

1 GENERAL

1.1 TAXES

- .1 Pay all taxes collected in accordance with federal, provincial and municipal laws.

1.2 FEES, PERMITS AND CERTIFICATES

- .1 Pay all fees and obtain all permits. Provide authorities with plans and information to approve certificates. Provide inspection certificates to prove that work was performed in accordance with requirements of competent authorities.

1.3 STANDARDS, CODES AND PRODUCTS

- .1 These specs refer to ONGC/CGSB, CSA and ASTM standards and to other national and international standards. When mentioned, these standards are considered as an integral part of these specs as if they had been reproduced and they must be read jointly with the latter. When they contain no statement regarding the edition, references must be considered as the latest edition of said documents.
- .2 If there is question as to whether products or systems are in conformance with applicable standards, Departmental Representative reserves right to have such products or systems tested to prove or disprove conformance.
- .3 If, once it has been reviewed, work is declared non-compliant with requirements of contract documents, the Contractor shall take any necessary measures to ensure compliance with specified requirements and pay repair costs.

1.4 BRIDGE DESCRIPTION

- .1 Public Works and Government Services Canada (PWGSC) is the owner of the Portage Diversion bridge located downstream from the Portage (PWGSC) and Okikendawt (private) bridges, of two flow regulation structures located on the French River, an outflow of Lake Nipissing.
- .2 Portage Diversion bridge
 - .1 Built in 1987.
 - .2 Length of 30.5 meters.
 - .3 Description: The bridge is of the Bailey type and supports a single 3.28-meter wide traffic lane between steel angle curbs. Three (3) loads are actually displayed, namely 34, 43 and 52 tons.

1.5 HYDRIC CONDITIONS AND UPSTREAM DAM OPERATION DURING WORK

- .1 Upstream dams cannot be closed over long periods. As a result, we can expect a variable flowrate in the river throughout the work period. Water levels may vary significantly owing to weather conditions and based on operational needs. Insofar as possible, the Departmental Representative shall notify the Contractor of any major change in the flowrate within a reasonable time. However, the Contractor must understand that some events are not predictable. In most situations, the Contractor shall provide a notice of approximately 24 hours. The Contractor may not install any equipment or material on the river bed.
- .2 The Departmental Representative cannot be held responsible for events or for results of events beyond his control
- .3 Work requiring access below the bridge may not be performed during the spring freshet.

1.6 BRIDGE LOCATION AND ACCESS

- .1 The bridge is located on the territory of the Dokis First Nation (<http://www.dokisfirstnation.com>). This community lies approximately 16 kilometers southwest of Lake Nipissing, on the French River. The community is serviced by a 25-km gravel road that departs from autoroute 64 to reach both urban centers of North Bay (via autoroute 17) and Sudbury (via autoroute 69). Both urban centers are located some 120 kilometers from the community.
- .2 Contractor's trucks must in no way use the road leading to the community center (940-A Main St., Dokis, Ontario P0M 2N1). Trucks must use the Pine Crescent Street. The Contractor shall install temporary display panels at the road junction to direct trucks and employees. Prepare a circulation plan to reach the construction site and submit it to the Departmental Representative for approval at least seven (7) days before mobilization on the work site.
- .3 Respect work and access road limits as indicated on drawings and to the Departmental Representative's satisfaction.
- .4 Please take note that no cellular service is available in Dokis. The Contractor shall bring a satellite phone.

1.7 WORK RESTRICTIONS

- .1 Access and Egress.
 - .1 Design, construct and maintain temporary "access to" and "egress from" work areas, including stairs, runways, ramps or ladders and scaffolding, independent of finished surfaces and in accordance with relevant municipal, provincial, to the territorial requirements of the Dokis reserve and other regulations.
 - .2 If necessary, provide rigid and safe guardrails and gates and install them whenever required near water shores.
 - .3 Provide and install these items in accordance with requirements of competent authorities and as indicated.

- .2 Use of site and facilities.
 - .1 Execute work with least possible interference or disturbance to public and normal use of premises. Arrange with Departmental Representative to facilitate execution of work.
 - .2 The Contractor shall provide sanitary facilities less than 60 m from the bridge for the Departmental Representative and the Contractor's personnel. The Contractor will be responsible for its maintenance.
- .3 Snow removal.
 - .1 The Contractor shall ensure coordination with the snow removal contractor responsible for the Dokis reserve road to allow access at all times between 7:00 AM and 6:00 PM in case of a snow storm.
 - .2 The Contractor must remove snow from the work site, including the bridge, approaches and shoulders and ensure the coordination of these operations.
- .4 Provide for the temporary closure of the bridge and approaches during work.
 - .1 No detour lane may be contemplated during work.
 - .2 The temporary closure of the bridge includes two (2) intervals of four (4) hours each day, i.e. one interval before 12:00 and another one after 13:00. The free passage of vehicles must be authorized between both bridge closure intervals. Prepare a signaling plan for this temporary closure and another one for vehicle traffic, as the case may be, and based on the period.
 - .3 A temporary gate shall be installed when the bridge is closed.
 - .4 The Contractor shall, within a reasonable time, allow free passage on the bridge to any public emergency vehicle. Said passage cannot exceed 15 minutes.
 - .5 Provide for a circulation plan for emergency service vehicles. Said plan must be coordinated by the Contractor with the Dokis reserve community. Submit plan to Departmental Representative's approval.
 - .6 No fee may be demanded to allow the passage of public service and/or snow removal vehicles.
 - .7 Work will be performed in one (1) phase. The Contractor shall provide for a single mobilization and demobilization on the work site.

1.8 WORK SITE FACILITIES

- .1 The Contractor shall provide shop drawings for any access system, platform, mechanical access equipment. These plans must be submitted to the Departmental Representative at least ten (10) days before use for approval. Said shop drawings must bear the signature and seal of a qualified professional engineer (P. Eng.) who is member of Professional Engineer Ontario (PEO). The Contractor's engineer shall certify equipment on location BEFORE it is used.

- .1 Scaffolding in accordance with CAN/CSA-S269.2.
- .2 Provide and maintain ramps, ladders, swing staging, platforms, and temporary stairs if necessary for the execution of the work.
- .3 Remove from site all such work after use.
- .2 Store new work parts in order to prevent contact with moist soil and thus jeopardize their integrity.
- .3 Locate materials not required to be stored in weatherproof sheds on site in manner to cause least interference with work activities.
- .4 Parking will be permitted on site provided it does not disrupt performance of Work and traffic.
- .5 Provide office heated to 22 degrees C, lighted 750 lx and ventilated, of sufficient size to accommodate site meetings and furnished with drawing laydown table.
- .6 Provide marked and fully stocked first-aid case in a readily available location.
- .7 The Contractor shall provide the Departmental Representative with a working table and two 110-volt, 15-ampere electrical outlets.
- .8 Provide sanitary facilities for work force in accordance with governing regulations and ordinances.
- .9 Post notices and take precautions as required by local health authorities. Keep area and premises in sanitary condition.
- .10 Remove construction debris, waste materials, packaging material from work site daily.
- .11 Remove mud from the bridge deck at the end of the day when required by the Departmental Representative.

1.9 SITE RESTORATION

- .1 Record initial existing conditions related with site restoration after completing work and ensure that these documents are available and used on the work site when performing restoration work.
- .2 After performing rehabilitation work, restore the vegetation cover on all disturbed ground surfaces by using Ontario native plants that are adapted to site conditions.

- .3 Restore recuperated or new materials that are not provided otherwise in the contract including, without limitation, rocks, fences, bushes, hedges, trees, panels, etc. If materials cannot be recuperated, they can be replaced with new appropriate materials.
- .4 Restoration must resemble existing materials and dimensions and be performed in accordance with initial existing conditions.

1.10 WORK SITE SIGNAGE

- .1 The Contractor shall submit signage plans for the whole project duration. Said plans shall bear the seal of a qualified professional engineer (P. Eng.) who is member of Professional Engineer Ontario (PEO).
- .2 The Contractor shall provide two (2) panels indicating the temporary closure of the bridge, i.e. one panel on each side of bridge approaches located 500 meters from the bridge.
- .3 The Contractor shall provide one (1) panel indicating the temporary closure of the bridge after 30 kilometers at the entrance of Dokis Reserve Road, i.e. at the intersection of Road 64.
- .4 The Contractor shall install signage panels in conformity with Departmental Representative requirements. Said panels shall indicate closing times, closing dates, a phone number for more information and the federated bridge number. Each panel shall measure at least 1.22 meters x 2.44 meters and be supported on two posts anchored to the ground
- .5 Refer to graphic standards in section 4.1 Signage: System overview and implementation of the FIP Manual, December 1992, available on the Government of Canada Web site at:
<https://www.canada.ca/fr/secretariat-conseil-tresor/services/communications-gouvernementales/programme-federal-image-marque/manuel.html#toc41>
 - .1 Frame and laths: EPS, pressure treated and measuring at least 89 mm x 89 mm.
 - .2 Panel: 19 mm Douglas fir plywood, coated, medium density, in accordance with CSA O121 standard.
 - .3 Paint: Alkyd resin sealer, exterior, in conformity with standard CAN/CGSB 1.189; alkyd enamel, in conformity with standard CAN/CGSB 1.189.
 - .4 Fasteners: hot dip galvanized nails and mechanical bolts.
 - .5 Vinyl coating: project identification printed, self-adhesive vinyl film.
- .6 Provide for traffic protection and rerouting measures, including traffic supervisors and flaggers, the installation of barricades, the installation of lighting devices around and in front of equipment and the work area, the installation and maintenance of warning panels, hazard signs and appropriate directional panels.
- .7 Contractor's traffic on roads selected for hauling material to and from site to interfere as little as possible with public traffic.

- .8 Provide necessary lighting, signs, barricades, and distinctive markings for safe movement of traffic.
- .9 Dust control: adequate to ensure safe operation at all times.
- .10 Lighting: to assure full and clear visibility for full width of haul road and work areas during night work operations.
- .11 Install work site panels in locations determined by the Departmental Representative before mobilization and beginning of work.
- .12 Signs and notices for safety and instruction in both official languages Graphic symbols to CAN/CSA-Z321.
- .13 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.

1.11 ADMINISTRATIVE REQUIREMENTS

- .1 Schedule project meetings throughout the progress of the work at the call of Departmental Representative.
 - .1 The Departmental Representative shall notify of any meeting at least two (2) days before the expected date.
 - .2 Provide physical space and make arrangements for meetings.
 - .3 Departmental Representative will be presiding project meetings.
 - .4 The Departmental Representative shall write minutes and distribute them to participants and concerned parties who did not attend the meeting.
 - .5 Representative of Contractor, Subcontractor and suppliers attending meetings will be qualified and authorized to act on behalf of party each represents.
- .2 Preconstruction Meeting
 - .1 Within 10 days after award of Contract, the Departmental Representative will be request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.
 - .2 Departmental Representative, Designer, Contractor, major Subcontractors, field inspectors and supervisors will be in attendance.
 - .3 The Departmental Representative will establish time and location of meeting and notify parties concerned minimum 5 days before meeting. The meeting will be held in PWGSC offices in Gatineau.
 - .4 Agenda to include:
 - .1 Appointment of official representative of participants in the Work.

- .2 Schedule of Work indicating the critical path.
 - .3 Schedule of submission of shop drawings, samples, color chips. Submit submittals in accordance with Section 01 33 00 - Submittal Procedure.
 - .4 Requirements for temporary facilities, site sign, offices, temporary utilities (generator), and fence according to the site facilities.
 - .5 Delivery schedule of specified equipment.
 - .6 Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, overtime, administrative requirements.
 - .7 Owner provided products.
 - .8 Record drawings in accordance with Section 01 33 00 - Submittal Procedures.
 - .9 Monthly progress claims, administrative procedures, photographs, hold backs.
 - .10 Appointment of inspection and testing agencies or firms.
 - .11 Insurances, transcripts of policies.
 - .12 Operational and environmental constraints.
 - .13 Source of materials.
 - .14 Traffic control and signage.
 - .15 Contacts in case of emergency.
 - .16 Suppliers and subcontractors.
 - .17 Quality control and quality assurance.
- .3 Progress Meetings.
- .1 The Departmental Representative shall hold and manage project meetings throughout the work period.
 - .2 Meetings will be held once every second week on the work site during the work period.
 - .3 Contractor, Major Subcontractors involved in Work and Departmental Representative are to be in attendance.
 - .4 The Departmental Representative will chair meetings, record meeting minutes, prepare and distribute meeting minutes.
 - .5 Agenda to include the following:

- .1 Review, approval of minutes of previous meeting.
- .2 Review of Work progress since previous meeting.
- .3 Field observations, problems, conflicts.
- .4 Problems which impede construction schedule.
- .5 Review of off-site fabrication delivery schedules.
- .6 Corrective measures and procedures to regain projected schedule.
- .7 Revision to construction schedule.
- .8 Progress schedule, during succeeding work period.
- .9 Review submittal schedules: expedite as required.
- .10 Maintenance of quality standards.
- .11 Review proposed changes for effect on construction schedule and on completion date.
- .12 Other business.

1.12 WORK SCHEDULE - CRITICAL PATH METHOD

- .1 Submit planning, follow-up and control system data when submitting the schedule in accordance with Departmental Representative's requirements. Provide the following:
 - .1 Bar graph of the overall schedule.
 - .2 Table showing the weekly performance schedule and indicating daily activities planned for the following week.
- .2 Prepare the task breakdown structure no later than ten (10) working days after contract award. The structure must include at least five (5) levels: project, project stages, items, subitems and work packages.
- .3 The critical path must be based on the task breakdown structure to ensure uniformity throughout the project.
- .4 The general schedule must show clearly the sequence and interconnectedness between construction activities and indicate the following:
 - .1 Beginning and completion of all work packages, including their main items; completion date of intermediate milestones.
 - .2 Activities related with purchasing, delivery and installation of each piece of equipment, supply, important materials and regarding the completion of related work, including the following:
 - .1 Time needed to submit and verify required documents the first time and the second time.

- .2 Time needed to manufacture and deliver manufactured products.
- .3 Interconnectedness between purchasing and construction activities.
- .5 The general schedule must also include also stages that correspond to the following activities:
 - .1 Shop drawings.
 - .2 Technical data sheets.
 - .3 Approvals.
 - .4 Purchases.
 - .5 Construction.
 - .6 Installation.
 - .7 Site development.
 - .8 Testing.
 - .9 Acceptance.
- .6 Ensure that the general schedule is feasible and that it respects the intended contract duration.
- .7 Submitting the general schedule means that it meets contract requirements and that it will be implemented following the sequence shown on diagrams.
- .8 Provide for at least five (5) working days to allow the Departmental Representative to review the proposed general schedule.
- .9 Review the general and performance schedules if considered unfeasible by the Departmental Representative and resubmit them for approval.
- .10 After receiving the verified general schedule, make necessary corrections to the initial schedule. Submit corrected schedule to the Departmental Representative for review no later than five (5) working days after receiving the verified schedule
- .11 Provide as soon as possible and in accordance with Departmental Representative's instructions any additional information required to validate the feasibility of the general and performance schedules.
- .12 Once the general schedule has been reviewed and approved by the Departmental Representative, take necessary measures to end work within time limits. Do not modify the schedule without notifying the Departmental Representative.
- .13 The general schedule will serve as a reference document.
 - .1 Review the basic reference in accordance with Departmental Representative's conditions and requirements.

- .2 The Contractor shall provide a revised version of the schedule at each job meeting.
- .14 As the project proceeds, notify the team of schedule modifications and of their possible implications.
- .15 Indicate late activities. Propose measures to make up for delays. Costs associated with make-up measures will be borne by the Contractor.
 - .1 Measures may include the following:
 - .1 Increasing the number of experienced and qualified employees on the work site in order to perform concerned activities or work packages.
 - .2 Increasing the amount of materials and equipment.
 - .2 Implications of a delay in construction work may not be invoked to justify postponing the work completion date indicated in the contract.
- .16 At the request of the Departmental Representative, submit copies of updated Detail Schedule.

1.13 COST BREAKDOWN

- .1 Within 15 days following the bid acceptance notification, provide the Departmental Representative with a breakdown of costs of items including lump sums and unit amounts.
- .2 The cost breakdown approved by the Departmental Representative will be used as a reference for payment.
- .3 Cost breakdowns will reflect work related costs. The Contractor shall in no case submit poorly balanced breakdowns (instalment payments).
- .4 The Contractor will submit support documentation for all breakdowns that the Departmental Representative will consider improperly balanced.
- .5 If support documentation cannot be submitted or if a breakdown cannot be justified at Departmental Representative's satisfaction, the Contractor will review and resubmit said cost breakdown.
- .6 Each element must include all related work and include for instance, but not limited to, hot dipped galvanized connectors and new hardware that is hot dipped galvanized (as per 05 50 00) for all works

1.14 DOCUMENTS REQUIRED

- .1 Keep a copy of each document on the work site, namely:
 - .1 Contract drawings.
 - .2 Specifications.
 - .3 Addenda
 - .4 Revised shop drawings.

- .5 List of shop drawings under progress.
- .6 Technical data sheets.
- .7 Change requests.
- .8 Other contract modifications.
- .9 Record of tests performed on location.
- .10 Reports of field tests.
- .11 Inspection certificates.
- .12 Certificates issued by manufacturers.
- .13 Copy of approved work schedule.
- .14 Health and safety plan and other documents regarding security.
- .15 All documents and standards regarding fire protection.
- .16 Manufacturers' installation and application instructions.
- .17 Other documents as specified.
- .2 Submit a list of subcontractors within 48 hours following contract award.

1.15 WASTE MANAGEMENT AND DISPOSAL

- .1 Reference standards.
 - .1 American Society for Testing and Materials (ASTM).
 - .2 Recycling Certification Institute (RCI)
 - .1 RCI certification regarding construction and demolition material recycling activities.
 - .3 Environmental Protection Act, R.S.O. 1990, chapter E.19.
 - .4 R.S.O. 1990, Regulation 347, as modified in accordance with Ontario Regulation 326/03 - General - Waste Management.
 - .5 Ontario Regulation 103/94 - Industrial, Commercial and Institutional Source Separation Programs.
- .2 Certificate of conformity: Submit a proof that the recycling center was verified by a third party and that it is listed as a certified facility in accordance with registration and certification requirements of the Recycling Certification Institute.
- .3 Handling requirements: Clean contaminated materials before placing them in collection boxes. Ensure that garbage sent to landfills is not mixed with recycled materials.

- .1 Shipped materials must be free from dirt, adhesive, solvent and contamination from hydrocarbons and other substances that are prejudicial to the recycling process.
- .4 The Contractor must manage construction waste.

2 PRODUCTS

2.1 PRODUCT AND MATERIAL ACCEPTANCE

- .1 Materials must be new, of the best possible quality and adapted to their intended purpose. If necessary, provide a proof regarding the nature, origin and quality of supplied products.
- .2 Do not perform work using materials or products before having obtained a written approval from the Departmental Representative.

3 PERFORMANCE

3.1 DESIGNATED SUPERVISOR

- .1 Designate a supervisor who must be a Contractor's employee and who will be present and available at all times throughout the project.

3.2 WORK AREA

- .1 Provide storage for all materials, tools and equipment needed to perform work and take responsibility for their safety.
- .2 Avoid encumbering premises unnecessarily with materials or equipment. Move stored products and materials that restrict Departmental Representative's activities.
- .3 The Contractor shall submit the storage location of materials to the Departmental Representative for approval. Refer to Storage areas on drawings.

3.3 ADVERTISING

- .1 Advertising activities are forbidden within the framework of this project.

3.4 PUBLIC SERVICES

- .1 Take note that the bridge has no electrical power.

3.5 FIRE PROTECTION REQUIREMENTS

- .1 The Contractor shall provide a fire protection plan on the work site and submit said plan to the Departmental Representative for approval.

3.6 PROTECTION AND RESTORING

- .1 Before beginning work, visit the bridge site together with the Departmental Representative and observe the condition of premises prior to construction. Take a series of pictures showing the condition of all items within the work area and around said area prior to construction work. Take note of turning radiuses and of all high obstacles and others that may have an influence on the use of cranes. Provide the Departmental Representative with a copy of digital images for information.
- .2 Protect work from damages until take-over.
- .3 Protect neighboring works from any damage during work. Assume responsibility for any damage caused in the vicinity during work.
- .4 Repaired, replaced and refinished items must be at least equivalent to those existing immediately before being damaged.

3.7 PROCEDURE AND DOCUMENTS/ITEMS TO BE SUBMITTED AFTER COMPLETING WORK

- .1 Conduct work inspection, identify malfunctions and performance defects and perform repairs as required to ensure conformity with contract documents.
- .2 Notify the Departmental Representative in writing of the satisfactory inspection of work by the Contractor to detect obvious malfunctions and defects.
- .3 Together with the Contractor, the Departmental Representative shall perform a work inspection to detect performance defects and malfunctions. The Contractor shall then make requested corrections.
- .4 Submit a written certificate confirming the proper performance of the following tasks:
 - .1 Work has been completed and was inspected and found to be in compliance with contract documents.
 - .2 Malfunctions and defects detected during inspections have been corrected.
 - .3 Work has been completed and is ready for final inspection.
- .5 Once all the above-mentioned tasks have been completed, request that work be the object of a final inspection that will be performed by the Departmental Representative. If the Departmental Representative considers that work is incomplete, complete aspects that were not performed and submit a new inspection request.

3.8 PROJECT DOCUMENTS (AS BUILT)

- .1 As work is progressing, maintain a detailed record of any discrepancy compared to contract drawings.
- .2 Immediately before the Departmental Representative's inspection prior to issuing the final certificate of completion, provide the Departmental Representative with a complete set of blank copies (of the drawings) with all changes properly made in ink.

3.9 WARRANTIES

- .1 Before work completion, gather all manufacturers' warranties and submit them to the Departmental Representative.
- .2 Submit a twelve (12) month warranty on company letterhead.
- .3 Upon request from the Departmental Representative, the Contractor shall, at no cost to Her Majesty, correct any malfunction or defect in materials or in work quality within twelve (12) months following the date of acceptance.

END OF SECTION

1 GENERAL

1.1 ADMINISTRATIVE

- .1 All submitted documents must bear the official heading of the contractor.
- .2 Submit to Departmental Representative submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension working time delay and no claim for extension by reason of such default will be allowed.
- .3 Do not proceed with Work for which verification of documents submittal review is completed.
- .4 Do not proceed with Work affected by submittal until review is complete.
 - .1 Make the required changes to the shop drawings submitted in accordance with the contract documents as requested by Departmental Representative. Resubmit these drawings as directed by the Departmental Representative.
- .5 Present shop drawings, product data, samples and mock-ups in SI Metric units.
- .6 Review submittals prior to submission to Departmental Representative. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and coordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.
- .7 Ensure measurements on-site against contract drawings is accurate. Report any discrepancies immediately, in writing, to the Departmental Representative.
- .8 The fact that the submitted documents are examined by the Departmental Representative does not release the Contractor of its responsibility to transmit complete, accurate and comply the requirements of the Contract Documents.
- .9 Keep one reviewed copy of each submission on site.

1.2 SHOP DRAWINGS AND PRODUCT DATA

- .1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.
- .2 Submit drawings stamped and signed by professional engineer registered or licensed in Province of Ontario, Canada.
- .3 Allow 5 days for Departmental Representative's review of each submission.
- .4 Submitted documents must show or indicate the following:
 - .1 Date and revision dates.

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- .2 Project title and 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 Details of appropriate portions of Work as applicable:
 - .1 standards.
 - .2 recommended materials;
 - .3 manufacturing details;
 - .4 layout, showing dimensions, including identified field dimensions, and clearances.
 - .5 temporary equipment;
 - .6 equipment specifications;
 - .7 temporary structures;
 - .8 working methods
 - .9 assembly or adjustment details;
 - .10 fastening or anchoring methods to be used;
 - .11 assembly diagrams;
 - .12 connection details;
 - .13 relevant explanatory notes;
 - .14 elevations;
 - .15 operating weight;
 - .16 relationship to adjacent work;
 - .17 any other information needed to perform work.
 - .5 When structures or items are connected with other structures or other items, indicate on drawings that instructions were coordinated, no matter the section according to which adjacent structures or items will be provided or installed. Refer to specs, to plans in contract documents and to other shop drawings.
 - .6 Leave documents for five (5) days with the Departmental Representative who will review each batch of submitted documents.
 - .7 Make changes to drawings as requested by the Departmental Representative as mentioned in contract documents. Leave documents for five (5) additional days with the Departmental Representative who will review each batch of resubmitted documents.
 - .8 When shop drawings have been reviewed by the Departmental Representative and if no error or omission was detected or if only minor corrections were made, an electronic copy will be returned. Finishing and installation work may then begin. If shop drawings are rejected, annotated copies are returned and corrected shop drawings must be resubmitted as described above before finishing and installation work may begin.
 - .9 Shop drawing review by the Departmental Representative aims strictly at verifying conformity with the general intent of data that appear on them.

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- .1 This review does not mean that the Department approves the detailed design as shown on shop drawings, since this responsibility belongs to the Contractor who submits them. In addition, this review does not release the Contractor from his responsibility to transmit complete and exact shop drawings and to comply with all work-related requirements and with contract documents.
 - .10 If no shop drawing is required because a standard product is used, submit one (1) electronic copy of technical data sheets or of prescribed manufacturer's documentation as indicated in technical sections of specifications and as requested by the Departmental Representative.
 - .11 Distribute copies of shop drawings, plans, working methods and technical data sheets once the Departmental Representative has reviewed them.
 - .12 Submit one (1) electronic copy of manufacturer's instructions as mentioned in technical sections of specs and as requested by the Departmental Representative.
 - .1 Documents describing the installation method of products, materials and systems, including specific notes and material safety data sheets, risks as well as safety measures that must be implemented.
 - .13 Submit one electronic copy of test reports for requirements requested in specification Sections and as requested by Departmental Representative.
 - .1 Report signed by authorized official of testing laboratory that material, product or system identical to material, product or system to be provided has been tested in accord with specified requirements.
 - .2 Testing must have been within 3 years of date of contract award for project.
 - .14 Submit one electronic copy of certificates for requirements requested in specification Sections and as requested by Departmental Representative.
 - .1 Statements printed on manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements.
 - .2 Certificates must be dated after award of project contract complete with project name.
 - .15 Submit one electronic copy of Manufacturer's or sub-contractor Field Reports for requirements requested in specification Sections and as requested by Departmental Representative.
 - .16 Submit one electronic copy of Operation and Maintenance Data for requirements requested in specification Sections and as requested by Departmental Representative.
 - .17 Supplement standard information to provide details applicable to project.
 - .18 The review of shop drawings by Departmental Representative is for sole

purpose of ascertaining conformance with general concept.

- .1 This review shall not mean that Department Representative approves detail design inherent in 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 requirements of construction and Contract Documents.
- .19 The review of shop drawings by Departmental Representative is for sole 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 sub-trades.

1.3 CERTIFICATES

- .1 Immediately after award of Contract, submit Workers' Compensation Board status.
- .2 Submit Ontario Ministry of Labor Project Notice after award of Contract.

1.4 DOCUMENTS/ITEMS TO BE SUBMITTED UPON COMPLETING WORK

- .1 Warranties and bonds.
 - .1 Reply immediately to any verbal or written request for troubleshooting or repair covered by warranty.
 - .2 Verbal instructions must be followed by written instructions.
 - .1 The Departmental Representative may bring proceedings against the Contractor if the latter does not meet its obligations.
- .2 Warranty meetings upon completing work.
 - .1 One (1) week before work completion, hold a meeting with the Contractor's representative and the Departmental Representative in accordance with Project meeting, to review:
 - .1 work-related requirements;
 - .2 manufacturer's instructions regarding the installation and warranty terms and conditions offered by the latter.
 - .2 The Departmental Representative shall define the communication procedure to follow in the following cases:
 - .1 Default notice for items, materials or systems covered by warranty.
 - .2 Determination of priorities regarding the types of defects.

- .3 Determination of a reasonable intervention time.
- .3 Provide the name, address and phone number of the company hired to perform troubleshooting and repairs under warranty.
- .4 Ensure that contact persons are available at all times and that they can reply to requests for information on troubleshooting and repairs under warranty.
- .3 Upon request, provide documents confirming the type, the source of supply and the quality of provided products.
- .4 Project file presentation.
 - .1 Present data in the form of an instruction manual.
 - .2 Present data in a logical order.
 - .3 The cover page of each binder must show the document title, i.e. "Project file", typed or in block letters, the project designation and the table of contents.
 - .4 The text must contain printed data provided by the manufacturer.
 - .5 Drawings must be equipped with a reinforced and perforated tab.
 - .1 Insert drawings in the binder and fold larger drawings according to the text page format.
- .5 Project file contents.
 - .1 Table of contents of each volume: indicate the project title;
 - .1 date of submittal of documents;
 - .2 consultant's, Contractor's and Promoter-Constructor's name, address and phone number and name of their representatives;
 - .3 list of products and systems indexed with volume contents.
 - .2 For each product or system, indicate the following:
 - .1 name, address and phone number of contractors.
 - .3 Technical data sheets: mark each sheet to clearly identify products and specific parts, as well as installation data; delete irrelevant information.
 - .4 Drawings: drawings are used to complete technical data sheets and to illustrate the relationship between the different material and system items. They include control and schematic diagrams.
 - .5 Typed text: whenever necessary to complete technical data sheets.
 - .1 Give instructions in a logical order for each intervention by integrating manufacturer's instructions listed in section 01 45 00 - Quality control.

- .6 Store project file documents in site office separately from work performance documents.
 - .1 Provide for filing cabinets and shelves and for a safe storage location.
- .7 Label documents and sort them in accordance with section numbers indicated in the table of contents of the book of specifications.
 - .1 Write clearly "Project file" in block letters on the label of each document.
- .8 Ensure that file documents remain clean, dry and legible.
 - .1 Do not use them when performing work.
- .9 The Departmental Representative must have access to project file documents for inspection purposes.

2 PRODUCTS

2.01 NOT USED

- .1 Not Used.

3 EXECUTION

3.01 NOT USED

- .1 Not Used.

END OF SECTION

1 GENERAL

1.1 REFERENCE STANDARDS

- .1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations
- .2 Province of Ontario
 - .1 Occupational Health and Safety Act and Regulations for Construction Projects, R.S.O. 1990, c.0.1, as amended and O. Reg. 213/91 as amended - Updated 2017.

1.2 COMPLIANCE AND REQUIREMENTS

- .1 Comply with Ontario Occupational Health and Safety Act, R.S.O. 1990, c. 0.1 and Ontario Regulations for Construction Projects, O. Reg. 213/91.
- .2 Comply with Canada Labour Code, Canada Occupational Safety and Health Regulations.

1.3 GENERAL REQUIREMENTS

- .1 Develop written site-specific Health and Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.
- .2 Departmental Representative may respond in writing, where deficiencies or concerns are noted and may request re-submission with correction of deficiencies or concerns.

1.4 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit site-specific Health and Safety Plan: Within 7 days after date of Notice to Proceed and prior to commencement of Work. Health and Safety Plan must include:
 - .1 The Contractor's Health and Safety Plan.
 - .2 The name of the Health and Safety coordinator.
 - .3 Results of the job site risk evaluation and of measures to be taken to mitigate anticipated risks.
 - .4 Results of safety and health risk or hazard analysis for site tasks and operation found in work plan.
 - .5 Other safe working measures or procedures, such as:

-
- .1 Phone numbers of contacts.
 - .2 General public protection.
 - .3 Use of individual protective equipment.
 - .4 Name of supervisors and employees. Proofs (copies) of all workers' qualifications based on their occupations, as well as proofs (copies) of apprenticeship certificates and of compulsory training certificates for all job site workers.
 - .6 A list of employee training requirements including, without limitation:
 - .1 Employee and substitute training and qualifications to ensure the health and safety of those working on the job site.
 - .2 Training requirements compared to existing or pending hazards on the job site.
 - .3 Training on how to use individual protective equipment.
 - .7 Intervention plan on location in case of emergency:
 - .1 List procedures in case of emergency on the job site.
 - .2 Identify resources (police, firemen, ambulance, etc.).
 - .3 Identify the person in charge of the job site.
 - .4 Identify people having received first aid training.
 - .5 Training required for those in charge of implementing the plan.
 - .6 Any other requirement that is part of safety regulations or of the safety program.
 - .8 Job site communication plan, including:
 - .1 Work distribution procedure regarding safety information with subcontractors, including emergency and evacuation procedures.
 - .2 Submit a list of critical work to notify the structure manager of structures that involve a health and safety risk for users.
 - .9 Procedure to be followed in case of accident and/or injury.
 - .10 A written agreement signed by all concerned parties accepting to comply with the safety program.
 - .11 Identify any work-related activity, including those of subcontractors or consultants.
 - .12 A regular review of the health and security plan during the working period. Plan updating to reflect conditions that would put a new participant at risk when arriving on the job site.

- .13 The Departmental Representative shall reply in writing if the plan includes discrepancies or if it raises concerns. The Departmental Representative may demand a revised plan that will allow correcting such discrepancies or eliminating said concerns.
- .14 Display a copy of the plan, including updates, in a conspicuous area on the job site.
- .3 Submit copies of reports or directions issued by Federal, Provincial and Territorial health and safety inspectors.
- .4 Submit copies of incident and accident reports.
- .5 The Contractor shall, within 24 hours, present the Departmental Representative with a written report on incidents, accidents, injuries, near misses, fires, explosions or chemical spills.
- .6 WHMIS material safety data sheets (MSDS) shall be submitted to the Departmental Representative in accordance with regulations on controlled substance information before arriving on the job site.
- .7 Departmental Representative will review Contractor's site-specific Health and Safety Plan and provide comments to Contractor within 7 days after receipt of plan. Revise plan as appropriate and resubmit plan to Departmental Representative within 7 days after receipt of comments from Departmental Representative.
- .8 Departmental Representative's review of Contractor's final Health and Safety plan should not be construed as approval and does not reduce the Contractor's overall responsibility for construction Health and Safety.
- .9 Medical Surveillance: where prescribed by legislation, regulation or safety program, submit certification of medical surveillance for site personnel prior to commencement of Work, and submit additional certifications for any new site personnel to Departmental Representative.
- .10 On-site Contingency and Emergency Response Plan: address standard operating procedures to be implemented during emergency situations.
 - .1 Recovering a worker from a water course.
 - .2 Prevention when performing work on the shore.

1.5 FILING OF NOTICE

- .1 File Notice of Project with Provincial and/or Territorial authorities prior to beginning of Work.
- .2 Contractor shall agree to install proper site separation and identification in order to maintain time and space at all times throughout life of project.

1.6 SAFETY ASSESSMENT

- .1 Perform site specific safety hazard assessment related to project.

1.7 MEETINGS

- .1 Schedule and administer Health and Safety meeting with Departmental Representative prior to commencement of Work.

1.8 RESPONSIBILITY

- .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
- .2 Contractor will be responsible and assume the role Constructor as described in the Ontario Occupational Health and Safety Act and Regulations for Construction Projects.
- .3 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

1.9 UNFORSEEN HAZARDS

- .1 When unforeseen or peculiar safety-related factor, hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of Province Ontario and/or Dokis Territory having jurisdiction and advise Departmental Representative verbally and in writing.

1.10 POSTING OF DOCUMENTS

- .1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations of Province and/or Dokis Territory having jurisdiction, and in consultation with Departmental Representative.

1.11 CORRECTION OF NON-COMPLIANCE

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

1.12 WORK STOPPAGE

- .1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

2 PRODUCTS

2.1 HAZARDOUS MATERIALS

- .1 Hazardous materials already on the job site.
 - .1 In conformity with section 01 14 25 - *Report on designated substances*.
- .2 Hazardous materials carried to the job site.
 - .1 Comply with requirements of the Workplace Hazardous Materials Information System (WHMIS 2015) regarding the use, handling, storage and disposal of hazardous materials, as well as the labelling and supply of material safety data sheets (MSDS).
- .3 Hazardous material discovery.
 - .1 Stop work immediately if a material similar to a designated substance or to a dangerous product is noticed during work. Take corrective actions and notify the Departmental Representative immediately. Do not proceed before receiving written instructions from the Departmental Representative.

3 EXECUTION

3.01 NOT USED

- .1 Not used.

END OF SECTION

1 GENERAL

1.1 REFERENCES

- .1 U.S. Environmental Protection Agency (EPA)/Office of Water
 - .1 EPA 832/R-92-005-[92], Storm Water Management for Construction Activities, Chapter 3.
 - .2 EPA General Construction Permit (GCP) [2012].
- .2 Ontario Acts and Regulations
 - .1 *Endangered Species Act, 2007, S.O., chap. 6*
 - .1 *Species at risk in Ontario List, O. Reg. 230/08.*
 - .2 *Species at risk in Ontario List, O. Reg. 72/10.*
 - .3 *General, O. Reg. 242/08.*
 - .4 *General, O. Reg. 293/11.*
 - .2 *Environmental Protection Act, R.S.O. 1990, chap. E.19*
 - .1 *Air Pollution - Local Air Quality. O. Reg. 419/05.*
 - .2 *Classes of Contaminants - Exemptions. O. Reg. 339.*
 - .3 *Classification and exemption of spills and reporting of discharges, O. Reg. 675/98.*
 - .4 *General - Waste Management. O. Reg. 347.*
 - .5 *Spills, R.R.O. 1990, Regul. 360.*
 - .3 *Public Lands Act, R.S.O. 1990*
 - .1 *Work Permit - Construction. O. Reg. 453/96.*
 - .4 *Ontario Water Resources Act, R.S.O 1990, chap. O.40*
 - .1 *Ontario's Water Taking Regulation O. Reg. 387/04*

1.2 FIRE

- .1 Fires and the burning of garbage on the site are forbidden.

1.3 DOCUMENTS AND SAMPLES TO BE SUBMITTED FOR APPROVAL AND INFORMATION

- .1 Submit required documents and samples in accordance with section 01 33 00 - Documents/samples to be submitted.

- .2 Before beginning construction activities or delivering materials to the job site, submit an environmental protection plan to the Departmental Representative for review (provide for five (5) working days).
- .3 The plan shall present a detailed overview of known or potential environmental problems to be solved during construction.
- .4 The environmental protection plan shall include:
 - .1 the name of people responsible for ensuring conformity with the environmental protection plan;
 - .2 the name and qualifications of people responsible for training field personnel;
 - .3 a description of the training program for environmental protection personnel;
 - .4 an erosion and sedimentation control plan specifying the nature of these measures and the location of their implementation, including monitoring and reporting requirements allowing to verify conformity of these measures with federal, provincial and municipal acts and regulations, and with EPA document 832/R-92-005, chap. 3;
 - .5 drawing showing the location of material storage areas, structures, sanitary facilities, as well as excess material storage areas, including surface runoff control methods and material conservation methods on the job site;
 - .6 traffic control plans, including measures to control temporary road bed erosion from construction vehicle traffic, especially in the rain;
 - .7 work area plan showing activities planned in each section of the work area and indicating restricted use areas, as well as forbidden areas;
 - .1 this plan must include measures to mark usable area limits and methods to protect items within authorized work areas that must be preserved;
 - .8 the emergency plan in case of spill shall include procedures that must be implemented, instructions that must be complied with and the list of reports that must be prepared in case of an unforeseen spill of a regulated substance;
 - .9 a non-hazardous solid waste elimination plan including elimination methods and location of solid waste and debris from clearing work;
 - .10 an air pollution prevention plan specifying measures to contain dust, debris, materials and waste within the job site;
 - .11 a contaminant prevention plan indicating potentially hazardous substances that will be used on the job site, measures planned to prevent these substances from becoming airborne or from being introduced in water or in soil, as well as detailed provisions to ensure compliance with federal, provincial and municipal acts and regulations regarding the storage and handling of these substances;

- .12 a protection plan in accordance with the Endangered Species Act (ESA), the Fisheries Act and the Migratory Birds Convention Act (MBCA);
- .13 a waste water management plan indicating management and evacuation methods and procedures for waste water resulting directly from construction work, such as water used for concrete curing, cleaning work, disinfection, hydraulic tests and flushing of water mains, as well as water resulting from an underground water drainage process;

1.4 EROSION AND SEDIMENT CONTROL

- .1 Design and submit an erosion control and sediment transportation plan indicating means that will be implemented, including work monitoring and reporting procedures to verify the conformity of these measures with federal, provincial and municipal acts and regulations, and with EPA document 832/R-92-005, chapter 3.
- .2 Install bedrock barriers or straw bales all around the work area to prevent suspended solids from reaching surface water before reaching the watercourse.
 - .1 These devices shall remain on location until the end of the project.
 - .2 Maintain and preserve the good condition of environmental protection work.
 - .3 The installation and removal of bedrock barriers and straw bales shall be performed in conformity with OPSS 805 and with drawings OPSD 219.110 (Light-Duty Silt Fence Barrier) and OPSD 219.100 (Light-Duty Straw Bale Barrier) of the Ministry of Transportation of Ontario.
- .3 Orient runoff water to avoid erosion-sensitive areas, such as the area disturbed by work.
- .4 Ensure that water containing suspended solids or hazardous substances is evacuated or eliminated in accordance with requirements of local authorities.
- .5 Pumping water containing suspended solids into watercourses and wetlands is forbidden.
- .6 Avoid performing excavation work under heavy rain or during periods of high water.
- .7 Stabilize all reworked areas, especially on slopes, as work is being performed. If a delay is required to perform permanent stabilizing work, erosion control means must remain on location to prevent erosion and to catch any eroded materials.
 - .1 The Contractor must restore the vegetation cover of all reworked soil areas by using Ontario native plants that are adapted to local conditions.

1.5 JOB SITE CLEARING AND PLANT PROTECTION

- .1 Topsoil and vegetation removal must be limited insofar as possible.

- .2 Protect trees and bushes adjacent to job sites, storage areas and truck lanes. If trees and bushes are exposed to damages, install a wooden protective cage at least 2-meters high from the ground.
- .3 During excavation and earthmoving work, protect roots of designated trees up to the drainage line to prevent them from being displaced or damaged.
 - .1 Avoid circulating and discharging or storing materials unnecessarily above the root area of protected trees.
- .4 Trees may be removed only in areas designated by the Departmental Representative.
- .5 Vegetation cannot be removed without a written authorization from the Departmental Representative.

1.6 WORK PERFORMED NEAR WATER COURSES

- .1 Construction machines must be used from the shore only. Selected sites must be primarily areas that were deforested or disturbed.
- .2 Water courses must remain free from excavated material, waste material or debris.
- .3 Avoid sliding logs or construction materials from one site of water courses to the other.
- .4 The use of explosive is forbidden.

1.7 WILDLIFE PROTECTION

- .1 The Departmental Representative shall notify the Contractor of species at risk found on location before beginning work.
- .2 Before performing work that will disturb vegetation after April 15, a biologist shall investigate the work area to locate active nests of migrating birds that must be protected, as well as any other habitat of a species at risk on the job site.
- .3 The Contractor shall identify endangered species in its environmental plan. In case of doubt, a biologist shall identify existing nests.
- .4 Fees covering the identification of species by a biologist must be included in the fixed price for this section.
- .5 If an endangered species is found on the job site, stop work immediately and ensure that the animal leaves the job site without any prejudice.
- .6 Wildlife on land areas must not be hunted, harassed or stalked.
- .7 All waste materials must be collected and disposed of each day or stored in safe containers to prevent any effect on animals that might eat them.

1.8 PROTECTION OF ARTIFACTS

- .1 The accidental discovery of archeological remains during construction shall lead to the immediate interruption of work on location until a detailed evaluation of the site is performed by a qualified archeologist. The Departmental Representative must be notified immediately of said discovery.

1.9 POLLUTION PREVENTION

- .1 Work must be cleaned with water only to prevent chemicals from flowing into the river.
 - .1 Direct washing water towards a vegetation area or an area enclosed by a sediment barrier to allow it to be filtered before returning to the river.
- .2 Ensure that the machinery is clean when entering the job site and that it is free from mud and fragments or from invading exotic plant seeds. Avoid washing the machinery on the job site. The Contractor shall use implements and equipment in good operating condition and with no oil leak. If a leak or a problem is detected, corrective measures shall be taken, and defective machinery or vehicles shall be maintained immediately at least 60 meters from the river.
- .3 The Contractor must always keep an emergency petroleum product recuperation kit on the job site. This kit includes enough absorbing rolls to allow intervening on the full width of the water course (floating boom) or to allow maintaining petroleum products within the perimeter of the concerned machinery.
 - .1 After using a kit partly or entirely, the Contractor shall immediately replace used items to ensure that the kit remains complete and ready to use.
- .4 Move machinery and equipment at least 15 meters from the river immediately after using them.
- .5 Ensure that material and tooling emissions are controlled in accordance with requirements of local authorities.
- .6 Do not store and handle oil or gas less than 60 meters from the high-water mark of the river.
- .7 If generators must be used, ensure that they come with a double wall fuel tank and that they are installed on a high edge waterproof surface to prevent any spilling.
- .8 Refueling of machinery, tooling and equipment must take place at least 60 meters from the river. The Departmental Representative must be notified of any spillage of petroleum products and the Contractor must perform cleaning immediately as directed by the Departmental Representative.

1.10 NOISE AND DUST CONTROL

- .1 Reduce the noise level of construction activities by using appropriate soundproof devices and perform such activities in appropriate locations and at appropriate times to reduce or minimize the effect of noise on nearby residents, on outdoor enthusiasts and on wildlife.
- .2 Comply with the municipal or territory regulation regarding noise and dust resulting from construction activities to minimize environmental impacts.

1.11 SPILLING AND EMERGENCY MEASURE

- .1 An emergency measure plan must be submitted to the Departmental Representative 15 days before beginning work. This plan shall contain the name of people to be contacted in case of spillage as well as all measures that the Contractor intends to implement to minimize potential spills and actions to be taken in the event of an incident.
- .2 If a spillage of petroleum products occurs:
 - .1 Secure premises;
 - .2 Extinguish all ignition sources (cigarettes, engine, etc.);
 - .3 Stop the loss, the leak or the spillage at its source;
 - .4 Notify the Departmental Representative;
 - .5 Contain the spilled substance using appropriate material (granular, sheet or bead absorbing material, etc.);
 - .6 Following a major spillage or upon request from the Departmental Representative, notify the Ministry of the Environment and Climate Change (1-800-268-6060). This phone number must be entered in cell phone contacts of job site personnel;
 - .7 If the situation deteriorates and gets out of control, municipal emergency services must be contacted immediately by dialing 911;
 - .8 Unless an emergency service recommends another procedure, the Contractor must: if the spilled substance reaches a ditch or an aquatic environment that is not already equipped with a boom or a water barrier, install such equipment or absorbing sheets or beads to block off the largest possible amount of product; recuperate soiled absorbing material in watertight containers;
 - .9 Following a major spill or upon request by the Departmental Representative, write an accident report and submit it to the Departmental Representative.
- .3 Emergency kits to recuperate petroleum products must be kept on location always. Kits must include at least 30 meters of sorbent boom, a floating boom, a box of sorbent pads, shovels, an empty 45-gallon barrel, rope as well as solid sorbent material (powder or beads). In addition, kits must be stored near the job site and machines and always remain within reach to allow a quick intervention.

- .4 Rubbish or volatile materials, such as white spirits and oil diluents may not be disposed of by dumping them into water courses or wetlands.
- .5 Rubbish and garbage must be recuperated in accordance with applicable regulations. Contaminated materials and soils must be forwarded to authorized landfills. Eliminate cut materials in a location provided to that purpose. No garbage shall be accumulated less than 30 meters from the river. Locate a temporary storage spot on the job site and return the latter to its original condition after all work has been completed. Install on the job site all necessary equipment (portable chemical toilet, garbage cans, bins, etc.) to prevent garbage from being dispersed in the environment.

1.12 HAZARDOUS MATERIAL STORAGE

- .1 Store hazardous materials and garbage in closed and sealed containers.
- .2 Label hazardous material and garbage containers in accordance with WHMIS standards.
- .3 Store hazardous materials and garbage in containers that are compatible with the stored material or garbage.
- .4 Separate incompatible materials and garbage.
- .5 Ensure that the different hazardous materials and hazardous garbage are stored in separate containers.
- .6 Store hazardous materials and garbage in a safe storage and controlled access area.
- .7 Ensure that the storage area exit is free from any obstacle.
- .8 Store hazardous materials and garbage in locations that will prevent any spillage into the environment.
- .9 Ensure that appropriate intervention equipment is located near the storage area in case of spillage, including individual protective equipment.
- .10 Keep an inventory of hazardous materials and garbage, including the product name, quantity and date of begin of storage.
- .11 Ensure that the personnel have received an appropriate training in accordance with the Workplace Hazardous Materials Information System (WHMIS).

1.13 NOTICE OF NON-COMPLIANCE

- .1 A written notice of non-compliance will be issued to the Contractor by the Departmental Representative each time that a non-compliance with a federal, provincial or municipal act, a regulation or a license will be noticed.
- .2 After receiving a notice of non-compliance, the Contractor must propose corrective measures to the Departmental Representative and implement such measures with the latter's approval.
 - .1 The Contractor may not implement proposed measures before having obtained the written approval from the Departmental Representative.

- .3 The Departmental Representative will order a work interruption until satisfactory corrective measures are taken.
- .4 No additional time and no adjustment will be granted in case of a work interruption.

2 PRODUCTS

2.1 NOT APPLICABLE

- .1 Not applicable.

3 EXECUTION

3.1 CLEANING

- .1 Cleaning during work: perform cleaning operations as described in section 01 74 11 - Cleaning.
 - .1 The job site must be left in clean condition at the end of each work day.
- .2 Ensure that water courses as well as storm and public sanitary sewers remain free from garbage and that volatile materials are eliminated.
- .3 Final cleaning: remove excess materials, garbage, tools and equipment from the job site in accordance with section 01 74 11 - Cleaning.

END OF SECTION

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 The Contractor shall provide for Departmental Representative and testing and inspection organization access to all parts of the bridge, i.e. both beneath the bridge and on exterior sides of the bridge. Access as provided by the Contractor shall be safe and approved by the Contractor's Engineer. Access equipment and/or safety equipment or individual protective equipment shall be provided to the Departmental Representative by the Contractor.
- .3 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.
- .4 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.
- .5 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 cost of examination and correction.

1.2 TEST AND INSPECTION

- .1 Independent Inspection/Testing Agencies will be engaged by Contractor for purpose of inspecting and/or testing portions of Work or to run the testing services itself. Cost of such services will be borne by the Contractor.
- .2 Provide equipment required for executing inspection and testing by appointed agencies.
- .3 Employment of inspection/testing agencies does not relax responsibility to perform Work in accordance with Contract Documents.
- .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 reinspection.

1.3 ACCESS TO WORK

- .1 Allow inspection/testing agencies access to Work, off site manufacturing and fabrication plants.
- .2 Co-operate to provide reasonable facilities for such access.

1.4 PROCEDURES

- .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.

1.5 REJECTED WORK

- .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.

1.6 REPORTS

- .1 Submit one copie 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.

1.7 TESTS AND MIX DESIGNS

- .1 Furnish test results and mix designs as requested.
- .2 Cost 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.

1.8 MILL TESTS

- .1 Submit mill test certificates as required of specification Sections.

2 PRODUCTS

2.1 NOT USED

- .1 Not Used.

3 EXECUTION

3.1 NOT USED

- .1 Not Used.

END OF SECTION

1 GENERAL

1.1 REFERENCES STANDARDS

- .1 Ontario Traffic Council
 - .1 Ontario Traffic Manual, Temporary Conditions (Book 7), 2016.

1.2 PROTECTION OF PUBLIC TRAFFIC

- .1 Comply with requirements of Acts, Regulations and By-Laws in force for regulation of traffic or use of roadways upon or over which it is necessary to carry out Work or haul materials or equipment. All traffic control measures must meet requirements and criteria as mentioned in the Ontario Traffic Manual, Book 7.
- .2 When working on travelled way:
 - .1 Place equipment in position to minimize interference and hazard to travelling public.
 - .2 Keep equipment units as close together as working conditions permit and preferably on same side of travelled way.
 - .3 Do not leave equipment on travelled way overnight.
- .3 Keep travelled way graded, free from pot holes and of sufficient width for required number of lanes of traffic.

1.3 INFORMATIONAL AND WARNING DEVICES

- .1 Provide and maintain signs to indicate construction activities or other temporary and unusual conditions resulting from Project Work which requires road user response.
- .2 Supply and erect signs, delineators, barricades and miscellaneous warning devices to Ontario Traffic Manual, Book 7: Temporary Conditions requirements.
- .3 Place signs and other devices in locations recommended in Ontario Traffic Manual, Book 7: Temporary Conditions.
- .4 Install signage and appropriate devices in accordance with recommendations listed in section 1.2.
- .5 Continually maintain traffic control devices in use:
 - .1 Check signs daily for legibility, damage, suitability and location. Clean, repair or replace to ensure clarity and reflectance.
 - .2 Remove or cover signs which do not apply to conditions existing from day to day.

1.4 CONTROL OF PUBLIC TRAFFIC

- .1 Provide competent flag personnel, trained in accordance with, and properly equipped to Ontario Traffic Manual, Book 7: Temporary Conditions for situations as follows:
 - .1 When public traffic is required to pass working vehicles or equipment that block all or part of travelled roadway.
 - .2 Where temporary protection is required while other traffic control devices are being erected or taken down.
 - .3 For emergency protection when other traffic control devices are not readily available.
 - .4 In situations where complete protection for workers, working equipment and public traffic is not provided by other traffic control devices.
 - .5 At each end of restricted sections where pilot cars are required.

1.5 OPERATIONAL REQUIREMENTS

- .1 Maintain existing conditions for traffic throughout period of contract in conformity with bridge closure schedule.
- .2 When the bridge is entirely closed, ensure that temporary barriers are installed at a minimum distance of 100 meters from bridge entrances.
- .3 Ensure that all traffic barriers remain installed at all times.
- .4 When traffic signs must be moved temporarily, their new location must be approved by the Departmental Representative before relocating them. Signs relocated temporarily must be reinstalled in their original location as soon as possible after completing work.

2 PRODUCTS

2.1 NOT USED

- .1 Not used.

3 EXECUTION

3.1 EXECUTION

- .1 Ensure that all workers in the construction area recognize the importance of measures contained in the traffic control plan.
- .2 Maintain the condition of all traffic control devices during the contract.

- .3 Ensure that practices considered unsafe or not conform are repaired, replaced or brought into compliance immediately when the Departmental Representative is notified of any violation of the traffic control plan (or of the applicable regulation).
- .4 Review and modify the traffic control plan to correct all errors, omissions or improvements needed or if new risks are identified for the first time in the plan.
- .5 It is the Contractor's responsibility to ensure that all training has been taken prior to starting work.

END OF SECTION

1 GENERAL

1.1 QUALITY

- .1 Products, materials, equipment and articles incorporated in Work shall be new, not damaged or defective, and of best quality for purpose intended. If requested, furnish evidence as to type, source and quality of products provided.
- .2 Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility, but is precaution against oversight or error. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
- .3 Should disputes arise as to quality or fitness of products, decision rests strictly with Departmental Representative based upon requirements of Contract Documents.
- .4 Unless otherwise indicated in specifications, maintain uniformity of manufacture for any particular or like item throughout building.
- .5 Permanent labels, trademarks and nameplates on products are not acceptable in prominent locations, except where required for operating instructions, or when located in mechanical or electrical rooms.

1.2 STORAGE, HANDLING AND PROTECTION

- .1 Handle and store products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions when applicable.
- .2 Store packaged or bundled products in original and undamaged condition with manufacturer's seal and labels intact. Do not remove from packaging or bundling until required in Work.
- .3 Store products subject to damage from weather in weatherproof enclosures.
- .4 Store sheet materials, lumber on flat, solid supports and keep clear of ground. Slope to shed moisture.
- .5 Remove and replace damaged products at own expense and to satisfaction of Departmental Representative.
- .6 Touch-up damaged factory finished surfaces to Departmental Representative's satisfaction. Use touch-up materials to match original. Do not paint over name plates.

1.3 MANUFACTURER'S INSTRUCTIONS

- .1 Unless otherwise indicated in specifications, install or erect products in accordance with manufacturer's instructions. Do not rely on labels or enclosures provided with products. Obtain written instructions directly

from manufacturers.

- .2 Notify Departmental Representative in writing, of conflicts between specifications and manufacturer's instructions, so that Departmental Representative will establish course of action.
- .3 Improper installation or erection of products, due to failure in complying with these requirements, authorizes Departmental Representative to require removal and re-installation at no charge.

1.4 QUALITY OF WORK

- .1 Ensure Quality of Work is of highest standard, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify Departmental Representative if required Work is such as to make it impractical to produce required results.
- .2 Do not employ anyone unskilled in their required duties. Departmental Representative reserves right to require dismissal from site, workers deemed incompetent or careless.
- .3 Decisions as to standard or fitness of Quality of Work in cases of dispute rest solely with Departmental Representative, whose decision is final.

1.5 CO-ORDINATION

- .1 Ensure co-operation of workers in laying out Work. Maintain efficient and continuous supervision.

1.6 REMEDIAL WORK

- .1 Perform remedial work required to repair or replace parts or portions of Work identified as defective or unacceptable. Co-ordinate adjacent affected Work as required.
- .2 Perform remedial work by specialists familiar with materials affected. Perform in a manner to neither damage nor put at risk any portion of Work.

1.7 FASTENINGS

- .1 Prevent electrolytic action between dissimilar metals and materials.
- .2 Use non-corrosive hot dip galvanized steel fasteners and anchors for securing exterior work, unless stainless steel or other material is specifically requested in affected specification Section.
- .3 Space anchors within individual load limit or shear capacity and ensure they provide positive permanent anchorage. Wood, or any other organic material plugs are not acceptable.
- .4 Keep exposed fastenings to a minimum, space evenly and install neatly.
- .5 Fastenings which cause spalling or cracking of material to which anchorage is made are not acceptable.

1.8 PROTECTION OF WORK IN PROGRESS

- .1 Prevent overloading of parts of building. Do not cut, drill or sleeve load bearing structural member, unless specifically indicated without written approval of Departmental Representative.

2 PRODUCTS

2.1 FIXATIONS

- .1 Use fastenings of standard commercial sizes and patterns with material and finish suitable for service.
- .2 Use heavy hexagon heads, semi-finished unless otherwise specified. Use No. 304 stainless steel for exterior areas.
- .3 Bolts may not project more than one diameter beyond nuts.
- .4 Use plain type washers on equipment, sheet metal and soft gasket lock type washers where vibrations occur. Use resilient washers with stainless steel.

3 EXECUTION

3.1 NOT USED

- .1 Not Used.

END OF SECTION

1 GENERAL

1.1 CLEANING

- .1 The Contractor shall clean to remove:
 - .1 dirt;
 - .2 sand accumulations;
 - .3 water accumulations;
 - .4 ice accumulations;
 - .5 abrasive;
 - .6 deicing salts;
 - .7 ensure adequate drainage; and remove
 - .8 any other type of debris.
- .2 The following bridge sections shall be cleaned:
 - .1 plank plating upper surface;
 - .2 tread upper surface;
 - .3 panel;
 - .4 four (4) bridge bearings near concrete abutment walls;
 - .5 bankseats of concrete abutment walls;
 - .6 end wood supports.
- .3 Refer to drawings for additional information.
- .4 Major accumulations of debris must be removed with a shovel or any other appropriate equipment before cleaning with water.
- .5 To properly clean concrete abutment support surfaces, the Contractor shall clean up to 3 meters on both sides of the abutment, i.e. the front wall support and the top of wing walls.
- .6 The material used to perform work shall provide a pressure allowing to clean surfaces efficiently.
- .7 Cleaning of steel parts must be performed without damaging paint or any other protective coating.
- .8 Water used must be clear and free from harmful substances.
- .9 The surface must be free from ice before cleaning.

- .10 Work also includes removing and disposing of all existing construction rubbish in the area being cleaned.
- .11 Debris removed during the cleaning process must be shipped and disposed of in a landfill as authorized by the Department in charge of the environment.

1.2 PROJECT CLEANLINESS

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris.
- .2 Remove waste materials from site at daily regularly scheduled times or dispose of as directed by Departmental Representative. Do not burn waste materials on site.
- .3 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .4 Provide on-site containers or vehicle for collection of waste materials and debris.
- .5 Provide and use marked separate bins for recycling. Refer to Section 01 00 10 - General instructions.

1.3 FINAL CLEANING

- .1 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
- .3 Prior to final review remove surplus products, tools, construction machinery and equipment.
- .4 Remove waste products and debris including that caused by Owner or other Contractors.
- .5 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .6 Clean lighting reflectors, lenses, and other lighting surfaces.
- .7 Inspect finishes, fitments and equipment and ensure specified workmanship and operation.
- .8 Clean or comb the approaches

1.4 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for recycling in accordance with Section 01 00 10 - General Instructions.

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CLEANING

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2 PRODUCTS

2.1 NOT USED

.1 Not Used.

3 EXECUTION

3.1 NOT USED

.1 Not Used.

END OF SECTION