

# **TENDER DOCUMENTS**

## **SECTION 5 STANDARD ADMINISTRATIVE CONDITIONS**

## **Version**

This version of the standard specifications dated November 1<sup>st</sup>, 2013, supersedes the previous versions.

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**Appendix 5-I – SAMPLE WORK SCHEDULE**

## SECTION 5 STANDARD ADMINISTRATIVE CONDITIONS

### 5.1 INTERPRETATION OF THE CONTRACT

5.1.1 Use of the infinitive in these specifications indicates an obligation incumbent upon the **Contractor**.

5.1.2 The work shall conform to the Contract documents and to the Engineer's directives.

### 5.2 DEFINITIONS

5.2.1 In the Contract,

5.2.1.1 "addenda" refers to an instrument amending the tender documents prior to the closing date and time for tendering;

5.2.1.2 "change order" refers to an instrument amending the intent, clauses or conditions of the Contract after its award;

5.2.1.3 "site" refers to the location where the work is to be performed and its immediate surrounding used for temporary facilities or for storage of materials and equipment;

5.2.1.4 "drawings and specifications" refers to the *Special Administrative Conditions, Special Technical Conditions*, including the Contract drawings, the *Standard Administrative Conditions* and the *Standard Technical Conditions*, as well as any amendments made to these sections in accordance with the *General Conditions*;

5.2.1.5 "Contract documents" refers to the documents forming the Contract under Article 5.5 *Contract documents*;

5.2.1.6 "**Contractor**" refers to the person or body corporate designated as the successful Tenderer in the Notice of Contract Award;

5.2.1.7 "trials" refers to the tests carried out on materials and work to check for conformity with standards and with the requirements of the specifications and drawings;

5.2.1.8 "day" refers to a calendar day, that is, a twenty-four (24) hour period, deemed to be midnight to midnight, corresponding to the divisions of a calendar month;

5.2.1.9 "working day" refers to any day other than a Saturday, Sunday or statutory holiday in the construction industry, in the region where the work is to be performed;

5.2.1.10 "theoretical lines" refers to the lines shown on drawings or defined in the specifications delimiting the work;

- 5.2.1.11 "**Owner**" refers to the person designated as such in paragraph 5.5.5, namely The Jacques Cartier and Champlain Bridges Incorporated, acting and exercising its powers as an agent of Her Majesty in Right of Canada;
- 5.2.1.12 "Price Table" means the table contained in the **Contractor's** Tender Forms, subject to any changes mentioned in the Notice of Contract Award;
- 5.2.1.13 "subcontractor" means a subcontractor as defined in paragraph GC1.1.10.

### **5.3 ACRONYMS, SYMBOLS AND ABBREVIATIONS**

5.3.1 When used in the Contract, the following acronyms and symbols have the meanings given below:

- 5.3.1.1 AASHTO American Association of State Highway and Transportation Officials
- 5.3.1.2 ACI American Concrete Institute Inc.
- 5.3.1.3 AISC American Institute of Steel Construction
- 5.3.1.4 ANSI American National Standards Institute
- 5.3.1.5 ASME American Society of Mechanical Engineers
- 5.3.1.6 ASTM ASTM International (formerly American Society for Testing and Materials)
- 5.3.1.7 AWS American Welding Society
- 5.3.1.8 BNQ Bureau de normalisation du Québec
- 5.3.1.9 CCDG Cahier des charges et devis généraux du ministère des Transports du Québec
- 5.3.1.10 CEC Canadian Electrical Code
- 5.3.1.11 QEC Quebec Electrical Code
- 5.3.1.12 CGSB Canadian General Standards Board
- 5.3.1.13 CSA Canadian Standards Association
- 5.3.1.14 FED-STD Federal Standards
- 5.3.1.15 GC General Conditions (Section 8 of Contract)

5.3.1.16	GCMG	Galvanized corrugated metal guardrail
5.3.1.17	HPSV	High pressure sodium vapour (lamp)
5.3.1.18	IES	Illuminating Engineering Society
5.3.1.19	ISO	International Organization for Standardization
5.3.1.20	LC	Laboratoire des chaussées du ministère des Transports du Québec
5.3.1.21	LCPC	Laboratoire Central des Ponts et Chaussées (France)
5.3.1.22	LPSV	Low pressure sodium vapour (lamp)
5.3.1.23	NBCC	National Building Code of Canada
5.3.1.24	NCHRP	National Cooperative Highway Research Program
5.3.1.25	NEMA	National Electrical Manufacturers Association
5.3.1.26	NLGA	National Lumber Grades Authority
5.3.1.27	OPSS	Ontario Provincial Standard Specification
5.3.1.28	SSPC	The Society for Protective Coatings
5.3.1.29	ULC	Underwriter's Laboratories of Canada
5.3.1.30	CWB	Canadian Welding Bureau
5.3.1.31	CISC	Canadian Institute of Steel Construction

## 5.4 STANDARDS

- 5.4.1 The standards referred to in the Contract are deemed to be part thereof, as if wholly incorporated therein.
- 5.4.2 For tendering purposes and unless otherwise indicated, any reference to a standard refers to the latest edition of this standard in effect on the date of the Call for Tenders.
- 5.4.3 In case of ambiguity or contradiction between a standard referred to in the Contract and the specifications and drawings, the document more favourable to the **Owner** shall prevail. The **Owner** will decide which is the more favourable.

5.4.4 Federal standards take precedence over Quebec standards and the latter take precedence over US or other foreign standards.

## 5.5 CONTRACT DOCUMENTS

5.5.1 Subject to paragraphs 5.5.3 and 5.5.4, the documents forming the Contract between the **Owner** and the **Contractor** (also referred to as the “Contract”) are:

5.5.1.1 The tender documents, as mentioned in Article 2.1 *Tender documents*;

5.5.1.2 The tender submitted by the **Contractor** in response to the Call for Tenders for the Contract, including the minutes of the tender review meeting, where applicable;

5.5.1.3 The Notice of Contract Award issued in writing by the **Owner**;

5.5.1.4 Any amendment to the Contract made in accordance with the *General Conditions*.

5.5.2 In the Contract:

5.5.2.1 “Fixed Price Arrangement” means that part of the Contract where it is stipulated that a global payment will be made in consideration for the performance of the work to which it relates; and

5.5.2.2 “Unit Price Arrangement” means that part of the Contract where it is stipulated that the result of the multiplication of a price by a certain number of units of measurement of a given class will be paid out as payment for the performance of the work covered by that arrangement.

5.5.3 Any provision of the Contract which applies specifically and only to a Unit Price Arrangement does not apply to any part of the work covered by the Fixed Price Arrangement.

5.5.4 Any provision of the Contract which applies specifically and only to a Fixed Price Arrangement does not apply to any part of the work covered by the Unit Price Arrangement.

5.5.5 The President appoints the General Manager as the Engineer for the purposes of the Contract.

5.5.6 Nothing in the contract documents can create a contractual relationship between:

5.5.6.1 The **Owner** and any subcontractor, supplier, their representative, employee, or any other person performing any part of the work;

5.5.6.2 The Engineer and any subcontractor, supplier, their representative, employee, or any other person performing any part of the work.

- 5.5.7 The Contract documents are mutually reinforcing. What is prescribed in one such document binds the parties as if prescribed in all.
- 5.5.8 Terms or abbreviations which have a well-known technical or commercial meaning are used in the contract documents as thus understood.
- 5.5.9 Any word used with the masculine or singular in the contractual documents can have the meaning of feminine or plural when the context requires it.
- 5.5.10 Neither the division of the specifications into sections, subsections, articles and paragraphs nor the arrangement of the drawings may be construed as compelling the **Contractor** to distribute the work among subcontractors and suppliers and determine the scope of the work allocated to each trade in any way.
- 5.5.11 Certain general requirements of the *Standard Administrative Conditions* and the *Standard Technical Conditions* may be completed by requirements specific to the work set out in the specifications and drawings.
- 5.5.12 The work shall conform to the drawings and specifications and to the Engineer's instructions.
- 5.5.13 For the purposes of the Contract, including collateral purposes, the address of the **Owner** shall be deemed to be:  
1225, St-Charles Street West  
West Tower, Suite 500  
Longueuil, Québec  
J4K 0B9  
Fax: 450 651-7605
- 5.5.14 For the purposes of the Contract, including collateral purposes, the address of the **Contractor** shall be deemed to be the one that appears in the **Contractor's** Tender Forms.
- 5.5.15 The Contract shall be governed by and construed according to the laws in force in the Province of Quebec.
- 5.5.16 The parties agree that the Contract was entered into in Longueuil (Quebec) and is subject to the laws applicable in the province of Quebec, and that any legal proceedings arising from the Contract shall be brought in the judicial district of Montreal.

## 5.6 ORDER OF PRECEDENCE

- 5.6.1 In case of contradiction or discrepancy between the documents listed below, the wording of the first listed will take precedence over any listed subsequently:

- 5.6.1.1 Any amendment to the Contract made in accordance with the *General Conditions*;
  - 5.6.1.2 The Notice of Contract Award, including any document incorporated into a Contract document prior to the issuance of the Notice of Contract Award (Section 1);
  - 5.6.1.3 The document entitled "*General Conditions*" (Section 8);
  - 5.6.1.4 The document entitled "*Special Administrative Conditions*" (Section 3);
  - 5.6.1.5 The document entitled "*Special Technical Conditions*" (Section 4);
  - 5.6.1.6 The document entitled "*Standard Administrative Conditions*" (Section 5);
  - 5.6.1.7 The document entitled "*Standard Technical Conditions*" (Section 6);
  - 5.6.1.8 The document entitled "*Instructions to Bidders*" (Section 2);
  - 5.6.1.9 The document entitled "*Terms of Payment*" (Section 7);
  - 5.6.1.10 The document entitled "*Contract Security Conditions*" (Section 10);
  - 5.6.1.11 The document entitled "*Insurance Conditions*" (Section 11);
  - 5.6.1.12 The document entitled "*Labour Conditions*" (Section 9);
  - 5.6.1.13 The **Contractor's** tender.
- 5.6.2 Notwithstanding the *General Conditions*, in the event of contradiction or discrepancy between the requirements of these specifications and the specifications shown in the drawings listed in Article 4.02.1 *Contract Drawings*, the most strict requirements which are most favourable to the **Owner** shall prevail.

## 5.7 CONTRACT ADMINISTRATION

- 5.7.1 The **Owner's** General Manager or a person designated by the General Manager will assume responsibility for administering the Contract.
- 5.7.2 The provisions of Article GC-19, *Contractor's Superintendent*, in Section 8 do not apply to this Contract and are replaced by the paragraphs that follow.
- 5.7.3 For the purposes of this Contract, the **Contractor** shall appoint a Project Manager and a Superintendent.
- 5.7.4 The **Contractor's** Project Manager shall hold a degree in engineering or a technical civil engineering degree and shall have at least five (5) years of relevant experience in work

of comparable scale and complexity to that of this Contract or a combination of training and experience deemed at least equivalent by the Engineer.

5.7.5 The **Contractor's** Project Manager will assume the following duties without limitation:

5.7.5.1 The Project Manager will be entirely responsible for the **Contractor's** operations in the performance of the work and will be authorized to receive, on the **Contractor's** behalf, any notice, consent, order, directive, decision or other communication that may be issued in connection with the Contract.

5.7.5.2 The Project Manager will ensure that all documents of a technical nature, such as procedures, drawings, data sheets, calculations, schedules and updates, the prevention program, lifting plans, control measures, certifications, mixes, samples, methods, environmental protection plan and emergency measures plan, are prepared and distributed in strict compliance with the requirements of the drawings and specifications, to the Engineer's satisfaction.

5.7.6 The **Contractor's** Superintendent shall have at least five (5) years of relevant experience in work of comparable scale and complexity to that of this Contract.

5.7.7 The **Contractor** shall provide with its tender the names of the Project Manager and Superintendent, with details of their training and experience.

5.7.8 The **Contractor** may appoint one (1) person to assume the duties of both Project Manager and Superintendent, provided that he meets the requirements of paragraph 5.7.4, and subject however to paragraph 5.7.10.

5.7.9 During working hours and until the work is completed, the **Contractor** shall keep a competent Project Manager and Superintendent on duty at the work site.

5.7.10 The **Contractor** may not replace either the Project Manager or the Superintendent without the Engineer's written consent. Further, the **Contractor** shall remove any Project Manager or Superintendent who, in the Engineer's opinion, does not meet requirements and replace him immediately with a person acceptable to the Engineer.

5.7.11 Failure by the **Contractor** to comply with paragraph 5.7.9 and/or 5.7.10 will result in application of paragraph 5.35.9, *Damages for failure to comply with requirements related to contract administration.*

## 5.8 LEGISLATION AND REGULATIONS

5.8.1 The **Contractor** shall comply with all legislation, regulations, ordinances and orders in council applicable to the work made by the federal, provincial or municipal government or by any agency thereof and shall assume liability for any breach of such legislation, regulations, ordinances and orders in council.

5.8.2 The word “Legislation” includes any statute, code or regulation pertaining to work on a site, including the *Canada Labour Code, Part II, Health and Safety* and Quebec’s *Act respecting occupational health and safety*, as well as pertinent policies, legislation and guides, as amended from time to time.

## 5.9 PERMITS

5.9.1 The **Contractor** shall obtain, at its own expense, all permits, certificates, licences and authorizations required by law for execution of the work. In all cases, the **Contractor** shall, at its own expense, comply with all requirements associated with such permits, certificates, licences and authorizations.

5.9.2 The **Contractor** shall provide the **Owner** on demand with certified true copies of the aforementioned documents and with receipts attesting to payment of the attendant fees.

## 5.10 PATENTS

5.10.1 The **Contractor** shall obtain, at its own expense, any authorizations needed to use any patented, patentable or licensable equipment, materials or procedures in connection with the work.

## 5.11 CLOSING OF STREETS OR ROADS

5.11.1 If the work requires the **Contractor** to block or close to traffic certain streets or roads outside the **Owner**’s jurisdiction, the **Contractor** shall first obtain, at its own expense, the necessary authorizations and execute all requisite agreements with the competent authorities.

5.11.2 Copies of such authorizations shall be conveyed to the Engineer at least fourteen (14) days prior to the start of any work requiring streets or roads to be blocked or closed to traffic.

## 5.12 CONTRACTOR’S LIABILITY

5.12.1 The **Contractor** shall assume sole liability for any damage resulting from the work, including damage caused by negligence, carelessness or lack of skill on the part of its representatives, employees, agents, subcontractors and their subcontractors, suppliers or any other person under its authority.

5.12.2 The **Contractor** shall hold the **Owner**, The Federal Bridge Corporation Limited, Her Majesty in right of Canada and The St. Lawrence Seaway Management Corporation safe and harmless against all claims, demands, losses, costs, damages, actions, prosecutions or proceedings, by whomsoever brought, based on, arising from, connected with, occasioned by or attributable to the activities of the **Contractor**, its employees, agents, subcontractors and their subcontractors in the course of the work to which this Contract pertains, including any real or alleged infringement of any patent or other form of intellectual property.

### 5.13 FIRE PROTECTION

5.13.1 Without restricting the scope of the requirements of the *General Conditions*, the **Contractor** shall have on hand at all times a sufficient number of suitable fire extinguishers for the effective suppression of any fire started as a result of the work.

5.13.2 The **Contractor** shall have on duty at all times personnel trained or adept in the use of this equipment.

5.13.3 The **Contractor** shall, without additional charge to the **Owner**, take all necessary precautions to forestall any fire risk and shall rigorously adhere to all laws, arrangements and regulations in effect concerning fire prevention, as well as to the instructions and directives given by the **Owner** or the **Owner's** representative in the course of the work.

### 5.14 WORK PLANNING

#### 5.14.1 RESPONSIBILITY FOR PERFORMANCE OF THE WORK

5.14.1.1 The **Contractor** has sole responsibility for performance of the work, which it shall direct and supervise so as to ensure compliance with the Contract documents.

5.14.1.2 Unless otherwise indicated, the **Contractor** is solely responsible for the means, methods, sequencing and procedures for construction and for co-ordinating the various parts of the work.

#### 5.14.2 ELEMENTS TO BE CONSIDERED IN PLANNING

5.14.2.1 Given that the work provided for in this Contract has a significant impact on the **Owner's** major maintenance program, a vital aspect of this Contract consists in performing the work as quickly as possible within the prescribed timeframe.

- 5.14.2.2 The **Contractor** shall begin preparatory work the day following the date of the written Notice of Contract Award from the **Owner**, subject to paragraph 5.14.2.3 and any other restrictions in the *Special Administrative Conditions*. This preparatory work includes, but is not limited to, designing and preparing the *Contractor's Drawings* related to scaffolding, walkways and enclosures and submitting to the Engineer shop drawings, technical sheets and other information on the materials and equipment prescribed for execution of this Contract.
- 5.14.2.3 The **Contractor** may not start any work on site before receiving written authorization from the **Owner**. Such authorization will not be granted until the **Contractor** provides the **Owner** with a "Notice of Compliance with Insurance Conditions" and the bonds and/or security deposit required in the tender documents.
- 5.14.2.4 Signed and sealed drawings of the enclosures, scaffolding and walkways prepared by the **Contractor's** engineer/designer as prescribed in subsection 6.15 *Scaffolding, Platforms and Other Temporary Facilities* shall be submitted to the Engineer for review and comment not more than fourteen (14) days after the Contract is awarded by the **Owner**. The **Contractor** shall allow fourteen (14) days for the Engineer's review. The **Contractor** may not begin construction of the enclosures, scaffolding, walkways or other means of access until it receives the drawings stamped "Reviewed" by the **Owner's** engineer/designer.
- 5.14.2.5 The **Contractor** shall take into account work that will be performed on the structures as part of other projects planned by the **Owner** and consider the resulting impact and restrictions as referred to in Article 5.25 *Simultaneous Works by the Owner or other Contractors*.
- 5.14.2.6 The **Contractor** shall establish its work schedule taking into account days lost because of bad weather and firework displays and other special events entailing closure of lanes or a bridge. The **Owner** will not grant the **Contractor** any extension of the prescribed deadline(s) for completion of the work if adverse weather conditions impede the work.
- 5.14.2.7 The **Contractor** shall become familiar with applicable safety regulations that may have an adverse impact on the planning and scheduling of its work. The **Owner** will not grant any extension of the prescribed deadline(s) for completion of the work on the grounds of any restrictions, regulations or safety directives imposed by the CSST.
- 5.14.2.8 The **Contractor** has at all times a duty and responsibility to plan all its activities by providing for the use of labour, materials, equipment and work methods to perform the work in accordance with the terms and conditions of the Contract and at a pace that will ensure the work is completed within the Contract timeframe.
- 5.14.2.9 The **Contractor** shall allow sufficient time in its work program to evacuate its employees and remove its equipment from the bridges for the traffic control prescribed in these specifications.

### 5.14.3 COMPETENCY OF PERSONNEL

5.14.3.1 Without limiting the scope of paragraphs 5.7.4 and 5.7.6 of these specifications, the **Contractor** shall employ as Project Manager, superintendents, foremen or workers competent people with experience relevant to the work and adequately trained to be able to understand specifications and drawings with ease. These employees shall direct, organize and carry out the work so as to achieve the results required by the Contract. These conditions also apply to the **Contractor's** engineers and technicians and to subcontractors.

5.14.3.2 The persons referred to above shall also possess the required competencies in occupational safety and health, environmental protection, temporary signage and traffic control.

### 5.14.4 CONDITION AND CAPACITY OF EQUIPMENT AND TOOLS

5.14.4.1 The **Contractor** shall use suitable equipment and tools of sufficient capacity and in sufficient quantity to perform the work within the timeframe established in the Contract. Such equipment and tools shall be in good working order and shall pose no danger to the workers and the public and shall comply with the applicable legislation.

### 5.14.5 CONTINUITY OF WORK

5.14.5.1 The **Contractor** shall carry out the work without interruption and in a rational sequence and shall provide the resources needed to complete each phase of the work expeditiously so as to minimize hindrance to traffic and meet the deadlines stipulated.

### 5.14.6 REVIEW OF WORK PLANNING AND DETAILED WORK SCHEDULE

5.14.6.1 If the work is delayed relative to the detailed work schedule which was deemed compliant by the Engineer and if as a result of the delay, there is, in the Engineer's opinion, a risk that the work will not be completed within the contract timeframe(s), the **Contractor** shall take such measures as are necessary to make up for the delay by increasing its personnel, equipment and/or facilities or modifying its work methods, as the case may be, at no additional cost to the **Owner**.

5.14.6.2 In all situations of delay, the **Contractor** shall notify the Engineer of its plans for dealing with the delay, and the Engineer may, if he or she deems such action necessary, require the **Contractor** to undertake a full or partial review of its initial detailed work schedule. The Engineer determines the amount of time allowed for such review.

#### 5.14.7 ACCELERATED WORK

5.14.7.1 The **Contractor** shall, where required, supply the additional materials, labour and equipment needed to meet the dates and deadlines prescribed in the Contract, including, but not limited to, shift work around the clock seven (7) days a week and overtime.

5.14.7.2 All costs related to such acceleration of work shall be borne by the **Contractor**.

#### 5.14.8 FOLLOW-UP MEETINGS

5.14.8.1 Once every two (2) weeks, or at intervals determined by the Engineer, site meetings will be convened to review the progress of work and any other issues arising from or with a potential bearing on the Contract. The agenda and minutes of such meetings will be drafted and distributed by the Engineer.

5.14.8.2 The **Contractor's** Project Manager, the Superintendent or its main representative on site shall attend each meeting, accompanied by members of its staff and the responsible representatives of subcontractors and suppliers whose presence may be needed for an adequate review of all aspects of the work listed in the agenda.

5.14.8.3 The **Contractor** shall update the work schedule and submit it to the Engineer every two (2) weeks. An updated schedule shall be submitted at least two (2) working days prior to each site meeting. Updates shall be submitted in hard copy and by e-mail. The updates shall indicate the status of all current activities and reflect the actual construction sequence.

5.14.8.3.1 Updated work schedules shall be established in a manner accepted by the Engineer and shall include the following information:

5.14.8.3.1.1 activities that have progressed or were completed in the previous period;

5.14.8.3.1.2 the approximate number of days needed to complete the current work;

5.14.8.3.1.3 work that will be started or continued in the following weeks.

5.14.8.3.2 Updated work schedules shall indicate how any activity that is behind schedule according to the work planning will be accelerated in order to meet the Contract deadlines and the prescribed requirements.

5.14.8.3.2.1 Anticipated revisions for work that has not yet commenced shall also be indicated in the work schedules.

5.14.8.4 After each site meeting, the Engineer will send the minutes to the **Contractor**. Within seven (7) days after receiving the minutes, the **Contractor** shall notify the Engineer of any inaccuracy or error in the minutes, failing which the **Contractor** will be deemed to be in agreement with the content of the minutes.

5.14.8.5 The parties agree to cooperate to ensure that meetings proceed smoothly.

5.14.9 WEEKLY AND DAILY PLANNING OF WORK

5.14.9.1 In addition to the work schedule, the **Contractor** shall, every Friday before 12:00 noon, provide the Engineer with a detailed program by sector and shift indicating the activities planned for the following week.

5.14.9.2 If schedule changes occur during the week, the **Contractor** shall submit to the Engineer in writing a detailed revised schedule, including a list of all site activities by sector and shift that it plans to carry out during the following day or weekend as follows:

Work day	Deadline for submission to Engineer
Tuesday to Friday	Before 4:00 p.m. previous day
Saturday to Monday	Friday before 12:00 noon

5.14.9.3 This work planning is needed to organize the daily activities of the various participants, including the Engineer and the laboratories. However, the Engineer reserves the right to establish a work authorization procedure by type of work, such as placement of concrete or work requiring immediate joint measurement, quality control or verification of elevation.

5.14.10 Failure by the **Contractor** to comply with the requirements of paragraph 5.14.8.3 and/or paragraph 5.14.9 will result in application of Article 5.35.8 *Damages for failure to comply with requirements related to updating of the work schedule and weekly and daily planning of work.*

**5.15 QUALITY MANAGEMENT, INSPECTIONS AND TESTING**

5.15.1 GENERAL

5.15.1.1 The **Contractor** has sole responsibility for quality control and shall appoint one or more laboratories (hereinafter Contractor's Laboratory) of its choice and at its own costs. No later than twenty-one (21) days from the date of the Contract award by the **Owner**, the **Contractor** shall submit in writing to the Engineer the name(s) of the Contractor's Laboratory(ies) to be assigned to the present Contract. The **Owner** reserves the right to require the **Contractor** to appoint a specialized laboratory(ies) according to the nature of the work covered by the present Contract.

- 5.15.1.2 Notwithstanding the preceding paragraph, the **Owner** shall retain as its own costs a test laboratory independent from the Contractor's Laboratory (hereinafter Owner's Laboratory) for additional quality assurance of materials
- 5.15.1.3 The **Contractor** shall cooperate fully in all sample-taking and routine tests demanded by the Owner's Laboratory. The **Contractor** may not claim compensation or request additional time where its work is interrupted as a result of the foregoing.
- 5.15.1.4 The Engineer shall visit the work site at appropriate intervals in order to keep himself informed of the progress and quality of the work and determine whether it is generally proceeding in accordance with the Contract.
- 5.15.1.5 The Engineer shall have unrestricted access to the work at all times. If parts of the works are done elsewhere, the Engineer shall have access to those locations while the work is being done there.
- 5.15.1.6 The **Contractor** shall place at the Engineer's disposal adequate facilities to allow him to monitor the work effectively and safely.
- 5.15.1.7 If, pursuant to statutes and regulations, the Contract or the Engineer's directives, the works require testing, inspection or approval, the **Contractor** shall give the Engineer reasonable notice of when such testing, inspection or approval may be carried out.
- 5.15.1.8 If the **Contractor** covers or has any part of the work covered prior to required testing, inspection or approval, it shall, at the Engineer's request, uncover the work in question to allow the prescribed testing, inspection or approval to proceed and re-cover the work, and this shall be done entirely at the **Contractor's** expense.
- 5.15.1.9 Checklists shall be completed by the **Contractor** for major phases of the project and will be reviewed jointly by the Engineer and the **Contractor** at the beginning of work.

#### 5.15.2 SHOP INSPECTIONS AND TESTING

- 5.15.2.1 Unless otherwise indicated, all materials to be incorporated into the work and fabrication or assembly of all parts will be subject, prior to acceptance, to examination by inspectors from the Owner's Laboratory.
- 5.15.2.2 At the Engineer's request, the **Contractor** shall prepare and provide, in an appropriate manner and at its own expense, samples of all materials and machined or moulded parts for in-depth examination.
- 5.15.2.3 If he so wishes, the Engineer will inspect any equipment or materials destined for the work during fabrication and before delivery and will attend shop tests after final assembly.

- 5.15.2.4 The **Contractor** shall provide and maintain, at no additional cost to the **Owner**, all instruments, tools and facilities needed for quality inspection of the work done and for checking the weight and dimensions of the materials used, both at the plant where they are produced and at the site of assembly. The **Contractor** shall also provide any labour and apparatus needed to handle the materials during inspection.
- 5.15.2.5 The **Contractor** shall make the necessary arrangements to ensure that the **Owner's** inspectors have access to all parts of the work site and to any workshops where parts are being fabricated by the **Contractor** or a subcontractor. The **Contractor** shall also make the necessary arrangements to ensure similar access to shops supplying of materials and parts purchased for incorporation into the work.
- 5.15.2.6 The **Contractor** shall not place any materials or begin any work until the Engineer has been advised and arrangements have been made to accommodate any inspection deemed necessary by the Engineer.
- 5.15.2.7 The **Contractor** shall give the Engineer seventy-two (72) hours notice of any shop tests scheduled so that arrangements can be made for the Engineer to attend if required.
- 5.15.2.8 The **Contractor** shall also give the Engineer seventy-two (72) hours notice when materials are to be finished and ready for final inspection so that the Engineer can proceed with the inspection.
- 5.15.2.9 After fabrication, the **Contractor** shall subject materials and equipment to shop tests to ensure that all parts function satisfactorily and that completed assemblies meet the minimum standards and the essential requirements of this Contract as they apply to equipment and materials.
- 5.15.2.10 Wherever possible, each part of material or container, once inspected and accepted, will be stamped or identified in some way by a representative of the **Owner** using a personal seal. Any part not so identified may be rejected at any stage of the work.
- 5.15.2.11 The **Contractor** shall, at no cost to the **Owner**, replace or repair any materials or work rejected.
- 5.15.2.12 Should the Engineer waive the right to inspect materials and equipment or attend shop tests as provided for herein, the **Contractor** will be in no way relieved of its obligations and responsibility for the work, and the **Owner's** rights as defined in this Contract will not be affected in any way.
- 5.15.3 INSPECTION BY THE CONTRACTOR
- 5.15.3.1 The **Contractor** shall ensure, through adequate inspection, that all parts and elements are fabricated and assembled as indicated in shop drawings and in accordance with the specifications and drawings.

- 5.15.3.2 The **Contractor** shall provide to the Engineer a report stating any deficiency detected.
- 5.15.3.3 When fabricating finished elements, the **Contractor** shall inspect them before using or installing them or submitting them for acceptance.
- 5.15.3.4 The **Contractor** shall keep and update adequate inspection records, which the Engineer will be able to examine at any time and make partial or complete copies.
- 5.15.3.5 In the event that the Engineer does not agree with any test result from the Contractor's Laboratory, the Owner's Laboratory will conduct the necessary complementary laboratory tests and issue an opinion on the corrective measures required for the circumstances. The **Contractor** shall proceed, at its own costs, to the implementation of those corrective measures.

#### 5.15.4 MODIFICATION OR REPLACEMENT OF DEFECTIVE PARTS

- 5.15.4.1 Subject to paragraph 5.15.4.2, if any part supplied by the **Contractor** fails to meet requirements when tested, the **Contractor** shall modify or replace it as needed at the Engineer's request without additional charge to the **Owner**.
- 5.15.4.2 Unless otherwise directed by the Engineer, no repaired parts will be accepted, and any defective part shall be replaced with a new part.

### 5.16 TEMPORARY WORKS, SITE SERVICES AND OTHERS

#### 5.16.1 GENERAL

- 5.16.1.1 The Contract price includes all direct and indirect costs associated with temporary works, site services and equipment needed by the **Contractor** for performance of the works or for compliance with the terms of the Contract.
- 5.16.1.2 Such temporary works, site services and equipment shall be kept in good working order throughout the term of the Contract.
- 5.16.1.3 The **Contractor** shall not remove from the site all or any part of the temporary works, services or equipment until final acceptance of all of the work by the Engineer.

#### 5.16.2 COMPLIANCE WITH LAWS AND REGULATIONS

- 5.16.2.1 Without limiting the scope of Article 5.8 *Legislation and Regulations*, the **Contractor** shall comply with the *Safety code for the construction industry* (R.Q. c. S-2.1, r. 6) and with statutes and regulations governing the environment, hygiene and occupational safety and health at the site and in premises, workshops and outbuildings used for the work, whether permanent or temporarily installed.

5.16.2.2 The **Contractor** shall participate in environmental and quality-of-life inspections and correct, without delay and at its own expense, any deficiency reported by any official authority competent to intervene in the public interest.

#### 5.16.3 GROUNDS, ACCESS ROADS AND RIGHTS OF WAY

5.16.3.1 For the duration of the work, the **Owner** puts at the **Contractor's** disposal the grounds, access roads, rights of way and other rights in its possession which the **Owner** deems necessary for the performance of the work.

5.16.3.2 The **Contractor** shall obtain the **Owner's** authorization before installing equipment on the **Owner's** property adjoining the site where the work under this Contract is being performed.

5.16.3.3 The **Contractor** shall acquire, at its own expense, such land, access roads, rights of way and other additional rights as it deems necessary for the performance of the work.

5.16.3.4 The **Contractor** shall maintain the land, access roads, rights of way and other locations used in the course of the work and keep them secure and in good order. Accordingly, the **Contractor** shall pick up without delay any materials, equipment or waste that may be spilled during haulage.

5.16.3.5 Unless otherwise directed by the Engineer, the **Contractor** shall restore land, access roads, rights of way and other locations to their original state or to a state acceptable to the Engineer once it has finished using them.

5.16.3.6 In order to be able to demonstrate that the land, access roads, rights of way and other locations have been restored to their original state, the **Contractor** shall, if so required by the Engineer, carry out the requisite soil characterization tests both before and after use.

5.16.3.7 In order to be able to monitor the state of the land, access roads and rights of way before and after use, the **Contractor** shall conduct photographic or video surveys as stipulated in Articles 6.13.7.4.1.1 *Pre-work inspection* and 6.13.7.4.1.2 *Post-work inspection* of these specifications.

#### 5.16.4 WORK AREAS

5.16.4.1 The **Contractor's** work areas comprise only those locations assigned to it by the **Owner**, in particular the actual site of the work and service and storage areas, the locations of which are shown in the specifications and drawings or indicated by the Engineer.

5.16.4.2 Unless otherwise authorized in advance and in writing by the **Owner**, the **Contractor** may not use bridges, roads, access roads and rights of way, whether within or outside the work area, for any purpose other than transportation.

#### 5.16.5 SERVICE AND STORAGE AREAS

- 5.16.5.1 The **Contractor** is allowed to use the **Owner's** property as needed, and in accordance with the Engineer's directives, for parking, storage, services and offices. The exact location will be designated by the Engineer.
- 5.16.5.2 The **Contractor's** employees and visitors are forbidden to park private vehicles on the **Owner's** property elsewhere than in the area designated for that purpose by the Engineer.

#### 5.16.6 ENGINEER'S OFFICE

- 5.16.6.1 Prior to the start of work and for its entire duration, the **Contractor** shall provide an office for the Engineer with the services indicated in the specifications and drawings.
- 5.16.6.2 Unless otherwise indicated elsewhere in the specifications, the said office and services form part of the **Contractor's** mobilization and site organization costs and remain its property.
- 5.16.6.3 The said office and services are exclusively for the use of the Engineer or his representatives.
- 5.16.6.4 The office shall be installed at a location accepted by the Engineer.
- 5.16.6.5 The office shall have a minimum floor area of 15 m<sup>2</sup> (square metres) and shall be fitted with air conditioning, heating and lighting and furnished with a desk with drawers, an office chair, two (2) additional chairs, a legal-size filing cabinet, two (2) tables and a closet. The windows and doors shall be fitted with screens and bars.
- 5.16.6.6 The office shall be equipped with a potable water supply and a washroom or portable unit.
  - 5.16.6.6.1 If running water is not available, the **Contractor** shall provide drinking water using a cold water dispenser and ensure supply of drinking water.
  - 5.16.6.6.2 The portable toilet, if any, shall be insulated to the cold and equipped with a functional heating system.
- 5.16.6.7 The **Contractor** shall provide high-speed access to the Internet and assume all associated user costs. Access can be provided via a router, "Turbo stick" or any other equivalent device approved by the Engineer.
- 5.16.6.8 The **Contractor** shall provide a color copier for letter, legal and 11" x 17" paper formats and shall ensure the supply of printing paper.
- 5.16.6.9 The **Contractor** shall perform maintenance and daily cleaning of the office, toilet and equipment provided.

5.16.6.10 Any failure by the **Contractor** to comply with any of the requirements of Article 5.16.6 *Engineer's Office* shall result in the application of Article 5.35.13 *Damages for failure to comply with requirements related to the Engineer's office*.

#### 5.16.7 SITE SERVICES

5.16.7.1 As soon as the works starts, the **Contractor** shall arrange for electrical power, lighting, water and sewer service, heating, cooling, communications, sanitary services, protection and security and any other services required at the site for performance of the works or required under the Contract.

5.16.7.2 The **Contractor** assumes all costs associated with these services, including supply, installation, maintenance, use, dismantling and removal, until the work is completed.

#### 5.16.8 ELECTRICITY AND TEMPORARY LIGHTING

5.16.8.1 Unless otherwise indicated in the specifications and drawings, there is no electrical power supply available at the **Contractor's** service and storage area or at the work site.

5.16.8.2 The **Contractor** shall provide, install and maintain a constant electricity and energy supply to meet the needs of the works and site facilities.

5.16.8.2.1 When work is done at night or in dark conditions, the **Contractor** shall install and maintain on the work site at least one hundred and fifty (150) lux of supplementary lighting for each work area on the entire site. The lighting shall come from an independent mobile source and shall be positioned so as not to blind drivers on the road or disturb surrounding neighbours. Five hundred (500) lux of lighting is required where the Engineer has to inspect, survey, mark or measure roadway infrastructure. The cost of such lighting shall be included in the price tendered for every roadway infrastructure that entails the installation of a lighting system.

5.16.8.2.2 Where generators are used as the source of temporary electrical power, the **Contractor** shall use super-quiet units.

5.16.8.3 The **Contractor** shall comply with all statutes and regulations governing electrical installations. In particular, all cables, extensions and conductors shall be impeccably installed and maintained and placed as far as possible from telephone and communications wiring.

5.16.8.4 At the Engineer's request, the **Contractor** shall submit a plan of the proposed electrical supply network.

5.16.8.5 All work shall conform to standard CAN/CSA-C22.1-06 *Canadian Electrical Code, Part I* (20<sup>th</sup> edition), *Safety Standard for Electrical Installations*, and be carried out by a licensed electrician.

- 5.16.8.5.1 The **Contractor** shall protect all 115/220 V circuits with grounded switches installed either on the casing or on the circuit at the panel.
- 5.16.8.5.2 The **Contractor** shall ensure that all portable generators brought onto the **Owner's** property have their 115/220 V circuits protected by grounded breakers or grounded built-in receptacles.
- 5.16.8.6 The **Owner** provides lighting for normal operation of roads, bridges and other roadway infrastructures under its jurisdiction. Unless otherwise indicated in the specifications and drawings, there is no lighting provided at the **Contractor's** service and storage areas or at the work site.
- 5.16.8.7 The **Contractor** shall provide, install and maintain adequate lighting for safe and effective performance of the work at all times.
- 5.16.8.8 The **Contractor** shall obtain the Engineer's authorization before doing anything to the **Owner's** electrical installations. In order to avoid accidentally energizing a circuit, the **Contractor** shall first isolate the circuit, than lock out all sources of current. The lock-out shall be performed in accordance with the **Owner's** procedure, a copy of which is appended as Appendix 6.12-I *Owner's Lock-out Procedure* of subsection 6.12 *Health and Safety* of these specifications.
- 5.16.8.9 All of the **Contractor's** lighting equipment shall be explosion-proof and shall conform to Class I, Zone 0, Group II.
- 5.16.9 WATER AND SEWER
- 5.16.9.1 Unless otherwise indicated in the specifications and drawings, there is no water or sewer service at the **Contractor's** service and storage area or the work site.
- 5.16.9.2 The **Contractor** shall provide, install and maintain constant water and sewer service to meet the needs of the work and site facilities.
- 5.16.10 COMMUNICATIONS
- 5.16.10.1 Unless otherwise indicated in the specifications and drawings, there are no telephone or communications facilities at the **Contractor's** service and storage area or the work site.
- 5.16.10.2 The **Contractor** shall provide, install and maintain at all times uninterrupted communications service to meet the needs of the work and site facilities.
- 5.16.10.3 At all times while the work is in progress, the **Contractor** shall provide its Project Manager, Superintendent and any other employee in charge of work on each platform with a cellular telephone so that the Engineer can contact the **Contractor** whenever he so wishes.

5.16.10.4 The **Contractor** shall convey to the Engineer and the Cartier-Champlain centre of the Sûreté du Québec (Quebec Provincial Police) the telephone numbers where someone in authority can be reached in case of an emergency occurring outside working hours.

5.16.10.5 Before starting the work, the **Contractor** shall draw up and submit to the Engineer a list of those in charge at the site, with telephone numbers where they can be reached at any time.

5.16.10.6 The **Contractor** may not post any document or information pertaining to this Contract or any other of the **Owner's** contracts on any FTP site without first creating a subdirectory specific to the **Owner**, the user name and password for which will be accessible only to authorized representatives of the **Contractor** and the **Owner**.

#### 5.16.11 PROTECTION AND SECURITY

5.16.11.1 Unless otherwise indicated in the specifications and drawings, the **Owner** provides no protection or security guard service at the **Contractor's** service and storage area or the work site.

5.16.11.2 The **Owner** assumes no liability for any loss or damage, of whatever kind and however caused, to the **Contractor's** materials and equipment or to the personal effects of its employees.

#### 5.16.12 SITE ACCESS

5.16.12.1 The **Owner** exercises no supervision of comings and goings at the site.

5.16.12.2 The **Contractor** undertakes to establish and impose upon every person under its authority any regulations and directives for controlling comings and goings at the site needed to ensure the security of such persons and the public.

#### 5.16.13 DELIVERIES TO THE SITE

5.16.13.1 All carriers shall be accompanied by a representative of the **Contractor** when travelling on the access roads and work areas.

5.16.13.2 Further, the **Contractor** shall ensure that the dimensions of its materials, equipment or other supplies are such that they can be carried or moved freely on all access roads, thoroughfares, bridges and work areas.

5.16.13.3 Transportation of materials or equipment is subject to highway safety standards and regulations, in particular the provisions of the *Vehicle Load and Size Limits Regulation* (R.Q. c. C-24.2, r. 1.02) and the *Regulation respecting Special Permits* (R.Q. c. C-24.2, r. 3.2).

5.16.13.4 No storage of materials or equipment is tolerated on access roads, thoroughfares, cycle paths or sidewalks except with the Engineer's prior written authorization.

#### 5.16.14 TRANSPORTATION OF PERSONNEL

5.16.14.1 The use of private vehicles on access roads and work areas is forbidden without the **Owner's** written authorization. Private vehicles must be parked in the **Contractor's** service and storage area, to the extent that space permits and in accordance with the Engineer's directives, or elsewhere as directed.

5.16.14.2 The **Contractor** shall assume responsibility for transporting its employees between the service area and the work site. Accordingly, the **Contractor** shall submit to the **Owner**, prior to the beginning of the work on site, the method and means of transportation envisaged for moving its own and its subcontractors' employees.

#### 5.16.15 MAINTENANCE OF WORK AREAS

5.16.15.1 Unless otherwise indicated in the specifications and drawings, throughout the duration of the work the **Contractor** shall maintain work areas and accessory thoroughfares, access roads and passages so that vehicle, cycle and pedestrian traffic can flow freely and safely. Such maintenance shall also meet occupational safety and health requirements, including removal of snow from staging and removal of debris and waste.

#### 5.16.16 ROAD MAINTENANCE

5.16.16.1 Unless otherwise indicated in the specifications and drawings, the **Owner** is responsible for maintenance and snow removal on main thoroughfares and those adjacent to work areas. The **Contractor** is responsible for all maintenance and snow removal within work areas throughout the duration of the work.

#### 5.16.17 OBSTRUCTION OF ROADS

5.16.17.1 Unless otherwise indicated in the specifications and drawings, the **Contractor** shall so organize its work as to allow the free circulation of vehicle, cycle and pedestrian traffic at all times.

5.16.17.2 However, should the nature of the work make obstruction unavoidable, the **Contractor** shall provide to the **Owner** a request to that effect, specifying the reason, the logistics and the period during which traffic is likely to be partially or fully obstructed. Where applicable, the logistics and the obstruction period must meet the requirements of subsection 6.14, *Traffic Control and Temporary Traffic Control Devices*.

#### 5.16.18 DEMOBILIZATION

5.16.18.1 On completion of the work, the **Contractor** shall demobilize the work site, personnel, equipment and materials and restore the site and work areas to their original state or to a state acceptable to the **Owner**, cleaning them and performing any other operation deemed necessary by the **Owner**.

#### 5.16.19 LINES AND LEVELS

5.16.19.1 The **Contractor** shall set out on the work site, in the presence of the Engineer, the reference points (survey posts, geodetic markers, etc) indicated on the drawings and needed for performance of the work.

5.16.19.2 It is the **Contractor's** responsibility to coordinate the establishment of such reference points in a timely manner so as to avoid any delay in the execution of the work.

5.16.19.3 Throughout the duration of the work, the **Contractor** shall preserve these reference points. If they are disturbed or destroyed, for whatever reason, the **Contractor** shall re-set them at its own expense unless the **Owner** is at fault.

5.16.19.4 The **Contractor** shall take all necessary precautions to protect all permanent survey reference points, benchmarks and markers found on the site. If the work has disturbed or is at risk of disturbing such reference points, benchmarks and survey markers, the **Contractor** shall so advise the Engineer, and if they are rendered inoperative, the **Contractor** shall replace them at its own expense.

5.16.19.5 It is incumbent on the **Contractor** to establish the Contract lines and levels, at its own expense, based on the reference points set on site in the presence of the Engineer, and to provide the Engineer with all necessary and possible means for verifying the alignments and profiles of the work established by the **Contractor**. The **Contractor** shall preserve all reference points until the work has been fully completed to the Engineer's satisfaction.

5.16.19.6 The Engineer reserves the right to verify the lines and levels of the work at any time.

5.16.19.7 If the **Contractor** notices, in the course of the work, any anomaly in the reference points established, it shall so advise the Engineer immediately.

5.16.19.8 All work shall be done so that, on completion, the lines and levels shown on drawings, either original or as subsequently amended on the Engineer's instructions are perfectly met.

## 5.16.20 CONTRACTOR'S PRELIMINARY EXAMINATION

### 5.16.20.1 Examination of Contract documents

5.16.20.1.1 The **Contractor** shall examine the Contract documents and report to the Engineer without delay any error, contradiction or omission which it may detect therein. In the event of such discovery, work shall not be started until the corrected or missing information is received from the Engineer.

### 5.16.20.2 Site measurement

5.16.20.2.1 The **Contractor** shall verify all relevant dimensions by inspecting the site and taking measurements, accompanied by the Engineer, prior to any fabrication and before commencing work.

### 5.16.20.3 Examination of the work site

5.16.20.3.1 Before commencing work, the **Contractor** shall examine the existing roadway infrastructures which are the subject of the work and report to the Engineer in writing any apparent defect that may have a bearing on the work.

## 5.17 PRESERVATION OF BURIED INSTALLATION

### 5.17.1 BURIED INSTALLATIONS BELONGING TO THE OWNER

5.17.1.1 Before commencing work, the **Contractor** shall seek information from the **Owner** as to the existence and actual routing of any conduits, cables, ducts, piping or other buried installations (water supply, sewers, power, communications, etc) which are its property and which may be affected by the work, whether or not they appear on drawings.

5.17.1.2 It is incumbent on the **Contractor** to seek this information and these locations with sufficient lead time to avoid any delay in the work.

5.17.1.3 The **Contractor** shall take all necessary measures, at its own expense, to protect these objects against damage, loss or interruption of service.

5.17.1.4 The **Contractor** is responsible for any damage caused to such objects, and all repairs and replacements shall be made at the **Contractor's** expense and carried out to the **Owner's** satisfaction.

5.17.1.5 In all cases, the **Contractor** shall advise the **Owner** without delay of any damage thus caused or hazard created by or in connection with the work.

## 5.17.2 BURIED INSTALLATIONS BELONGING TO THIRD PARTIES

- 5.17.2.1 Prior to starting work, the **Contractor** shall seek information from the competent authorities (Hydro-Québec, Bell Canada, Vidéotron, Gaz Métro, municipality, etc.) as to the existence and actual routing of any conduits, cables, ducts, piping or other buried installations (power, communications, gas, water supply, sewers, etc.) which may be affected by the work, whether or not they appear on drawings.
- 5.17.2.2 It is incumbent on the **Contractor** to seek this information and these locations with sufficient lead time to avoid any delay in the work.
- 5.17.2.3 The **Contractor** shall take all necessary measures, at its own expense, to protect these installations against damage, loss or interruption of service.
- 5.17.2.4 Any damage, loss or interruption of service occasioned by or resulting from the **Contractor's** operations or failure to provide adequate protection shall be immediately repaired or replaced by the owner of the utility in question and charged to the **Contractor**.
- 5.17.2.5 In all cases, the **Contractor** shall advise the **Owner** without delay of any damage or loss or interruption of service thus caused or hazard created by or in connection with the work.

## 5.17.3 OBJECTS OR RELICS OF ARCHAEOLOGICAL SIGNIFICANCE

- 5.17.3.1 The **Contractor** shall, at its own expense, protect from damages any objects or relics of artistic, historical or archaeological significance which may be discovered at or around the work site.
- 5.17.3.2 Further, the **Contractor** shall advise the **Owner** of any such discovery, refrain from any work which may damage or destroy it and comply with all relevant legislation and regulations.

## 5.18 PRESERVATION OF OTHER INSTALLATIONS

### 5.18.1 GENERAL

- 5.18.1.1 The **Contractor** shall provide adequate protection at all times against damage, loss, falling materials and interruption of service for all existing works, property and facilities, such as roadways, curbs, sidewalks, fences, structures, gas, water, power and telephone lines; overhead power lines; drains, and other facilities and equipment located in or near the work area. The **Contractor** shall also protect all types of traffic (pedestrians, cyclists, vehicles and vessels) against falling materials, debris and equipment and any activities carried out by the **Contractor**.

- 5.18.1.2 In all cases, the **Contractor** shall obtain authorization from the relevant competent authority (municipality, Gaz Métro, Hydro-Québec, Bell Canada, Vidéotron, etc) before starting work near any installations or service.
- 5.18.1.3 Any damage caused to existing installations or losses resulting from the **Contractor's** activities or from its failure to provide adequate protection will be immediately repaired or replaced, as the case may be, by the competent authority concerned and charged to the **Contractor**.
- 5.18.2 PUBLIC UTILITIES COVENANTED WITH THE **OWNER**
- 5.18.2.1 Under the terms of permits issued by or agreements entered into with the **Owner**, various public utilities or other communications and transit systems may be affixed to the **Owner's** bridges, viaducts, tunnels and other roadway infrastructures. Specifically, these utilities and services consist of single or clustered conduits, cables, ducts, and walkways and other access facilities.
- 5.18.2.2 The **Contractor** shall check and validate with the competent authorities (Hydro-Québec, Bell Canada, Vidéotron, Gaz Métro, municipality, etc.) whether installations likely to be affected by the work are present.
- 5.18.2.3 In general, the **Contractor** shall coordinate all protective measures (and temporary support, where needed) for their respective services with the competent authorities concerned, as well as the location of manholes and walkways for access.
- 5.18.2.4 The **Contractor** shall contact the competent authorities to determine the exact nature and location of their respective services and the measures to be taken to protect them in the context of the Contract execution.
- 5.18.2.5 The **Contractor** shall submit to the owner of these facilities in writing the measures and precautions to be taken to ensure that none is damaged in the course of the work, specifically detailing the means and measures it intends to take to obviate falling debris that could affect these services in the course of the work.
- 5.18.2.6 A copy of these measures and precautions shall be delivered to the Engineer.
- 5.18.2.7 The **Contractor** shall obtain the authorization of each owner of such services before starting work over or near the services in question. Authorization shall also be obtained from the Engineer, but such authorization will in no way relieve the **Contractor** of its obligations and responsibilities under the Contract.
- 5.18.2.8 The **Contractor** shall take adequate measures at all times to protect facilities in or near the work area against damage, loss or interruption of service.

- 5.18.2.9 Any damage, loss or interruption of service caused by or resulting from the **Contractor's** activities or its failure to provide protection will be immediately repaired good or replaced by the owner of the facility in question at the **Contractor's** expense.
- 5.18.2.10 The **Contractor** shall, in all cases, advise the **Owner** of any damage, loss or interruption of service caused or hazard created by or in connection with the work.
- 5.18.2.11 The requirements of subsection 6.15 *Scaffolding, Platforms and Other Temporary Devices* apply to protective systems and temporary structures designed to meet the requirements of this article.

## **5.19 PRESERVATION OF EQUIPMENT NEEDED TO OPERATE THE OWNER'S ROADWAY INFRASTRUCTURES**

- 5.19.1 In the interests of safe and efficient operation, bridges, roads and other structures may be fitted with the following systems:
- 5.19.1.1 Lighting system;
  - 5.19.1.2 Surveillance cameras system;
  - 5.19.1.3 Lane control signal system;
  - 5.19.1.4 Variable message signs (VMS) system;
  - 5.19.1.5 Detection systems.
- 5.19.2 These structures are also fitted with highway signage and a storm drain system.
- 5.19.3 These devices are usually mounted on gantries, lamp posts or pillars or attached directly to the structure, deck, sidewalks or accessory components. In general, conduits are visible, but some of them or some sections of them may be buried. Some access facilities and platforms can also be found.
- 5.19.4 The **Contractor** shall personally verify the location and exact details of the equipment needed to operate the **Owner's** roadway infrastructures.
- 5.19.5 Unless otherwise indicated, this equipment shall be kept operationally ready at all times. The operational readiness of this equipment is an essential requirement for fulfilment of this Contract.
- 5.19.6 The nature and scope of the work related to this equipment depend directly on the exact nature of the work to be done by the **Contractor** and its construction means and methods. It is therefore the **Contractor's** entire responsibility to define and implement all measures needed to preserve the equipment.

## **5.20 PRESERVATION OF NEW OR EXISTING ROADWAY INFRASTRUCTURES AND EQUIPMENT**

- 5.20.1 The **Contractor** shall take all precautions to protect existing surfaces (paintwork, galvanized metal), equipment, electrical and mechanical panels and devices, supporting apparatus, moving parts, and all other materials, new or existing components or equipment against any damage or risk of contamination by agents in the vicinity and keep them perfectly clean and free of any dirt, sand, dust, soiling, concrete and other contaminants throughout the duration of the work.
- 5.20.2 The **Contractor** assumes responsibility for damage caused to the aforesaid materials, equipment or components resulting from its work and shall, without delay, clean them or make the necessary repairs without additional cost to the **Owner** and to the entire satisfaction of the Engineer.
- 5.20.3 The welding of temporary or permanent parts onto roadway infrastructures is prohibited except where explicitly provided for in the Contract. Where applicable, the **Contractor** shall advise the Engineer prior to welding work.

## **5.21 MATERIALS, LABOUR AND EQUIPMENT TO BE PROVIDED BY CONTRACTOR**

- 5.21.1 The **Contractor** shall provide all materials, labour and equipment needed for performance of the work, except where the Contract explicitly specifies the **Owner** as supplier.
- 5.21.2 The materials provided shall be new and shall meet the Contract specifications and the Engineer's instructions. They shall be perfectly made and placed according to the Contract.
- 5.21.3 The **Contractor** remains responsible for selecting the manufacturers of the products used and for the performance of those products once they are in place.
- 5.21.4 The Engineer may reject any material that failed to meet the technical requirements on similar previous projects.
- 5.21.5 Where the quality of materials is not specified, the materials shall be of quality consistent with what is used in the industry in the type of application in question and shall be rated acceptable by the Engineer.
- 5.21.6 Where the quality of work is not specified, the work shall conform to good practices.
- 5.21.7 Equipment and tools shall not leave any oil deposits on the concrete slabs. They shall also be equipped with special mufflers to reduce noise to an acceptable level. Compressors shall be equipped with filters to remove all traces of oil from compressed air.

## **5.22 MATERIALS, LABOUR AND EQUIPMENT PROVIDED BY THE OWNER**

5.22.1 The **Owner** will provide the **Contractor** with no materials, labour or equipment for performance of the work, except where the Contract explicitly specifies the **Owner** as supplier.

## **5.23 NON-CONTRACT GOODS AND SERVICES PROVIDED BY OWNER**

5.23.1 In the course of the work, the **Contractor** may need to purchase certain goods or call on the services of the **Owner's** employees, though the Contract makes no such provision.

5.23.2 Should this happen, the **Contractor** shall advise the Engineer at least forty-eight (48) hours before the need arises. This time frame is extended to seven (7) days if the **Contractor** expects to need the services of more than two of the **Owner's** employees.

5.23.3 Unless otherwise indicated, the **Contractor** shall pay the **Owner's** invoice covering the cost of the goods purchased or services rendered plus 15% for overhead within twenty-eight (28) days.

## **5.24 OCCUPANCY AND MAINTENANCE OF WORK AREAS**

5.24.1 The **Contractor** shall confine the deployment of its workers and equipment to the limits defined in legislation, ordinances, permits and the Contract documents.

5.24.2 The **Contractor** shall endeavour not to encumber beyond reason work areas on the **Owner's** bridges, roads and other roadway infrastructures.

5.24.3 The **Contractor** shall not cause or allow any part of a roadway infrastructure to bear a load or tress that might render it unsafe.

5.24.4 As soon as the **Contractor** has started work in an area, it becomes responsible for maintaining that area over its full extent, including any sidewalks and cycle paths, until completion of the work. Maintenance comprises all work needed to keep traffic lanes clear and allow free and safe flow of vehicle, pedestrian and cycle traffic.

5.24.5 Further, the **Contractor** is responsible at all times for cleaning and removal of debris resulting from the work.

5.24.6 The **Contractor** shall remove snow and ice from the work site and access roads without delay so that the work can proceed without interruption and in safety at all times.

## 5.25 SIMULTANEOUS WORKS BY THE OWNER OR OTHER CONTRACTORS

- 5.25.1 The **Owner** reserves the right at any time to perform or have performed any kind of work in the vicinity of the work under this Contract. As required, the **Contractor** shall perform its work so as not to impede that of the **Owner** or other contractors and shall cooperate with the **Owner** or other contractors as to ensure the collaborative completion of the whole Contract.
- 5.25.2 For this purpose, the **Contractor** shall enquire of the Engineer about the **Owner's** and other contractors work program and regularly ask the Engineer about the progress of this work so as to avoid co-ordination problems. If the parties are unable to reach agreement on the co-ordination of some work, the Engineer shall make a decision which is final.
- 5.25.3 In the bid price, the **Contractor** shall take into account occasional restrictions and impediments that may result from the construction work of other contractors or consultants and work of the **Owner's** personnel. Any claims by the **Contractor** stemming from changes in work sequence or methods because of these occasional restrictions and impediments will be deemed inadmissible.

## 5.26 NAVIGATION ON THE RIVER, SEAWAY, LA PRAIRIE BASIN AND LACHINE CANAL

- 5.26.1 Before undertaking any work on, above or close to the waterways, the **Contractor** shall advise the authorities concerned in order to have *Notices to Shipping* issued. For this purpose, the **Contractor** shall contact officials at the St. Lawrence Seaway Management Corporation (SLSMC) and Canadian Coast Guard (Fisheries and Oceans Canada).
- 5.26.2 Throughout the duration of the Contract, navigation shall be maintained in the St. Lawrence Seaway and the St. Lawrence River. The **Contractor** shall obtain the required authorizations from the authorities concerned before carrying out work that might affect navigation or safety on these waterways.
- 5.26.3 The work under this Contract shall not impede, delay or interrupt navigation in any way. This requirement is a vital aspect of the Contract.
- 5.26.4 Should the **Contractor** want to perform work in the Seaway from a floating facility, it shall comply with the *Seaway Handbook* by the St Lawrence Seaway Management Corporation (SLSMC), available at <http://www.greatlakes-seaway.com/en/commercial/seaway-handbook/index.html>, including the *Seaway Practices and Procedures*, as well as all updates that may be published from time to time. The **Contractor** shall also comply with all other measures deemed necessary by the SLSMC.

- 5.26.5 Before moving a floating facility on the navigation channel, the **Contractor** shall obtain approval from the SLSMC Ship Traffic Controller. Furthermore, the **Contractor** shall immediately inform the SLSMC Controller when it begins and completes the move.
- 5.26.6 The **Contractor** shall maintain radio communication with the *Seaway Station* as agreed upon with the station. The **Contractor** shall comply at all times with navigation instructions from the Ship Traffic Controller.
- 5.26.7 The **Owner** cannot be held liable for any damage to personnel, to materials or equipment of the **Contractor** and stemming from work in the channel.
- 5.26.8 Pleasure boating shall also be maintained in the La Prairie Basin for the duration of the Contract. The **Contractor** shall not impede pleasure boating traffic and shall adjust access and safety devices accordingly.
- 5.26.9 The **Contractor** shall inform the Montreal Port Authority (MPA) Control Station by telephone at 514-288-7022 of any event that might have an impact on MPA operations. The station is open twenty-four (24) hours a day, seven (7) days a week.
- 5.26.10 The **Contractor** shall abide by all federal, provincial and other acts and regulations applicable governing navigation on the St. Lawrence River and Seaway and the Lachine Canal, including, but not limited to, the *Navigable Waters Protection Act*, the *2001 Canada Shipping Act* and all regulations adopted under these Acts.
- 5.26.11 Transport Canada, the Canadian Coast Guard, the St. Lawrence Seaway Management Corporation, Parks Canada and the Montreal Port Authority are among the authorities responsible for enforcing these legislations.
- 5.26.12 The measures taken by the **Contractor** to comply with navigation protection requirements will depend directly on the construction means and methods used. The **Contractor** is therefore fully responsible for seeking information from the competent authorities as to the exact nature and scope of measures to be taken in light of construction means and methods and for complying with these measures. Accordingly, the **Contractor** shall in particular:
- 5.26.12.1 Notify the competent authorities of the nature of the work and construction means and methods to be used;
- 5.26.12.2 Agree with the competent authorities on measures needed to protect navigation;
- 5.26.12.3 Comply at all times with measures agreed upon with the competent authorities;
- 5.26.12.4 Obtain all required authorizations.

5.26.13 Protection of navigation covers not just anything that may actually impede, delay or interrupt navigation, but also anything that may compromise the safety of navigation. Protection extends to both pleasure craft and commercial traffic.

5.26.14 Without limiting the above requirements, the **Contractor** shall:

5.26.14.1 Install all devices needed to ensure that no debris or materials fall into the water;

5.26.14.2 Install such devices so as not to interfere with navigation;

5.26.14.3 Lay out and enforce a safety perimeter on the water by means of buoys, markers or other navigational aids, or, where safe navigation requires, post signallers with boats;

5.26.14.4 If work is performed at night, lights must be installed at the extremities of work barges or other floating equipment used for the work;

5.26.14.5 Co-ordinate all work above the water with the competent authorities and obtain the required authorizations;

5.26.14.6 Remove any debris or material resulting from its work from the river bed or the surface of the water;

5.26.14.7 If marine equipment is to be used, obtain all required authorizations from the competent authorities and use the equipment according to their instructions.

## **5.27 POSTERS, ADVERTISING AND REQUESTS FOR INFORMATION**

5.27.1 Except for identification notices required by law, the **Contractor** shall not post or allow to be posted any sign, notice or poster on the work site without obtaining prior written approval from the **Owner**.

5.27.2 Any request for information about the site or the work from the print or electronic media or members of the public shall be forwarded to the **Owner**.

## **5.28 DOCUMENTS AND SAMPLES SUBMITTAL**

### **5.28.1 GENERAL PROCEDURES**

5.28.1.1 The **Contractor** shall prepare and submit for the Engineer's approval the *Contractor's drawings* required under the Contract and those that may be reasonably requested by the Engineer.

- 5.28.1.2 The term “*Contractor’s drawings*” refers to drawings of scaffolding, enclosures, walkways and other access devices, drawings of lane closures, procedures for controlling loads on platforms, signage and signalling drawings, lifting drawings, diagrams, illustrations, tables, performance charts, shop drawings, technical data sheets, brochures, samples and other documents required to perform the work, prepared on the basis of the drawings, specifications and site conditions.
- 5.28.1.3 The **Contractor** shall verify all of the *Contractor’s drawings* before submitting them to the Engineer. Following the verification, the **Contractor** is expected to have determined and verified all site measurements, construction site conditions (or to have undertaken to do so), requirements related to equipment, catalogue numbers and other similar data, and to have ensured consistency of the *Contractor’s drawings* with the work requirements and Contract documents. A qualified official shall confirm the verification by stamping, dating and signing each of the *Contractor’s drawings*. Upon submission of the *Contractor’s drawings* to the Engineer, the **Contractor** shall inform him of any deviation from the Contract documents.
- 5.28.1.4 The *Contractor’s drawings* shall be submitted to the Engineer in a logical order and with sufficient lead time so as not to delay the work. The **Contractor** and Engineer shall, at the request of either, jointly prepare a schedule establishing dates of submission and return of the *Contractor’s drawings*. Unless otherwise agreed upon, the **Contractor** shall allow fourteen (14) days for the Engineer’s review.
- 5.28.1.5 The **Contractor** is responsible for submitting any *Contractor’s drawings* requiring approval from another competent or public authority.
- 5.28.1.6 The *Contractor’s drawings* must be prepared in the format specified or requested by the Engineer and submitted in nine (9) copies. The Engineer will examine the drawings and return them by the prescribed or agreed deadline. The examination is limited to ensuring consistency of the *Contractor’s drawings* with the design intent and general layout of represented elements. The examination does not release the **Contractor** from its responsibility for errors or omissions in the *Contractor’s drawings* unless the Engineer expressly indicates on the *Contractor’s drawings* that he or she agrees to such a deviation.
- 5.28.1.7 The **Contractor** shall make any amendments to the *Contractor’s drawings* required by the Engineer if the Engineer deems the drawings do not comply with the Contract documents, and the **Contractor** shall submit them again unless the Engineer decides otherwise. Upon submission of the revised *Contractor’s drawings*, the **Contractor** shall inform the Engineer in writing of any amendments made other than those requested by the Engineer.
- 5.28.1.8 Amendments required by the Engineer should not change the Contract price. If the **Contractor** thinks contrary, it shall notify the Engineer in writing before commencing the work.

5.28.1.9 Work for which the Contract documents or the Engineer require an examination of the *Contractor's drawings* by the Engineer shall not be commenced before the Engineer gives authorization. Work performed prior to receiving authorization is at the risk of the **Contractor**, who shall make all rectifications required by the Engineer, at its own expense.

5.28.1.10 The **Contractor** shall keep on site a copy of each of the *Contractor's drawings* bearing the Engineer's examination stamp.

5.28.1.11 The "Subject" line of any electronic document sent between interveners to this Contract shall read as follows:

5.28.1.11.1 Contract Number – type of document – date of update (example: 61000-schedule-080115)

## 5.28.2 PROCEDURES SPECIFIC TO DRAWINGS

5.28.2.1 The **Contractor** shall prepare all manufacturing, assembly, installation and working drawings as well as lists of materials required for the work, based on the specifications, drawings and site conditions.

5.28.2.2 The drawings shall indicate which materials are to be used, their dimensions, location, tolerances and other information. They shall illustrate the construction, fastening and anchoring methods to be used, layout diagrams, connection details, relevant explanatory notes and any other information deemed necessary for performance of the work. Where required, the **Contractor** shall also submit design notes and stress diagrams.

5.28.2.3 The drawings shall be prepared using the **Owner's** standard drawing frame. The title block of the drawings shall indicate the Contract number and a reference bar scale. The first drawing in a series shall provide a complete list of titles and numbers of drawings in the series.

5.28.2.4 Unless otherwise indicated, the drawings shall be prepared by hand or using AutoCAD (most recent version on the market) on an IBM (or compatible) personal computer and according to the **Owner's** standardized procedures described in the *Computer Assisted Drawing Preparation Procedures*, which the Engineer will provide for the **Contractor** on request. Drawings not prepared according to these standardized procedures will be returned to the **Contractor** for correction. Drawings shall be produced on D size paper, 22" x 34" (559 mm by 864 mm).

5.28.2.5 Following the Engineer's examination of the drawings, the **Contractor** shall provide the Engineer with a reproducible copy of the examined drawings, including design notes and stress diagrams as required.

### 5.28.3 PROCEDURES SPECIFIC TO MATERIAL SAMPLES

- 5.28.3.1 The **Contractor** shall submit to the Engineer samples of materials required in the specifications.
- 5.28.3.2 Three of each sample shall be submitted, each bearing a label indicating the material, its origin, its destination and its reference in the specifications.
- 5.28.3.3 When the Engineer is to choose the colour, pattern or texture of a material, the **Contractor** shall provide him with a complete range of samples.
- 5.28.3.4 Examined and accepted material samples become the reference standard, on the basis of which the quality of materials and work will be evaluated.

### 5.28.4 PROCEDURES SPECIFIC TO MOCK-UPS

- 5.28.4.1 The **Contractor** shall build mock-ups required by the specifications.
- 5.28.4.2 Mock-ups shall be built at the various locations indicated in the specifications or agreed upon between the **Contractor** and Engineer.
- 5.28.4.3 Each section of the specifications indicates where mock-ups are required, whether the mock-ups can be part of the final work and, if applicable, when they are to be removed.
- 5.28.4.4 Examined and accepted mock-ups become the reference standard, on the basis of which the quality of materials and work will be evaluated.

## 5.29 SITE DOCUMENTS

- 5.29.1 The **Contractor** shall keep on site an updated copy of the Contract documents and meeting handouts, reports and minutes. These pieces and documents must be in good condition, and the **Owner** and Engineer must be able to consult them at any time.

## 5.30 CLOSEOUT DOCUMENTS AND ELEMENTS TO SUBMIT

### 5.30.1 ASSEMBLY, OPERATING, HANDLING, MAINTENANCE AND OTHER MANUALS

- 5.30.1.1 When the **Contractor** delivers all or part of the work under the Contract to the **Owner** for the purpose of issuance of the Interim Certificate of Completion, it must remit to the **Owner** all assembly, operating, handling and maintenance manuals required under the Contract or deemed necessary by the **Owner** to operate and maintain deliverables.

- 5.30.1.2 One copy of the first version of all documents shall be remitted to the **Owner**. Following review and acceptance of the first version by the **Owner**, the **Contractor** shall produce the final version and remit three (3) copies to the **Owner**.
- 5.30.1.3 Manuals shall consist of loose 8½" x 11" sheets in a three-ring binder with a rigid vinyl cover. These manuals concern specifically all equipment sold by suppliers to the **Contractor** and installed by the **Contractor**.
- 5.30.1.4 Each manual remitted to the **Owner** must be drafted in English, French or both. Upon delivery of equipment to the site, the **Contractor** shall obtain assembly, operating, handling and maintenance manuals from the manufacturer.
- 5.30.1.5 Manuals shall be divided in sections, each clearly identified by a tab. The **Contractor** shall prepare a complete manual for each piece of equipment or set of identical parts.
- 5.30.1.6 The contents of each manual shall be adjusted in keeping with the work, installations and equipment specified in the *Special Technical Conditions*. However, the **Contractor** shall comply with the conditions of this article with regard to the sections, principle and format of manuals.

## 5.31 INTELLECTUAL PROPERTY

### 5.31.1 AUTHORIZATION

- 5.31.1.1 The **Contractor** shall, at its own expense, obtain all necessary authorizations to use any materials, equipment and processes that are patented or subject to patent or licence in the performance of the work and the maintenance and repair of roadway infrastructures under this Contract.

### 5.31.2 OWNERSHIP OF TECHNICAL DOCUMENTS, PROTOTYPES AND INVENTIONS

- 5.31.2.1 Technical documents and prototypes produced by the **Contractor** for performance of the work under the Contract are and remain the property of the **Owner**. The **Contractor** shall give the Engineer a full account of such documents and prototypes in a manner prescribed by the Engineer.
- 5.31.2.2 Technical documentation shall contain the following copyright notice:

“©THE JACQUES CARTIER AND CHAMPLAIN BRIDGES INCORPORATED 20\_\_”

- 5.31.2.3 Technical information and inventions conceived or developed or first actually reduced to practice in performing the work under the Contract shall be the property of the **Owner**. The **Contractor** shall have no rights in and to the same. The **Contractor** shall not divulge or use such technical information and inventions, other than in performing the work under the Contract, and shall not sell other than to the **Owner** any articles or things embodying such technical information and inventions.
- 5.31.2.4 The term “technical documents” refers to drawings, plans, reports, photographs, specifications, software, surveys, calculations and other data, information and documents collected, assembled, drafted or developed, including computer printouts.
- 5.31.2.5 The term “invention” means any development, process, machine, fabrication or compound material, or any refinement of any of these.
- 5.31.2.6 The term “prototype” means any model, mock-up, sample or first copy.

## 5.32 SUBSTITUTION

- 5.32.1 Unless otherwise provided in the Contract, the **Contractor** may use a substitute for a material specified in the Contract by a trademark, provided the substitution request is submitted after the Contract is awarded and is authorized in writing by the Engineer before being used.
- 5.32.2 However, the Engineer will consider substitution requests only if:
- 5.32.2.1 The material specified in the Contract is not available, or;
- 5.32.2.2 The date of delivery of the material in the Contract, ordered within a reasonable timeframe, is unduly delaying the work, or;
- 5.32.2.3 The use of products proposed as substitutes reduces the price of the Contract, and the percentage of Canadian content is equal to or higher than that of materials specified in the Contract.
- 5.32.3 The Engineer will require one copy of documents indicating the following information with respect to substitution requests:
- 5.32.3.1 Reasons for the substitution request;
- 5.32.3.2 Detailed technical description;
- 5.32.3.3 Manufacturer’s name;
- 5.32.3.4 Trade name;
- 5.32.3.5 Reference to specifications and drawings;

- 5.32.3.6 Compliance with relevant standards;
  - 5.32.3.7 Technical advantages;
  - 5.32.3.8 Price difference, including the price of the specified material and supplier name and the price of the proposed material and supplier name;
  - 5.32.3.9 Impact on the work schedule;
  - 5.32.3.10 Applicable test and trial results;
  - 5.32.3.11 Other impact on the work as a whole.
- 5.32.4 The Engineer will accept or refuse substitutions within a timeframe that is contingent on information to be obtained and on tests, trials and verifications required to appreciate the similarity of the material, taking into account its nature, complexity and newness. Approval of a substitute is provided in writing.
- 5.32.5 The **Contractor** is responsible for submitting substitution requests to the Engineer for approval in a timely manner so as to avoid delays in the execution of the work.
- 5.32.6 If the Engineer grants a substitution request by the **Contractor** and the substitute material costs less than what is indicated in the specifications, the **Contractor** shall credit the **Owner** accordingly. The proposed credit shall be specified upon submission of the substitution request.
- 5.32.7 If the Engineer grants a substitution request by the **Contractor**, the **Contractor** must pay all costs and take full responsibility for any impact stemming from the substitution on other work under the Contract.
- 5.32.8 If a substitution request submitted by the **Contractor** is denied by the Engineer, the **Contractor** is solely responsible for all costs resulting from delays and other inconveniences caused by the refusal.

### 5.33 WORK SCHEDULE

#### 5.33.1 DETAILED WORK SCHEDULE

- 5.33.1.1 The **Contractor** shall, within seven (7) days after the Contract is awarded, submit to the Engineer for review a detailed work schedule showing that the work will be carried out within the Contract timeframe.
- 5.33.1.2 The review by the Engineer of this schedule or any subsequent amendments thereto shall not create any obligations or responsibility for the **Owner** to the **Contractor** and in no way reduces the **Contractor**'s obligations and responsibilities.

### 5.33.2 CONTENT AND FORM OF DETAILED WORK SCHEDULE

- 5.33.2.1 The purpose of the schedule is to promote sound planning well in advance of the site work and show the **Owner** that the work is being planned in a logical order within the Contract timeframe. A work schedule sample is presented at Appendix 5-I *Sample work schedule*.
- 5.33.2.2 The schedule shall be sufficiently detailed to clearly identify the anticipated sequence of the activities required to carry out the work within the Contract timeframe by indicating their start and end dates and their interdependence. Moreover, the **Contractor** must identify activities that are part of the Contract's critical path.
- 5.33.2.3 The detailed work schedule is presented in the form of a diagram indicating the **Contractor's** plan and the sequence of work. It is to be submitted in a reproducible format and also on computer medium at the Engineer's request. The diagram shall be accompanied by explanatory documents giving a detailed description of the labour, materials, equipment, means and methods the **Contractor** plans to use to perform the work and attain the planned rate of production.
- 5.33.2.4 The levels of detail of the activities in the diagram and the written explanations shall enable the Engineer to assess the practicability of the work schedule submitted. In addition to on-site installation and construction activities, the work schedule shall identify design, supply, fabrication and transportation activities.
- 5.33.2.5 The schedule shall be prepared and updated using the 2000 or a later version of MS Project for Windows. The schedule and all updates shall be submitted to the **Owner** in the form of a computer copy sent out by e-mail and a duly signed hard copy.
- 5.33.2.6 For the detailed work schedule to be deemed complete by the Engineer, the **Contractor** must submit revisions and/or additional information requested by the Engineer if the Engineer determines that such additions are needed to ensure that the detailed work schedule meets the requirements of this article.

### 5.33.3 COMPLIANCE WITH DETAILED WORK SCHEDULE

- 5.33.3.1 The **Contractor** shall comply with the detailed work schedule reviewed by the Engineer.

## 5.34 CONTRACT HOLDBACK

5.34.1 Notwithstanding any provisions to the contrary set out in TP4.7 to TP4.12 of Section 7 *Terms of Payment* or elsewhere specified in the Contract, the following conditions shall apply:

5.34.1.1 Issuance by the **Owner** of the Interim Certificate of Completion does not result in the immediate and full application of TP4.7, TP4.8 and TP4.9. Application of these sections will not result in the release of the 5% or 10% holdback, as the case may be, on payments made against the price of the work covered by the Interim Certificate of Completion. Instead, the **Owner** will pay the **Contractor** all amounts payable under TP4.7, TP4.8 and TP4.9, from which the **Owner** will nevertheless hold back an amount equivalent to 2.5% of the price of the work accepted in connection with the Interim Certificate of Completion (including all applicable taxes), so as to ensure that the **Contractor** fulfills its obligations pursuant to GC32 *Warranty and Rectification of Defects in Work* and GC33 *Non-Compliance by the Contractor* of Section 8 *General Conditions*.

5.34.1.2 Issuance by the **Owner** of the Final Certificate of Completion for the work will not result in the full application of TP4.10, TP4.11 and TP4.12. Instead, the **Owner** will pay the **Contractor** all amounts payable under TP4.10, TP4.11 and TP4.12 (with the required adjustments), from which the **Owner** will nevertheless hold back the amount held back under paragraph 5.34.1.1 and an amount equivalent to 2.5% of the price of the work which had to be rectified or completed by the **Contractor** according to the Interim Certificate of Completion (including all applicable taxes), so as to ensure that the **Contractor** fulfills its obligations under GC32 *Warranty and Rectification of Defects in Work* and GC33 *Non-Compliance by the Contractor* of Section 8 *General Conditions*.

5.34.1.3 The **Owner** will release to the **Contractor** all amounts held back pursuant to paragraphs 5.34.1.1 and 5.34.1.2 above, less any amount that the **Contractor** might owe to the **Owner** for any reason whatsoever, including any amount that the **Contractor** might owe to the **Owner** pursuant to GC32 *Warranty and Rectification of Defects in Work* and GC33 *Non-Compliance by the Contractor* of Section 8 *General Conditions*, within sixty (60) days of expiry of the warranty period applicable to the work rectified or completed by the **Contractor** according to the Interim Certificate of Completion and covered by the Final Certificate of Completion (ref.: GC32.1.2).

5.34.1.4 The **Contractor** shall not be entitled to receive any interest on amounts held back under paragraphs 5.34.1.1 and 5.34.1.2 above. The **Contractor** shall therefore include in its bid the costs resulting from application of these paragraphs.

## 5.35 DAMAGES

5.35.1 PURPOSE AND SCOPE

- 5.35.1.1 Articles 5.35.1 to 5.35.12 specify damages owing and payable in the event of failure by the **Contractor** to comply with the provisions of this Contract relative to the date of completion of the work and, if applicable, the closing of traffic lanes, temporary signage and signalling, lifting loads, work planning, Contract administration, specific environmental protection requirements, temporary devices and requirements related to jacking operations.
- 5.35.1.2 For the purposes of this article, a work day (or working day) is defined as any day except those specified below:
- 5.35.1.2.1 A Sunday;
- 5.35.1.2.2 A work day determined by the Engineer on which, due to unfavourable weather conditions or a situation stemming directly therefrom, the **Contractor** is unable to perform an instrumental activity; pursuant to this article, this shall be a work day on which the **Contractor** is unable to perform its work with at least 60% of the labour and equipment normally engaged in the performance of said instrumental activity, during a period of at least five (5) hours;
- 5.35.1.2.3 A work day on which the **Contractor** is unable to perform an instrumental activity determined by the Engineer for one of the following reasons:
- 5.35.1.2.3.1 A breach of Contract or impediment by the **Owner**, by any other contractor of the **Owner** or by any of their employees;
- 5.35.1.2.3.2 Failure by the **Owner** to deliver materials;
- 5.35.1.2.3.3 Any other reasons beyond the control of the **Contractor** and proved as such to the Engineer's satisfaction.
- 5.35.1.3 A work week is defined as a minimum of six (6) days per week.
- 5.35.1.4 An instrumental activity is defined as any activity that, if delayed, also delays completion of the work in this Contract.

## 5.35.2 COMPLETION DATES

- 5.35.2.1 The **Contractor** shall carry out the work in this Contract without wasting time, until it is completed.
- 5.35.2.2 If the completion dates prescribed in this Contract do not allow the **Contractor** sufficient time to complete the work by working during the normal number of hours per day or per week, the **Contractor** shall add, for the duration of the Contract, the shifts and workers deemed necessary by the **Contractor** to complete the work according to the specified schedule, at no extra cost to the **Owner**.

5.35.2.3 The prices tendered for the various payment items shall include potential extra costs stemming from the above provisions.

5.35.2.4 For the purposes of calculating damages as defined in Article 5.35.3 *Damages for Failing to Meet Project Timeframes*, accounting of work days will commence on the day after the date of expiry of the Contract schedule calculated from the date of Notice of Contract Award or the day after the date prescribed in the *Special Administrative Conditions*. Work days as from the day after the date of expiry of the Contract schedule or the date prescribed in the *Special Administrative Conditions* mentioned above will be counted up to the date of acceptance of the work in question by the **Owner**, by which date all work in question, excluding demobilization, shall be completed in all respects.

### 5.35.3 DAMAGES FOR FAILING TO MEET PROJECT TIMEFRAMES

5.35.3.1 The parties to this Contract agree that if the work is not completed by the prescribed completion dates, the **Owner** shall have suffered a prejudice.

5.35.3.2 Notwithstanding the *General Conditions* of the Contract, since it is, and will be, extremely difficult to evaluate and determine the precise scope of the prejudice suffered by the **Owner** resulting from such delay, the parties agree that the **Contractor** shall remit to the **Owner**, as liquidated damages, the sum indicated in the *Special Administrative Conditions* for each working day beyond the prescribed completion dates.

5.35.3.3 Notwithstanding the *General Conditions* of the Contract, in addition to the requirements specified in paragraphs 5.35.3.1 and 5.35.3.2, the parties to the Contract agree that for any and all rectification of work deficiencies during the guarantee period as specified in clause GC 32 *Warranty and Rectification of Defects in Work*, of the *General Conditions* of this Contract (Section 8), the **Contractor** shall remit the sum indicated in the *Special Administrative Conditions* per working day exceeding the time limit set by the Engineer for the correction of any deficiency, so as to compensate the **Owner**, who incurs expenses whenever such corrections are made.

5.35.3.4 It is agreed that the amounts indicated in paragraphs 5.35.3.2 and 5.35.3.3 are estimates of the actual prejudice suffered by the **Owner** beyond the prescribed completion dates.

### 5.35.4 WORKDAYS BEYOND SCHEDULE

5.35.4.1 The number of working days beyond the completion dates prescribed in this Contract shall be recorded in site meeting minutes.

5.35.4.2 The **Contractor** shall have seven (7) days to challenge, in writing, the accuracy of information in site meeting minutes, failing which the **Contractor** shall be assumed to be in agreement with recorded information.

#### 5.35.5 DAMAGES ARISING FROM CLOSURE OF VEHICULAR TRAFFIC LANES

5.35.5.1 In addition to the above damages, the parties to the Contract agree that, if the bridge traffic lanes are not opened to traffic as required by the specifications or are closed without authorization, the **Owner** will have suffered a prejudice.

5.35.5.2 Notwithstanding the *General Conditions* of the Contract, since it is, and will be, extremely difficult to evaluate and determine the precise scope of the prejudice owing to such failure by the **Contractor**, the parties hereby agree that the **Contractor** shall remit to the **Owner**, as liquidated damages, the sum of \$3,500 for each traffic lane and for each ten (10) minute-period during which one or more traffic lanes remains unopened or obstructed during the hours specified in the subsection 6.14 *Traffic Control and Temporary Traffic Control Devices* of these specifications. As an example, damages will be calculated as follows:

5.35.5.2.1 One (1) lane closed for 1 to 10 minutes: \$3,500;

5.35.5.2.2 One (1) lane closed for 11 to 20 minutes: \$7,000;

5.35.5.2.3 Two (2) lanes closed for 1 to 10 minutes: \$7,000.

5.35.5.3 If the **Contractor** blocks traffic for a period of whatever duration without being in possession of a duly approved *Lane closure request* or blocks traffic outside the hours permitted by the duly approved request, the parties hereby agree that the **Contractor** shall remit to the **Owner**, as liquidated damages, in addition to the damages prescribed in paragraph 5.35.5.2, the sum of three thousand five hundred dollars (\$3,500) for each deviation.

#### 5.35.6 DAMAGES FOR FAILURE TO COMPLY WITH SIGNAGE AND SIGNALLING REQUIREMENTS

5.35.6.1 In addition to the above damages, the parties to the Contract agree that if the **Contractor** fails to fulfil the requirements of the specifications relative to temporary road signage and signalling, specifically the traffic control and signage measures described in the *Control of Vehicular, Pedestrian and Cycling Traffic* articles of Section 4 and subsection 6.14 *Traffic Control and Temporary Traffic Control Devices* of these specifications, the **Owner** will have suffered a prejudice.

5.35.6.2 Notwithstanding the *General Conditions* of the Contract, and in addition to the damages described above, since it is extremely difficult to determine the precise scope of the prejudice owing to such failure by the **Contractor**, the parties hereby agree that the **Contractor** shall remit to the **Owner**, as liquidated damages, the sum of five hundred and fifty dollars (\$550) for each deviation from these requirements and for each additional calendar day during which the deviation persists.

5.35.7 DAMAGES FOR FAILURE TO COMPLY WITH LOAD LIFTING REQUIREMENTS

5.35.7.1 As stipulated in paragraph 6.12.3.1.6, for any failure by the **Contractor** to comply with paragraph 6.12.3.1.2, the **Contractor** shall remit to the **Owner**, as liquidated damages, the sum of one thousand dollars (\$1,000) for each deviation.

5.35.8 DAMAGES FOR FAILURE TO COMPLY WITH REQUIREMENTS RELATED TO UPDATING OF THE WORK SCHEDULE AND WEEKLY AND DAILY PLANNING OF WORK

5.35.8.1 As stipulated in paragraph 5.14.10, for any failure by the **Contractor** to comply with paragraph 5.14.8.3 and/or 5.14.9, the **Contractor** shall remit to the **Owner**, as liquidated damages, the sum of two hundred dollars (\$200) for each day late. Damages are also payable if the Engineer deems the documents provided by the **Contractor** to be incomplete or unrepresentative of the existing situation or unrealistic with respect to projections, for each deviation and for each additional day of failure to comply.

5.35.9 DAMAGES FOR FAILURE TO COMPLY WITH REQUIREMENTS RELATED TO CONTRACT ADMINISTRATION

5.35.9.1 As stipulated in paragraph 5.7.11, for any failure to comply with paragraph 5.7.9 and/or 5.7.10, the **Contractor** shall remit to the **Owner**, as liquidated damages, the sum of seven hundred fifty dollars (\$750) for each deviation and for each additional day of failure to comply, and for each Project Manager and Superintendent function.

5.35.10 DAMAGES FOR FAILURE TO COMPLY WITH SPECIFIC ENVIRONMENTAL PROTECTION REQUIREMENTS

5.35.10.1 As stipulated in paragraph 6.13.8.7 and paragraph 6.13.10.6, for any failure to comply with paragraph 6.13.8.3 and/or paragraph 6.13.10.4, the **Contractor** shall remit to the **Owner**, as liquidated damages, the sum of five hundred dollars (\$500) for each deviation and for each additional day of failure to comply.

5.35.11 DAMAGES FOR FAILURE TO COMPLY WITH REQUIREMENTS RELATED TO TEMPORARY DEVICES

5.35.11.1 As stipulated in paragraph 6.15.3.1.26, for any failure to comply with paragraph 6.15.3.1.23, the **Contractor** shall remit to the **Owner**, as liquidated damages, the sum of five hundred dollars (\$500) for each deviation and for each additional day of failure to comply.

5.35.12 DAMAGES FOR FAILURE TO COMPLY WITH REQUIREMENTS RELATED TO JACKING OPERATIONS

5.35.12.1 As stipulated in paragraph 6.61.6.1.11, for any failure to comply with any of paragraphs 6.61.6.1.7 to 6.61.6.1.10, the **Contractor** shall remit to the **Owner**, as liquidated damages, the sum of five thousand dollars (\$5,000) for each deviation.

5.35.13 DAMAGES FOR FAILURE TO COMPLY WITH REQUIREMENTS RELATED TO THE ENGINEER'S OFFICE

5.35.13.1 As stipulated in paragraph 5.16.6.10, for any failure of the **Contractor** to comply with the requirements in any of the paragraphs of subsection 5.16 *Engineer's Office*, the **Contractor** shall remit to the **Owner**, as liquidated damages, the sum of two hundred dollars (\$200) for each deviation and for each additional day of failure to comply.

## 5.36 CONTRACTOR'S INSURANCE

5.36.1 Within seven (7) days of the Notice of Contract Award or before any site work, whichever is earlier, the **Contractor** shall obtain the following insurance coverage, detailed in Section 11 *Insurance Conditions* of these specifications and submit proof to the **Owner**:

5.36.1.1 Comprehensive General Liability (CGL) – Part II, which shall provide coverage of not less than \$5,000,000 per event for death, bodily injury and material damage.

5.36.1.2 Builder's Risk – Installation Floater – All Risks – Part III for the amount of the Contract value.

5.36.1.3 Automobile Liability – Part IV, which shall provide coverage of not less than \$2,000,000 per event for death, bodily injury and material damage.

5.36.1.4 If the **Contractor** intends to use a barge, a towboat, a pleasure craft or any other floating facility, the **Contractor** shall supply a Marine Protection & Indemnity Insurance – Part V, which shall provide the following minimum coverage per event for death, bodily injury and material damage:

5.36.1.4.1 10 000 000 \$ per event if the **Contractor** intends to perform any kind of work on the St Lawrence Seaway or River between piers 23 and 25 of Jacques Cartier Bridge. Notwithstanding the *Insurance Conditions*, if the **Contractor** simply navigates in the channel or within the limits of the Port of Montreal, coverage of not less than \$5,000,000 per event is sufficient.

5.36.1.4.2 Notwithstanding the *Insurance Conditions*, coverage of \$5,000,000 per event in all other cases.

5.36.1.5 Work Accidents – Part VII: the **Contractor** shall provide proof of compliance with all requirements of the *Quebec Act Respecting Industrial Accidents and Occupational Diseases*.

5.36.2 Without restricting the scope of the *Insurance Conditions*, the **Contractor** shall note that, in accordance with Article GIC 4 of same, the Comprehensive General Liability, Builder's Risk and Marine Insurance shall insure The Jacques Cartier and Champlain Bridges Incorporated, The Federal Bridge Corporation Limited, The St. Lawrence Seaway Management Corporation and Her Majesty in right of Canada as "Additional Insured".

5.36.3 The **Contractor** is responsible for ensuring that engineers/designers hired by the **Contractor** for all drawings, attestations and other professional services required herein

obtain and maintain professional liability insurance coverage for a minimum of \$1,000,000 per claim and annual aggregate, in accordance with the *Insurance Conditions*.

- 5.36.3.1 Notwithstanding the *Insurance Conditions*, seven (7) days prior to submitting the said drawings, attestations or other to the Engineer, the **Contractor** shall provide the **Owner** with a certificate of insurance attesting that the professional liability insurance of each engineer/designer involved as required above is in force.

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**END OF SECTION**

**APPENDIX 5-I**  
**SAMPLE WORK SCHEDULE**