location 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 Inform Departmental Representative when impending installation conflicts with other new or existing components. Follow directives for actual location.
 - .4 Submit field drawings to indicate relative position of various services and equipment when required by Departmental Representative.
- 1.22 FISH HABITAT
- .1 This work is being conducted in an area where fish habitat may be affected. Perform work to conform with rules and regulations governing fish habitat and in accordance with authorization for work or undertakings affecting fish habitat.
 - .2 Contact the Department of Fisheries and Oceans detachment at least 48 hours in advance of starting any work on site.
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1.23 NOTICE TO
SHIPPING/MARINERS

- .1 Notify the Marine Communications and Traffic Services' Centre, of Fisheries and Oceans Canada, at (709) 772-2083, ten (10) days prior to commencement and upon completion of the work, in order to allow for the issuance of Notices to Shipping/Mariners.
- .2 During construction any vessels or barges utilized must be marked in accordance with the provisions of the Canada Shipping Act Collision Regulations.

1.24 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.

1.25 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.

1.26 CONTRACTOR'S
USE OF SITE

- .1 Construction operations, including storage of materials for this contract, not to interfere with the fishing activity and/or operations at this harbour facility.
- .2 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.
- .3 Contractor will take adequate precautions to protect existing roadways and asphalt when operating tracked equipment.
- .4 Exercise care so as not to obstruct or damage public or private property in the area as indicated on the drawings.
- .5 At completion of work, restore area to its original condition. Damage to ground and property will be repaired by Contractor. Remove all construction materials, residue, excess, etc., and leave site in a condition acceptable to Departmental Representative.

1.27 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

1.27 WORK COMMENCEMENT (Cont'd)	.4	(Cont'd) the earliest possible date after acceptance of bid and replenished as required.
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1.28 FACILITY SMOKING ENVIRONMENT	.1	Comply with smoking restrictions.
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1.29 INTERPRETATION OF DOCUMENTS	.1	Supplementary to the Order of Precedence article of the General Conditions of the Contract, the Division 01 sections take precedence over the technical specification sections in other Divisions of the Specification Manual.
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1.30 ASBESTOS DISCOVERY	.1	Demolition of spray or trowel-applied asbestos can be hazardous to health. Should material resembling spray or trowel-applied asbestos be encountered in course of work, stop work and notify Departmental Representative immediately. Do not proceed with relevant work until written instructions have been received from Departmental Representative.
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