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- 1.1 Site of Work .1 Work will be carried out at Saint John Ferry Terminal, Saint John, New Brunswick in the location as shown on the accompanying drawings.
- 1.2 Datum .1 Datum used for this project is Lowest Normal Tides (LNT) and is assumed to be 10.741 metres (deck elevation) below the CHS Benchmark 77B152 shown on the Plan.
- .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.
- 1.3 Familiarization With Site .1 Before submitting a bid, it is recommended that Bidders inspect and examine the site of work to satisfy themselves as to the form and nature of the work, materials the means of access to the site, and the temporary facilities required for completion of the work. 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 Obtain prior permission from the Departmental Representative before carrying out such site inspection.
- .3 Contractors, bidders or those they invite to site are to review specification Section 01 35 28 - Health and Safety Requirements before visiting site. Take all appropriate safety measures for any visit to site, either before or after acceptance of bid.
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- 1.3 Familiarization .4 Bidders are required to wear all appropriate
With Site personnel protective equipment and take all
(Cont'd) precautionary measures necessary to ensure
their safety during any pre-tender site visit.
- .5 Contractor shall make own assessment of the
site conditions, and difficulties in carrying
out the work as specified.
- 1.4 Codes and .1 Perform work in accordance with the 1995
Standards 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 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.
- 1.5 Layout of Work .1 Assume full responsibility for and execute
complete layout of work to locations, line and
elevations indicated or as directed by
Departmental Representative.
- .2 Provide devices needed to layout and
construct work.
- .3 Supply such devices as straight edges and
templates required to facilitate Departmental
Representative's inspection of work.
- .4 Supply stakes and other survey markers
required for laying out work.
- 1.6 Work Schedule .1 Submit within seven (7) work days of
notification of acceptance of bid, a
construction schedule showing commencement and
completion of all work within the time stated
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- 1.6 Work Schedule .1 (Cont'd)
(Cont'd) 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. Generally Bar Charts derived from
commercially available computerized project
management systems are preferred but not
mandatory.
- 1.7 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.
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| <u>1.8 Measurement Responsibilities</u> | .1 | Notify Departmental Representative sufficiently in advance of operations to permit required measurements for payment purposes. |
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| <u>1.9 Contractor's Use of Site</u> | .1 | Co-operate with users of existing facilities. Maintain access to the wharf structures during fishing season and consult with the local Harbour Authority for the site access limitations. |
| | .2 | Should interferences occur, take directions from Departmental Representative. |
| | .3 | Construction operations, including storage of materials for this contract, not to interfere with the ferry operations. |
| | .4 | 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. Obtain and pay for use of additional storage or work areas needed for operations. |
| | .5 | Contractor will take adequate precautions to protect existing structures and access area. |
| | .6 | Exercise care so as not to obstruct or damage public or private property in the area. |
| | .7 | Do not unreasonably encumber site with materials or equipment. |
| | .8 | 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. |
| | .9 | Comply with all regulations and authorities having jurisdiction over the work, whether on land or on water. |
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| <u>1.9 Contractor's
Use of Site
(Cont'd)</u> | .10 | Remove snow and ice as required maintaining safe access in a manner that does not damage existing structures or interference with operations of others. |
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| <u>1.10 Project
Meetings</u> | .1 | Contractor will arrange project meetings and assume responsibility for setting times and recording minutes and forwarding copies to all parties present at the meetings. |
| | .2 | Project meetings will take place on site of work unless so directed by the Departmental Representative. |
| | .3 | Have a responsible member of firm present at all project meetings. |
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| <u>1.11 Protection</u> | .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. |
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| <u>1.12 Acceptance</u> | .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. |
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| <u>1.13 Existing
Services</u> | .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. |
| | .2 | Before commencing work, establish location and extent of service lines in area of work |
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1.13 Existing
Services
(Cont'd)

- .2 (Cont'd)
and notify Departmental Representative of findings.
- .3 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.
- .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.
- .8 The wharf shall remain in full service to the users during the duration of the construction contract.

1.14 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.

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- 1.14 Works Coordination (Cont'd)
- .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 to the General Contractor and shall be resolved at no extra cost to Canada.
- 1.15 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 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.
- 1.16 Documents
- .1 Maintain at job site, one (1) 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
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- 1.16 Documents .1 (Cont'd)
- (Cont'd)
- .10 Health and Safety Plan and other safety related documents.
 - .11 Electrical Lock-out.
 - .12 Fire Safety Hot Work Permit.
 - .13 Permits, Codes and Acts.
 - .14 Waste Management Plan.
 - .15 Other documents as stipulated elsewhere in the Contract Documents, Drawings and these Specifications.
- 1.17 Permits .1 In accordance with the General Conditions, obtain and pay for building permits, certificates, licenses and other permits as required by Municipal, Provincial, Federal Authorities.
- .2 Provide appropriate notifications of project to municipal and provincial inspection authorities.
- .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 forms and approval documents received for above referenced authorities.
- .5 Comply with all requirements, recommendations and advice 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.
- 1.18 Facility .1 Comply with smoking restrictions.
- Smoking Environment
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- 1.19 Interpretation .1
Of Documents
- 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.
- 1.20 Cutting, .1
Fitting, And
Patching
- .1 Execute cutting, 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.
- .3 Do not cut, bore, or sleeve load-bearing members.
- .4 Make cuts with clean, true, smooth edges. Make patches inconspicuous in final assembly.
- 1.21 Location Of .1
Equipment
- .1 Location of cleats, 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 and fixtures to provide minimum 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.

Part 1 - General

- 1.1 Submittals .1 Upon acceptance of bid and prior to commencement of work, submit to Departmental Representative the following work management documents:
- .1 Work Schedule as specified herein.
 - .2 Shop Drawing Submittal Schedule specified in section 01 33 00.
 - .3 Waste Management Plan specified in section 01 74 21.
 - .4 Environmental Plan specified in section 01 35 43.
 - .5 Health and Safety Plan specified in section 01 35 28.
- 1.2 Work Schedule .1 Upon acceptance of bid submit:
- .1 Work schedule within seven (7) calendar days of contract award.
 - .2 Schedule to indicate all calendar dates from commencement to completion of all work within the time stated in the accepted bid.
 - .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 Work schedule content to include as a minimum the following:
 - .1 Bar (GANTT) Charts, indicating all work activities, tasks and other project elements, their anticipated durations, planned dates for achieving key activities and major project milestones supported with;
 - .2 Written narrative on key elements of work illustrated in bar chart, providing sufficient details to demonstrate a reasonable implementation plan for completion of project within designated time.
 - .3 Generally Bar Charts derived from commercially available computerized project
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- 1.2 Work Schedule .4 (Cont'd)
(Cont'd) .3 (Cont'd)
- management systems are preferred but not mandatory.
- .5 Work schedule must take into consideration and reflect the operational restrictions as specified.
- .6 Schedule work in cooperation with the Departmental Representative. Incorporate within Detailed Work Schedule, items identified by Departmental Representative during review of preliminary schedule.
- .7 Completed schedule shall be approved by Departmental Representative. When approved, take necessary measures to complete work within scheduled time. Do not change schedule without Departmental Representative's approval.
- .8 Ensure that all subtrades and subcontractors are made aware of the work restraints and operational restrictions specified.
- .9 Schedule Updates:
.1 Submit on a monthly basis when requested by Departmental Representative.
.2 Provide information and pertinent details explaining reasons for necessary changes to implementation plan.
.3 Identify problem areas, anticipated delays, impact on schedule and proposed corrective measures to be taken.
- .10 Departmental Representative will make interim reviews and evaluate progress of work based on approved schedule. Frequency of such reviews will be as decided by Departmental Representative. Address and take corrective measures on items identified by reviews and as directed by Departmental Representative. Update schedule accordingly.
- .11 In every instance, change, or deviation from the Work Schedule, no matter how minimal the risk or impact on safety or inconvenience to tenant or public might appear, will be subject
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1.2 Work Schedule .11 (Cont'd)
(Cont'd) to prior review and approval by the
Departmental Representative.

1.3 Project Phasing .1 Be aware that Harbour Facilities must be kept
operational for the full duration of work of
this contract. Building services to areas
under use by tenants must also be maintained
at all times during the Facility's operational
hours.

1.4 Operational .1 The Contractor must recognize that ferry
Restrictions operations will be continuing during the
implementation of this contract. The
Contractor must perform the work with utmost
regard to the safety and convenience of wharf
users.

.2 Supplies for the Princess of Acadia are
delivered by truck at least three (3) mornings
a week. Contractor to maintain continued
delivery of these supplies.

PART 1 - General

- 1.1 Description .1 This section specifies requirements for truck weigh scales for weighing of materials where measurement for payment is based on mass.
- 1.2 Related Work .1 Armour Stone: Section 35 31 24
- 1.3 Requirements of Regulatory Agencies .1 Prior use, have weigh scales certified as meeting requirements of Statutes of Canada, Chapter 36, Weights and Measures Act 1970-71-72 and subsequent amendments. Display certificate in a prominent position.
- 1.4 Measurement for Payment .1 Include cost of certification, installation, maintenance and removal of scales or use of local commercial scales in items of work to be measured by mass.

PART 2 - Products

- 2.1 Equipment .1 Weigh scales: electronic truck scale of sufficient capacity to weigh loaded vehicles in a single operation.
- .2 Existing certified commercial scales may be utilized if available.
- .3 Scale House:
.1 To enclose mass indicator and in which Engineer's representative can perform work and maintain records.
.2 To be weatherproof and have minimum 750 lx of illumination, one sliding window facing scale platform, one other window for cross ventilation, shelf desk at least 0.6 x 1.8 m, and heat to maintain inside temperature at

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|----------------------------------|----|------------------------------------------------------|
| <u>2.1 Equipment</u>
(Cont'd) | .3 | Scale House: (Cont'd) |
| | .2 | (Cont'd) |
| | | 20°C. Entrance door not to face onto scale platform. |

PART 3 - Execution

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|-------------------------|----|-----------------------------------------------------------------------------------------------------------------------------------|
| <u>3.1 Installation</u> | .1 | Provide, install and maintain scales, scale house and ramps, convenient to project site, at location approved by Engineer. |
| <u>3.2 Operation</u> | .1 | Engineer's representatives at scales will weigh monitor weighing of materials. |
| | .2 | Provide sufficient number of weigh tickets, in triplicate, with consecutive serial numbers. Obtain Engineer's approval of design. |
| <u>3.3 Maintenance</u> | .1 | Maintain scale platform and scale mechanism clean and free from gravel, asphalt, snow, ice, and debris. |
| | .2 | Maintain approach and exit ramps in good condition free from sags and ruts. |
| | .3 | Have scales recertified if requested by Engineer. |
| <u>3.4 Removal</u> | .1 | Remove scales and scale house when no longer required by Engineer. |
| | .2 | Level approach and exit ramps and regrade to approval of Engineer. |

PWGSC
Shoreline Protection
Saint John Ferry Terminal
Saint John, N.B.
Project No. R.064788.001

Project Particulars
and Measurement

Section 01 29 00
Page 1

1.1 Description of Work

- .1 The work under this contract involves Shoreline Protection under the existing structure and south shore of the Ferry Terminal Wharf.
- .1 Removal and reuse of existing armour stone.
- .2 Supply and installation of new armour stone to the limits and grades indicated on the drawings.

1.2 Project Measurement for Payment

- .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 Division 32 - Filter Fabric: The supply and installation of filter fabric will be paid as a lump sum item.
- .3 Division 35 - Armour Stone: The supply and installation of armour stone will be paid for in tonnes of material.

PART 1 - General

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|----------------------------------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 Section
<u>Includes</u> | .1 | Shop drawings and product data. |
| | .2 | Samples. |
| | .3 | Certificates. |
| 1.2 Submittal
<u>General Requirements</u> | .1 | Submit to Departmental Representative for review submittals listed, including shop drawings, samples, certificates and other data, as specified in other sections of the Specifications. |
| | .2 | Submit with reasonable promptness and in orderly sequence so as to allow for Departmental Representative's review and not cause delay in Work. Failure to submit in ample time will not be considered sufficient reason for an extension of Contract time and no claim for extension by reason of such default will be allowed. |
| | .3 | Do not proceed with work until relevant submissions are reviewed by Departmental Representative. |
| | .4 | Present shop drawings, product data, samples and mock-ups in SI Metric units. |
| | .5 | Where items or information is not produced in SI Metric units, provide soft converted values. |
| | .6 | Review submittals prior to submission to Departmental Representative. Ensure during review that necessary requirements have been determined and verified, required field measurements or data have been taken, and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents. |
| | .1 | Submittals not stamped, signed, dated and identified as to specific project will be |
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- 1.2 Submittal .6 (Cont'd)
General Requirements .1 (Cont'd)
(Cont'd)
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- returned unexamined by Departmental Representative and considered rejected.
- .7 Notify Departmental Representative, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .8 Verify field measurements and affected adjacent work and coordinate.
- .9 Contractor's responsibility for errors and omissions in submission is not relieved by Departmental Representative's review of submittals.
- .10 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Departmental Representative's review.
- .11 Submittal format: paper originals, or alternatively clear and fully legible photocopies of originals. Facsimiles are not acceptable, except in special circumstances pre-approved by Departmental Representative. Poorly printed non-legible photocopies or facsimiles will not be accepted and be returned for resubmission.
- .12 Make changes or revision to submissions which Departmental Representative may require, consistent with Contract Documents and resubmit as directed by Departmental Representative. When resubmitting, notify Departmental Representative in writing of any revisions other than those requested.
- .13 Keep one reviewed copy of each submittal document on site for duration of Work.
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1.3 Shop Drawings .1
and Product Data

The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, product data, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.

- .2 Number of Shop Drawings: submit sufficient copies of shop drawings which are required by the General Contractor and sub-contractors plus four (4) copies which will be retained by Departmental Representative. Ensure sufficient numbers are submitted to enable one complete set to be included in each of the maintenance manuals specified, if applicable.

- .3 Shop Drawings Content and Format:
.1 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where items or equipment attach or connect to other items or equipment, confirm that all interrelated work has been coordinated, regardless of section or trade from which the adjacent work is being supplied and installed.

- .2 Shop Drawings Format:
.1 Opaque white prints or photocopies of original drawings or standard drawings modified to clearly illustrate work specific to project requirements. Maximum sheet size to be 1000 x 707 mm.

- .2 Product Data from manufacturer's standard catalogue sheets, brochures, literature, performance charts and diagrams, used to illustrate standard manufactured products, to be original full colour brochures, clearly marked indicating applicable data and deleting information not applicable to project.

- .3 Non or poorly legible drawings, photocopies or facsimiles will not be accepted and returned not reviewed.

- .3 Supplement manufacturer's standard drawings and literature with additional information to provide details applicable to project.

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- 1.3 Shop Drawings .3 Shop Drawings Content and Format:(Cont'd)
and Product Data .4 Delete information not applicable to
(Cont'd) project on all submittals.
- .4 Allow ten (10) calendar days for Departmental Representative's review of each submission.
- .5 Adjustments or corrections made on shop drawings by Departmental Representative are not intended to change Contract Price. If adjustments affect value of Work, advise Departmental Representative in writing prior to proceeding with Work.
- .6 If upon review by Departmental Representative, no errors or omissions are discovered or if only minor corrections and comments are made, fabrication and installation may proceed upon receipt of shop drawings. If shop drawings are rejected and noted to be Resubmitted, do not proceed with that portion of work until resubmission and review of corrected shop drawings, through same submission procedures indicated above.
- .7 Accompany each submission with transmittal letter, containing:
- .1 Date.
 - .2 Project title and project number.
 - .3 Contractor's name and address.
 - .4 Identification and quantity of each shop drawing, product data and sample.
 - .5 Other pertinent data.
- .8 Submissions shall include:
- .1 Date and revision dates.
 - .2 Project title and project number.
 - .3 Name and address of:
 - .1 Subcontractor.
 - .2 Supplier.
 - .3 Manufacturer.
 - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
 - .5 Cross references to particular details of contract drawings and specifications
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1.3 Shop Drawings .8
and Product Data
(Cont'd)

Submissions shall include: (Cont'd)

.5 (Cont'd)

section number for which shop drawing
submission addresses.

.6 Details of appropriate portions of Work
as applicable:

.1 Fabrication.

.2 Layout, showing dimensions,
including identified field dimensions,
and clearances.

.3 Setting or erection details.

.4 Capacities.

.5 Performance characteristics.

.6 Standards.

.7 Operating weight.

.8 Wiring diagrams.

.9 Single line and schematic diagrams.

.10 Relationship to adjacent work.

.9 After Departmental Representative's review,
distribute copies.

.10 The review of shop drawings by the
Departmental Representative or delegated
representative is for sole purpose of
ascertaining conformance with general concept.
This review shall not mean that Public Works
and Government Services Canada approves the
detail design inherent in the shop drawings,
responsibility for which shall remain with
Contractor submitting same, and such review
shall not relieve Contractor of responsibility
for errors or omissions in shop drawings or of
responsibility for meeting all requirements of
the construction and Contract Documents.
Without restricting generality of foregoing,
Contractor is responsible for dimensions to be
confirmed and correlated at job site, for
information that pertains solely to
fabrication processes or to techniques of
construction and installation and for
co-ordination of Work of all sub-trades.

1.4 Schedules,
Permits and
Certificates

- .1 Upon acceptance of bid, submit to Departmental Representative copy of Work Schedule and various other schedules, permits, certification document, and project management plans as specified in other sections of the Specifications.
- .2 Submit copy of permits, notices, compliance Certificates received by Regulatory Agencies having jurisdiction and as applicable to the Work.
- .3 Submission of above documents to be in accordance with Submittal General Requirements procedures specified in this section.

- 1.1 Section .1 Fire Safety Requirements.
Includes .2 Hot Work Permit.
- 1.2 Related Work .1 Section 01 35 28 - Health and Safety Requirements.
- 1.3 References .1 Fire Protection Standards issued by Fire Protection Services of Human Resources Development Canada as follows:
.1 FCC No. 301-June 1982 Standard for Construction Operations (<http://www.hrsdc.gc.ca/en/lp/lo/fp/standards/301.shtml>).
.2 FCC No. 302-June 1982 Standard for Welding and Cutting (<http://www.hrsdc.gc.ca/en/lp/lo/fp/standards/302.shtml>).
.3 FCC standards, may also be viewed at the Regional Fire Protection Services' office (previously known as the Fire Commissioner of Canada) located at 99 Wyse Road, 8th Floor, Dartmouth, NS, Tel: (902) 426-6053.
- 1.4 Definitions .1 Hot Work defined as:
.1 Welding work.
.2 Cutting of materials by use of torch or other open flame devices.
.3 Grinding with equipment which produces sparks.
- 1.5 Submittals .1 Submit copy of Hot Work Procedures and sample of Hot Work permit to Departmental Representative for review, within fourteen (14) calendar days after notification of acceptance of bid.
.2 Submit in accordance with the Submittal General Requirements specified in Section 01 33 00.
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- 1.6 Fire Safety Requirements
- .1 Implement and follow fire safety measures during Work. Comply with following:
 - .1 National Fire Code, 2005
 - .2 Fire Protection Standards FCC 301 and FCC 302.
 - .3 Federal and Provincial Occupational Health and Safety Acts and Regulations as specified in Section 01 35 28.
 - .2 In event of conflict between any provisions of above authorities the most stringent provision will apply. Should a dispute arise in determining the most stringent requirement, Departmental Representative will advise on the course of action to be followed.
- 1.7 Hot Work Authorization
- .1 Obtain Departmental Representative's written "Authorization to Proceed" before conducting any form of Hot Work on site.
 - .2 To obtain authorization, submit to Departmental Representative:
 - .1 Contractor's typewritten Hot Work Procedures to be followed on site as specified below.
 - .2 Description of the type and frequency of Hot Work required.
 - .3 Sample Hot Work Permit to be used.
 - .3 Upon review and confirmation that effective fire safety measures will be implemented during performance of Hot Work, Departmental Representative will provide authorization to proceed as follows:
 - .1 Issue one (1) written "Authorization to Proceed" covering the entire project for duration of work or;
 - .2 Separate work, or segregate certain parts of work, into individual entities. Each entity requiring a separately written "Authorization to Proceed" from Departmental Representative. Follow Departmental Representative's directives in this regard.
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1.7 Hot Work
Authorization
(Cont'd)

- .4 Requirement for individual authorization based on:
 - .1 Nature or phasing of work;
 - .2 Risk to Facility operations;
 - .3 Quantity of various trades needing to perform Hot Work on project or;
 - .4 Other situation deemed necessary by Departmental Representative to ensure fire safety on premises.
- .5 Do not perform any Hot Work until receipt of Departmental Representative's written "Authorization to Proceed" for that portion of work.

1.8 Hot Work
Procedures

- .1 Develop and implement safety procedures and work practices to be followed during the performance of Hot Work.
- .2 Procedures to include:
 - .1 Requirement to perform hazard assessment of site and immediate Hot Work area for each Hot Work event in accordance with Hazard Assessment and Safety Plan requirements of Section 01 35 28.
 - .2 Use of a Hot Work Permit system for each Hot Work event.
 - .3 The step by step process of how to prepare and issue permit.
 - .4 Permit shall be issued by Contractor's Site Superintendent, or other authorized person designated by Contractor, granting permission to worker or subcontractor to proceed with Hot Work.
 - .5 Provision of a designated person to carryout a Fire Safety Watch for a minimum of thirty (30) minutes immediately upon completion of the Hot Work.
 - .6 Compliance with fire safety codes and standards specified herein and occupational health and safety regulations specified in Section 01 35 28.
- .3 Generic procedures, if used, must be edited and supplemented with pertinent information tailored to reflect specific project

1.8 Hot Work
Procedures
(Cont'd)

- .3 (Cont'd)
conditions. Clearly label as being the Hot
Work Procedures applicable to this Contract.
- .4 Hot Work Procedures shall clearly establish
worker instructions and allocate
responsibilities of:
 - .1 Worker(s),
 - .2 Authorized person issuing the Hot Work
Permit,
 - .3 Fire Safety Watcher,
 - .4 Subcontractors and Contractor.
- .5 Brief all workers and subcontractors on Hot
Work Procedures and Permit system established
for project. Stringently enforce compliance.
 - .1 Failure to comply with the established
procedures may result in the issuance of a
Non-Compliance Notification at Departmental
Representative's discretion with possible
disciplinary measures imposed as specified in
Section 01 35 28.

1.9 Hot Work
Permit

- .1 Hot Work Permit to include, as a minimum, the
following data:
 - .1 Project name and project number.
 - .2 Building name, address and specific room
or area where Hot Work will be performed.
 - .3 Date when permit issued.
 - .4 Description of Hot Work type to be
performed.
 - .5 Special precautions required, including
type of fire extinguisher needed.
 - .6 Name and signature of person authorized
to issue the permit.
 - .7 Name of worker (clearly printed) to
which the permit is being issued.
 - .8 Time Duration that permit is valid (not
to exceed eight (8) hours). Indicate start
time and date, and completion time and date.
 - .9 Worker signature with date and time upon
Hot Work termination.
 - .10 Specified time period requiring safety
watch.
 - .11 Name and signature of designated Fire
Safety Watcher, complete with time and date
when safety watch terminated, certifying that

- 1.9 Hot Work Permit
(Cont'd)
- .1 (Cont'd)
 - .11 (Cont'd)
surrounding area was under his continual surveillance and inspection during the full watch time period specified in Permit and commenced immediately upon completion of Hot Work.
 - .2 Permit to be typewritten form. Industry Standard forms shall only be used if all data specified above is included on form.
 - .3 Each Hot Work Permit to be completed in full and signed as follows:
 - .1 Authorized person issuing Permit before Hot Work commences.
 - .2 Worker upon completion of Hot Work.
 - .3 Fire Safety Watcher upon termination of safety watch.
 - .4 Returned to Contractor's Site Superintendent for safe keeping.
- 1.10 Documents
On Site
- .1 Keep Hot Work Permits and Hazard Assessment documentation on site for duration of Work.
 - .2 Upon request, make available to Departmental Representative or to authorized safety representative for inspection.

- 1.1 Related Work .1 Section 01 35 24 - Special Procedures on Fire Safety Requirements.
- 1.2 Definitions .1 COSH: Canada Occupational Health & 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 provisions of occupational health and safety statutes and regulations that apply to the work and;
- .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.
- 1.3 Submittals .1 Make submittals in accordance with Section 01 33 00.
- .2 Submit site-specific Health & Safety Plan prior to commencement of work.
- .1 Submit within ten (10) working days of notification of Bid Acceptance. Provide three (3) copies.
- .2 Departmental Representative will review Health & Safety Plan and provide comments.
- .3 Revise the plan as appropriate and resubmit within ten (10) working days after receipt of comments.
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1.3 Submittals
(Cont'd)

- .2 (Cont'd)
- .4 Departmental Representative's review and comments made of the Plan shall 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.
 - .6 Submit name of designated Health and Safety Site Representative and support documentation specified in the Safety Plan.
 - .7 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.
 - .8 Submit copies of reports or directions issued by Federal or Provincial Health and Safety Inspectors.
 - .9 Submit copies of incident reports.
 - .10 Submit WHMIS MSDS - Material Safety Data Sheets.

1.4 COMPLIANCE
REQUIREMENTS

- .1 Comply with the Occupational Health and Safety Act for the Province of New Brunswick, and the Occupational Health and Safety Regulations made pursuant to the Act.
- .2 Comply with Canada Labour Code Part II (entitled Occupational Health and Safety), and the Canada Occupational Safety and Health 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/ne.html](http://laws.justice.gc.ca/eng/SOR-86-304/ne.html).
 - .3 A copy may be obtained at Canadian Government Publishing Public Works and Government Services Canada, Ottawa, Ontario, K1A 0S9. Tel: (819) 956-4800 (1-800-635-7943), Publication No. L31-85/2000 E or F).

1.4 COMPLIANCE
REQUIREMENTS
(Cont'd)

- .2 (Cont'd)
 - .4 Observe construction safety measures of:
 - .1 Part 8 - National Building Code.
 - .2 Municipal by-laws and ordinances.
 - .5 In case of conflict or discrepancy between above specified requirements, the more stringent shall apply.
 - .6 Maintain Workers' Compensation Coverage in good standing for duration of Contract. Provide proof of clearance through submission of Letter in Good Standing.
 - .7 Medical Surveillance: Where prescribed by legislation or regulation, obtain and maintain worker medical surveillance documentation.

1.5 Responsibility

- .1 Be responsible for health and safety of persons on site, safety or 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.

1.6 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.
- .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, create a safe environment.

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- 1.6 Site Control .2 (Cont'd)
And Access
(Cont'd)
- .2 Post signage at entry points and other strategic locations indicating restricted access and conditions for access.
- .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.
- 1.7 Protection .1
- .1 Provide temporary facilities for protection and safe passage of public pedestrians and vehicular traffic around and adjacent to work site.
- .2 Provide safety barricades, lights and signage on work site as required, providing a safe working environment for workers.
- .3 Carry out work placing emphasis on Health & Safety of the Public, Facility Personnel, Construction Workers and Protection of the Environment.
- .4 Should unforeseen or peculiar safety related hazard or condition become evident during performance of work, immediately take measures to rectify the situation and prevent damage or harm. Advise Departmental Representative verbally and in writing.
- 1.8 Filing Of .1
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.
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- 1.9 Permits
- .1 Post permits, licenses and compliance certificates, specified in Section 01 10 10, at work site.
 - .2 Where a particular permit or compliance certificate cannot be obtained, notify Departmental Representative in writing and obtain approval to proceed before carrying out application portion of work.
 - .3 Obtain permits, licenses and compliance certificates, at appropriate times and frequency as stipulated by authorities having jurisdiction.
- 1.10 Hazard Assessments
- .1 Perform site specific health and safety hazard assessment of the work and its site.
 - .2 Carry out 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 in writing and address in Health and Safety Plan.
 - .4 Keep documentation on site for entire duration of work.
 - .5 Implement and carry out a health and safety hazard assessment program as part of the work. Program to include:
 - .1 Initial hazard assessments carried out immediately upon notification of contract award and prior to commencement of work.
 - .2 On-going hazard assessments performed during the progress of work identifying new or potential health risks and safety hazards not previously known. As a minimum hazard assessments shall be carried out when:
 - .1 New subtrade work, new subcontractor(s) or new worker(s) arrive at the site to commence another portion of the work.
 - .2 The scope of work has been changed by Change Order.
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- 1.10 Hazard Assessments (Cont'd)
- .5 (Cont'd)
 - .2 (Cont'd)
 - .3 Potential hazards or weakness in current health and safety practices are identified by Departmental Representative or by an authorized safety representative.
 - .6 Each hazard assessment to be made in writing. Keep copies of all assessments on site for duration of work. Upon request, make available to Departmental Representative for inspection.
- 1.11 Project/Site Conditions
- .1 The following are potential health, environmental and safety hazards at the site for which work may involve contact with:
 - .1 Working near watercourses.
 - .2 Working with heights.
 - .3 Working on slopes.
 - .4 Unstable working surfaces.
 - .5 Weather dependent.
 - .2 Facility on-going operations:
 - .1 The Contractor will co-operate with users of existing facilities. Maintain access to the existing wharf structures during fishing season and consult with the Departmental Representative for site access limitations.
 - .2 Should interference occur, take directions from Departmental Representative.
 - .3 Do not unreasonably encumber site with materials.
 - .4 Move stored products or equipment which interfere with operations.
 - .5 Comply with all regulations and authorities having jurisdiction over the work, whether on land or on water.
 - .6 Contractor will note that fishing activity in the harbour includes fishing boats, moorings, etc.
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1.12 Safety
Meetings

- .1 Prior to commencement of work, attend Health and Safety meeting conducted by Departmental Representative. Have Contractor's Site Superintendent in attendance. Departmental Representative will advise of time and location.
- .2 Provide site safety orientation sessions to all workers and other authorized persons prior to granting them access to work site. Brief persons on site conditions and on the minimum site safety rules in force at site.
- .3 Conduct site specific occupational health and safety meetings during the entire work as follows:
 - .1 Formal meetings on a minimum monthly basis.
 - .2 Informal tool box meetings on a regular basis from a predetermined schedule.
 - .3 Keep workers informed of anticipated hazards, on safety practices and procedures to be followed, and of other pertinent safety information related to:
 - .1 Progress of work.
 - .2 New sub-trades arriving on site.
 - .3 Changes in site and project conditions.
 - .4 Record and post meetings. Make copies available to Departmental Representative upon request.

1.13 Health And
Safety Plan

- .1 Prior to commencement of work, develop Health and Safety Plan specific to the work. Implement, maintain, and enforce Plan for entire duration of work until final demobilization.
- .2 Health and Safety Plan shall include the following components:
 - .1 List of health risks and safety hazards identified by hazard assessment process.
 - .2 Control measures used to mitigate risks and hazards identified.
 - .3 On-site Contingency and Emergency Response Plan as specified below.

1.13 Health And
Safety Plan
(Cont'd)

- .2 (Cont'd)
 - .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 Names, duties, and responsibilities of persons designated as Emergency Warden(s) and deputies.
 - .3 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.
- .4 On-site Communication Plan:
 - .1 Procedures for sharing of work related safety information to workers and subcontractors, including emergency and evacuation measures.
- .5 Address all activities of the work including those of subcontractors.
- .6 Review Health & Safety Plan regularly during the work. Update as conditions warrant to address emerging risks and hazards, such as whenever new trade or subcontractors arrive at work site.
- .7 Departmental Representative will respond in writing, where deficiencies or concerns are noted and may request re-submission of the

1.13 Health And
Safety Plan
(Cont'd)

- .7 (Cont'd)
Plan with correction of deficiencies or concerns.
- .8 Post copy of Plan, and updates, prominently on work site.

1.14 Safety
Supervision

- .1 Employ Health and 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 a 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.

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- 1.15 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 occurs 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.
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- 1.16 Minimum Site Safety Rules .1 Notwithstanding the 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 personal protective equipment (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 tidy condition free of hazards causing injury.
- .4 Obey warning signs and safety tags.
- .2 Brief persons of disciplinary protocols to be taken for non-compliance.
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- 1.17 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.
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| <u>1.17 Correction Of
Non-Compliance
(Cont'd)</u> | .3 | Departmental Representative will stop work if non-compliance of health and safety regulations are not corrected in a timely manner. |
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| <u>1.18 Incident
Reporting</u> | .1 | Investigate and report the following incidents to Departmental Representative:
.1 Incidents requiring notification to Provincial Department of Occupational Health and Safety Workers' Compensation Board or to other regulatory Agency.
.2 Medical Aid injuries.
.3 Property damage in excess of \$10,000.00.
.4 Interruption to Facility operations with in an operational loss to a Federal Department in excess of \$5,000.00. |
| | .2 | Submit report in writing. |
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| <u>1.19 Hazardous
Products</u> | .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. |
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| <u>1.20 Confined
Spaces</u> | .1 | Abide by occupational health and safety regulations regarding work in confined spaces. |
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| <u>1.21 Site Records</u> | .1 | Maintain on work site a 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. |
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- 1.22 Posting Of Documents
- .1 Ensure applicable items, articles, notices and orders are posted in conspicuous location of 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.

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- 1.1 Definitions .1 Hazardous Material: Product, substance, or organism that is used for its original purpose; and that is either dangerous goods or a material that may cause adverse impact to the environment or adversely affect health of persons, animals, or plant life when released into the environment.
- 1.2 Fires .1 Fires and burning of rubbish on site not permitted.
- 1.3 Disposal Of Wastes And Hazardous Materials .1 Do not bury rubbish and waste materials on site. Dispose at approved landfill sites as specified in Section 01 74 19.
- .2 Do not dispose of hazardous waste or volatile materials, such as mineral spirits, paints, thinners, oil or fuel into waterways, storm or sanitary sewers or waste landfill sites.
- .3 Store, handle, and dispose of hazardous materials and hazardous waste in accordance with applicable federal and provincial laws, regulations, codes and guidelines.
- .4 Dispose of construction waste materials and demolition debris, resulting from work, at approved landfill sites only. Carry out such disposal in strict accordance with provincial and municipal rules and regulations. Separate out and prevent improper disposal of items banned from landfills.
- .5 Establish methods and undertake construction practices which will minimize waste and optimize use of construction materials. Separate at source all construction waste materials, demolition debris, and product packaging and delivery containers into various waste categories in order to maximize recycling abilities of various materials and avoid disposal of debris at landfill site(s) in a "mixed state". Where recycling firms, specializing in recycling of specific materials exist, transport such materials to
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- 1.3 Disposal Of .5 (Cont'd)
Wastes And the recycling facility and avoid disposal at
Hazardous Materials landfill sites.
(Cont'd)
- .6 Communicate with landfill operator prior to
commencement of work, to determine what
specific construction, demolition and
renovation waste materials have been banned
from disposal at the landfill and at transfer
stations.
- 1.4 Drainage .1 Provide temporary drainage and pumping as
necessary to keep excavations and site free
from water.
- .2 Do not pump water containing suspended
materials into waterways, sewer or drainage
systems.
- .3 Control disposal or runoff of water
containing suspended materials or other
harmful substances in accordance with
governing regulations and requirements.
- .4 Pumped water must meet applicable federal,
provincial, and municipal standards before it
can be discharged to a surface water body. If
regulatory guidelines exceedences are noted,
the Departmental Representative has the right
to issue stop pumping instructions to the
Contractor. Contractor will not be compensated
for any delays associated with retrofitting
equipment to meet guidelines.
- .5 Provide control devices such as filter
fabrics, sediment traps and settling ponds to
control drainage and prevent erosion of
adjacent lands. Maintain in good order for
duration of work.
- 1.5 Permits .1 All guidelines and instructions stated on
permits must be strictly adhered to.
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1.6 Work Adjacent
To Waterways

- .1 Do not operate construction equipment in waterways.
- .2 Do not use waterway beds for borrow material.
- .3 Do not dump excavated fill, waste material, or debris in waterways.
- .4 At borrow sites, design and construct temporary crossings to minimize erosion to waterways in strict conformance with provincial and federal environmental regulations.
- .5 Do not skid logs or construction materials across waterways.
- .6 Avoid indicated spawning beds when constructing temporary crossings of waterways.
- .7 Do not blast under water or within 100 m of spawning beds.
- .8 Do not refuel any type of equipment within 100 m of a water body. Maintain equipment in good working condition with no fluid leaks, loose hoses, or fittings.

1.7 Pollution
Control

- .1 Maintain temporary erosion and pollution control features installed under this contract.
- .2 Control emissions from equipment and plant to local authorities emission requirements.
- .3 Prevent sandblasting and other extraneous materials from contaminating air beyond application area, by providing temporary enclosures.
- .4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads and around entire construction site.
- .5 Maintain inventory of hazardous materials and hazardous waste stored on site. List items by

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- 1.7 Pollution Control (Cont'd)
- .5 (Cont'd)
product name, quantity and date when storage began.
- .6 Have emergency spill response equipment and rapid clean-up kit, appropriate to work, at site. Locate adjacent to work and where hazardous materials are stored. Provide personal protective equipment as required for clean-up.
- .7 Report, to Federal and Provincial Department of the Environment, spills of petroleum and other hazardous materials as well as accidents having potential of polluting the environment. Also notify Departmental Representative and submit a written spill report to Departmental Representative within twenty-four (24) hours of occurrence.
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- 1.8 Wildlife Protection
- .1 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 neighbouring 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.

PART 1 - General

1.1 Inspection

- .1 Allow Departmental Representative access to work. If part of work is in preparation at locations other than place of work, allow access to such work whenever it is in progress.
- .2 Give timely notice requesting inspection if work is designated for special tests, inspections, or approvals by Departmental Representative instructions or law of place of work.
- .3 If Contractor covers or permits to be covered work that has been designated for special tests, inspections or approvals before such is made, uncover such work have inspections or tests satisfactorily completed and make good such work.
- .4 Departmental Representative will order part of work to be examined if work is suspected to be not in accordance with Contract Documents. If, upon examination such work is found not in accordance with Contract Documents, correct such work and pay costs of examination and correction. If such work is found in accordance with Contract Documents, Departmental Representative shall pay cost of examination and replacement.

1.2 Independent
Inspection Agencies

- .1 Independent Inspection/Testing Agencies will engage Departmental Representative for purpose of inspecting and/or testing portions of work. Cost of such services will be borne by Departmental Representative.
- .2 Provide equipment required for executing inspection and testing by appointed agencies.
- .3 Employment of inspections/testing agencies does not relax responsibility to perform work in accordance with Contract Documents.

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| <u>1.2 Independent
Inspection Agencies
(Cont'd)</u> | .4 | If defects are revealed during inspection and/or testing, appointed agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by Departmental Representative at no cost to Departmental Representative. Pay costs for retesting and re-inspection. |
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| <u>1.3 Access To Work</u> | .1 | Allow inspection/testing agencies access to work, off site manufacturing, and fabrication plants. |
| | .2 | Co-operate to provide reasonable facilities for such access. |
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| <u>1.4 Procedures</u> | .1 | Notify appropriate agency and Departmental Representative in advance of requirement for tests, in order that attendance arrangements can be made. |
| | .2 | Submit samples and/or materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in orderly sequence to not cause delays in work. |
| | .3 | Provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples. |
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| <u>1.5 Rejected Work</u> | .1 | Remove defective work, whether result of poor workmanship, use of defective products, or damage and whether incorporated in work or not, which has been rejected by Departmental Representative as failing to conform to Contract Documents. Replace or re-execute in accordance with Contract Documents. |
| | .2 | Make good other Contractor's work damaged by such removals or replacements promptly. |
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| <u>1.5 Rejected Work</u>
<u>(Cont'd)</u> | .3 | If in opinion of Departmental Representative, it is not expedient to correct defective work or work not performed in accordance with Contract Documents, owner will deduct from Contract price difference in value between work performed and that called for by Contract Documents, amount of which will be determined by Departmental Representative. |
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| <u>1.6 Reports</u> | .1 | Submit four (4) copies of inspection and test reports to Departmental Representative. |
| | .2 | Provide copies to subcontractor of work being inspected or tested, manufacturer or fabricator of material being inspected or tested. |
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| <u>1.7 Tests And</u>
<u>Mix Designs</u> | .1 | Furnish test results and mix designs as requested. |
| | .2 | Costs of tests and mix designs beyond those called for in Contract Documents or beyond those required by law of place of work will be appraised by Departmental Representative and may be authorized as recoverable. |
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| <u>1.8 Mock-ups</u> | .1 | Prepare mock-ups for work specifically requested in specifications. Include for work sections required to provide mock-ups. |
| | .2 | Construct in locations acceptable to Departmental Representative as specified in specific section. |
| | .3 | Prepare mock-ups for Departmental Representative's review with reasonable promptness and in an orderly sequence, so as not to cause any delay in work. |
| | .4 | Failure to prepare mock-ups in ample time is not considered sufficient reason for an extension of Contract Time and no claim for |
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- 1.8 Mock-ups .4 (Cont'd)
(Cont'd) extension by reason of such default will be allowed.
- .5 If requested, Departmental Representative will assist in preparing a schedule fixing dates for preparation.
- .6 Remove mock-ups at conclusion of work or when acceptable to Departmental Representative.
- .7 Specification section identifies whether mock-up may remain as part of work or if it is to be removed and when.
- 1.9 Mill Tests .1 Submit adjustment and balancing reports for mechanical, electrical and building equipment systems.
- .2 Refer to sections for definitive requirements.

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| <u>1.1 Access</u> | .1 | Provide and maintain adequate access to project site. |
| | .2 | Maintain access roads for duration of Contract and make good damage resulting from Contractors' use of roads. |
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| <u>1.2 Measurement Procedures</u> | .1 | No measurement for payment will be made for this section. Include associate costs in bid items. |
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| <u>1.3 Contractor's Site Office</u> | .1 | Be responsible for and provide own site office, if required, including electricity, heat, lights and telephone. Locate site office as directed by Departmental Representative. |
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| <u>1.4 Sanitary Facilities</u> | .1 | Provide sanitary facilities for work force in accordance with governing regulations and ordinances. |
| | .2 | Post notices and take such precautions as required by local health authorities. Keep area and premises in sanitary condition. |
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| <u>1.5 Power</u> | .1 | Arrange, pay for, and maintain temporary electrical power supply in accordance with governing regulations and ordinances. |
| | .2 | Supply and install all temporary facilities for power such as pole lines and underground cables to approval of local power supply authority. |
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| <u>1.6 Water Supply</u> | .1 | Arrange, pay for and maintain temporary water supply in accordance with governing regulations and ordinances. |
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- 1.7 Construction Sign And Notices
- .1 Contractor or subcontractor advertisement signboards are not permitted on site.
 - .2 Only notices of safety or instructions are permitted on site.
 - .3 Safety and Instruction Signs and Notices:
 - .1 Signs and notices for safety and instruction shall be in both official languages. Graphic symbols shall conform to CAN/CSA-Z321-96 (R2006).
 - .4 Maintenance and Disposal of Site Signs:
 - .1 Maintain approved signs and notices in good condition for duration of project and dispose of off site on completion of project or earlier if directed by Departmental Representative.
- 1.8 Removal Of Temporary Facilities
- .1 Remove temporary facilities from site when directed by Departmental Representative.

PART 1 - General

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|--------------------------------------------------------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>1.1 Installation And Removal</u> | .1 | Provide temporary controls in order to execute work expeditiously. |
| | .2 | Remove from site all such work after use. |
| <u>1.2 Barricades</u> | .1 | Provide as required by governing authorities. |
| <u>1.3 Access To Site</u> | .1 | Provide and maintain access to adjacent harbour facilities. |
| <u>1.4 Public Traffic Flow</u> | .1 | Provide and maintain competent signal flag operators, traffic signals, barricades and flares, lights, or lanterns as required to perform work and protect the public. |
| <u>1.5 Fire Routes</u> | .1 | Maintain access to property including overhead clearances for use by emergency response vehicles. |
| <u>1.6 Protection For Off-site And Public Property</u> | .1 | Protect surrounding private and public property from damage during performance of work. |
| | .2 | Be responsible for damage incurred. |
| <u>1.7 Waste Management And Disposal</u> | .1 | Separate waste materials for reuse and recycling in accordance with Section 01 74 19 - Construction/Demolition Waste Management and Disposal. |

PART 1 - General

- 1.1 General
- .1 Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
 - .2 Store volatile waste in covered metal containers, and remove from premises at end of each working day.
 - .3 Prevent accumulation of wastes which create hazardous conditions.
- 1.2 Materials
- .1 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- 1.3 Cleaning During Construction
- .1 Maintain project grounds and public properties in a tidy condition, free from accumulations of waste material and debris. Clean areas on a daily basis.
 - .2 Provide on-site garbage containers for collection of waste materials and debris.
 - .3 Remove waste materials, and debris from site on a daily basis.
 - .4 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces.
- 1.4 Final Cleaning
- .1 In preparation for acceptance of the Work perform final cleaning.
 - .2 Inspect finishes, fitments and equipment. Ensure specified workmanship and operation.
 - .3 Broom clean exterior paved and concrete surfaces; rake clean other surfaces of grounds.

PART 1 - General

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| <u>1.1 Related Sections</u> | .1 | Section 02 41 16 - Sitework, Demolition and Removal. |
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| <u>1.2 Disposal Of Waste</u> | .1 | Separate and recycle waste materials designated for disposal. |
| | .2 | Collect and separate for disposal paper, plastic, polystyrene, corrugated cardboard, and packaging material in appropriate on-site bins for recycling. |
| | .3 | Place materials defined as hazardous or toxic in designated containers. |
| | .4 | Divert unused metal materials from landfill to metal recycling facility as approved by Departmental Representative. |
| | .5 | Fold up metal banding, flatten and place in designated area for recycling. |
| | .6 | Unused paint or coating material must be disposed of at an official hazardous material collections site as approved by Departmental Representative. |
| | .7 | Do not dispose of unused paint material into sewer system, streams, lakes, onto ground, or in any other location where it will pose a health or environmental hazard. |
| | .8 | Disposal of waste volatile materials, mineral spirits, oil, and paint thinner into waterways, storm, or sanitary sewers is strictly prohibited. |
| | .9 | Do not dispose of preservative treated wood through incineration. |
| | .10 | Do not dispose of preservative treated wood with other materials destined for recycling or reuse. |
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1.2 Disposal
Of Waste
(Cont'd)

- .11 Dispose of treated wood, end pieces, wood scraps and sawdust at a sanitary landfill.
- .12 Dispose of unused preservative material at an official hazardous material collections site. Do not dispose of unused preservative material into the sewer system, streams, lakes, on ground or in any other location where they will pose a health or environmental hazard.
- .13 Burying of rubbish and waste materials is prohibited.
- .14 All waste material not designated for recycle to be disposed of at an approved waste disposal site in accordance with appropriate environmental guidelines.

1.3 Storage And
Handling Of Waste

- .1 Store materials to be reused, recycled and salvaged in locations as directed by Departmental Representative.
 - .2 Unless specified otherwise, materials for removal become property of Contractor.
 - .3 Protect, stockpile, store and catalogue salvaged items.
 - .4 Separate non-salvageable materials from salvaged items. Transport and deliver non-salvageable items to licensed disposal facility.
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PART 2 - Products

2.1 Not Used .1 Not Used.

PART 3 - Execution

3.1 Application .1 Handle waste materials not reused, salvaged, or recycled in accordance with appropriate regulations and codes.

3.2 Cleaning .1 Remove tools and waste materials on completion of work and leave work area in clean and orderly condition.
.2 Clean-up work area as work progresses.
.3 Source separate materials to be reused or recycled into specified sort areas.

3.3 Diversion Of Materials .1 Separate materials from general waste and stockpile in separate piles or containers, to approval of Departmental Representative, and consistent with applicable fire regulations. Mark containers or stockpile areas. Provide instruction on disposal practices.
.2 On-site sale of salvaged, recovered, reusable, or recyclable materials is not permitted.

PART 1 - General

1.1 Inspection And Declaration .1

Contractor's Inspection: Contractor and Subcontractors: conduct inspection of work, identify deficiencies and defects, and repair as required to conform to Contract Documents.

.1 Notify Departmental Representative in writing of satisfactory completion of Contractor's Inspection and that corrections have been made.

.2 Request Departmental Representative's Inspection.

.2 Departmental Representative's Inspection: Departmental Representative and Contractor will perform inspection of work to identify obvious defects or deficiencies. Contractor to correct work accordingly.

.3 Completion: submit written certificate that following have been performed:

.1 Work has been completed and inspected for compliance with Contract Documents.

.2 Defects have been corrected and deficiencies have been completed.

.3 Equipment and systems have been tested, adjusted, and balanced and are fully operational.

.4 Operation of systems have been demonstrated to Owner's Personnel.

.5 Work is complete and ready for final inspection.

.4 Final Inspection: When items noted above are completed, request final inspection of work by Departmental Representative and Contractor. If work is deemed incomplete by Departmental Representative, complete outstanding items and request re-inspection.

.5 Declaration of Substantial Performance: when Departmental Representative considers deficiencies and defects have been corrected and it appears requirements of Contract have been substantially performed, make application for certificate of Substantial Performance.

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- 1.1 Inspection And Declaration
(Cont'd)
- .6 Commencement of Lien and Warranty Periods:
date of Owner's acceptance of submitted
declaration of Substantial Performance shall
be date for commencement for warranty period
and commencement of lien period unless
required otherwise by lien statute of Place of
Work.
- .7 Final Payment: when Departmental
Representative decides final deficiencies and
defects have been corrected and it appears
requirements of Contract have been totally
performed, make application for final payment.
If work is deemed incomplete by Departmental
Representative, complete outstanding items and
request re-inspection.
- .8 Payment of Holdback: after issuance of
certificate of Substantial Performance of
Work, submit an application for payment of
holdback amount.
- 1.2 Cleaning
- .1 In accordance with Section 01 74 11 -
Cleaning.
- .2 Remove waste and surplus materials, rubbish
and construction facilities from the site in
accordance with Section 01 74 21 -
Construction/Demolition Waste Management and
Disposal.

PART 1 - General

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| <u>1.1 Section Includes</u> | <ul style="list-style-type: none">.1 Project Record Documents as follows:<ul style="list-style-type: none">.1 As-built drawings;.2 As-built specifications;.3 Reviewed shop drawings. |
| <u>1.2 Project Record Documents</u> | <ul style="list-style-type: none">.1 Departmental Representative will provide two (2) white print sets of Contract drawings and two (2) copies of Specifications Manual specifically for "as-built" purposes..2 Maintain at site one (1) set of the Contract drawings and specifications to record actual as-built site conditions..3 Maintain up-to-date, real time as-built drawings and specifications in good condition and make available for inspection by the Departmental Representative at any time during construction..4 As-Built Drawings:<ul style="list-style-type: none">.1 Record changes in red ink on the prints. Mark only on one (1) set of prints and at completion of project and prior to final inspection, neatly transfer notations to second set (also by use of red ink). Submit both sets to Departmental Representative. All drawings of both sets shall be stamped "As-Built Drawings" and be signed and dated by Contractor..2 Show all modifications, substitutions and deviations from what is shown on the contract drawings or in specifications..3 Record following information:<ul style="list-style-type: none">.1 Horizontal and vertical location of various elements in relation to Geodetic Datum..2 Field changes of dimension and detail..3 All design elevations, sections, and details dimensioned and marked-up to consistently report finished installation conditions. |

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- 1.2 Project Record .4 As-Built Drawings: (Cont'd)
Documents
(Cont'd)
- .3 Record following information: (Cont'd)
- .4 Any details produced in the course of the contract by the Departmental Representative to supplement or to change existing design drawings must also be marked-up and dimensioned to reflect final as-built conditions and appended to the as-built drawing document.
- .5 All change orders issued over the course of the Contract must be documented on the finished as-built documents, accurately and consistently depicting the changed condition as it applies to all affected drawing details.
- .5 As-built Specifications: legibly mark in red each item to record actual construction, including:
- .1 Manufacturer, trade name, and catalogue number of each product actually installed, particularly items substituted from that specified.
- .2 Changes made by Addenda and Change Orders.
- .3 Mark up both copies of specifications; stamp "as-built", sign and date similarly to drawings as per above clause.
- .6 Maintain As-built documents current as the Contract progresses. Departmental Representative will conduct reviews and inspections of the documents on a regular basis. Frequency of reviews will be subject to Departmental Representative's discretion. Failure to maintain as-builts current and complete to satisfaction of the Departmental Representative shall be subject to financial penalties in the form of progress payment reductions and holdback assessments.
- 1.3 Reviewed .1 Compile two (2) full sets of all reviewed
Shop Drawings shop drawings.
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PWGSC
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Saint John Ferry Terminal
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Closeout Submittals

Section 01 78 00

Page 3

1.4 Operations
And Maintenance
Manuals

- .1 Provide three (3) copies of operations and
maintenance manuals for all equipment
installed in the works as applicable.