JOHN A. OSBORNE AIRPORT
TENDER DOCUMENTS

RUNWAY RESURFACING

GOVERNMENT OF MONTSERRAT

Issued by

Government of Montserrat
P.O. Box 292, Brades
MSR 1110, Montserrat, West Indies

Tel: 1 664-491-2356/3057/2777

Prepared by

Avia NG Inc.
309-16th Ave NW, Suite 220
Calgary, Alberta
T2M 0H9 Canada

Mr. Greg Cuneo
Senior Project Manager, Principal
Tel: 1 587-318-3308
Email: greg.cuneo@aviang.ca

July 2020
## Procurement Details

This is an indicative timetable and may be subject to change.

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| ITT for John. A. Osborne Airport Resurfacing Project.                            | Date Published on Government of Montserrat Website  
Tuesday 21st July 2020                                                                                                               |
| Access to the ITT Suite of Documents                                             | Hard copies can be downloaded from the Government of Montserrat website at [https://tenders.gov.ms/](https://tenders.gov.ms/)  
Electronic tender packs can be downloaded, completed and submitted via the myTenders Portal at [https://www.mytenders.co.uk/](https://www.mytenders.co.uk/) If you are intending to make an electronic submission to this tender, please register your interest on myTenders at the earliest opportunity. Please ensure that you allow sufficient time to upload your documents. |
| Clarification deadline and contact details                                        | Thursday 30th July 2020                                                                                                                  |
| ITT submission deadline                                                          | Wednesday 12th August 2020, no later than 12:00 midday (Eastern Caribbean Time)                                                           |
| Tender Submission address                                                         | The Chairperson  
Public Procurement Board  
Ministry of Finance and Economic Management  
Brades  
Montserrat                                                                                                                                |
| Contract Commencement – this is an indicative date and maybe subject to change.   | September 2020                                                                                                                           |
TENDERER'S CHECK LIST

Before submission, check the following points and include this list to form part of the Tender:

1. Have you enclosed the signed and sealed Bid Bond per Part 8.0 in Section 00 10 00 – Information For Tenderers, and inputted the same into Section 00 33 00 – Form of Tender – Unit Prices (Part 1.0)?

2. Have you enclosed the Agreements to Bond/Consent of Surety, signed and sealed by your proposed Surety per Section 00 53 00 – Form of Agreement?

3. Have you completed and enclosed the Section 00 33 00 – Form of Tender – Unit Prices?
   a. Tax Compliance Certificate – If Locally Registered in Montserrat (Part 3.0)
   b. Schedule of Unit Prices (Part 4.0)
   c. Construction Milestone Dates (Part 5.0)
   d. Addenda Acknowledgement (Part 6.0)
   e. Signed, Sealed and Witnessed Form of Tender
   f. Acceptance of 45 day Bid Validity period

4. Have you completed and enclosed Section 00 40 00 – Supplementary Tender Information?
   a. Optional Pricing (Part 2.0)
   b. Company Profile (Part 3.0)
   c. Schedule of Force Account Rates; Equipment and Personnel (Part 4.0)
   d. Company Providing Bonds/Surety/Insurance and Details (Parts 5.0 and 6.0)
   e. Tenderer Experience Qualification (Part 7.0)
   f. Particulars of Tenderer’s Recent Contracts (Part 8.0)
   g. Proposed Equipment to be Used (Part 9.0)
   h. List of Sub-Contractors (Part 10.0)
   i. List of Senior Project Staff (Part 11.0)
   j. Local Labour and Resources (Part 12.0)
   k. Program Schedule and Project Understanding (Part 13.0)
   l. Current Commitment (Part 14.0)
   m. Signed Anti-Collusion Statement (Part 15.0)

5. Have you read and acquaint fully with the extent and nature of the Division 0 including Section 00 70 00 - General Conditions of the Contract?

6. Are the documents complete including all pages initialled/dated where required?

Please ensure that you follow the submission instructions
The Government of Montserrat ("GoM") is seeking to undertake improvements to enhance safety of airport operations at the John A. Osborne Airport ("Airport"). As part of this work, the GoM is proposing the resurfacing of the existing Runway 10-28 pavement surface to improve surface friction and to maintain the integrity of the airfield for continued long-term safety and reliability.

Based on the submissions received under this Tender, the GoM intends to immediately proceed to a construction phase of the proposed work. This is subject funding availability and CIPREG approval.

The GoM invites open tenders from qualified Contractors for the contract:

**RUNWAY RESURFACING**

**JOHN A. OSBORNE AIRPORT, MONTSERRAT, WEST INDIES**

in accordance with the Tender Documents, Specifications and Drawings.


Your tender, on supplied forms, will be received by the GoM until the Tender Closing Date indicated.

The work to be executed under this contract comprises the following contract items (list is indicative of major contract items only and any quantities are approximate):

- Partial Depth Asphalt Milling \(11,400 \text{ m}^2\)
- Supply and Place Hot Mix Asphalt \(1,600 \text{ tonnes}\)
- Runway Inset Lights (new base cans) \(12 \text{ units}\)
- Runway Grooving \(7,080 \text{ m}^2\)
- Friction Testing (Before and After the Work)
- Pavement Line Markings
- Optional Work – Taxiway and Apron Resurfacing \(7,000 \text{ m}^2\)

The decision to proceed with the Optional Work is at the sole discretion of the Government of Montserrat.

A Bid Bond or Certified Cheque in the amount equal to US$150,000, and a Consent of Surety or Agreement to Bond for a Performance Bond and Labour and Materials Bond each in the amount of 50% of the proposed contract value must accompany each Tender.

There will be no Pre-Tender meeting however Tenderers are recommended to visit the site to fully inform themselves as to all existing conditions, services and limitations which may affect the work, costs and schedule. Tenderer's wishing to visit the site are referred to the provisions of S.R.O. 36 of 2020 "Public Health (COVID-19 Suppression) (No. 3) Order" and shall contact the GoM to schedule an appointment. Please contact the Head of Procurement Ms Harjinder Jutle at jutleh@gov.ms if you want to arrange an appointment.

**Tender Submission Deadline: 12th August 2020, at 12:00pm (Eastern Caribbean Time, 17.00 UK time)**
All inquiries and questions during the Tender should be submitted in writing to the attention of Ms. Harjinder Jutle, Head of Procurement, Government of Montserrat at jutleh@gov.ms no later than 12:00pm (Eastern Caribbean Time) on Thursday, July 30, 2020.
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### APPENDIX A

APPENDIX A  Plan of Construction Operations (PCO)

### APPENDIX B

APPENDIX B  Electrical Contractor Qualification Form

-------------------------- END OF SECTION 00 01 00--------------------------
DESCRIPTION OF WORK AND LIST OF DRAWINGS
1.0 GENERAL

1.1 This project is located at the John A. Osborne Airport (MNI), Montserrat, West Indies, and is part of the CIPREG programme. Any contract award will be subject to funding availability and CIPREG approval.

1.2 This project has been designed to permit the Contractor to complete the runway resurfacing work while the Airport is closed.

1.3 Refer to Appendix A for a detailed overview of the Plan of Construction Operations (PCO) for this project. The Contractor must be fully aware of this plan, how it will impact their construction operations and what their responsibilities will be.

Refer also to Section 01 54 00 - Security Requirements and Section 01 35 13.13 – Special Procedures for Airport Facilities for particular aspects of the airport operations and site access provisions which may impact the Work.

1.4 All Work shall be executed in accordance with local Laws, Regulations and Standards. The Contractor shall coordinate with all concerned local and Government authorities as may be required to complete construction.

1.5 The Contractor shall be responsible to maintain traffic and undertake all safety measures with prior coordination with and approval of the appropriate authorities.

1.6 The Contractor shall be responsible for providing appropriate signage and by-pass roads during construction as required to assure unimpeded passage of all vehicles.

2.0 SCOPE OF WORK

Construction for the runway resurfacing project will be scheduled during a full airport closure of 10 consecutive calendar days. Work consists of partial depth asphalt milling (10mm) followed by placement of new hot-mix asphalt pavement (50mm). Existing threshold/end lights inset into the pavement require salvaging and reinstallation on new base cans suitable to match the new pavement grades. Runway grooving and final pavement line markings will commence approximately 30 days after paving is completed.

A list of major elements within the base Scope of Work is provided below:

1. Runway Resurfacing Works
   - Asphalt Milling
   - Hot Mix Asphalt (HMA) Pavements
   - Runway Grooving
   - Friction Testing (Before and After Construction)
   - Pavement Line Markings (initial and final)

2. Airfield Electrical Works
   - Remove and Salvage Existing Runway Inset Lights and Install in the New Base Cans to Accommodate New Runway Grades

The Contract Documents include Optional Work which may or may not be authorized by the OWNER in accordance with Section 00 40 00 – Supplementary Tender Information.

3. Optional Work
   - Taxiway Resurfacing
• Apron Resurfacing

3.0 LIST OF DRAWINGS

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----------------------- END OF SECTION 00 05 00 -----------------------
INFORMATION FOR TENDERERS
1.0 GENERAL DEFINITIONS (Refer also to GC 00 70 00 for additional definitions):

1.1 **Contract Documents:** mean the executed Agreement between the OWNER and the Contractor, the General Conditions of the Unit Price Contract, Form of Tender - Unit Price, Supplementary Tender Information, specifications, drawings and such other documents as listed in the Form of Agreement including amendments thereto incorporated before the execution of the Contract and subsequent amendments thereto made pursuant to the provisions of the Contract and agreed upon between parties.

1.2 **CIPREG:** means Capital Investment Programme Resilience and Economic Growth.

1.3 **ENGINEER or CONSULTANT:** shall mean the Government of Montserrat (OWNER) or such other engineering firm as may from time to time be duly authorized and appointed in writing by the OWNER to act for the purposes of this tender within the authority and responsibility defined in consultant agreements.

1.4 **OWNER:** means the Government of Montserrat.

1.5 **PPB** means Public Procurement Board.

1.6 **Tender:** means the bid, submitted as specified herein, by a Tenderer.

1.7 **Tender Documents:** mean Contract Documents supplemented with Information to Tenderers, bid securities and other documents attached hereto for the purpose of tendering.

1.8 **Tender Price:** means the sum named in the Form of Tender - Unit Price excluding Duties and Taxes as applicable for the WORK.

1.9 **Tenderer:** means an entity submitting a Tender.

2.0 TENDER INTENT

2.1 The intent of this invitation to Tender is to obtain an offer to perform work to complete the Runway Resurfacing as described in these Tender Documents and in accordance with the Contract Documents.

3.0 TENDER SUBMISSION

3.1 Tenders in conformity with all elements of Section 4.0 below are to be submitted electronically or hard copy.

3.1.1 Electronic submissions shall include documents as listed in Section 4.0 submitted through MyTenders portal (http://www.mytenders.co.uk/) ahead of the Tender Submission Deadline. It is recommended Tenderers register the website in advance and ensure sufficient time to upload the documents.

3.1.2 Hard copy submissions shall include documents as listed in Section 4.0 enclosed in a sealed envelope. You will need 2 separate envelopes:

**Envelope 1**

Write the name of the bidder (Tenderer, Supplier), the name of the project and the address on the envelope as written below:
Tenderer Name (Your Company Name)
Tender for the Airport Runway Resurfacing Project
The Chairperson
Public Procurement Board
Ministry of Finance and Economic Management
P.O. Box 292, Brades, Montserrat, MSR1110

Envelope 1 should be placed inside another envelope. This should be addressed the same way as the first envelope but **MUST** not include the supplier's details. To be labelled as follows.

Tender for the Airport Runway Resurfacing Project
The Chairperson
Public Procurement Board
Ministry of Finance and Economic Management
P.O. Box 292, Brades, Montserrat, MSR1110

3.2 Tenders must be received electronically or at the address shown on or before 12:00 pm, Eastern Caribbean time on **August 12, 2020** (the “Tender Closing Date”).

Tenders will be opened publicly the same day at approximately 2.00 pm, subject to the availability of the Government of Montserrat Public Procurement Board members (minimum Quorum of 3).

It is the Tenderer's responsibility to ensure that a tender which is not delivered by their hand is received on or before the time stated for closing of tenders. Tenders delivered after the deadline will be destroyed. Late tenders delivered by courier or messenger will be returned unopened to the addressee on the courier receipt. Late tenders may be opened to determine a return address.

The Government of Montserrat may, at its own absolute discretion, extend the closing date and the time for receipt of Tenders specified in this Section. Any extension granted under this Section will apply to all Tenderers.

3.3 Telegraphic Tenders, Tenders by Telex, Tenders by fax or by email will not be accepted.

4.0 **A COMPLETE TENDER IS COMPRISED OF THE FOLLOWING:**

The Tenderer shall submit a Tender Package consisting of:

4.1 **Tenderer Check List;**

4.2 **Bid Security** as described in this **Section 00 10 00 - Information for Tenderers;**

4.3 An **Agreement to Bond or Consent of Surety**, by the surety company from which the Tenderer proposes to obtain the required Performance Bond and Labour and Material Payment Bond as described in **Section 00 53 00 - Form of Agreement;**

4.4 **Section 00 33 00 Form of Tender – Unit Price** with all pages and spaces for entry of information by Tenderers filled in as instructed and with all pages initialled by the Tenderer except those requiring signatures;

4.5 **Section 00 40 00 Supplementary Tender Information** with all pages and spaces for entry of information by Tenderers filled in as instructed and with all pages initialled by the Tenderer
except those requiring signatures. Include supplemental/supporting information as required;

4.6 **Addenda** received by the Tenderer during the Tendering period with each page, sheet or sketch initialled by the Tenderer; and

4.7 **Acceptance of the 45-day validity period. If you propose a shorter bid validity period your submission will be deemed non compliant**

4.8 **Any and all other requirements as outlined within these documents.** Tenderers are solely responsible for the delivery of their bids in accordance with the instructions herein, and for ensuring that all work is taken into account when submitting a Tender.

Tenders that do not fully comply with the conditions set out in the above instructions may not be considered by the OWNER for evaluation. At the sole discretion of the Government of Montserrat, clarifications may be sought from the Tenderer prior to final evaluation.

5.0 **CONDITIONS OF WORK AND SITE REVIEW**

5.1 Tenderers are responsible for arranging site inspections independently with the Government of Montserrat, as required by the Tenderer and in accordance with Section 00 23 00 – Existing Site Conditions.

5.2 The Tenderer shall carefully examine the Tender Documents and the worksite, and shall:

5.2.1 fully inform themselves as to all existing conditions and limitations which will affect the execution of the contract;

5.2.2 satisfy themselves as to the working conditions, the nature and kind of work to be done, any special risks associated therewith and all other matters which may be necessary in order to form a proper conception under which the work will be required to be performed; and

5.2.3 inform themselves as to all the actual conditions and requirements thereof, including import regulations, labour conditions and labour rules.

5.3 In preparation of a tender, the Tenderer shall use only those drawings listed in the contract documents that are clearly labelled "Issued for Tender". The Tenderer shall not rely on any documents that are not so labelled.

5.4 Discussions at briefings or other oral discussions shall not become a part of the contract documents nor modify the contract documents unless confirmed by addenda issued to all the Tenderers before closing.

5.5 No consideration will be given after submission of a tender to any claim that there was any misunderstanding with respect to the conditions or limitations of the work or worksite, or conditions imposed by the contract.

6.0 **EQUIVALENTS/ALTERNATES**

6.1 Materials or products specified by name of manufacturer, brand, trade names or catalogue reference shall be the basis of the Tender and shall be furnished under the Contract. Where two or more materials are named or "approved" in accordance with this Article, the choice of these shall be optional with the Tenderer.

6.2 **Approval Requests:**
(a) Where the Contract Documents stipulate a particular product, material, equipment or construction method, requests for substitutions or alternates will be considered by the OWNER via. the procedure outlined in Part 10.0 – Queries and Addenda.

(b) Requests for substitutions or alternates must be submitted to the OWNER in writing. Tenderers are responsible for ensuring that requests for substitutions or alternates contain sufficient information for the OWNER to determine quality and performance equivalency and otherwise determine the acceptability of the requested substitution. Requests for substitutions or alternates should identify any and all changes required in the applicable work, and all changes to any other works, which would become necessary to accommodate the requested substitution or alternate.

(c) If the OWNER is satisfied that the requested substitution or alternate will achieve similar results to the specified product, material, equipment or construction method, the OWNER may, at its option, issue a written addendum approving the substitution or alternate as an equal. All Tenderers may then use that product, material, equipment, or construction method in place of the specified product, material, equipment, or construction method, and may prepare their Tenders accordingly. Alternatively, the OWNER request via addendum that the substitute or alternate to be priced optionally and in addition to the original product, material, equipment or construction method pricing.

(d) If the OWNER does not approve a particular requested substitution, Tenderers should base their Tender price upon the product, material, equipment, or construction method specified in the Contract Documents.

7.0 ERRORS, DISCREPANCIES & OMISSIONS, ETC.

7.1 The Tenderer shall notify the OWNER immediately, and not later than the Tender Submission Deadline, upon discovering discrepancies, omissions, or ambiguities, or if the Tenderer does not agree that the materials and methods specified or designed will provide an installation which meets the requirements of the intended work. Subsequently, the OWNER may choose to issue a written addendum. Addenda issued during the tendering period shall be allowed for by the Tenderer in submitting the Tender. No oral interpretation made by the OWNER, Consultant or otherwise will be effective to modify any aspect of the Contract Drawings, Specifications or Documents.

8.0 BID SECURITY

8.1 The Tenderer shall provide Bid Security in favour of the OWNER for not less XCD$400,000 or US$150,000.

8.2 Bid Security should be issued in the form of a Bid Bond by a bonding company licensed to conduct the business of a surety within the jurisdiction of the project; or, in the form of a signed, certified cheque naming Government of Montserrat as payee.

8.3 Bid Security shall be submitted electronically or hard copy with tender submissions. If submitted electronically, original bond should be received at the address noted below within 14 days of the tender closing date:

Government of Montserrat
Public Procurement Board
8.4 The obligation of the Bid Security shall be that if the OWNER accepts a Tender and the Tenderer refuses to sign the Form of Agreement included with this Tender or fails to provide the specified performance guarantees within the validity period specified, then the Bid Security shall be forfeited to the OWNER.

8.5 Bid Security of the unsuccessful Tenderer will be returned as promptly as possible by the OWNER once the successful Tenderer has signed the Contract and furnished the required performance security.

9.0 AMENDMENT OR WITHDRAWAL OF TENDER:

9.1 Tenders may be amended or withdrawn by email to Ms. Harjinder Jutle at jutleh@gov.ms prior to the Tender Closing Deadline. Amendment of individual unit prices is the only acceptable price amendment. Amendments shall not disclose either original or revised total price.

9.2 Head amendment or withdrawal as follows: "Amendment/withdrawal of Tender for Runway Resurfacing – John A. Osborne Airport". Sign and seal as required for Tender and submit by email to Government of Montserrat, Head of Procurement at email address given above prior to date and time of Tender closing.

9.3 Proof of receipt of the written notice will be an acknowledgment by return email by the OWNER.

9.4 After the Tender has been closed, no changes, additions, or deletions to any tender, except those specifically provided for in the tendering conditions shall be made either by or on behalf of the OWNER, or by or on behalf of the Tenderer.

10.0 QUERIES AND ADDENDA

10.1 All communication (including clarification required from a technical perspective and/or from a purchasing perspective) between the OWNER/Consultant and the Tenderer MUST BE in written format via email. To facilitate comprehensive responses, Tenderers are encouraged to email their questions as soon as possible to Government of Montserrat, Ms. Harjinder Jutle at jutleh@gov.ms. The deadline for questions is 12:00pm Eastern Caribbean Time on July 30, 2020.

10.2 The OWNER will endeavour to answer all questions as quickly as possible but cannot guarantee a minimum response time. In order to satisfy query requests, the OWNER has designated specific personnel to deal with clarification requests from Tenderers. In order to ensure equality of treatment of Tenderers, the OWNER intends to share the questions and clarifications raised by Tenderers together with the OWNER’s responses (but not the source of the questions) to all participants via Addenda. The OWNER reserves the right not to respond to a request for clarification or to circulate such a request where it considers that the answer to that request would or would be likely to prejudice its commercial interests.

10.3 If there are to be any changes in the Work, Tenderers will be informed, prior to the close of the period allowed for receiving Tenders, by means of an addendum, a written communication issued by the OWNER.
10.4 It is the sole responsibility of the bidder to check the GoM website regularly during the procurement process for addendums for this project. For bidders using myTenders you will automatically receive an alert to notify you of any documents issued related to this project.

10.5 Addenda will not be issued later than seven (7) calendar days before the Tender closing date.

10.6 All addenda shall become a part of the contract documents and receipt of addenda shall be acknowledged by the Tenderer in the Section 00 33 00 Form of Tender – Unit Price.

11.0 PROVISIONAL ITEMS

11.1 When it is expected that certain specific items of work may be required or undertaken during the course of construction, but the exact requirements of those items of work will depend on ground conditions or other uncertain factors encountered, such items are shown in the Section 00 33 00 - Form of Tender as Provisional Items. The quantities may vary significantly, or the item may not be used at all, at the sole discretion of the OWNER.

11.2 The Tenderer shall price Provisional Items accordingly and shall not claim any anticipated loss of profit or increased overhead if any or all of these items is deleted altogether, or the quantities are significantly amended.

12.0 ITEM PRICING

12.1 The Tenderer’s attention is drawn to the articles covering tax in the General Conditions of the Contract.

12.2 The particular attention of the Tenderer is drawn to the necessity of legibly pricing each and every item in the Schedule of Unit Prices in the Form of Tender and individually and similarly correctly adding up totals of the Tender.

12.3 When forming their estimates and preparing their tenders, the Tenderer shall take full cognizance of the content of all the various documents which will comprise the Contract.

12.4 The currency of the Tender shall be Eastern Caribbean dollars (XCD).

13.0 SUBCONTRACTORS

13.1 The Tenderer shall submit in the schedule of subcontractors the names of all its subcontractors proposed for the Work.

13.2 Where the schedule of subcontractors shows specific items of work the Tenderer shall name his subcontractor; or if the work will not be subcontracted he shall so indicate using the words “own forces”.

13.3 The subcontractors listed in the Tenderer’s submission may not be changed without the written consent of the OWNER. If the OWNER so requires, the Tenderer shall be prepared to confirm to the OWNER the competence of their subcontractors prior execution of a contract.

13.4 If at the time of contract award a subcontractor named in the tender is not acceptable to the OWNER, the Tenderer shall name an alternative subcontractor acceptable to the OWNER.

13.5 The OWNER hereby lists the following pre-qualified airfield electrical contractors for the Work:
13.5.1 Signal Electric Ltd.  
PO Box 2009  
Sidney, BC, Canada  
V8L 3S3  
Mr. Brad Fletcher (780-598-0245)  
signalelectric@telus.net

Tristar Electric Inc.  
6068 Netherhart Rd., Unit#1  
Mississauga, ON, Canada  
L5T 1N3  
Mr. Brian Farrell (905-670-1642)  
brian.farrel@tristarelectric.ca

13.5.2 Tenderers may propose an alternative airfield electrical subcontractor meeting 
minimum qualification requirements as described below:

- A minimum of 3 years of experience with installation of medium intensity constant 
current airfield lighting systems including inset lighting;

- Subcontractors meeting the requirements above are to complete the Electrical 
Contractor Qualification Form in Appendix B and submit with their Tender to clearly 
demonstrate adherence to the clauses.

14.0 SHIPPING TO ISLAND

14.1 Tenderer's are advised that the two (2) main shipping companies in Montserrat are:

<table>
<thead>
<tr>
<th>Company</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>King Ocean</td>
<td>Mr. Ralph Remi (+1 305 469-7994)</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:ralph.remi@kingocean.com">ralph.remi@kingocean.com</a></td>
</tr>
<tr>
<td>Caribtrans</td>
<td>Mr. Eddie Andre (+1 721 587-1059)</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:eddie@caribtrans.com">eddie@caribtrans.com</a></td>
</tr>
</tbody>
</table>

The above are provided as recommendations only. Tenderer's may choose alternatives at 
their own discretion.

14.2 A list of customs brokers is provided here for information of Tenderers. These brokers are 
also agents for shipping companies.

<table>
<thead>
<tr>
<th>Broker</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better Services</td>
<td>1 664 491 7438</td>
</tr>
<tr>
<td>Jenifer Ryner</td>
<td>1 664 492 1807</td>
</tr>
<tr>
<td>Lorraine Lewis</td>
<td>1 664 392 3630</td>
</tr>
<tr>
<td>M.S. Osborne</td>
<td>1 664 491 2494</td>
</tr>
<tr>
<td>Weekes Shipping</td>
<td>1 664 491 8187</td>
</tr>
</tbody>
</table>

15.0 SUBMISSION EXPENSES

15.1 Tenderers are responsible for any and all costs associated with submitting a Tender. This 
includes any site visit prior to the tender submission deadline.

16.0 FORM OF AGREEMENT

16.1 The Form of Agreement is included in the Contract Documents at the time of Tendering only 
for the information of the Tenderer and shall not be completed at the time of tendering.

17.0 TENDER VALIDITY PERIOD

17.1 All Tenders shall be valid for acceptance for a period of forty-five (45) days after the Tender 
closing date, unless the Tender is withdrawn in accordance with the Section 9.0 - Amendment 
or Withdrawal of Tender of this Section 00 10 00 – Information For Tenderers.

18.0 CONFLICT OF INTEREST
18.1 All Tenderers are required to disclose to the OWNER any potential Conflict of Interest, may it be pecuniary or otherwise. If a conflict of interest does exist with the potential successful Tenderer, the OWNER may, at its discretion, refrain from awarding the project to the Tenderer.

19.0 BRIBERY

19.1 The offer of a bribe or other inducement to any person with the object of influencing the placing of the Contract will result in instant rejection of the Tenderer concerned.

20.0 TENDER EVALUATION CRITERIA

20.1 Tenders will be evaluated by an Evaluation Panel appointed by the Public Procurement Board. Tenderers will be evaluated based on:

20.1.1 Mandatory tender requirements (refer to Tender’s Check List)

20.1.2 Quality including but not limited to the Tenderer’s qualifications to execute the Work and ability to complete construction within the required construction schedule.

20.1.3 Tender pricing (excluding optional pricing);
20.2 Tenders will be evaluated using the following criteria (Quality and Price), as outlined below:

20.2.1 **Points for Quality (A)**

Minimum qualification requirements in Section 00 40 00 (Part 3.0) must be attained to be considered for evaluation

<table>
<thead>
<tr>
<th>EVALUATION OF QUALITY – EXPERIENCE, TECHNICAL CAPACITY AND RESOURCES</th>
<th>Max. Scoring</th>
<th>Weight Multiplier</th>
<th>Maximum Points (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience in <strong>similar experiences</strong> (ref: Section 00 40 00 – Part 7.0) <strong>Consideration will be given to quantity and quality of recent projects that are similar to this project that have been completed successfully. Airport projects will be evaluated higher</strong></td>
<td>10</td>
<td>0.7</td>
<td>7</td>
</tr>
<tr>
<td><strong>Proposed equipment</strong> and other resources that will be used on the project including their ownership and availability (ref: Section 00 40 00 – Part 9.0) <strong>Evaluation will be based on the suitability of the equipment to be able to carry out the Work, redundancies, and the availability of the equipment</strong></td>
<td>10</td>
<td>0.4</td>
<td>4</td>
</tr>
<tr>
<td>Experience of <strong>senior management staff</strong> and <strong>project team</strong> (ref: Section 00 40 00 – Parts 10.0 and 11.0) <strong>Evaluation will be based on the suitability of the staff to be employed on the project and the quality of their CV considering the work to be undertaken. Previous experience of the Tenderer and its proposed project team (including sub-contractors) in similar projects</strong></td>
<td>10</td>
<td>0.5</td>
<td>5</td>
</tr>
<tr>
<td>Incorporation of <strong>local labour and resources</strong> (ref: Section 00 40 00 – Part 12.0) <strong>Evaluation will be based on the extent of local labour and resources which the Tenderer commits to use and which in the opinion of the Evaluation Committee, can be reasonably expected based on the Tenderer’s project team</strong></td>
<td>10</td>
<td>0.2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Work program and schedule</strong> (ref: Section 00 40 00 – Part 13.1) <strong>Detailed schedule in GANTT format showing all elements of the project accompanied by written work program describing how works will be completed in the most efficient manner within the prescribed schedule</strong></td>
<td>10</td>
<td>0.6</td>
<td>6</td>
</tr>
<tr>
<td><strong>Understanding of the project</strong> giving details of how the Tenderer intend to execute the works and the process in doing so (ref: Section 00 40 00 – Part 13.2) <strong>Evaluation will be based on the level of understanding demonstrated by the Tenderer of project requirements, operational constraints, and challenges, including but not limited to:</strong></td>
<td>10</td>
<td>0.6</td>
<td>6</td>
</tr>
<tr>
<td>• Sequence of activities the Tenderer would undertake to execute the Work and details of how each major activity will be undertaken</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Contingency plan for weather impacts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Details of their Health and Safety plan, and Quality Control plan</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Points for Section A** 30
Scoring evaluation methodology will be based on the Quality Criteria given in Section 21.0.

The OWNER may disqualify any Tender that is incomplete or missing mandatory important required information, as determined at the sole discretion of the PPB.

For Tenderers to be considered for the Evaluation of Price they have to achieve 22.5 points or more in the Evaluation of Quality (A). Tenderers attaining less than 22.5 points will not be considered further.

20.2.2 Points for Price (B)

Points for price will be calculated based on the following formula:

<table>
<thead>
<tr>
<th>Lowest Corrected Tender</th>
<th>X</th>
<th>70</th>
<th>Number of Points for Price (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Tender Price</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Evaluation of Price

20.2.2.1 Tender prices that the Evaluation Panel deem to be unrealistically low without any justification from the Tenderer may not be considered further.

20.2.2.2 Tenders will be considered as to whether they are unbalanced in their pricing. If it is deemed that they are, they may not be considered further.

20.2.2.3 Optional pricing will not be evaluated as part of this formula but will be assessed separately and entirely at the OWNER’s discretion.

20.3 The OWNER intends to evaluate Tenders based on the criteria set forth in this Information for Tenderers in order to determine the Tender that will provide the best overall value to the OWNER. As such, the OWNER need not accept the lowest, the highest ranked, or any Tender.

20.4 The OWNER further reserves the right not to proceed with award to any Tenderer if the project is cancelled for any reason, or if the OWNER otherwise determines, funding is no longer available, at its sole discretion, that not entering into a contract with any of the Tenderers is in its best interest.

20.5 If, in the opinion of the OWNER, a Tender contains a minor error, defect or fails in some way to comply with any requirement of the Tender Documents that, in the opinion of the OWNER can be remedied without providing an unfair advantage with respect to other Tenderers, the OWNER may request clarifications or corrections from the Tenderer, and upon receipt of appropriate clarification or corrections in the time specified by the OWNER, may waive the minor error, defect or any irregularity and consider the Tender as a valid submission for the purposes of Tender evaluations or acceptance.
21.0 QUALITY EVALUATION METHODOLOGY

21.1 Quality will be measured upon evaluation of Tenderer’s responses to the criteria in Section 20.2.1. Each criteria will be evaluated using the following scoring methodology:

### SCORING – QUALITY CRITERIA

<table>
<thead>
<tr>
<th>Rating of Response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Very Good or Fully Compliant</strong> Submission which meets all requirements and is fully explained in comprehensive detail. Clearly includes all the information requested and instils full confidence that the Tenderer has the ability to fully meet the requirements of the Contract.</td>
<td>9 - 10</td>
</tr>
<tr>
<td><strong>Good or Fully Compliant</strong> Submission which meets all the requirements and is explained in reasonable detail. Includes all the information requested and instils reasonable confidence that the Tenderer has the ability to fully meet the requirements of the Contract.</td>
<td>7 - 8</td>
</tr>
<tr>
<td><strong>Satisfactory or Compliant</strong> Submission which meets the essential requirements and is explained in adequate detail. Although brief or lacking some detail, all the information requested has been supplied and the Council is relatively confident that the Tenderer has the ability to meet the requirements of the Contract.</td>
<td>5 - 6</td>
</tr>
<tr>
<td><strong>Weak or Partially Compliant</strong> (Minor issues) Submission which in some areas falls short of requirements and is poorly explained. Not all of the information requested has been supplied and The Council has minor concerns regarding the Tenderers ability to meet the requirements of the Contract.</td>
<td>3 - 4</td>
</tr>
<tr>
<td><strong>Unacceptable or Non-Compliant</strong> (Major issues) Submission which clearly fails to meet requirements and is not explained. Key information requested has not been supplied and the Council has major concerns regarding the Tenderers ability to meet the requirements of the Contract.</td>
<td>1 - 2</td>
</tr>
<tr>
<td>An answer to the question has not been provided or the Tenderer has not understood the requirements of the question and therefore the answer provided does not address the question.</td>
<td>0</td>
</tr>
</tbody>
</table>
22.0 TENDER EVALUATION TABLE

22.1 The total number of points for each Tenderer will be calculated by adding points for Quality (A) and to points for Price (B) to give a total score (out of 100).

<table>
<thead>
<tr>
<th>Tenderer No. 1</th>
<th>Tenderer No. 2</th>
<th>Tenderer No. 3</th>
<th>Tenderer No. 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Quality (A)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price (B)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Total (Quality &amp; Price)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

22.2 The ‘preferred tenderer’ is the Tenderer submitting the tender with the highest total score for Quality (A) and Price (B) and that Tenderer will be invited to negotiate a contract with the Government of Montserrat.

22.3 If an agreement cannot be reached with the ‘preferred tenderer’ the Tenderer with the next highest score will be nominated as the ‘preferred tenderer’.

23.0 TENDERS EXCEEDING BUDGET

23.1 If all qualified Tenders (as determined by the OWNER in its sole discretion) exceed the amount that the OWNER has budgeted for this project, the OWNER may:

23.1.1 reject all Tenders;

23.1.2 cancel this invitation to Tender;

23.1.3 issue a new invitation to Tender or commence another procurement process, with or without adjusting the scope of the Work; and/or

23.1.4 enter into negotiations with the preferred bidder subject to approval from the PPB.

24.0 TENDER ACCEPTANCE

24.1 No action of the OWNER other than a written “notice of acceptance” shall constitute an acceptance of a Tender. Such written notice shall be in a form as desired by the OWNER, and shall be signed by officials properly authorized by the OWNER to do so, and either under the seal of the OWNER, or witnessed, as may be appropriate for the OWNER.

24.2 The OWNER reserves its right to negotiate at the time of acceptance, with the Tenderer.

24.3 On the written acceptance by the OWNER of a Tender, that Tender becomes the Contract and the Tenderer becomes the Contractor.

24.4 The Bid Security of the Tenderer will be returned, as may be applicable, following execution of the Form of Agreement and the provision of the bond for Performance and the bond for Labour and Material Payment as described in Section 00 53 00 – Form of Agreement. If the Contractor declines or neglects to provide in full, the required Surety Bonds as provided for in the Form of Tender and the Tender Documents, or neglects or refuses to enter the Contract.
when called upon to do so, the Tenderer’s Bid Security or the additional cost of accepting another Tender (whichever is the lesser) shall be forfeitable to the OWNER and the Contract shall be cancelled. The OWNER reserves the right to claim for damages that exceed the value of the Bid Security.

24.5 The Bid Security of the unsuccessful Tenderers will be returned to them as soon as possible after the contract is awarded or the expiration of validity of their Tenders, whichever is the sooner.

25.0 COVID-19 PROVISIONS

25.1 Tenderers are responsible for complying with all applicable guidelines, laws, orders, requirements, and any revisions or amendments thereto issued by Government of Montserrat or other government authorities related to COVID-19 in the performance of the Work and Contract, including:

25.1.1 Statutory Rules and Orders (S.R.O. 36 of 2020) “Public Health (COVID-19 Suppression) (No. 3) Order” issued by the Government of Montserrat which makes provisions for several categories of persons to travel to Montserrat. Persons requiring travel to Montserrat for the purposes of the Work related to the John A. Airport Runway Resurfacing project are considered as ‘non-resident technician’ and will be subject to compliance with the requirements of the Order.

Persons planning to travel to Montserrat must register to travel by completing and submitting an “Access Declaration Form” at least 3 days prior to arrival. The Order including “Access Declaration Form” can be accessed on the Government of Montserrat website and through the link below.


------------------------ END OF SECTION 00 10 00------------------------
1.0 PRELIMINARY CONSTRUCTION SCHEDULE

1.1 Construction Completion shall be achieved no later than March 31, 2021.

1.2 The Airport will be closed for 10 calendar days to permit the safe and efficient completion of the construction Work. The closure will be in effect from:

- 0700 local on the date of the closure (the “Airport Closure Date”), until
- no later than 0659 local on the 11th day from the Airport Closure Date (the “Reopening Date”).

1.3 The Tenderer shall propose its own Airport Closure Date and Reopening Date based on the parameters above. The duration of the airport closure shall not exceed 10 calendar days.

1.4 The Contractor may be permitted to commence certain site work activities (i.e. topographic surveys, inspections, friction testing, test strip, etc.) ahead of the Airport Closure Date which do not interfere or impact airport operations, and provided they are permitted by the PCO. Any such site activity request must be submitted in detail to the OWNER at least 30 days ahead of the Airport Closure Date to be considered for approval by the OWNER.

1.5 The Contractor is expected to work a seven (7) days a week while the Airport is closed. A typical working day is expected as 7:00am until 7:00pm.

1.6 Refer to Appendix A for the Plan of Construction Operations (PCO) which provides a description of the restrictions associated with working at the site. The sequencing of the Work as outlined in the PCO shall be adhered to.

1.7 Notwithstanding the requirements set forth in the Plan of Construction Operations, the Contractor shall have unrestricted access to the Worksite. Hours of work shall be the responsibility of the Contractor and shall be in accordance with any local codes, statutes, by-laws or ordinances regarding noise and as stipulated by the Government of Montserrat.

END OF SECTION 00 21 00-----------------------------
EXISTING SITE CONDITIONS
1.0 EXISTING SITE CONDITIONS

1.1 Before submitting a Tender, each Tenderer is recommended to visit the site to examine, review and verify the form, nature and extent of the work, materials needed, the means of access and the temporary facilities required to perform the Work.

1.2 Each Tenderer shall make its own estimate of the facilities and difficulties that may be encountered and of the nature of the subsurface conditions. The Tenderer shall not claim at any time after submission of the Tender that there was any misunderstanding of the terms and conditions of the Contract related to site conditions.

1.3 The Tenderers may make tests, inspections and measurements, but such investigations must be performed under time schedules and arrangements with the OWNER and Tenderers must comply with the OWNER's requirements.

1.4 Should the Tenderer wish to visit the site independently it shall contact the Government of Montserrat to schedule an appointment:

Mr. Joseph Irish, Airport Manager
Cell: +1 (664) 496-4227
Email: irishjl@gov.ms

1.5 Reference is made to Section 00 10 00 Information for Tenderers Part 25.0 (COVID-19 Provisions). Persons who wish to visit the site are responsible for their own travel arrangements and costs thereof including compliance to applicable Government Orders.

1.6 Tenderers are advised that airline operators which have been granted approval to operate into Montserrat are as follows. Air access is only available through these operators.

1.6.1 WINAIR,

1.6.2 FLY MONTSERRAT,

1.6.3 SVG AIR,

1.6.4 ANGUILLA AIR SERVICES LTD

1.7 The Airport is an operational aviation facility. It is a federal offence to enter the property without authorization.

1.8 Tenderer's are advised that the means of access to the airport is via. tunnel underneath the runway. The size of the tunnel may limit the plant, equipment and materials which may pass. The tunnel dimensions are provided (right).
1.9 Existing power supply is available at the approximate locations shown below. It will be the Contractor's responsibility to arrange and pay for power supply and subsequent consumption as required by their operations. Montserrat uses voltage of 220v with a frequency of 60 Hz.

Contact for the Montserrat Utility Company (MUL) is Mr. Kendall Lee (Manager) at 1-664-491-2538.

---

220v plug at floodlight
1.0 FORM OF TENDER

The undersigned Tenderer, having carefully read and examined the Tender Documents prepared by the Consultant for the completion of John A. Osborne Airport – Runway Resurfacing hereby

1.1 Accepts the same as part and parcel of the Contract herein referred to, and having carefully examined the locality and Site of Works and having full knowledge of the work required and of the materials to be furnished and used;

1.2 Tenders and offers to enter into a contract to perform and complete, the whole of the said works and provide all necessary labour, plant, tools, materials and equipment and pay all applicable taxes, as set forth and in strict accordance with the Specifications, Drawings and other Contract Documents and to do all therein called for on the terms and conditions and under the provisions therein set forth for the Appendices to this Form of Tender;

1.3 The bidder must submit a Tax Compliance Certificate from the Inland Revenue Department of the Montserrat Customs and Revenue Service, along with the bidding documents, if the individual or company is based in Montserrat. In the case of a sole trader, the Tax Compliance Certificate should be issued in that individual’s name. However, where the sole trader is trading using a business name, the Tax Compliance Certificate should be issued in the business name. In the case of a company, the tax compliance certificate should be issued in the name of the Company. It is therefore incumbent on the bidder to ensure that the Tax Compliance Certificate is issued in the correct name. Diligent checks will be made with the Inland Revenue Department and the Financial Services Commission to verify the accuracy of certificates. Bids received with improper Tax Compliance Certificates will be rejected.

1.4 Except in cases where there is an exemption from tax, of which proof must be provided; residents of Montserrat for tax purposes are subject to tax on the profits from this project while non-residents are liable to a 20% Withholding Tax deduction from the gross amount.

1.5 Please take into consideration your tax obligations and liabilities to the Government of Montserrat. For further information please contact Montserrat Customs & Revenue Service (MCRS) via email at irev@gov.ms.

1.6 All services undertaken will be the subject of taxation in accordance with the current legislation.

1.7 Declares that the Schedule of Unit Prices set forth in the Form of Tender has been correctly computed for the purposes of this Tender and that it includes and covers all contingencies and provisional sums; all duties (as applicable), and handling charges; transportation; and all other charges;

1.8 Hands the OWNER herewith by way of initial deposit a certified cheque or a Bid Bond in an amount of $______________ on the understanding that in the event of this Tender not being accepted by the OWNER, then this initial deposit will be returned to the undersigned Tenderer either at the time that the Contract is awarded to some other Tenderer, or at the expiration of validity of this Tender, whichever is the sooner;

Tenderer’s Initials and date:
1.9 Undertakes in the event of the OWNER’s acceptance of the Tender, to execute a formal agreement in the form hereto attached, within fourteen (14) days of written acceptance of the Tender and further agrees to provide by way of surety for the due performance of the Contract, a Performance Bond and a Labour and Material Payment Bond as described in the Tender;

1.10 Understands that the descriptions in the Form of Tender are purely for the purpose of identifying the items and in no way do those descriptions modify or supersede the full scope of Work contained in the Technical Specifications;

1.11 Agrees that unless and until a formal agreement is prepared and executed, this Tender together with the OWNER’s written letter of acceptance thereof shall constitute a binding Contract between the Tenderer and the OWNER;

1.12 Declares that this Tender is valid for forty-five (45) calendar days from the closing date of the Tender; and

1.13 Declares that the Contractor offers to furnish all of the material and product (except as otherwise specified to be supplied by others), together with all of the labour, plant and transportation to perform the work described in the contract documents, in the manner prescribed therein, for the prices quoted in the schedule of prices, and in accordance with the other schedules in this Tender.

2.0 TAXES AND DUTIES:

2.1 The John A. Osborne Airport is owned and operated by the Government of Montserrat and is a DUTY-FREE authority. As such, all import duties, customs services charges (Customs Processing Fees; CPF), excise taxes and environmental levies should not be applied in the Form of Tender – Unit Price or Estimated Total Tender Price. For VAT registered businesses, the VAT component must be indicated.

This waiver is effective for all cargo duties (plant, equipment, vehicles), including materials and consumables such as aggregates, diesel fuel, oil and grease, parts for equipment, etc. when imported for the Work (provided that any unused materials, including all plant and equipment imported for the Work are re-exported once they are no longer required for the carrying out of the Work).

Any plant, equipment, vehicles or materials that remain in Montserrat following the completion of the Work will be subject to normal import charges and duties.

2.2 Port and stevedoring charges are not exempt.

2.3 Work permit charges are exempt however applications for permits are still required to be submitted by the (accepted) Tenderer for approval by the Government of Montserrat.

2.4 There will be no exemption on the visas nor will the fee be waived. Fees for work permits will be waived but the Contractor still has to make the application for the work permit via the Labour Commissioner: Mr. Rudolph Christopher Christopherr@gov.ms

2.5 A trade license is not required.
2.6 Except in cases where there is an exemption from tax, of which proof must be provided; residents of Montserrat for tax purposes are subject to tax on the profits from this project while non-residents are liable to a 20% Withholding Tax deduction from the gross amount. Tenderer's are advised that an exemption from Withholding Tax is being sought by the Government of Montserrat in relation to this Project. Notwithstanding an exemption, Tenderers shall include a 20% Withholding Tax as a PROVISIONAL cost to their Tender. Exemption confirmation will be determined by the Government of Montserrat prior to execution of a contract.

2.7 The Tender is responsible for all applicable taxes as may be incurred by their work with exception of those exemptions made herein.

2.8 If necessary, obtain independent advice before submitting Tender.

3.0 TAX COMPLIANCE:

3.1 Tenderer’s shall take into consideration their tax obligations and liabilities to the Government of Montserrat. For further information please contact Montserrat Customs & Revenue Service (MCRS) via email at irev@gov.ms.

3.2 The Tenderer must submit a Tax Compliance Certificate from the Inland Revenue Department of the Montserrat Customs and Revenue Service, along with the bidding documents, if the individual or company is based in Montserrat. In the case of a sole trader, the tax compliance certificate should be issued in that individual’s name. However, where the sole trader is trading using a business name, the tax compliance certificate should be issued in the business name. In the case of a company, the tax compliance certificate should be issued in the name of the Company. It is therefore incumbent on the Tenderer to ensure that the tax compliance certificate is issued in the correct name. Diligent checks will be made with the Inland Revenue Department and the Financial Services Commission to verify the accuracy of certificates. Tenderer’s received with improper tax compliance certificates will be rejected.

3.3 All services undertaken are subject to taxation in accordance with the current legislation.

3.4 Tax compliance certificate does not apply to companies outside Montserrat.
4.0 PRICING

4.1 SCHEDULE OF UNIT PRICES:

The Tenderer offers the following Schedule of Unit Prices for performance of the base Scope of Work of the Contract:

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Section No.</th>
<th>Item Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>01 15 50</td>
<td>Mobilization/Demobilization, Bonding, Insurance, Etc.</td>
<td>LS</td>
<td>1</td>
<td>$__________</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>01 15 50</td>
<td>Contractor Laydown Area</td>
<td>LS</td>
<td>1</td>
<td>$__________</td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>01 15 50</td>
<td>Implementation of the Plan of Construction Operations (PCO)</td>
<td>LS</td>
<td>1</td>
<td>$__________</td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>01 15 50 01 40 00</td>
<td>Quality Control</td>
<td>LS</td>
<td>1</td>
<td>$__________</td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>01 71 00</td>
<td>Construction Surveying and Layout</td>
<td>LS</td>
<td>1</td>
<td>$__________</td>
<td></td>
</tr>
<tr>
<td>1.6</td>
<td>01 15 50 01 35 43</td>
<td>Environmental Protection Plan</td>
<td>LS</td>
<td>1</td>
<td>$__________</td>
<td></td>
</tr>
<tr>
<td>1.7</td>
<td>01 15 50 01 50 00</td>
<td>Engineer's Field Office (PROVISIONAL ITEM)</td>
<td>LS</td>
<td>1</td>
<td>$__________</td>
<td></td>
</tr>
<tr>
<td>1.8</td>
<td>01 15 50</td>
<td>Transport for Engineer</td>
<td>week</td>
<td>3</td>
<td>$__________</td>
<td>$__________</td>
</tr>
<tr>
<td>1.9</td>
<td>01 15 50</td>
<td>As-built Survey, Project Record Drawings and Documents</td>
<td>LS</td>
<td>1</td>
<td>$__________</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL SECTION 1.0**

(transfer to summary) $__________
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Section No.</th>
<th>Item Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td></td>
<td><strong>AIRFIELD PAVEMENTS – RUNWAY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>02 41 13.14</td>
<td>Partial Depth Asphalt Milling (10mm)</td>
<td>m²</td>
<td>11,400</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>2.2</td>
<td>FAA P-403 01 15 50</td>
<td>Asphalt Surface Course (50mm depth; 1 lift)</td>
<td>tonnes</td>
<td>1,540</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>2.3</td>
<td>FAA P-620 01 15 50</td>
<td>Pavement Line Markings</td>
<td>LS</td>
<td>1</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>2.4</td>
<td>FAA P-621 01 15 50</td>
<td>Runway Grooving</td>
<td>m²</td>
<td>7,080</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>2.5</td>
<td>01 15 50</td>
<td>Friction Testing</td>
<td>LS</td>
<td>1</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>2.6</td>
<td>01 15 50</td>
<td>Restoration (PROVISIONAL ITEM)</td>
<td>m²</td>
<td>1,200</td>
<td>$_________</td>
<td>$_________</td>
</tr>
</tbody>
</table>

**TOTAL SECTION 2.0**
*(transfer to summary)*

$_________
### SCHEDULE OF UNIT PRICES

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Section No.</th>
<th>Item Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td></td>
<td><strong>ELECTRICAL WORKS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Div. 16 01 15 50</td>
<td>Locate, mark and protect all existing buried cables, conduits, ducts, services and utilities within the Project limits that could be damaged during construction</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.2</td>
<td>Div. 16 01 15 50</td>
<td>Remove existing inset base cans and turn over to Owner. Remove and dispose of existing buried secondary cabling conduits</td>
<td>LS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.3</td>
<td>Div. 16 01 15 50</td>
<td>Sawcut and remove existing pavement across runway thresholds as necessary to install inset base cans and secondary conduits</td>
<td>lm</td>
<td>50</td>
<td>$_________</td>
<td>$_______</td>
</tr>
<tr>
<td>3.4</td>
<td>Div. 16 01 15 50</td>
<td>Trench up to 500mm wide x 600mm deep for secondary conduits c/w concrete backfill and disposal of excess material</td>
<td>lm</td>
<td>50</td>
<td>$_________</td>
<td>$_______</td>
</tr>
<tr>
<td>3.5</td>
<td>Div. 16 01 15 50</td>
<td>Supply &amp; install 53mm Schedule 40 rigid PVC conduit concrete encased</td>
<td>lm</td>
<td>95</td>
<td>$_________</td>
<td>$_______</td>
</tr>
<tr>
<td>3.6</td>
<td>Div. 16 01 15 50</td>
<td>Salvage and refurbish exist inset threshold light fixture</td>
<td>each</td>
<td>12</td>
<td>$_________</td>
<td>$_______</td>
</tr>
<tr>
<td>3.7</td>
<td>Div. 16 01 15 50</td>
<td>Supply and install 2-piece inset base can c/w all surveying, set-up, concrete, accessories and assembly</td>
<td>each</td>
<td>12</td>
<td>$_________</td>
<td>$_______</td>
</tr>
<tr>
<td>3.8</td>
<td>Div. 16 01 15 50</td>
<td>Install existing secondary cable through new conduit</td>
<td>lm</td>
<td>95</td>
<td>$_________</td>
<td>$_______</td>
</tr>
<tr>
<td>3.9</td>
<td>Div. 16 01 15 50</td>
<td>Install salvaged inset threshold light fixture onto new base can</td>
<td>each</td>
<td>12</td>
<td>$_________</td>
<td>$_______</td>
</tr>
</tbody>
</table>

**TOTAL SECTION 3.0**

(transfer to summary)

$_________
### TENDER PRICE SUMMARY:

<table>
<thead>
<tr>
<th>SECTION DESCRIPTION</th>
<th>SECTION TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECTION 1.0 – GENERAL CONSTRUCTION ITEMS</td>
<td>$_____________</td>
</tr>
<tr>
<td>SECTION 2.0 – AIRFIELD PAVEMENTS – RUNWAY</td>
<td>$_____________</td>
</tr>
<tr>
<td>SECTION 3.0 – ELECTRICAL WORKS</td>
<td>$_____________</td>
</tr>
</tbody>
</table>

**ESTIMATED SUB-TOTAL TENDER PRICE (XCD)**  
*Sum of Sections 1 to 3*  
$_____________

**WITHHOLDING TAX (PROVISIONAL ITEM)**  
*(20% of Estimated Total Tender Price)*  
$_____________

**ESTIMATED TOTAL TENDER PRICE (XCD)**  
*(Sum of Sub-total and Withholding Tax)*  
$_____________

**ESTIMATED TOTAL TENDER PRICE IN WORDS (EASTERN CARRIBEAN CURRENCY):**

| Tenderer’s Initials and date: |
5.0 SCHEDULE OF CONSTRUCTION

The Tenderer offers the following Schedule of Construction dates to perform the Work in accordance with the Tender Documents and to attain Substantial Performance of the Work as certified by the Engineer in ___________ weeks and Construction Completion of the work in ___________ weeks, per the following:

**Project Start Date:**
Day____ Month__________, Year______
*Occurs when the construction Work actually commences on the Work site; assumes no early start per Section 00 21 00*

**Substantial Performance Date:**
Day____ Month__________, Year______
*(not later than 10 days after the Project Start Date)*

*Occurs when the Work is ready for use for the purposes intended as declared by the OWNER and ENGINEER, and the value of deficiencies does not exceed 1% of the value of the Contract*

**Construction Completion Date:**
Day____ Month__________, Year______

*Occurs when the Work is fully commissioned and complete, including runway grooving, final line markings, deficiency cleanup and demobilization (Engineer/Owner’s discretion)*

The Tenderer is required to submit a proposed construction schedule in accordance with Section 00 40 00 – Supplementary Tender Information - Part 13.0 (Tentative Program of Works) with their Tender that allows the Work to be completed in the most efficient and cost-effective manner possible in order to meet the Substantial Performance and Construction Completion dates noted above.

The Tenderer must consider and build in potential for weather delays into their schedule.
6.0 SCHEDULE OF ADDENDA

6.1 The Tenderer states that it has received the following ADDENDA which have been considered and taken into account in determining the Prices tendered in the Schedule of Prices. The ADDENDA are issued by or in behalf of the OWNER.

<table>
<thead>
<tr>
<th>ADDENDUM NUMBER</th>
<th>DATE ISSUED</th>
<th>NUMBER OF PAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.2 The Tenderer hereby accepts and agrees to these Addenda forming a part of the Contract.

6.3 Copies of each Addenda received by the Tenderer during the Tendering period with each page, sheet or sketch initialled by the Tenderer shall be attached to this Form of Tender and shall form part of the completed Tender.

Dated at ______________ this _____ day of ______________, 2020.

Name of Witness: ____________________________

Signature of Witness: _________________________

Note: If the Tender is submitted by or on behalf of a corporation, it must be signed in the name of such corporation by the duly authorized officers and the seal of the corporation must be affixed. If the Tender is submitted by or on behalf of an individual or a partnership, a seal must be affixed opposite the signature of the individual or partnership.
SUPPLEMENTARY TENDER INFORMATION
1.0 CONTENT OF SUPPLEMENTARY TENDER FORMS

1.1 The Schedules in the Supplementary Tender Forms are offered for information and are subject to review by the OWNER, who may require these Schedules to be modified before the award of the CONTRACT. Modifications may be required for good cause, including but not limited to:

1.1.1 unbalanced breakdown prices.
1.1.2 unacceptable SUBCONTRACTORS or Suppliers and Manufacturers.
1.1.3 unacceptable Force Account Rates.
1.1.4 unacceptable provisional unit prices.
1.1.5 unacceptable supervisory personnel.
1.1.6 other causes.

1.2 The CONTRACTOR warrants that all of the information given in these Schedules is current and correct. Changes to any table, schedule or form in the Supplementary Tender Information, agreed upon by the OWNER and the CONTRACTOR, after closing of the Tender Period but before Contract Award shall not in any way affect the Validity of the Tender.

1.3 Upon acceptance by the OWNER, all tables, schedules and forms in the Supplementary Tender Information shall become a part of the CONTRACT DOCUMENTS.

2.0 OPTIONAL PRICING

2.1 OPTIONAL pricing has been included for the purposes of reviewing different pricing alternatives and work that is subject to the OWNER's budget for the project.

2.2 The OWNER at its sole discretion may proceed with none, any or all the OPTIONAL work. If the OWNER proceeds with any OPTIONAL work, the Section 00 33 00 – Form of Tender – Unit Prices will be amended accordingly in the executed CONTRACT DOCUMENTS.

2.3 The Tenderer shall price OPTIONAL items accordingly and shall not claim any anticipated loss of profit or increased overhead if any or all of these items are not approved by the OWNER.

2.4 The Tenderer offers the following OPTIONAL pricing for the work item as indicated. The Tenderer shall price the OPTIONAL pricing based on the work being completed under the same Contract and mobilization as the base Scope of Work within Section 00 33 00 – Form of Tender – Unit Prices.
# SCHEDULE OF OPTIONAL UNIT PRICES

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Section No.</th>
<th>Item Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>02 41 13.14</td>
<td>Partial Depth Asphalt Milling (10mm)</td>
<td>m²</td>
<td>850</td>
<td>$________</td>
<td>$______</td>
</tr>
<tr>
<td>A.2</td>
<td>FAA P-403</td>
<td>Asphalt Surface Course (50mm depth; 1 lift)</td>
<td>tonnes</td>
<td>110</td>
<td>$________</td>
<td>$______</td>
</tr>
<tr>
<td>A.3</td>
<td>FAA P-620</td>
<td>Pavement Line Markings</td>
<td>LS</td>
<td>1</td>
<td>$________</td>
<td></td>
</tr>
</tbody>
</table>

**ESTIMATED TOTAL OPTIONAL PRICE ‘A’** $______

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Section No.</th>
<th>Item Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.1</td>
<td>02 41 13.14</td>
<td>Partial Depth Asphalt Milling (10mm)</td>
<td>m²</td>
<td>6,170</td>
<td>$________</td>
<td>$______</td>
</tr>
<tr>
<td>B.2</td>
<td>FAA P-403</td>
<td>Asphalt Surface Course (50mm depth; 1 lift)</td>
<td>tonnes</td>
<td>850</td>
<td>$________</td>
<td>$______</td>
</tr>
<tr>
<td>B.3</td>
<td>FAA P-620</td>
<td>Pavement Line Markings</td>
<td>LS</td>
<td>1</td>
<td>$________</td>
<td></td>
</tr>
<tr>
<td>B.4</td>
<td>01 15 50</td>
<td>Removal/Abandon of Existing Aircraft Tie-Down</td>
<td>each</td>
<td>12</td>
<td>$________</td>
<td>$______</td>
</tr>
<tr>
<td>B.5</td>
<td>01 15 50</td>
<td>Installation of New Aircraft Tie-Down</td>
<td>each</td>
<td>12</td>
<td>$________</td>
<td>$______</td>
</tr>
</tbody>
</table>

**ESTIMATED TOTAL OPTIONAL PRICE ‘B’** $______
### Optional Tender Price Summary

<table>
<thead>
<tr>
<th>SECTION DESCRIPTION</th>
<th>SECTION TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECTION A – AIRFIELD PAVEMENTS – TAXIWAY</td>
<td>$______________________________</td>
</tr>
<tr>
<td>WITHHOLDING TAX (PROVISIONAL ITEM)</td>
<td></td>
</tr>
<tr>
<td>(20% of Estimated Total Optional Price 'A')</td>
<td>$______________________________</td>
</tr>
<tr>
<td>ESTIMATED TOTAL OPTIONAL PRICE SECTION A (XCD)</td>
<td>(Sum of Total and Withholding Tax)</td>
</tr>
<tr>
<td></td>
<td>$______________________________</td>
</tr>
<tr>
<td>SECTION B – AIRFIELD PAVEMENTS – APRON</td>
<td></td>
</tr>
<tr>
<td>WITHHOLDING TAX (PROVISIONAL ITEM)</td>
<td></td>
</tr>
<tr>
<td>(20% of Estimated Total Optional Price ‘B’)</td>
<td>$______________________________</td>
</tr>
<tr>
<td>ESTIMATED TOTAL OPTIONAL PRICE SECTION B (XCD)</td>
<td>(Sum of Total and Withholding Tax)</td>
</tr>
<tr>
<td></td>
<td>$______________________________</td>
</tr>
</tbody>
</table>
### 3.0 COMPANY PROFILE

3.1 In order to establish Tenderer qualification to perform the Contract, the Tender shall provide the following information:

<table>
<thead>
<tr>
<th>A</th>
<th>COMPANY INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPANY NAME: __________________________</td>
<td>REGISTRATION NUMBER: __________________________</td>
</tr>
<tr>
<td>COMPANY ADDRESS: __________________________</td>
<td></td>
</tr>
<tr>
<td>CONTACT PERSON: __________________________</td>
<td>POSITION: __________________________</td>
</tr>
<tr>
<td>TELEPHONE NUMBER: __________________________</td>
<td>WEBSITE: __________________________</td>
</tr>
<tr>
<td>EMAIL ADDRESS: __________________________</td>
<td></td>
</tr>
</tbody>
</table>

**FINANCIAL STATUS REFERENCE:**

| COMPANY NAME: __________________________ | CONTACT PERSON: __________________________ |
| TELEPHONE NUMBER: __________________________ | |
| COMPANY ADDRESS: __________________________ | |

### B QUESTIONNAIRE

<table>
<thead>
<tr>
<th>1</th>
<th>Your entity operates as which one of the following?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sole Proprietorship</td>
</tr>
<tr>
<td></td>
<td>Partnership</td>
</tr>
<tr>
<td></td>
<td>Limited Liability</td>
</tr>
<tr>
<td></td>
<td>Others</td>
</tr>
<tr>
<td>2</td>
<td>How many years has your entity been in operation?</td>
</tr>
<tr>
<td></td>
<td>years</td>
</tr>
<tr>
<td>3</td>
<td>Number of Employees within your entity?</td>
</tr>
<tr>
<td></td>
<td>people</td>
</tr>
<tr>
<td>4</td>
<td>Has your entity failed to complete a contract for a public or private entity?</td>
</tr>
<tr>
<td></td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>NO</td>
</tr>
</tbody>
</table>

Tenderer's Initials and date:
4.0 SCHEDULE OF FORCE ACCOUNT RATES

4.1 The Tenderer offers to do force account work for the following rates for personnel and equipment. Equipment rates include operator, fuel, maintenance, profit and overhead. Personnel rates include payroll cost of labour, all payroll burdens, room and board, if applicable, overhead and profit. The cost of superintendents, time keepers, and other administrative and supervisory personnel and their vehicles are included in overhead. The cost of Bonding and Insurance is included in overhead.

4.2 The Tenderer understands that the OWNER may review these Force Account Rates and require changes for good cause.

4.3 The Schedule is provided for a Change to the Work pursuant to General Conditions of the Contract where the "force account" rates are applicable. The Tenderer may attach additional work sheets to add to the tables below.

<table>
<thead>
<tr>
<th>EQUIPMENT:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Description and Make</td>
<td>Model and Size</td>
</tr>
<tr>
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<tr>
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<td></td>
</tr>
</tbody>
</table>
### PERSONNEL:

<table>
<thead>
<tr>
<th>Occupation Or Trade</th>
<th>Hourly Rate</th>
<th>Overtime Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<tr>
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<td></td>
</tr>
</tbody>
</table>

5.0 NAME AND ADDRESS OF COMPANY WHO HAS AGREED TO UNDERWRITE THE BONDS FOR PERFORMANCE AND FOR LABOUR AND MATERIAL PAYMENT.

Name

Address

Telephone

6.0 NAME AND ADDRESS OF COMPANY WHO HAS AGREED TO UNDERWRITE INSURANCE ON THIS CONTRACT AND THE TYPE AND AMOUNT OF INSURANCE.

Name

Address

Telephone

Tenderer’s Initials and date:
7.0 TENDERER EXPERIENCE QUALIFICATION

In order for a Tenderer to qualify for evaluation, they must demonstrate qualifications and experience on work similar to that proposed on this Project, including:

7.1 Records to demonstrate the Tenderer has performed at least two (2) successful airport construction projects with minimum construction value of $1,000,000 USD in the past ten (10) years (between 2010-2020). This shall include projects where the company completed the paving (min. $1M) or was the Prime Contractor; and

7.2 Electrical Contractor – Complete Appendix B – Electrical Contractor Qualification Form and submit along with the Tender.
8.0 PARTICULARS OF TENDERER’S RECENT CONTRACTS:

8.1 The Tenderer shall furnish particulars of at least three (3), and if possible, five (5) contracts successfully completed or currently being carried to completion prior to this Project. The projects quoted should be approximate in nature to the Works now tendered for and be of comparable or greater size. (Attached additional reference pages to the Tender if required).

<table>
<thead>
<tr>
<th>Client and Contact Name and Telephone Number for Reference</th>
<th>Description</th>
<th>Start Date</th>
<th>End Date</th>
<th>Contract Value</th>
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9.0 LIST OF MAJOR EQUIPMENT TO BE USED ON THIS PROJECT (TO INCLUDE: SERIAL NO., DESCRIPTION, SIZE OR CAPACITY, CONDITION, AGE AND PRESENT LOCATION).

*Attach separately as required*

Tenderer’s must demonstrate that it has one (1) backup of all major equipment required to perform the Work in case of breakdown during construction (i.e. milling machine, paving equipment, etc.)
10.0 SCHEDULE OF SUB-CONTRACTORS:

10.1 The Tenderer’s attention is drawn to the General Conditions of the Contract - ASSIGNMENT AND SUB-CONTRACTING. The Tenderer shall enter the name and address of each Sub-Contractor used in making up the Tender. Only one Sub-Contractor shall be named for each part of the Work to be sublet. Indicate “Own Forces” if self completing the associated work.

10.2 After a Tender has been accepted by the OWNER, the CONTRACTOR shall not be allowed to substitute other sub-contractors in place of those named in the Tender without written approval from the OWNER.

<table>
<thead>
<tr>
<th>Division or Section of Work</th>
<th>Name of Subcontractor or Supplier</th>
<th>Value of work (approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airfield Electrical</td>
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<tr>
<td>Asphalt Paving</td>
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<td>Line Painting</td>
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<td>Grooving</td>
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<tr>
<td>Friction Testing</td>
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<tr>
<td>Other _______________</td>
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11.0 SENIOR PROJECT PERSONNEL

The Tenderer shall include below, the names, qualifications and previous experience of those people who will be directly involved with the project. The names shall, for example, include foreman, superintendent, project engineer and/or project manager. The Tenderer shall provide detailed resumes/curricula vitae of these people (attach separately).

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Related Experience</th>
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</table>
12.0 LOCAL LABOUR

12.1 One of the priorities of the OWNER is to ensure that Local materials, equipment, labour and other services are used to the fullest extent practical in execution of the Work. The Tenderer shall include below an outline of how the Tenderer plans to employ local residents, etc. in the Work, and additionally how the Tenderer plans to use local sub-contractors, as may be applicable.

12.2 The Tenderer estimates approximately ______% of the total labour hours required in the Work will be comprised of Local labour.

13.0 TENTATIVE PROGRAM OF WORKS:

13.1 Work Program and Schedule:

The Tenderer is required to submit a proposed work program and construction schedule with their Tender showing the Work to be completed in the most efficient and cost effective manner possible to meet the Substantial Performance and Construction Completion dates noted in Section 00 33 00 Form of Tender – Unit Prices.

The construction schedule should be provided in Gantt Chart format, accompanied with narrative details of the Tenderer’s proposed work program, not limited to the following:

a. Give procurement plan, duration of procurement activities and delivery schedule

b. Give sequence and timing for pre-construction material testing and approval of materials, mix design, Job Mix Formula and inspections testing during construction

c. Give duration and sequence of activities as they relate to this project, including mobilization, setup, asphalt test strip, any early works, etc. and all aspects/sections of the works represented in each working Stage of the project

d. Show optional works represented in the schedule, as applicable

e. Describe resources, equipment and labour needed for each activity

f. Indicate the contingency plan in case of major equipment breakdown in order to commit to the Work schedule, including list of backup equipment available onsite

g. Opportunities to accelerate schedule

h. Any potential Project risks, constraints, issues, or special requirements, including mitigating measures

i. Methods for managing the Project schedule and budget so that the Proponent will meet the agreed upon completion dates

The Contractor must consider and build in potential for weather delays into their schedule.
13.2 Project Understanding:

The Tenderer shall provide a summary of their understanding of and ability to carry out the Work. This summary shall be no more than 3 pages in length and affixed hereto on the Tenderer’s company letterhead.

This narrative should provide a complete description of the methodology necessary to ensure that the project will be proactively and successfully completed as well as an understanding of the project specifications and quality control testing requirements, and how these will be achieved. The Tenderer should provide sufficient and specific project detail to allow the OWNER to assess the Tenderer’s overall project understanding and ability to meet the Substantial Performance and Completion Dates along with the contingency resource plans in case such as the major machinery breakdown.

14.0 CURRENT COMMITMENTS

The Tenderer shall provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion or substantial performance certificate has yet to be issued. The information shall include (Attach separately as required):

<table>
<thead>
<tr>
<th>Name of Contract</th>
<th>Employer, contact address/telephone</th>
<th>Value of outstanding work in EC or US Dollars</th>
<th>Estimated completion date</th>
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Tenderer’s Initials and date:
15.0 ANTI-COLLUSION STATEMENT

I/we certify that this proposal is made in good faith, and that we have not fixed or adjusted the amount of the proposal by or under or in accordance with any agreement or arrangement with any other person. I/we also certify that we have not and I/we undertake that we will not before the award of any contract for the work:

Disclose the proposal price or any other figures or other information in connection with the proposal to any other party (including any other company or part of a company forming part of a group of companies of which I am/we are a part of) nor to any sub-consultant (whether nominated or domestic) nor supplier (whether nominated or domestic) or any other person to whom such disclosure could have the effect of preventing or restricting full competition in this proposing exercise.

Enter into any agreement or arrangement with any person that they shall refrain from proposing, that they shall withdraw any proposal once offered or vary the amount of any proposal to be submitted or otherwise collude with any person with the intent of preventing or restricting full competition.

Pay, give or offer pay or give any sum of money or other valuable consideration directly or indirectly to any person for doing or having done or causing or having caused to be done in relation to another proposal or proposed proposal for the work any act or thing of the sort.

I/we further declare that i/we have no knowledge either of any sum quoted or of any other particulars of any other proposal for this contract by any other party.

I/we further certify that the principles described above have been, or will be, brought to the attention of all sub-consultants, suppliers and associated companies providing services or materials connected with the proposal and any contract entered into with such sub-consultants, suppliers or associated companies will be made on the basis of compliance with the above principles by all parties.

I/we acknowledge that any breach of the foregoing provisions shall lead automatically to this proposal being disqualified and may lead to criminal or civil proceedings. The government of Montserrat shall treat any proposal received in confidence but reserves the right to make the same available to any other funding organisation or statutory regulatory authority either having jurisdiction over the services or who may now or at any time in the future have statutory power to require disclosure of this proposal.

In this certificate, the word ‘person’ includes any persons and anybody or association, incorporated or unincorporated; any agreement or arrangement includes any transactions, formal or informal and whether legally binding or not; and ‘the work’ means the work in relation to which this proposal is made.

Signature: .................................................................
In capacity of: ...........................................................
Date: ................................................................., 2020

Duly authorised to sign proposals & acknowledge the contents of the anti-collusion certificate for and on behalf of: 
Name of Firm: .................................................................................................................................
Full postal address: ............................................................................................................................
Contact No. .........................................................................................................................................

------------------------ END OF SECTION 00 40 00------------------------
FORM OF AGREEMENT

[Project Name]

Contract No. [Contract No.]

THIS AGREEMENT made this day of 2020

BETWEEN

(hereinafter called the "CONTRACTOR")

- and -

[OWNER]

(hereinafter called the "OWNER")

WITNESSETH AS FOLLOWS:

1. The OWNER intends that the WORK comprised in this CONTRACT be constructed and has accepted a Tender by the Contractor for the construction, completion, testing and maintenance of the WORK.

2. In consideration of the covenants and agreements hereinafter contained and to be performed by the OWNER, the CONTRACTOR HEREBY AGREES with the OWNER to do the following WORK:

   (a) To find and supply all the PLANT, MATERIALS, PRODUCTS and labour necessary to construct the WORK specified in the CONTRACT DOCUMENTS, on the terms and conditions specified in the CONTRACT, for the CONTRACT PRICE specified in the CONTRACT DOCUMENTS.

   (b) To commence and actively proceed with the WORK on [Date], and to achieve SUBSTANTIAL PERFORMANCE of the WORK on or before [Date], and CONSTRUCTION COMPLETION for the WORK on or before [Date].

3. Liquidated Damages:

   (a) If the CONTRACTOR fails to complete the WORK, to the satisfaction of the ENGINEER, by the corresponding SUBSTANTIAL PERFORMANCE DATE (as such date may be adjusted in accordance with the CONTRACT), then the CONTRACTOR shall pay the OWNER $20,000 USD per calendar day of delay in achieving SUBSTANTIAL PERFORMANCE of the WORK. The CONTRACTOR acknowledges and agrees that these liquidated damages are intended to be a limitation of the CONTRACTOR'S liability and not a penalty and that the OWNER'S actual damages would exceed such liquidated damages.

   Liquidated damages will be measured as one (1) calendar day for each day if at 0700 local time SUBSTANTIAL PERFORMANCE of the WORK has not been achieved.

   (b) For the purpose of this liquidated damages clause, SUBSTANTIAL PERFORMANCE will mean that the WORK under this CONTRACT is ready for use or is being used for the purpose intended.
(c) Days for Liquidated Damages will be calculated based on each day after the TIME FOR COMPLETION set forth by the CONTRACT DOCUMENTS. Every day thereafter will be counted as a day with the exception of:

a. The CONTRACTOR is prohibited from working due to restrictions imposed by local regulators after the CONTRACT has been awarded; or

b. The CONTRACTOR is prohibited from working as a result of directives from the ENGINEER or the OWNER; or

c. The OWNER grants an exception for any given day to be counted.

(d) If the CONTRACTOR fails to complete the specified WORK required to permit the AIRPORT REOPENING within the times specified, but nevertheless is permitted by the OWNER to proceed and complete the WORK, such permission shall not modify nor waive in any respect any responsibility of the CONTRACTOR for damages arising from such noncompletion within the time specified.

(e) For any WORK activities occurring while the runway is operational or scheduled for use, and in the event that due action is not carried out to ensure that area is made serviceable, then this will subject the CONTRACTOR to liquidated damages of $1,000 for every fifteen (15) minutes the runway or taxiway is unserviceable, to a maximum of sixty (60) minutes after which a full day of liquidated damages will be applicable in accordance with 3(a).

4. The CONTRACTOR agrees that time shall be construed as being of the essence of the CONTRACT.

5. It is agreed that the CONTRACTOR has full knowledge of the location of the WORKSITE and is informed as to the actual conditions and requirements thereof including labour conditions and labour rules, and shall not claim at any time after the execution of the CONTRACT that there was a misunderstanding in regard to such conditions and requirements.

6. The OWNER hereby covenants to pay to the CONTRACTOR in consideration of the construction, completion, testing and maintenance of the WORK, the CONTRACT PRICE in accordance with the CONTRACT.

7. Performance Security:

The CONTRACTOR shall, at its expense, within twenty-eight (28) days of the receipt of notification of award from the OWNER, provide the OWNER:

(a) a performance bond in an amount equal to 50% of the CONTRACT PRICE covering the performance of the CONTRACT, including the correction of all deficiencies and the fulfillment of all warranties; and

(b) a labour and material payment bond in an amount equal to 50% of the CONTRACT PRICE, covering the payment of labour, MATERIALS and PRODUCTS.

The bonds shall be issued by an entity and from within a country approved by the OWNER. The bonds shall remain in effect until the expiry of the WARRANTY PERIOD and release of the FINAL CERTIFICATE.

Failure of the successful Tenderer to submit the above-mentioned Performance Security or to sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the OWNER may at its sole discretion award the Contract to the next lowest evaluated Tenderer whose offer is substantially responsive and is determined by the OWNER to be qualified to perform the Contract satisfactorily.
8. The CONTRACT enures to the benefit of, and is binding upon, the parties and their respective successors and permitted assigns.

9. All provisions of the CONTRACT which expressly or by their nature survive the termination of the CONTRACT or the completion of the WORK, will continue in full force and effect after any termination of the CONTRACT or completion of the WORK.

10. If the CONTRACTOR constitutes a joint venture or other unincorporated grouping of two or more persons, these persons shall be deemed jointly and severally liable to the OWNER for the performance of the Contract.

11. The CONTRACTOR shall not alter its composition or legal status without prior consent of the ENGINEER.

12. Whenever the singular and masculine is used throughout this CONTRACT and other CONTRACT DOCUMENTS, the same shall be construed as meaning the plural or feminine or body corporate, as the context or the parties hereto so require.

[The remainder of this page is intentionally blank. Signature page to follow.]
IN WITNESS WHEREOF the parties hereunto have caused these presents to be executed, the day and year first above written.

GOVERNMENT OF MONTSEÑRAT (OWNER)

Per: __________________________________________
Name:  
Title:  

Per: __________________________________________
Name:  
Title:  

[CONTRACTOR]

Per: __________________________________________
Name:  
Title:  

Per: __________________________________________
Name:  
Title:  

(Date)

----------------------- END OF SECTION 00 53 00------------------------
GENERAL CONDITIONS (GC)
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<td>39.0</td>
<td>MATERIALS AND PRODUCTS SUPPLIED BY THE OWNER</td>
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<td>STORAGE FACILITIES AND USE OF THE PREMISES</td>
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<td>SECURITY OF THE SITE</td>
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<td>OWNER'S RIGHT TO AUDIT</td>
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<td>REMEDIES</td>
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<td>CORRUPT OR FRAUDULENT PRACTICES</td>
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<td>ROYALTY FEES</td>
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<td>54.0</td>
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DEFINITIONS

1.1 The contents of the CONTRACT DOCUMENTS and the CONTRACT are limited to:

1.1.1 The Agreement

1.1.2 General Conditions;

1.1.3 Schedules

1.1.3.1 Unit Prices;

1.1.3.2 Force Account Rates;

1.1.3.3 Subcontractors;

1.1.4 Drawings;

1.1.5 Specifications and Special Provisions;

1.1.6 Appendices;

1.1.6.1 Plan of Construction Operations ("PCO")

1.1.7 Addenda;

1.1.8 Field Orders;

1.1.9 Change Orders.

1.2 The following definitions shall apply throughout the CONTRACT DOCUMENTS:

1.2.1 The term ENGINEER or CONSULTANT shall mean Government of Montserrat or such other engineering firm as may from time to time be duly authorized and appointed in writing by the OWNER to act for the purposes of this CONTRACT within the authority and responsibility defined in the CONTRACT DOCUMENTS.

1.2.2 The term OWNER REPRESENTATIVE shall mean an employee of the OWNER or an agent of the OWNER, specifically designated in writing by the OWNER to have special responsibilities and authorities as set out in the CONTRACT DOCUMENTS.

1.2.3 The term the WORK shall mean the entirety of the work described in these CONTRACT DOCUMENTS, including MATERIAL, PRODUCT, labour, PLANT, transportation and other facilities and items ancillary to the foregoing required to furnish and perform the CONTRACT by the CONTRACTOR in accordance with the intent of the design as expressed in the CONTRACT DOCUMENTS.

1.2.4 The term THE PROJECT shall mean the total construction contemplated by the OWNER, of which the WORK may be the whole or only a part.
1.2.5 The term WORKSITE shall mean the spatial limits within which the WORK is located, during the period of performance of the WORK.

1.2.6 The term CONTRACTOR’S SUPERINTENDENT shall mean an employee or representative of the CONTRACTOR who is specifically authorized to be in full charge of the CONTRACTOR’S operations at the WORKSITE and is so designated in writing by the CONTRACTOR to the OWNER.

1.2.7 The term CONTRACTOR’S PROJECT MANAGER shall mean a representative of the CONTRACTOR, superior to the CONTRACTOR’S SUPERINTENDENT, who has authority to issue QUOTATIONS FOR CONTEMPLATED CHANGE, to sign CHANGE ORDERS and to act on behalf of the CONTRACTOR both at and away from the WORKSITE with respect to the CONTRACT.

1.2.8 The term SUBCONTRACTOR shall mean a person neither contracting with nor employed directly by the OWNER for doing any of the WORK, but contracting with or being employed directly or indirectly by the CONTRACTOR, provided however that the term SUBCONTRACTOR shall not include one who merely supplies MATERIAL or PRODUCT for the WORK to the CONTRACTOR.

1.2.9 The term OTHER CONTRACTOR shall mean any person, firm or corporation employed by the OWNER on the site of THE PROJECT other than through the CONTRACTOR.

1.2.10 The term CONTRACT PRICE shall mean the aggregate or total price for performing the WORK specified in the Contract Documents, adjusted during the course of the WORK as required by these CONTRACT DOCUMENTS.

1.2.11 The term TIME FOR COMPLETION shall mean the time for: completing the WORK as evidenced by the CONSTRUCTION COMPLETION CERTIFICATE as such dates may be adjusted in accordance with the CONTRACT.

1.2.12 Certificates

1.2.12.1 The term PROGRESS PAYMENT CERTIFICATE shall mean a claim for payment for work done, prepared by the CONTRACTOR, reviewed and certified by the ENGINEER, upon which payment on account is made periodically by the OWNER.

1.2.12.2 The term SUBSTANTIAL PERFORMANCE CERTIFICATE shall mean a certificate issued by the ENGINEER upon the Work being "substantially performed", as defined when the WORK is accepted and ready for use for the purposes intended, and the value of deficiencies does not exceed 1% of the value of the Contract ("SUBSTANTIAL PERFORMANCE").

1.2.12.3 The term CONSTRUCTION COMPLETION CERTIFICATE shall mean a certificate issued by the ENGINEER upon full completion of the WORK, including cleanup and rectification of all deficiencies
1.2.12.4 The term FINAL CERTIFICATE shall mean the certificate issued by the ENGINEER on behalf of the OWNER or by the OWNER, only at the request of the CONTRACTOR, after expiry of the WARRANTY PERIOD, provided that the conditions of the CONTRACT have been met.

1.2.13 The term WARRANTY PERIOD means the period of time specified in GC 35.1

1.2.14 The term CHANGE shall mean any substitutions for, addition to or deletions from the WORK or any change in the TIME FOR COMPLETION.

1.2.15 The term FIELD ORDER (F.O.) shall mean a written communication from the OWNER, or from the ENGINEER on behalf of the OWNER, to the CONTRACTOR, clarifying the CONTRACT DOCUMENTS, issuing additional instructions, requesting information, or ordering a CHANGE in the WORK within the general scope of the WORK.

1.2.16 The term CHANGE ORDER shall mean a written communication issued by the OWNER, with the agreement of the CONTRACTOR, setting forth the authorized amount and time to be added to or deducted from the CONTRACT PRICE on account of a CHANGE in the WORK described by a NOTICE OF CONTEMPLATED CHANGE.

1.2.17 The term NOTICE OF CONTEMPLATED CHANGE (NCC) shall mean a written communication from the ENGINEER, on behalf of the OWNER, describing a contemplated change in the WORK and requesting a quotation, complete with a narrative description of the details of the work to be done by the CONTRACTOR to achieve the contemplated CHANGE.

1.2.18 The term QUOTATION FOR CONTEMPLATED CHANGE (QCC) shall mean a written proposal by the CONTRACTOR to the OWNER for doing the work required to achieve the contemplated CHANGE, including both cost and time implications for doing the WORK.

1.2.19 The term PLANT or EQUIPMENT shall mean collectively all tools, implements, machinery, vehicles, structures, equipment and other things required for the execution of the WORK, and provided by the CONTRACTOR or a SUBCONTRACTOR.

1.2.20 The term MATERIAL shall mean collectively all materials and commodities required to be furnished under the CONTRACT for the WORK except those specifically provided for otherwise in the CONTRACT DOCUMENTS.

1.2.21 The term PRODUCT shall mean collectively machinery or assembled components specifically provided for the WORK and standard PRODUCT such as motors, pumps, etc. designed and produced for a specific use.

1.2.22 The term CONTRACT QUANTITY shall mean the estimated quantity of WORK, PRODUCT, MATERIAL and LABOUR estimated for the completion of the Schedule of Unit Prices.
1.2.23 The term CONTRACT DOCUMENTS or CONTRACT means the documents so identified in GC 1.1.

1.2.24 The term DRAWINGS means the graphic and pictorial portions of the CONTRACT DOCUMENTS, wherever located and whenever issued, showing the design, location and dimensions of the WORK, generally including plans, elevations, sections, details and diagrams.

1.2.25 The term SPECIFICATIONS means the specifications, standards and schedules included with the CONTRACT DOCUMENTS or issued to the CONTRACTOR during the performance of the WORK, including revisions thereto.

1.2.26 The term LAWS means any applicable federal, provincial, or local law, regulation, bylaw, ordinance, rule, permit, licence or code of every relevant jurisdiction that in any manner affects the WORK or the performance of the CONTRACTOR'S obligation under the CONTRACT and any order, decree, authorization or approval, or other binding determination of any relevant governmental authority, body, tribunal or agency with jurisdiction over the foregoing.

1.2.27 The term COSTS means all direct, incremental expenditures reasonably and necessarily incurred by the CONTRACTOR or a SUBCONTRACTOR at the WORKSITE, exclusive of profit or overhead.

1.2.28 The term BUSINESS DAYS means a day other than Saturday, Sunday, statutory holiday, or statutory vacation day that is observed by the construction industry in the COUNTRY.

1.2.29 The term "PROVIDE" shall mean supply and install.

1.2.30 The term COUNTRY means the country in which THE WORKS (or most of it) are located or are to be executed.

1.3 Words importing the singular only shall also include the plural and vice-versa, where the context requires.

1.4 MATERIAL, PRODUCT, PLANT or methods described in words which so applied have a well-known technical or trade meaning shall be held to refer to such recognized meaning.

GC2.0 INTERPRETATION

2.1 The Contract Documents are complementary, and what is required by one will be binding as if required by all.

2.2 If any question arises about any conflict, ambiguity, inconsistency, error, omission or discrepancy in or between the SPECIFICATIONS, DRAWINGS or any other CONTRACT DOCUMENTS relating to the scope of the WORK, then the CONTRACTOR must comply with the highest quality or standard specified in the CONTRACT DOCUMENTS or perform the more stringent obligation, unless otherwise directed in writing by the ENGINEER.
GC3.0 LAWS AND PERMITS

3.1 The CONTRACTOR shall obtain all Permits, Licenses and Certificates, and pay all fees required for the performance of the WORK.

3.2 The OWNER shall obtain all easements and rights of way, and the CONTRACTOR shall have free use thereof for the purposes of this CONTRACT, provided that such use shall not interfere with or impede the operation of any OTHER CONTRACTORS or workmen employed by the OWNER, nor be in conflict with conditions of easement agreement or right of way limits. The CONTRACTOR shall indemnify and defend the OWNER against any claims, demands, or losses due to failure to meet all conditions of an easement agreement.

3.3 The CONTRACTOR shall give all required notices, and comply with all laws, ordinances, regulations, codes and orders of all authorities having jurisdiction relating to the WORK, to preservation of public health, and to construction safety. If the CONTRACTOR observes anything in the CONTRACT DOCUMENTS to be at variance with the foregoing, he shall promptly notify the ENGINEER in writing, and shall await the ENGINEER’S instructions. If the CONTRACTOR performs any WORK, knowing it to be contrary to such LAWS, ordinances, regulations, codes or orders, and without giving notice to and requesting instructions from the ENGINEER, he shall bear all costs arising therefrom.

3.4 The CONTRACTOR shall make all arrangements with local authorities, operating departments, railway and highway officials, utility and service companies and the like, for detours, crossings, traffic control and similar requirements relating to performance of the WORK, and he shall at his own cost observe their requirements and regulations.

3.5 The CONTRACT is governed by the law of Montserrat.

3.6 Subject to GC47.0 - DISPUTE RESOLUTION, each party shall bring any court proceeding, action or suit brought under, related to, or by virtue of this CONTRACT, the business relationship between the parties or the performance of and compliance with the CONTRACT, in a court of competent jurisdiction in Montserrat.

3.7 The CONTRACTOR shall: (a) ensure that the WORK is performed in accordance with, and complies with, applicable LAWS; (b) comply with all applicable LAWS in performing its obligations under the CONTRACT; and (c) provide the OWNER with evidence of compliance with LAWS when the OWNER reasonably requests.

GC4.0 GENERAL INVESTIGATIONS

4.1 The CONTRACTOR warrants to the OWNER that it has:

4.1.1 carefully examined and satisfied itself as to the location of and all conditions relating to the WORKSITE, including but not limited to accessibility, general character, surface and subsurface conditions, utilities, roads, hydrological and climatic conditions, uncertainty of seasonal weather and all other physical, topographical or geographical conditions;

4.1.2 carefully examined all information relevant to the risks, contingencies and other
circumstances having an effect on its obligations under this CONTRACT which is obtainable by making reasonable inquiries;

4.1.3 carefully examined and satisfied itself as to all LAWS applicable to the WORK or that might affect the WORK; and

4.1.4 entered into this CONTRACT based upon its own investigations, examinations and determinations, including assessments of any risks that could have an effect on its obligations under this CONTRACT.

4.2 The CONTRACTOR confirms and warrants that there are no errors, inconsistencies or omissions in the DRAWINGS or SPECIFICATIONS that will affect the CONTRACT PRICE or the TIME FOR COMPLETION.

GC5.0 DRAWINGS AND INSTRUCTIONS

5.1 The CONTRACTOR shall maintain a current set of the complete CONTRACT DOCUMENTS, in good order, at the WORKSITE.

5.2 All DRAWINGS, SPECIFICATIONS and copies thereof furnished by the ENGINEER are its property. They shall not be used on other work and, with the exception of the signed CONTRACT DOCUMENT set, are to be returned to the ENGINEER on request, upon completion of the WORK.

5.3 All models prepared by the ENGINEER for the OWNER’S use and paid for by the OWNER, are the property of the OWNER, and not the CONTRACTOR, unless specifically agreed otherwise.

5.4 If the CONTRACTOR suffers delay and/or incurs additional costs as a result of the failure of the ENGINEER to issue DRAWINGS within the time specified in the CONTRACT DOCUMENTS, the CONTRACTOR shall provide immediate written notice to the OWNER and shall be entitled to:

5.4.1 an extension of the TIME FOR COMPLETION, to the extent the CONTRACTOR is or will be delayed in completing the WORK by the TIME FOR COMPLETION, based on critical path method analysis, as a result of the OWNER’S failure to issue DRAWINGS within the time specified in the CONTRACT DOCUMENTS; and

5.4.2 compensation for additional COSTS incurred as a direct result of, and solely attributable to the ENGINEER’S failure to issue DRAWINGS within the time specified in the CONTRACT DOCUMENTS, plus a markup of 10% on account of overhead and profit.

5.5 The failure of the CONTRACTOR to give written notice to the ENGINEER in accordance with GC 5.4 within three (3) BUSINESS DAYS after the OWNER’S failure to issue DRAWINGS within the time specified in the CONTRACT DOCUMENTS, constitutes a waiver of the CONTRACTOR’S right to an extension of the TIME FOR COMPLETION and/or additional compensation.
5.6 The ENGINEER may furnish to the CONTRACTOR, during the progress of the WORK, additional instructions to supplement the CONTRACT DOCUMENTS, including the DRAWINGS and SPECIFICATIONS as the ENGINEER considers necessary or desirable for the performance of the WORK. Additional instructions will be consistent with the intent of the CONTRACT DOCUMENTS. Additional instructions may be in the form of SPECIFICATIONS, DRAWINGS, samples, models or other written instructions. The CONTRACTOR shall comply with all additional instructions.

5.7 If the CONTRACTOR considers that any additional instructions issued under GC 5.6 increase the Time for Completion or the cost of carrying out the WORK, the CONTRACTOR shall give written notice to the ENGINEER in accordance with GC 18.10 before proceeding with the WORK relating to such instruction.

GC6.0 REFERENCE POINTS AND LAYOUT

6.1 The ENGINEER will establish reference points for the location of principal components of the WORK as well as bench marks in reasonable proximity to the WORK, but the CONTRACTOR shall use reasonable efforts to verify their accuracy before they are used.

6.2 The CONTRACTOR shall be responsible for protection and preservation of the reference points and stakes, and legal survey pins, and in case of wilful or careless destruction, he shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their loss or disturbance.

6.3 The CONTRACTOR shall provide all detailed layout of dimensions, locations, and elevations of the WORK from the reference points and bench marks set by the ENGINEER.

6.4 The CONTRACTOR shall not proceed with the WORK until he has received from the ENGINEER such reference points, elevations, and other points and instructions as are required for the execution of the WORK.

6.5 The CONTRACTOR shall, before commencing WORK at any point, satisfy himself as to the meaning and correctness of all stakes and instructions. The CONTRACTOR shall have no claim for an extension of the TIME FOR COMPLETION and/or additional compensation based on alleged inaccuracies, failure to read reference points correctly, or failure to interpret instructions correctly.

6.6 If the CONTRACTOR, in the course of executing the WORK, finds any discrepancy between the drawings and the physical conditions of the locality, or any errors, omissions or discrepancies in the DRAWINGS or in the layout as given by points and instructions, he shall inform the OWNER immediately in writing, and the OWNER or the ENGINEER shall promptly verify the same and issue appropriate instructions. Any work done after discovery of errors, omissions or discrepancies, before further work is authorized, will be done at the CONTRACTOR’S risk.

GC7.0 THE OWNER

7.1 The OWNER shall give the CONTRACTOR right of access to the WORKSITE within such
times as required to enable the CONTRACTOR to precede without disruption in accordance with the CONTRACT DOCUMENTS.

7.2 The CONTRACTOR shall give immediate written notice to the OWNER whenever the WORK is, or is likely to be, delayed or disrupted by the OWNER'S failure to provide the CONTRACTOR with access to the WORKSITE. Such notice shall include the details of the delay, details of why and by when it should be resolved, and the nature and amount of delay or disruption likely to be suffered if is not.

GC8.0 THE ENGINEER

8.1 The ENGINEER shall be appointed by the OWNER to carry out the duties assigned to him in the Contract and as delegated and agreed in consultant agreements or as necessarily implied from the Contract.

8.2 The duties, responsibilities and limitations of authority of the ENGINEER are defined in the CONTRACT DOCUMENTS and they may not be changed except with the written consent of the OWNER, the CONTRACTOR and the ENGINEER. They are delegated to the ENGINEER by the OWNER.

8.3 The duties, responsibilities and limitations of authority of the ENGINEER may not be changed except with the written consent of the OWNER, the CONTRACTOR and the ENGINEER.

8.4 The ENGINEER shall have no authority to amend the CONTRACT without permission of the OWNER and CONTRACTOR.

8.5 The ENGINEER has no authority to relieve either party of any duties, obligations or responsibilities under the Contract.

8.6 The ENGINEER shall administer the CONTRACT and shall, in the first instance: (a) be the interpreter of the DRAWINGS and SPECIFICATIONS; (b) assess the adequacy of performance by the parties; and (c) where the CONTRACTOR is entitled to additional compensation and/or an extension of the TIME FOR COMPLETION under the CONTRACT, determine the amount of such additional compensation and/or extension of the TIME FOR COMPLETION. Such interpretation or assessment is without prejudice to a party's rights under GC47.0 - DISPUTE RESOLUTION.

8.7 Any approval, check, certificate, consent, examination, inspection, notice, proposal, request, test or similar act by the ENGINEER (including absence of disapproval), shall not relieve the CONTRACTOR from any responsibility he has under the Contract, including responsibility for error, omissions, discrepancies and other compliances.

8.8 The ENGINEER shall provide full time resident services at the WORKSITE and general engineering services for the WORK.

8.9 The ENGINEER does not guarantee the CONTRACTOR’S work nor undertake to check the quality and quantity of work on behalf of the CONTRACTOR. The ENGINEER is not
responsible to the CONTRACTOR for discovering defects in the WORK nor for advising the CONTRACTOR of defects in the WORK.

8.10 The ENGINEER may, by FIELD ORDER, put a "hold" on any portion of the WORK while an error, discrepancy or omission, whether discovered by the CONTRACTOR or the ENGINEER, is investigated. Such a "hold" order shall not constitute a basis for a claim by the CONTRACTOR for delay, unless and until it critically affects the performance of the WORK and the TIME FOR COMPLETION.

8.11 Whenever the ENGINEER exercises an authority expressly provided for in this CONTRACT, then the OWNER shall be deemed to have given its approval.

GC9.0 THE CONTRACTOR

9.1 The CONTRACTOR shall bring to the WORK the expertise, skill and experience required for the execution of the WORK.

9.2 The CONTRACTOR shall have complete control of the WORK and shall direct and supervise the WORK to ensure conformance with the intent of design as expressed in the CONTRACT DOCUMENTS. The CONTRACTOR shall be solely responsible for construction means, methods, techniques, sequences and procedures, and for coordinating the various aspects of the WORK under the CONTRACT. The CONTRACTOR shall have determined that the WORK is constructible.

9.3 The CONTRACTOR shall have the sole responsibility for the design, erection, operation, maintenance and removal of temporary structures and other temporary facilities, and for the design and execution of methods required in their use.

9.4 The CONTRACTOR shall be responsible for the adequacy, stability and safety of all WORKSITE operations and of all methods of construction. The CONTRACTOR shall be responsible for all CONTRACTOR'S documents, temporary works, and such design of each item of plant and material as is required by the CONTRACT.

9.2 When required by law or by the CONTRACT, the CONTRACTOR shall engage and pay for registered professional engineering personnel to perform the design of temporary facilities and methods of execution to ensure safety and satisfactory performance.

9.3 The CONTRACTOR shall pay and satisfy, or cause to be paid and satisfied, all proper invoices, claims and accounts of SUBCONTRACTORS, and any other person employed directly or indirectly by the CONTRACTOR or SUBCONTRACTORS in connection with the WORK.

9.4 During the course of execution of the WORK, if the CONTRACTOR becomes aware of any error, discrepancy or omission in the drawings or the specifications, the CONTRACTOR shall immediately notify the ENGINEER in writing and request instructions. The CONTRACTOR shall not proceed any further with that portion of the WORK until he has received such instructions in writing from the ENGINEER pursuant to GC 5.6.

9.5 When required by the SPECIFICATIONS or DRAWINGS, the CONTRACTOR shall submit to
the ENGINEER a written description and drawings or conduct a test strip to show its proposed methods and means for doing certain specified items of the WORK. These submissions are to be made to allow the ENGINEER on the OWNER'S behalf to:

9.5.1 determine the general conformance of the proposed means and methods with the intent of the design;

9.5.2 determine whether there are or could be any serious effects of a permanent nature on the WORK, the WORKSITE, or the contiguous area outside the WORKSITE.

9.6 The ENGINEER may stop the CONTRACTOR from implementing the proposed means and methods by issuing a FIELD ORDER.

9.7 The CONTRACTOR shall employ a competent CONTRACTOR'S SUPERINTENDENT who shall be in attendance at the WORKSITE while the WORK is being performed. The CONTRACTOR'S SUPERINTENDENT shall be acceptable to the OWNER and shall not be removed or changed without good reason, and then only with the approval of the OWNER.

9.8 The CONTRACTOR'S SUPERINTENDENT shall represent the CONTRACTOR at the WORKSITE and additional instructions given to him by the ENGINEER shall be deemed to have been given to the CONTRACTOR.

9.9 Nothing contained in the CONTRACT DOCUMENTS shall be construed to form any contractual obligation between the ENGINEER and the CONTRACTOR.

9.10 The CONTRACTOR shall give the ENGINEER not less than 21 calendar days' notice of the date on which any major PLANT, MATERIAL or PRODUCT will be delivered to the WORKSITE.

9.11 The CONTRACTOR shall be responsible for packing, transporting, receiving, unloading, storing, and protecting all PLANT, MATERIAL or PRODUCT.

9.12 The CONTRACTOR shall be responsible for all PLANT brought on WORKSITE. The CONTRACTOR shall not remove from the WORKSITE any major items of the PLANT without the prior written consent of the ENGINEER.

9.13 Unless otherwise specified in the CONTRACT DOCUMENTS, the CONTRACTOR shall institute a quality assurance system acceptable to the OWNER to demonstrate compliance with the requirements of the CONTRACT. This is to be independent of any system implemented by or on behalf of the OWNER.

9.14 The CONTRACTOR shall submit a detailed time programme for the completion of the WORK to the ENGINEER within 30 calendar days of the effective date of the CONTRACT. The CONTRACTOR shall also submit a revised programme whenever the previous program is inconsistent with the actual progress of the WORK or with the CONTRACTOR'S obligations. Unless the ENGINEER gives notice within 21 calendar days after receiving the programme to the CONTRACTOR, stating that it does not comply with the Contract, the CONTRACTOR shall proceed in accordance with the programme. The OWNER'S personnel shall be entitled to rely upon the programme when planning their activities. The Program shall include:
9.14.1 The order in which the CONTRACTOR intends to carry out the WORK;

9.14.2 Dates and descriptions of each of the stages of the WORK and if subcontracts are used to complete the WORK; and

9.14.3 The sequence and timing of inspections and tests specified in the CONTRACT DOCUMENTS.

9.15 The CONTRACTOR shall promptly give notice to the ENGINEER of specific probable future events or circumstances which may adversely affect the WORK, increase the CONTRACT PRICE or delay the execution of the WORK.

GC10.0 OTHER CONTRACTORS

10.1 The CONTRACTOR shall coordinate his WORK with that of OTHER CONTRACTORS and tie into the work constructed by OTHER CONTRACTORS as specified or shown in the CONTRACT DOCUMENTS.

10.2 The CONTRACTOR shall report to the OWNER or the ENGINEER any apparent deficiencies in OTHER CONTRACTORS’ work which would affect the WORK of this CONTRACT as soon as they come to his attention and shall confirm such report in writing. Failure by the CONTRACTOR to so report shall invalidate any claims against the OWNER by reason of the deficiencies of OTHER CONTRACTORS’ work except as to those of which the CONTRACTOR could not reasonably be aware.

GC11.0 SUBCONTRACTORS

11.1 Subject to the CONTRACT, the CONTRACTOR shall not assign all or any part of the CONTRACT, without the prior written consent of the OWNER.

11.2 The CONTRACTOR shall not employ any SUBCONTRACTOR to perform any WORK, which is not specifically listed in the Schedule of Subcontractors as being done by a specific, named SUBCONTRACTOR, without the OWNER’S prior written consent.

11.3 The CONTRACTOR shall be responsible for the acts or defaults of any SUBCONTRACTOR, its agents or employees, as if they were the defaults of the CONTRACTOR.

11.4 Where practicable, the CONTRACTOR shall give fair and reasonable opportunity for contractors from the COUNTRY to be appointed as SUBCONTRACTORS.

11.5 The CONTRACTOR shall preserve and protect the rights of the OWNER with respect to all WORK performed under the CONTRACT and shall:

11.5.1 require all SUBCONTRACTORS to perform WORK in accordance with and subject to the terms and conditions of the CONTRACT;

11.5.2 be as fully responsible to the OWNER for acts and omissions of SUBCONTRACTORS and of persons directly or indirectly employed by them as for acts and omissions of persons directly employed by the CONTRACTOR; and
11.5.3 incorporate all terms and conditions of the CONTRACT DOCUMENTS into all subcontracts it with SUBCONTRACTORS, insofar as they are applicable.

11.6 Each subcontract shall include provisions which would entitle the OWNER to require the subcontract to be assigned to the OWNER, if requested, upon termination of the CONTRACT.

11.7 Nothing contained in the CONTRACT DOCUMENTS shall create any contractual obligation between any SUBCONTRACTOR and the OWNER.

GC12.0 ASSIGNMENT

12.1 Neither party to the CONTRACT shall assign the CONTRACT or any portion thereof, nor any monies due to either party, without the written consent of the other; which consent shall not be unreasonably withheld.

GC13.0 DELAYS

13.1 If the CONTRACTOR is delayed in the performance of the WORK by weather, labour disputes, strikes or lock outs of the CONTRACTOR’S forces, or delay by common carriers, the CONTRACTOR shall not be compensated for any additional costs thereby incurred, nor shall the completion dates be changed, because it is agreed that the CONTRACTOR is more competent than the OWNER to assess the probability and impact of these events. The CONTRACTOR’S forces in this context includes SUBCONTRACTORS and suppliers and manufacturers supplying or providing PRODUCTS or MATERIALS.

13.2 If the CONTRACTOR is delayed in completing the WORK by the TIME FOR COMPLETION due to: (a) a failure of the OWNER to make decisions respecting the WORK; (b) the late delivery of MATERIALS or PRODUCTS identified in the CONTRACT DOCUMENTS as being furnished by the OWNER; (c) a breach by the OWNER of its obligations under the CONTRACT DOCUMENTS; (d) a "hold" on any portion of the WORK pursuant to GC 8.10; or (e) strikes or lock outs of the OWNER’S forces; then the CONTRACTOR shall provide immediate written notice to the OWNER and the OWNER shall be entitled to:

13.2.1 an extension of the TIME FOR COMPLETION, to the extent the CONTRACTOR is or will be delayed in completing the WORK by the TIME FOR COMPLETION, based on critical path method analysis; and

13.2.2 compensation for additional COSTS incurred as a direct result of, and solely attributable to the OWNER’S failure to issue DRAWINGS within the time specified in the CONTRACT DOCUMENTS, plus a markup of 10% on account of overhead and profit.

13.3 The failure of the CONTRACTOR to give written notice to the ENGINEER in accordance with GC 13.2 within three (3) BUSINESS DAYS after the event or circumstance causing such delay, constitutes a waiver of the CONTRACTOR’S right to an extension of the TIME FOR COMPLETION and/or additional compensation.

13.4 If the CONTRACTOR is delayed in completing the WORK by the TIME FOR COMPLETION
due to:

13.4.1 acts of God including tornados, hurricanes, earthquakes, landslides, floods, washouts, and fires;

13.4.2 strikes or other labour disturbances which are the result or part of a general industry labour strike or disturbance;

13.4.3 acts of terrorism, sabotage, war, insurrections, vandalism or riots;

13.4.4 restraints by governments or governmental agencies;

13.4.5 the order of any court or the directive or ruling of any governmental or administrative body; or

13.4.6 any other similar cause beyond the reasonable control of the CONTRACTOR;

then the CONTRACTOR shall provide immediate written notice to the OWNER and the CONTRACTOR shall be entitled to an extension of the TIME FOR COMPLETION, to the extent the CONTRACTOR is or will be delayed in completing the WORK by the TIME FOR COMPLETION, based on critical path method analysis.

13.5 The failure of the CONTRACTOR to give written notice to the ENGINEER in accordance with GC 13.4 within three (3) BUSINESS DAYS after the event or circumstance causing such delay, constitutes a waiver of the CONTRACTOR'S right to an extension of the TIME FOR COMPLETION.

GC14.0 OWNER'S RIGHT TO DO WORK

14.1 If the CONTRACTOR should refuse or fail to supply adequate PRODUCT, MATERIAL, PLANT, labour or workmanship for the scheduled performance of the WORK, or neglect to execute the WORK properly, or fail to perform any of the provisions of the CONTRACT, then the OWNER may give written notice to the CONTRACTOR and his Surety that the CONTRACTOR is in default of his contractual obligations, and instruct him to correct the default within five (5) BUSINESS DAYS.

14.2 If the correction of the default cannot be completed within the five (5) BUSINESS DAYS, the CONTRACTOR shall be considered to be in compliance with the OWNER'S instruction if he:

14.2.1 commences the correction of the default within the specified time; and

14.2.2 provides the OWNER with a schedule for such correction, acceptable to the OWNER; and

14.2.3 completes the correction in accordance with such schedule.

14.3 If the CONTRACTOR fails to comply with the provisions of GC 14.1 and GC 14.2, the OWNER may, without prejudice to any other right or remedy he may have, correct such default and may deduct the cost thereof from the payment then or thereafter due the
CONTRACTOR. The ENGINEER shall, in the first instance, determine that both the corrective action and the amount subsequently charged to the CONTRACTOR are reasonable.

GC15.0 OWNER’S RIGHT TO TERMINATE THE CONTRACT

15.1 If the CONTRACTOR should:

15.1.1 be adjudged bankrupt, or make a general assignment for the benefit of creditors, or if a receiver is appointed on account of his insolvency;

15.1.2 fail to make sufficient payments due to his creditors for labour, PLANT, PRODUCT and MATERIAL used or reasonably required for use on or in the WORK;

15.1.3 disregard any LAWS or the ENGINEER’S instructions;

15.1.4 abandon the WORK, or fail to adhere to the WORK Schedule to such an extent that there is danger of failing to meet the TIME FOR COMPLETION; or

15.1.5 commit any material breach of the CONTRACT;

the OWNER shall, by written notice, instruct the CONTRACTOR to correct the default within five (5) BUSINESS DAYS. If the default is not corrected within five (5) BUSINESS DAYS, then the OWNER may, without prejudice to any other right or remedy he may have, terminate the CONTRACTOR’S right to continue the WORK or terminate the CONTRACT.

15.2 If the OWNER terminates the CONTRACTOR’S right to continue with the WORK or terminates the CONTRACT under GC 15.1, the OWNER shall be entitled to:

15.2.1 take possession of the WORK, PRODUCT, MATERIAL and PLANT and utilize them to finish the WORK by whatever method he may deem expedient but without undue delay or expense;

15.2.2 withhold any further payments to the CONTRACTOR until the WORK is finished;

15.2.3 upon completion of the WORK, determine the full cost of finishing the WORK as certified by the ENGINEER, including compensation to the ENGINEER for his additional services and a reasonable allowance as determined by the ENGINEER to cover the cost of any corrections required under the WARRANTY PERIOD, and charge the CONTRACTOR the amount by which the full cost exceeds the unpaid balance of the CONTRACT PRICE; or if such cost of finishing the WORK is less than the unpaid balance of the CONTRACT PRICE, pay the CONTRACTOR the difference; and

15.2.4 on expiry of the WARRANTY PERIOD, charge the CONTRACTOR the cost of corrections required under the warranty.

The CONTRACTOR’S obligation under the CONTRACT as to the quality of that portion of the WORK and warranty of that portion of the WORK performed by the CONTRACTOR
prior to termination of the CONTRACTOR'S right to continue with the WORK shall continue in force after the termination.

15.3 If the CONTRACTOR has provided a Performance Bond, the OWNER shall have the option of:

15.3.1 Terminating the CONTRACTOR'S right to continue with the WORK; or

15.3.2 Terminating the CONTRACT; or

15.3.3 Exercising the OWNER'S rights in accordance with conditions of the Performance Bond.

GC16.0 SUSPENSION OF THE WORK BY THE OWNER

16.1 The OWNER may suspend the execution of the WORK by giving written notice to the CONTRACTOR to that effect.

16.2 The CONTRACTOR, upon receiving such written notice, shall immediately suspend all operations except those necessary for the care and preservation of the portions of the WORK already executed, and the WORKSITE.

16.3 During the period of suspension, the CONTRACTOR shall not remove from the WORKSITE any part of the WORK or any MATERIAL, PRODUCT or PLANT without the written approval of the OWNER.

16.4 If the period of suspension is sixty (60) calendar days or less, the CONTRACTOR shall, upon expiry of the suspension, resume the execution of the WORK and he shall be paid for all Costs reasonably and necessarily incurred as a result of the suspension. The additional Costs shall be claimed by the CONTRACTOR and shall be verified by a determination of the ENGINEER in the first instance.

16.5 After sixty (60) calendar days, of suspension of the WORK the OWNER at its sole option shall:

16.5.1 negotiate terms under which the CONTRACTOR shall continue with the execution of the WORK and the CONTRACTOR shall then resume operations in accordance with the terms of that negotiation; or

16.5.2 deem the CONTRACT to be terminated without clause. In such case, the OWNER shall pay the CONTRACTOR:

16.5.2.1 for the WORK performed at the WORKSITE to the date of termination in accordance with the CONTRACT; and

16.5.2.2 all Costs reasonably and necessarily incurred by the CONTRACTOR as a result of the suspension and termination.

The CONTRACTOR shall not have a claim for loss of profit on that portion of the
WORK not performed.

16.6 After sixty (60) calendar days of suspension of the WORK, the CONTRACTOR shall be allowed to remove any or all of its PLANT from the WORKSITE without further approval from the OWNER.

GC17.0 CONTRACTOR’S RIGHT TO STOP WORK OR TERMINATE THE CONTRACT

17.1 If the OWNER should be adjudged bankrupt, or makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of his insolvency, the CONTRACTOR may, without prejudice to any other right or remedy he may have, by giving the OWNER five (5) BUSINESS DAYS written notice, terminate the CONTRACT.

17.2 If the WORK should be stopped or otherwise delayed for a period of sixty (60) calendar days or more under an order of any court, or other public authority, and provided that such order was not issued as the result of any act or fault of the CONTRACTOR or of anyone directly or indirectly employed by him, the CONTRACTOR may, without prejudice to any other right or remedy he may have, by giving the OWNER written notice, terminate the CONTRACT.

17.3 The CONTRACTOR shall notify the OWNER in writing, with a copy to the ENGINEER, that the OWNER is in default of his contractual obligations if:

17.3.1 the ENGINEER fails to certify a PROGRESS PAYMENT CERTIFICATE in accordance with these General Conditions; or,

17.3.2 the OWNER, subject to requirements of these General Conditions, fails to pay to the CONTRACTOR when due, any amount certified by the ENGINEER, or awarded by arbitrators.

Such written notice shall advise the OWNER that if such default is not corrected within fifteen (15) calendar days from the receipt of the written notice the CONTRACTOR may, without prejudice to any other right or remedy he may have, stop the WORK and terminate the CONTRACT.

17.4 If the CONTRACTOR terminates the CONTRACT pursuant to this GC17.0, the OWNER shall pay the CONTRACTOR:

17.4.1 for the WORK performed at the WORKSITE to the date of termination in accordance with the CONTRACT; and

17.4.2 all Costs reasonably and necessarily incurred by the CONTRACTOR as a result of the CONTRACTOR’S breach.

The CONTRACTOR shall not have a claim for loss of profit on that portion of the WORK not performed.

17.5 After notice of termination has taken effect, the CONTRACTOR shall promptly:
17.5.1 Cease all further work, except for such work as may have been instructed by the ENGINEER for the protection of life or property or for the safety of THE WORKS.

17.5.2 Hand over CONTRACTOR’S documents, plant, materials and other work, for which the CONTRACTOR has received payment.

17.5.3 Remove all other goods from the WORKSITE, except as necessary for safety, and leave the WORKSITE.

GC18.0 CHANGES IN THE WORK

18.1 At any time, the OWNER may make CHANGES without invalidating the CONTRACT, by CHANGE ORDER or FIELD ORDER. All such CHANGES shall be executed under the conditions of the CONTRACT. No extension of the TIME FOR COMPLETION or adjustment to the CONTRACT PRICE shall be made on account of any CHANGE in the WORK unless expressly provided for in the CHANGE ORDER or FIELD ORDER.

18.2 No CHANGES in the WORK shall be made unless pursuant to a FIELD ORDER or a CHANGE ORDER and no payment shall be made or credit given unless authorized by a CHANGE ORDER or a FIELD ORDER.

18.3 The CONTRACTOR shall proceed promptly with any CHANGE authorized by a CHANGE ORDER or a FIELD ORDER.

18.4 The CONTRACTOR shall not change, modify or omit WORK, or perform any additional work, without a prior CHANGE ORDER or FIELD ORDER relating to such CHANGE. CHANGES performed by the CONTRACTOR without a prior CHANGE ORDER or FIELD ORDER shall be for the CONTRACTOR’S sole risk, cost and expense, and the OWNER shall not be liable for any claim for additional compensation or an extension of the TIME FOR COMPLETION thereof by the CONTRACTOR.

18.5 The CONTRACTOR may, in writing, propose CHANGES in the WORK, by providing the OWNER with a QUOTATION FOR CONTEMPLATED CHANGE to that effect.

18.6 When the OWNER desires to make a CHANGE in the WORK, it shall issue a NOTICE OF CONTEMPLATED CHANGE (NCC) to the CONTRACTOR and the CONTRACTOR shall return to the OWNER a QUOTATION FOR CONTEMPLATED CHANGE (QCC). If the QUOTATION FOR CONTEMPLATED CHANGE is accepted, the CHANGE in the WORK shall be authorized by a CHANGE ORDER signed by the OWNER and the CONTRACTOR.

18.7 No course of conduct or dealing between the parties, no express or implied acceptance of alterations or additions to the WORK and no claims that the OWNER has been unjustly enriched by any alteration or addition to the WORK, whether in fact there is any such unjust enrichment or not, shall be the basis of a claim for additional compensation under this CONTRACT or a claim for any extension of the TIME FOR COMPLETION. Claims by the CONTRACTOR for an adjustment to the CONTRACT PRICE or to an extension of the TIME FOR COMPLETION shall be barred unless there has been strict compliance with this GC18.0.

18.8 The adjustment to the CONTRACT PRICE and the TIME FOR COMPLETION recorded in a
CHANGE ORDER shall be the only adjustment made to the CONTRACT PRICE and the TIME FOR COMPLETION for the proposed CHANGE referred to in the CHANGE ORDER. The CONTRACTOR will not be entitled to be paid any additional amount or to be granted any additional time to perform the WORK as a result of or arising in any way, either directly or indirectly, from the CHANGE (including, without limitation, on account of cumulative impact of CHANGES to the WORK) other than that adjustment to the CONTRACT PRICE and the TIME FOR COMPLETION agreed to and recorded in the CHANGE ORDER.

18.9 Upon delivery of a duly executed copy of a CHANGE ORDER or Field Order in accordance with this GC18.0, this CONTRACT shall be deemed amended to incorporation such CHANGE.

18.10 If the CONTRACTOR claims that any instruction by drawings, or otherwise, constitutes a CHANGE in the WORK under this CONTRACT, then the CONTRACTOR shall give notice in writing to the OWNER describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than three (3) BUSINESS DAYS after the CONTRACTOR became aware or should have become aware, of the event or circumstance.

18.11 If the CONTRACTOR fails to give notice of claim referred to in GC 18.10, within such period of three (3) BUSINESS DAYS, then the CONTRACTOR shall not be entitled to any extension of the TIME FOR COMPLETION or and/or additional compensation or other damages, and the OWNER shall be discharged from all liability arising out of or in connection with the event or circumstance described in GC 18.10.

GC19.0 VALUATION OF CHANGES IN THE WORK

19.1 Were a CHANGE in the WORK requires an adjustment to the CONTRACT PRICE for the additional costs or savings properly attributable to perform or delete WORK or otherwise execute a CHANGE, the adjustment will be valued by one (or a combination) of the following methods:

19.1.1 a lump sum price mutually agreed between the OWNER and the CONTRACTOR;

19.1.2 at the applicable Unit Prices specified in the CONTRACT DOCUMENTS;

19.1.3 at the "force account" rates for the provision of labour and PLANT specified in the CONTRACT DOCUMENTS; or

19.1.4 on the CONTRACTOR'S "actual cost" basis as follows:

19.1.4.1 The CONTRACTOR'S actual payroll cost of labour, defined as direct wages and salaries for the hours worked, plus 20% to cover Workers’ Compensation, employment insurance, Holiday Pay, Paid Statutory Holidays and other valid payroll burdens; plus

19.1.4.2 The CONTRACTOR'S actual cost of providing room and board for labour, if room and board is normally provided by the CONTRACTOR on the WORK; plus
19.1.4.3 The CONTRACTOR’S actual cost for MATERIAL and PRODUCT F.O.B. to the WORKSITE, less trade discounts, as established by invoices; plus

19.1.4.4 A 10% markup on the sum of GC 19.1.4.1, GC 19.1.4.2 and GC 19.1.4.3 to cover office and general overhead, use of small tools and profit. Overhead includes the cost of superintendence, foremen, timekeepers and other administrative and supervisory personnel and their vehicles and other WORKSITE costs, plus all office overhead costs; plus

19.1.4.5 The actual cost of rental of PLANT for the hours worked, at locally accepted rates, or at provincial or territorial rates, for complete units including operator, fuel, grease, maintenance and all such other costs as are normal to an operating unit on the WORKSITE; plus

19.1.4.6 A 10% markup on GC 19.1.4.5 to the CONTRACTOR (but not to a Subcontractor) provided that the CONTRACTOR does not own the equipment; plus

19.1.4.7 Actual transportation costs for PLANT, specifically required for the CHANGE in the WORK, with no markup.

The choice of valuation methods in GC 19.1.2, GC 19.1.3 and GC 19.1.4 shall be made by the OWNER in his sole discretion.

19.2 When the CHANGE in the WORK is being done on a "force account" basis pursuant to GC 19.1.3 or an "actual cost" basis pursuant to GC 19.1.4, the CONTRACTOR shall be paid for the WORK performed by SUBCONTRACTORS on the basis of a valuation in accordance with GC 19.1.3 or GC 19.1.4, depending upon which was selected by the OWNER for the CHANGE in the WORK. The CONTRACTOR shall be allowed a markup of 10% on the SUBCONTRACTOR’S charges to cover the CONTRACTOR’S coordination.

19.3 When a CHANGE in the WORK is being done on a "force account" basis pursuant to GC 19.1.3 or an "actual cost" basis pursuant to GC 19.1.4, the CONTRACTOR shall submit to the ENGINEER or the OWNER on a daily basis an accounting in triplicate for WORK done on the preceding calendar day. The accounting shall include a listing of the hours of labour and PLANT and a listing of the MATERIAL and PRODUCT used, and shall include supporting invoices where applicable. The ENGINEER shall, each day, check the CONTRACTOR’S accounting and, if it is numerically correct, he shall sign the three copies and return one signed copy to the CONTRACTOR. Only those items which are eligible in accordance with the CONTRACT shall be certified for payment by a CHANGE ORDER or FIELD ORDER. The ENGINEER’S signature shall not constitute an approval for payment.

19.4 If, on any day, the CONTRACTOR fails to submit an account of the CHANGE in the WORK being done on a "force account" basis pursuant to GC 19.1.3 or an "actual cost" basis pursuant to GC 19.1.4, the ENGINEER shall prepare the accounting, and this accounting
shall be used as the basis of payment for that portion of the change in the WORK, and no payment will be made for any other amount subsequently claimed by the CONTRACTOR for that portion of the change in the WORK.

GC20.0 MEASUREMENT

20.1 Except as otherwise stated in the CONTRACT and notwithstanding local practice:

20.1.1 measurement shall be made of the net actual quantity of each item of the WORK;

20.1.2 the unit of measurement shall be in accordance with the CONTRACT DOCUMENTS and Unit Prices; and

20.1.3 payment shall not be provided nor measurements made of quantities outside the lines, grades, or scope of the PROJECT for which no approved CHANGE ORDER has been issued.

20.2 Whenever the ENGINEER requires any part of the WORKS to be measured, reasonable notice shall be given to the CONTRACTOR’S SUPERINTENDENT, who shall:

20.2.1 promptly either attend or send another qualified representative to assist the ENGINEER in making the measurement, and

20.2.2 supply any particulars requested by the ENGINEER.

20.3 If the CONTRACTOR fails to attend or send a representative, the measurement made by the ENGINEER shall be deemed accepted as accurate by the CONTRACTOR.

20.4 Except as otherwise stated in the CONTRACT, wherever any portion of the WORK is to be measured from records, these shall be prepared by the ENGINEER. The CONTRACTOR shall, as and when requested, attend to examine and agree the records with the ENGINEER, and shall sign the same when agreed. If the CONTRACTOR does not attend, the records shall be deemed to be accepted as accurate by the CONTRACTOR.

20.5 Where the basis of payment of the CONTRACT PRICE is "Unit Prices," quantities for progress payments shall be considered approximate until final verification of the quantities by the ENGINEER. A certificate of progress payment shall not be construed as ENGINEER’S final verification of quantities. Final verification will occur after all WORK of an item is completed.

20.6 Where the final measured quantity of an item of WORK priced on a "Unit Price" basis changes by more than 25% from the CONTRACT QUANTITY, either party shall be entitled to request an adjustment to the applicable "Unit Prices" to take into account the difference in quantity. Such written requests must be received by the other party no later than thirty (30) calendar days after the issuance of the SUBSTANTIAL PERFORMANCE CERTIFICATE. Unless otherwise agreed, any such adjusted "Unit Price" should reflect the cost of performing the WORK, together with a reasonable markup on account of overhead and profit.

GC21.0 PROVISIONAL SUMS
21.1 Each provisional sum shall only be used, in whole or in part, in accordance with the ENGINEER'S instructions. For each "provisional sum," the ENGINEER may instruct the WORK to be executed by the CONTRACTOR and value such WORK in accordance with the Schedule of Unit Prices.

**GC22.0 PAYMENTS**

22.1 At the end of each month during the performance of the WORK, the CONTRACTOR shall prepare a progress payment claim, in a form acceptable to the OWNER, for that portion of the WORK done during that month (the "PROGRESS PAYMENT CLAIM").

22.2 The Progress Payment Claim shall be certified by the ENGINEER on the PROGRESS PAYMENT CERTIFICATE. Provided that the CONTRACTOR has submitted his Progress Payment Claim by the end of the month, the PROGRESS PAYMENT CERTIFICATE shall be submitted to the OWNER within seven (7) calendar days after the end of the month during which that portion of the WORK covered by the PROGRESS PAYMENT CERTIFICATE was performed.

22.3 Subject to GC 22.4 and GC 22.5, within 28 calendar days after receipt of the PROGRESS PAYMENT CERTIFICATE the OWNER shall make payment to the CONTRACTOR in the undisputed amount certified on the PROGRESS PAYMENT CERTIFICATE.

22.4 Each payment to the CONTRACTOR will be subject to a performance and holdback of 10% of the total value of that portion of the WORK performed to the end of that month, as shown on the PROGRESS PAYMENT CLAIM (the "HOLDBACK").

22.5 The OWNER may withhold payment to the CONTRACTOR on account of any PROGRESS PAYMENT CERTIFICATE as may be necessary or prudent to protect himself from loss on account of:

22.5.1 liquidated damages expressly provided in the CONTRACT;

22.5.2 unsatisfactory progress by the CONTRACTOR;

22.5.3 defective work which is not remedied;

22.5.4 claims filed, or reasonable expectation that claims will be filed, against the OWNER or the CONTRACTOR;

22.5.5 the failure of the CONTRACTOR to make payments properly to SUBCONTRACTORS or for MATERIAL, PRODUCT, PLANT and labour, or otherwise;

22.5.6 damages caused by the CONTRACTOR to an OTHER CONTRACTOR; and

22.5.7 any other evidence of loss or danger of loss by the OWNER, on account of the CONTRACTOR'S operations.

22.6 The holdback maintained pursuant to GC 22.4, shall be released as part of the OWNER'S FINAL PAYMENT to the CONTRACTOR pursuant to GC23.0 - FINAL PAYMENT.
22.7 FINAL PAYMENT and holdback release do not constitute a waiver of the WARRANTY PERIOD, nor shall they or attendant acts of the ENGINEER or the OWNER prejudice their rights under any requirement of the CONTRACT, nor relieve the CONTRACTOR of any of his responsibilities thereunder.

22.8 A milestone payment of 10% of the total CONTRACT PRICE will be progressed on execution of the CONTRACT and receipt of all bonding and insurance certificates from the CONTRACTOR.

GC23.0 FINAL PAYMENT

23.1 Upon receipt of written notice from the CONTRACTOR that the WORK is complete, that all deficiencies have been rectified, and all cleanup finished, the ENGINEER shall make an inspection, and when he finds the WORK complete under the CONTRACT, he shall issue the CONSTRUCTION COMPLETION CERTIFICATE. The date of this CONSTRUCTION COMPLETION CERTIFICATE shall be the date of commencement of the WARRANTY PERIOD.

23.2 If, upon inspection, the ENGINEER determines that the WORK is not completed, he shall instruct the CONTRACTOR, and issue a list of work items to be done, of cleanup items remaining, and of deficiencies to be rectified and when these have been done, he shall issue to the CONTRACTOR, the CONSTRUCTION COMPLETION CERTIFICATE in accordance with GC 23.1.

23.3 Payment on account of the CONTRACTOR'S final PROGRESS PAYMENT CERTIFICATE (the "FINAL PAYMENT") shall only be made after the following conditions have been satisfied:

23.3.1 the ENGINEER has issued the CONSTRUCTION COMPLETION CERTIFICATE;

23.3.2 the CONTRACTOR has submitted to the OWNER a certificate by the Worker's Compensation Board that all assessments due to them from the CONTRACTOR have been paid;

23.3.3 the CONTRACTOR has submitted to the OWNER a Statutory Declaration, acceptable to the OWNER, stating that: (a) all claims for payment for MATERIAL, PRODUCT, PLANT, and labour incurred by the CONTRACTOR directly or indirectly on account of the WORK have been paid; (b) no liens exist against the premises in respect of anything done or furnished under this CONTRACT; and (c) all claims and demands for payment in connection with this CONTRACT have been submitted and approved, thus establishing the final CONTRACT PRICE and the amount of the FINAL PAYMENT; and

23.3.4 a period of at least 5 BUSINESS DAYS has passed after expiry of the limitation period for filing liens in the jurisdiction where the WORK has been performed.

23.3.5 Notwithstanding any other provision of the CONTRACT, the OWNER may withhold an amount equal to 2.5% of the final Contract Price from the Final Payment as security for the performance by the CONTRACTOR of its obligations under the CONTRACT during the WARRANTY PERIOD.
GC24.0 FINAL CERTIFICATE

24.1 Upon the expiration of the WARRANTY PERIOD, the successful conclusion of any tests required by the CONTRACT and satisfactory performance under operating conditions meeting the WORK performance Warranty, the OWNER shall accept the WORK and a FINAL CERTIFICATE may be issued if required by the CONTRACTOR. It shall be the responsibility of the CONTRACTOR to apply in writing to the ENGINEER for a FINAL CERTIFICATE.

24.2 The issuance of a FINAL CERTIFICATE shall not release the CONTRACTOR from responsibility for any defects in his work, PRODUCT or MATERIAL for which the CONTRACTOR may in future be found liable in a court of law or otherwise.

GC25.0 CONTRACT PRICE INCLUSIVE

25.1 Subject to GC26.0 - TAXES AND DUTIES, the CONTRACT PRICE includes all taxes, duties, levies, freight charges, licensing fees, packing charges, insurance charges, installation charges and any other charges whatsoever in connection with the WORK.

GC26.0 TAXES AND DUTIES

26.1 This will be a “duty free” project on any and all materials and plant needed in connection with the WORK.

26.2 This exemption impacts the cost of the project through concessions relating to:

26.2.1 Zero import duties on all materials.

26.2.2 Zero import duties on all plant, equipment and machinery temporarily imported for this project.

26.2.3 A waiver on all cargo due on materials.

GC27.0 PATENT FEES

27.1 The CONTRACTOR shall pay all royalties and patent license fees required for the performance of the CONTRACT. He shall hold the OWNER harmless from and against all claims, demands, losses, costs, damages, actions, suits or proceedings arising out of the CONTRACTOR’S performance of the WORK which are attributable to an infringement or an alleged infringement of any patent of invention, by the CONTRACTOR, or anyone for whose acts it may be liable.

27.2 In the event that the CONTRACTOR claims that, during the performance of the WORK, he has encountered a claim for a patent license fee, for use of a MATERIAL, PRODUCT, process or method which was specified by the ENGINEER, and that he was not previously aware that use of such MATERIAL, PRODUCT, process or method was restricted under patent, or that a patent license fee was required, he shall immediately notify the OWNER, in writing, setting out the details of such claim and evidence of his previous lack of awareness of such license fee being required. The ENGINEER shall immediately investigate the claim and if it
is judged valid, and the MATERIAL, PRODUCT, process or method is used, the OWNER shall pay the patent license fee.

GC28.0 COMPLIANCE WITH OCCUPATIONAL HEALTH AND SAFETY ENACTMENTS

28.1 The CONTRACTOR shall be solely responsible for construction safety at the WORKSITE and for compliance with the rules, regulations and practices required by the applicable Occupational Health and Safety enactments and regulations there under on the WORKSITE and shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the WORK.

28.2 The CONTRACTOR shall at all times take all reasonable precautions to maintain the health and safety of the CONTRACTOR'S personnel and public. This includes but is not limited to:

28.2.1 In collaboration with local health authorities, the CONTRACTOR shall ensure that medical staff, first aid facilities, sick bay and ambulance services are available at all times while work is being conducted on WORKSITE.

28.2.2 Use reasonable efforts to keep the WORKSITE and the WORK clear of unnecessary obstruction so as to avoid danger to personnel.

28.2.3 Provide fencing, lighting, guarding and watching of the WORK until completion and taking over by the OWNER.

28.2.4 Provide any temporary works which may be necessary, because of the execution of the WORK (including roads, fences, guards and footways).

28.3 In any case where, pursuant to the provisions of the applicable Occupational Health and Safety Act or its Regulations, an order is given to the CONTRACTOR or to one of his SUBCONTRACTORS with respect to their operations under this CONTRACT to cease operations for any reason (for examples, because of failure to install or adopt safety devices or appliances or methods as directed or required by the applicable LAWS, or because conditions of immediate danger exist that would be likely to result in injury to any person), the CONTRACTOR shall immediately obey such order and shall immediately take whatever steps are necessary to eliminate the cause of the order.

28.4 In the event that the ENGINEER discovers a dangerous condition which in the ENGINEER'S opinion is likely to result in injury to any person, and there is no one in authority from the CONTRACTOR available or capable of removing the danger resultant from the CONTRACTOR'S operations, and no Officer of the Government is available to take charge, then the ENGINEER may:

28.4.1 issue a Field Order to the CONTRACTOR’S workers to vacate the area of danger;

28.4.2 issue a Field Order to the CONTRACTOR requiring the immediate correction of the dangerous condition; and

28.4.3 notify the appropriate Officer(s) under the applicable Occupational Health and Safety LAWS,
and no such action by the ENGINEER shall in any way remove the responsibility for the matter from the CONTRACTOR, and the CONTRACTOR shall bear all related costs without recourse.

28.5 In the event that the CONTRACTOR refuses or fails to comply with an order under the Act or Regulations thereunder, so that the performance of the WORK is stopped, the OWNER may, upon written notice, terminate the CONTRACT and proceed in accordance with GC15.0 - OWNER’S RIGHT TO TERMINATE THE CONTRACT.

28.6 The CONTRACTOR shall confine his operations to the WORKSITE, and any additional areas which may be obtained by the CONTRACTOR and agreed by the ENGINEER as additional working areas. The CONTRACTOR shall take all necessary precautions to keep the CONTRACTOR’S and SUBCONTRACTOR’S PLANT and personnel within the WORKSITE and these additional areas and keep them off adjacent land.

28.7 The CONTRACTOR shall keep the WORKSITE free from all unnecessary obstruction, and shall store or dispose of any CONTRACTOR’S equipment or surplus materials as authorized by the ENGINEER.

28.8 The CONTRACTOR shall send to the ENGINEER details of any accident as soon as practicable after its occurrence. The CONTRACTOR shall maintain records and make reports concerning health, safety and welfare of persons and damage to property, as the ENGINEER may reasonably require.

28.9 No action or lack of action by the ENGINEER or the OWNER under any of the provisions of this Section shall relieve the CONTRACTOR of his responsibilities under GC 28.1 above.

28.10 The CONTRACTOR shall, having regard to the local conditions, provide on the WORKSITE an adequate supply of drinking water and other water for the use of the CONTRACTOR’S personnel.

28.11 The CONTRACTOR shall at all times take the necessary precautions to protect the CONTRACTOR’S personnel employed on the WORKSITE from insect and pest nuisance.

GC29.0 PROTECTION OF WORK AND PROPERTY

29.1 The CONTRACTOR shall continuously maintain adequate protection of all of the WORK from damage, and protect the OWNER’S property from damage or loss arising in connection with this CONTRACT. The CONTRACTOR shall make good, at the CONTRACTOR’S expense, any such damage or loss.

29.2 The CONTRACTOR shall provide and maintain all passageways, guard fences, lights and other facilities for protection required by public authority or local conditions, or laws and regulations.

29.3 The CONTRACTOR shall also protect all of the property outside of the WORK from damage as a result of his operations. Any such damage shall be corrected by the CONTRACTOR at his expense.
29.4 If any condition arises that endangers or threatens to endanger the safety of any person, the WORK or any property adjacent to the WORK ("EMERGENCY SITUATION"), the CONTRACTOR, on the CONTRACTOR'S initiative or instruction of the ENGINEER, shall immediately take all necessary steps to relieve the condition, including, but not limited to, stoppage of the WORK where necessary. The CONTRACTOR'S failure to comply with the requirement of this G.C. 29.4, shall constitute a material breach of the CONTRACT. Notwithstanding the foregoing, if any such Emergency Situation arises, the CONTRACTOR shall within twenty-four (24) hours give notice in writing to the ENGINEER of the presence of such condition together with a reasonable description of the nature of such condition.

29.5 Subject to GC28.0 - COMPLIANCE WITH OCCUPATIONAL HEALTH AND SAFETY ENACTMENTS, if the CONTRACTOR suffers delay and/or incurs additional costs as a result of an EMERGENCY SITUATION that is not attributable to the CONTRACTOR, the CONTRACTOR shall be entitled to:

29.5.1 an extension of the TIME FOR COMPLETION, to the extent the CONTRACTOR is or will be delayed in completing the WORK by the TIME FOR COMPLETION, based on critical path method analysis; and

29.5.2 compensation for additional COST incurred as a direct result of, and solely attributable to such Emergency Situation, plus a markup of 10% on account of overhead and profit.

29.6 The failure of the CONTRACTOR to give written notice to the ENGINEER in accordance with GC 29.4 within twenty-four (24) hours after the commencement of the EMERGENCY SITUATION, constitutes a waiver of the CONTRACTOR'S right to an extension of the TIME FOR COMPLETION and/or additional compensation.

GC30.0 LIABILITY INSURANCE

30.1 Comprehensive General Liability Insurance

30.1.1 The CONTRACTOR shall provide and maintain, either by way of a separate policy or by an endorsement to its existing policy, Comprehensive General Liability Insurance in a form and with an insurer acceptable to the OWNER and subject to limits of not less than five million dollars ($5,000,000 USD) inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof.

30.1.2 The insurance shall be in the joint names of the CONTRACTOR, the OWNER and the ENGINEER, and shall also cover as Unnamed Insureds all SUBCONTRACTORS and anyone employed directly or indirectly by the CONTRACTOR or his SUBCONTRACTORS to perform a part or parts of THE WORK and including suppliers while on the WORKSITE to deliver MATERIAL or PRODUCT.

30.1.3 The insurance shall also include as Unnamed Insureds the personnel of the OWNER and of the ENGINEER, on THE WORK.

30.1.4 The Comprehensive General Liability Insurance shall include coverage for:
30.1.4.1 premises and operations liability
30.1.4.2 products or completed operations liability
30.1.4.3 blanket contractual liability
30.1.4.4 cross liability
30.1.4.5 elevator and hoist liability, as applicable
30.1.4.6 contingent employer’s liability
30.1.4.7 personal injury liability arising of false arrest, detention or imprisonment or malicious prosecution, libel, slander or defamation of character; invasion of privacy, wrongful eviction or wrongful entry.
30.1.4.8 shoring, blasting, excavating, underpinning, demolition, pile driving and caisson work, work below ground surface, tunnelling and grading, as applicable
30.1.4.9 liability with respect to non-owned licensed vehicles.
30.1.4.10 liability with respect to working in an active airside environment at an airport.

30.1.5 Comprehensive General Liability Insurance shall remain in effect continuously until the CONSTRUCTION COMPLETION CERTIFICATE has been issued and then a Completed Operation Extension for 24 months shall be provided by the CONTRACTOR.

30.2 Automobile Liability Insurance:

30.2.1 The CONTRACTOR shall provide and maintain liability insurance in respect of owned, non owned and leased or rented licensed vehicles, aircraft or water craft, subject to limits of not less than three million dollars ($3,000,000 USD) inclusive.

30.2.2 Automobile liability insurance shall be maintained continuously until the end of the WARRANTY PERIOD.

30.3 The CONTRACTOR shall provide the OWNER with three certified copies of the Certificate of Insurance prior to the commencement of THE WORK and shall promptly provide the OWNER with a certified true copy of each insurance policy if requested.

30.4 All liability insurance policies shall contain an endorsement to provide all Named Insureds with prior notice of material changes and cancellations. Such endorsement shall be in the following form:

"It is understood and agreed that the coverage provided by this policy will not be changed
or amended materially nor cancelled until 30 days after written notice of such change or cancellation shall have been given to all Named Insureds.”

**GC31.0 PROPERTY INSURANCE (COURSE OF CONSTRUCTION INSURANCE)**

31.1 The CONTRACTOR shall provide and maintain property (course of construction) insurance in a form and by an insurer acceptable to the OWNER, insuring the full value of THE WORK in the amount of the CONTRACT PRICE. The policies shall include as named insureds the CONTRACTOR, the OWNER, and the ENGINEER. The policies shall also include as unnamed insureds all SUBCONTRACTORS and the OWNER’S and the ENGINEER’S engineers on THE WORK.

31.2 Such coverage shall be provided for by a standard All Risks Builders’ Risk Policy, including flood, tropical storm, hurricane, and earthquake and with only the following exclusions:

31.2.1 Any loss of use or occupancy howsoever caused;

31.2.2 Penalties for non completion of or delay in completion of Contract or non compliance with contract conditions;

31.2.3 Cost of making good faulty or defective workmanship, material, construction or design, but this exclusion shall not apply to damage resulting from such faulty or defective workmanship, material, construction or design;

31.2.4 Wear and tear, normal upkeep, inherent vice, latent defect, vermin or normal making good, but this exclusion shall not apply to damage resulting from wear and tear, normal upkeep, inherent vice, latent defect, vermin or normal making good;

31.2.5 Loss or damage caused by war, invasion, act of foreign enemy, hostilities (whether war be declared or not), civil war, rebellion, revolution, insurrection or military power;

31.2.6 Loss or damage caused by contamination by radioactive materials;

31.2.7 Loss or damage caused by frost or freezing caused by natural forces unless resulting from a peril insured hereunder;

31.2.8 Mysterious disappearance of property (except property in the custody of carriers or bailees for hire) or shortage disclosed by taking inventory;

31.2.9 Mechanical breakdown, but this exclusion shall not be deemed to exclude loss or damage arising as a consequence of mechanical breakdown;

31.2.10 Infidelity of the Insured’s employees

31.3 The policies shall insure against all risks of direct loss or damage, and damage or loss due to delayed start up, or due to delay in beneficial use in the amount of $100,000 USD.

31.4 Property Insurance shall cover:
31.4.1 All PRODUCT, MATERIAL, labour and supplies of any nature whatsoever, the property of the Insureds or of others for which the Insureds may have assumed responsibility, to be used in or pertaining to the WORKSITE preparations, demolition of existing structures, erection and/or fabrication and/or reconstruction and/or repair of THE WORK while on the WORKSITE or in transit;

31.4.2 The installation, testing and any subsequent use of machinery and equipment including boilers, pressure vessels or vessels under vacuum related to THE WORK; and,

31.4.3 Damage to THE WORK caused by an accident to and/or the explosion of any boiler(s) or pressure vessel(s) forming part of THE WORK.

31.5 Such coverage shall exclude construction machinery, equipment, temporary structural and other temporary facilities, tools and supplies used in the construction of THE WORK.

31.6 The CONTRACTOR shall provide the OWNER with three certified copies of the Certificate of Insurance to be incorporated into the signed copies of the CONTRACT DOCUMENT prior to commencement of THE WORK and shall promptly provide the OWNER with a certified true copy of each insurance policy if requested.

31.7 Policies provided shall contain an endorsement to provide all Named Insureds with prior notice of changes and cancellations. Such endorsement shall be in the following form:

"It is understood and agreed that the coverage provided by this policy will not be changed or amended in any way nor cancelled until 30 days after written notice of such change or cancellation shall have been given to all Named Insureds."

31.8 All such insurance shall be maintained continuously until ten (10) days after the date of the Construction Completion Certificate. All such insurance shall provide for the OWNER to take occupancy of THE WORK or any part thereof during the term of this insurance. Any increase in the cost of this insurance arising out of such occupancy shall be at the OWNER’S expense.

31.9 The policies shall provide that, in the event of a loss, payment for damage to THE WORK shall be made to the OWNER and the CONTRACTOR as their respective interests may appear. The CONTRACTOR shall act on behalf of the OWNER and himself for the purpose of adjusting the amount of such loss with the Insurers. On the determination of the extent of the loss, the CONTRACTOR shall immediately proceed to restore THE WORK and shall be entitled to receive from the OWNER (in addition to any sum due under the Contract) the amount at which the OWNER’S interest in the restoration THE WORK has been appraised, such amount to be paid as the restoration proceeds and in accordance with the ENGINEER’S certificates for payment. Damage shall not affect the rights and obligations of either party under the Contract except that the CONTRACTOR shall be entitled to such reasonable extension of TIME FOR COMPLETION of THE WORK as the ENGINEER may determine in the first instance and subject to General Condition 8.0.

31.10 The CONTRACTOR and SUBCONTRACTORS as may be applicable shall be responsible for
any deductible amounts under the policies and for providing such additional insurance as may be required to protect them against loss on items excluded from the policies.

GC32.0 INDEMNITY

32.1 The CONTRACTOR shall indemnify and hold harmless the OWNER, the ENGINEER, OTHER CONTRACTORS and any and all representatives or employees of the OWNER, from and against all third party actions, claims, demands or suits, or payments, losses, judgment or expenses arising out of or in consequence of the acts, omissions or negligence of the CONTRACTOR in performing the WORK during the period of performance of the WORK and during the WARRANTY PERIOD.

32.2 In the event of such a third party action, claim, demand or suit, the OWNER shall give written notice thereof to the CONTRACTOR and the CONTRACTOR shall thereupon defend against or otherwise dispose of the same, and shall pay any losses, judgments and expenses promptly after they are determined.

32.3 If the CONTRACTOR fails, refuses or neglects to defend, or otherwise dispose of such third party action, claim, demand or suit, within reasonable time and within legal time constraints, the OWNER may dispose of such action, claim, demand or suit on such terms as the OWNER, in his sole discretion, shall deem reasonable. The CONTRACTOR shall thereupon, and forthwith, pay to the OWNER the sums paid out by the OWNER and all reasonable costs incurred by the OWNER in disposing of the matter, including the OWNER’S legal costs on the Solicitor and Client basis.

32.4 The obligation of the CONTRACTOR to indemnify the OWNER shall not apply to liability arising out of acts, omissions or negligence of the OWNER, the ENGINEER, OTHER CONTRACTORS or any other representative or employee of the OWNER.

GC33.0 INSPECTION OF THE WORK

33.1 The ENGINEER and his representatives shall at all times have access to the WORK whenever it is in preparation or progress and the CONTRACTOR shall provide proper facilities for such access and for inspection. The ENGINEER shall have authority to reject WORK which does not conform to the requirements of the CONTRACT.

33.2 If either the CONTRACT DOCUMENTS, ENGINEER’S instructions, applicable LAWS or any public authority require any part of the WORK to be specially tested or approved, the CONTRACTOR shall give the ENGINEER timely notice of his readiness for inspection, and if the inspection is required to be performed by an authority other than the ENGINEER, of the date fixed for such inspection.

33.3 Inspections by the ENGINEER shall be made promptly. If any part of the WORK should be covered up without approval or consent of the ENGINEER, it must, if required by the ENGINEER, be uncovered for examination at the CONTRACTOR’S expense.

33.4 Re-examination of questioned parts of the WORK may be ordered by the ENGINEER and if so ordered those parts of the WORK shall be uncovered by the CONTRACTOR. If such parts of the WORK are found not in accordance with the CONTRACT DOCUMENTS, the
CONTRACTOR shall pay the cost of examination and replacement of the non-conforming WORK. If such parts of the WORK are found in accordance with the CONTRACT DOCUMENTS, the OWNER shall pay these costs.

33.5 MATERIAL and PRODUCT to be used in the WORK are subject to inspection and approval of the ENGINEER at his discretion. MATERIAL and PRODUCT which the ENGINEER determines being unsuitable and not in conformity with the CONTRACT DOCUMENTS, shall be removed from the WORK and its vicinity without delay, and replaced with MATERIAL and PRODUCT acceptable to the Engineer. If the CONTRACTOR fails to do so within forty eight (48) hours after having been so directed by the ENGINEER, the rejected MATERIAL and PRODUCT may be destroyed or removed by the OWNER and the cost shall be charged to the CONTRACTOR.

33.6 The ENGINEER'S inspection or lack of inspection of the WORK shall not relieve the CONTRACTOR of his responsibility to perform the WORK in accordance with the CONTRACT DOCUMENTS.

33.7 The CONTRACTOR shall permit the OWNER and/or persons appointed by the Government to inspect the WORKSITE and/or accounts and records of the CONTRACTOR and its SUBCONTRACTORS relating to the performance of the CONTRACT, and to have such accounts and records audited by auditors appointed by the OWNER or Government if required.

GC34.0 REJECTED WORK

34.1 The ENGINEER has the right to reject MATERIALS, PRODUCTS and WORK that, in the ENGINEER'S opinion do not conform to the requirements of the CONTRACT DOCUMENTS.

34.2 The CONTRACTOR shall within the time required remove, replace or modify and re-execute all parts of the WORK rejected by the ENGINEER as failing to conform with the CONTRACT, and shall restore the WORK and make good all other WORK or property destroyed or damaged by such removal and replacement or modification of the rejected WORK, at the CONTRACTOR'S expense.

34.3 If the CONTRACTOR does not within the time required remove and re-execute the rejected parts of the WORK, the ENGINEER may, without prejudice to any other rights which the OWNER may have, cause the removal and replacement or modification, and restoration to be carried out by the OWNER’S own forces or by OTHER CONTRACTOR'S in accordance with the provisions of GC14.0.

34.4 If, in the opinion of the ENGINEER, it is not expedient to correct defective or deficient WORK or WORK not performed in accordance with the CONTRACT DOCUMENTS, the OWNER will deduct from the CONTRACT PRICE that sum of money determined by the ENGINEER as being equal to the difference in value between the work as performed and the WORK as called for in the CONTRACT.

GC35.0 WARRANTY PERIOD

35.1 The WARRANTY PERIOD is one (1) year following the date of the CONSTRUCTION
COMPLETION CERTIFICATE.

35.2 The CONTRACTOR shall correct, at his own expense, any defects in the WORK due to faulty MATERIALS, PRODUCTS or workmanship arising within the WARRANTY PERIOD.

35.3 The CONTRACTOR shall correct or pay for any damage to the WORK or other property resulting from such defects or their correction.

35.4 The OWNER shall notify the CONTRACTOR promptly of such defects. If the CONTRACTOR does not cause repairs to be made within ten (10) calendar days after such notice, the OWNER shall have the right to purchase MATERIAL and employ men to execute said repairs, and the cost of the same shall be the responsibility of the CONTRACTOR or his Surety.

35.5 Where repairs must be made immediately by reason of an emergency existing or otherwise, the OWNER shall have the right to undertake such repairs and charge the cost to the CONTRACTOR, except that the OWNER shall immediately notify the CONTRACTOR and shall withdraw from the work of repair if and as soon as the CONTRACTOR'S forces are ready to start work.

35.6 The CONTRACTOR shall be responsible for all costs attributable to defective work, PRODUCT or MATERIAL, including the cost of engineering required for investigation of any repair of defects in the WORK.

35.7 At least one month prior to expiry of the WARRANTY PERIOD, the OWNER shall notify the CONTRACTOR in writing of any final tests which the CONTRACTOR may be required to carry out under the CONTRACT. The CONTRACTOR shall arrange to have such tests carried out promptly, and to provide opportunity for the OWNER to inspect or supervise such tests.

35.8 The CONTRACTOR is required to promptly remedy all defects which it is notified of prior to the expiry of the WARRANTY PERIOD. The WARRANTY PERIOD shall not expire until all such defects are remedied.

GC36.0 LABOUR

36.1 The CONTRACTOR shall at all times enforce discipline and good order among his employees, and shall not employ on the WORK any unfit person or anyone not skilled to do the WORK assigned to him. Any person employed on the WORK who becomes intoxicated, intemperate, disorderly, incompetent or wilfully negligent, shall be removed from the WORK.

36.2 The CONTRACTOR shall pay rates of wages and observe conditions of labour, which are not lower than those established for the trade or industry where THE WORK is carried out.

36.3 The CONTRACTOR shall inform the CONTRACTOR'S personnel about their liability to pay personnel income taxes in the COUNTRY in respect to their salaries, wages, allowances and any benefits as are subject to tax under the LAWS of the COUNTRY.
36.4 The CONTRACTOR shall comply with all the relevant labour LAWS applicable to the CONTRACTOR’S personnel relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights.

36.5 The CONTRACTOR shall provide and maintain necessary accommodation and welfare facilities for the CONTRACTOR’S personnel, as required. The CONTRACTOR shall not permit any of the CONTRACTOR’S personnel to maintain any temporary living quarters on WORKSITE or outside of approved areas.

36.6 The CONTRACTOR’S personnel shall be appropriately qualified, skilled and experienced in their respective trades and occupations.

36.7 The CONTRACTOR shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst the CONTRACTOR’S personnel and to preserve peace and protection of persons and property on and near the WORKSITE.

36.8 The CONTRACTOR may bring into the COUNTRY any foreign personnel who are necessary for the execution of THE WORKS to the extent allowed by the applicable LAWS. The CONTRACTOR will ensure that these personnel are provided with the required work VISAs and work permits.

36.9 The CONTRACTOR will be responsible for the return of all foreign workers to the place where they were recruited or to their domicile.

36.10 The CONTRACTOR shall not import, sell, give barter or otherwise dispose of any firearm, explosive, alcoholic liquor or drugs or permit or allow importation, sale, gift barter or disposal by the CONTRACTOR’S personnel.

36.11 The CONTRACTOR shall respect the COUNTRY’S recognized festivals, days of rest and religious or other customs.

36.12 The CONTRACTOR shall be responsible, to the extent required by local regulations for making any funeral arrangements for any of his local employees who may die while engaged upon THE WORKS.

36.13 In the event of the death of a foreign worker in the COUNTRY, the CONTRACTOR shall similarly be responsible for making the appropriate arrangements for their return to their place of recruitment or domicile and for their burial.

36.14 The CONTRACTOR shall not employ any child to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child’s education, or to be harmful to the child’s health or physical, mental, spiritual, moral or social development.

36.15 The CONTRACTOR shall keep complete and accurate records of the employment of labour at the WORKSITE. The records shall include the names, ages, genders, hours worked and wages paid to the workers.
37.1 OWNER shall obtain title to the MATERIALS, PRODUCTS and all other aspects of the WORK free and clear of all liens, charges and encumbrances.

37.2 The OWNER shall obtain title to the MATERIALS, PRODUCTS and all other aspects of the WORK upon the earlier of:

37.2.1 to the extent of payment for MATERIALS and PRODUCTS, wherever located, prior to their delivery to the WORKSITE; and

37.2.2 delivery of the MATERIALS, PRODUCTS or other aspects of the WORK to the WORKSITE.

37.3 The CONTRACTOR shall prepare and deliver any documentation that the OWNER or the ENGINEER may reasonably request to establish the OWNER’S title to the MATERIALS, PRODUCTS or any other aspect of the WORK.

GC38.0 MATERIAL AND PRODUCT SUPPLIED BY THE CONTRACTOR

38.1 The CONTRACTOR shall deliver all MATERIALS and PRODUCTS supplied by the CONTRACTOR to the WORKSITE.

38.2 Unless otherwise specified, all MATERIAL and PRODUCT shall be new and of good quality. The CONTRACTOR shall furnish satisfactory evidence as to the kind and quality of MATERIAL and PRODUCT. The CONTRACTOR shall be responsible for replacement at his own cost of all MATERIAL and PRODUCT that are found to be defective in manufacture or that have become damaged in handling.

38.3 The CONTRACTOR shall be responsible for the safe storage of MATERIAL and PRODUCT furnished by or to him, and accepted by him, and intended for the WORK, until it has been incorporated into the WORK.

38.4 Where any particular MATERIAL, PRODUCT or method is specified in the CONTRACT DOCUMENTS, the CONTRACTOR may not use another MATERIAL, PRODUCT or method unless the ENGINEER has issued to the CONTRACTOR a written authorization for the use. The CONTRACTOR shall submit in writing an application for review to the ENGINEER. All submissions shall be accompanied by sufficient data including the following:

38.4.1 Delivery

38.4.2 Manufacture

38.4.3 Technical Data and Specifications in accordance with the International System of Units (S.I.) metric units

38.4.4 Specified MATERIAL, PRODUCT or method for which the alternative is submitted

38.4.5 Prices in relation to the MATERIAL; method or PRODUCT specified originally.

38.4.6 Where required by the ENGINEER, samples shall be submitted.
38.5 Whenever alternatives of MATERIAL, PRODUCT or methods are accepted for the WORK by the ENGINEER, the CONTRACTOR: (a) guarantees that the performance of such alternative MATERIAL, PRODUCT, or method shall be equivalent to what was originally specified; and (b) shall be responsible for making all consequential adjustments to the WORK, at his own expense, to make the alternative fit into the WORK as specified.

38.6 All PRODUCT and MATERIAL incorporated into the WORK must comply with the LAWS and regulations governing the standards of building construction in the COUNTRY.

38.7 The CONTRACTOR shall indemnify and hold the OWNER harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from the transport of goods, and shall negotiate and pay all claims arising from their transport.

38.8 Except otherwise specified in the Contract, each item of Plant and Material shall, to the extent consistent with the LAWS of the COUNTRY, become the property of the OWNER at whichever is the earlier of the following times, free of debts and other encumbrances:

38.8.1 When it is incorporated into the WORK; or
38.8.2 When the CONTRACTOR is paid the corresponding value of the PLANT and MATERIALS as per the Contract.

38.9 The CONTRACTOR shall give the ENGINEER not less than 21 days’ notice of the date on which PLANT or a major item of other goods will be delivered to the WORKSITE.

38.10 The CONTRACTOR shall be responsible for packing, loading, transporting, receiving, unloading, storing and protecting all goods and other things required for the WORK.

GC39.0 MATERIAL AND PRODUCT SUPPLIED BY THE OWNER

39.1 The OWNER undertakes to supply only such MATERIAL or PRODUCT as are specifically shown in the CONTRACT DOCUMENTS as being provided by the OWNER.

39.2 It shall be the responsibility of the CONTRACTOR to arrange for and schedule delivery and storage of MATERIAL and PRODUCT supplied by the OWNER.

39.3 The CONTRACTOR is solely responsibility for all MATERIAL and PRODUCT furnished by the OWNER once such MATERIAL or PRODUCTS arrives at the WORKSITE. MATERIAL and PRODUCT already present at the WORKSITE shall become the sole responsibility of the CONTRACTOR commencing on the effective date of this CONTRACT.

39.4 The CONTRACTOR shall be responsible for unloading all OWNER supplied MATERIAL and PRODUCT and the CONTRACTOR and the ENGINEER shall jointly examine them at the time and place of delivery to the CONTRACTOR, and shall prepare a statement of acceptance, specifically noting any defects and rejecting any defective MATERIAL or PRODUCT. The CONTRACTOR shall sign a Statement of Acceptance of MATERIAL and PRODUCT when accepting them into his charge. Any MATERIAL and PRODUCT furnished by the OWNER and installed by the CONTRACTOR shall, if found defective, be replaced by the CONTRACTOR. The CONTRACTOR, shall, at his own expense, furnish supplies, labour and
facilities necessary to remove the defective MATERIAL and PRODUCT and install the sound MATERIAL and PRODUCT in a satisfactory manner.

39.5 The CONTRACTOR shall be entitled to use for the purpose of the WORK such supplies of electricity, water, gas and other services as may be available on WORKSITE of which details and prices are given in the CONTRACT DOCUMENTS. The CONTRACTOR shall, at his risk and cost, provide any apparatus necessary for his use of these services and for measuring the quantities consumed. The quantities consumed and amounts due for such services shall be agreed through written agreement or, failing such agreement, determined by the ENGINEER. The CONTRACTOR shall pay such amounts to the OWNER monthly in arrears.

39.6 If any loss or damage happens to facilities while the CONTRACTOR is responsible for their care, arising from any cause whatsoever other than those for which the OWNER is liable, the CONTRACTOR shall, at his own cost, rectify the loss or damage to the satisfaction of the ENGINEER.

GC40.0 AVOIDANCE OF INTERFERENCE

40.1 The CONTRACTOR shall not interfere unnecessarily or improperly with:

40.1.1 the convenience of the public; or

40.1.2 the access to and use and occupation of all roads and footpaths, irrespective of whether they are public or in the possession of the OWNER.

40.2 The CONTRACTOR shall indemnify and hold the OWNER harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from any such unnecessary or improper interference.

GC41.0 ACCESS ROUTE

41.1 Except as stated otherwise in the CONTRACT DOCUMENTS:

41.1.1 The CONTRACTOR shall (as between the parties) be responsible for the maintenance which may be required for the use of access routes;

41.1.2 The CONTRACTOR shall provide all necessary signs or directions along access routes and shall obtain any permission which may be required from the relevant authorities for his use of routes, signs and directions;

41.1.3 The CONTRACTOR shall be responsible for payment of and obtaining any environmental permits or approvals required for the construction of access routes;

41.1.4 The OWNER shall not be responsible for any claims which may arise from the use or otherwise of any access route;

41.1.5 The OWNER does not guarantee the suitability or availability of particular access routes; and
41.1.6 Costs due to non-suitability or non-availability, for the use required by the CONTRACTOR, of access routes shall be borne by the CONTRACTOR.

GC42.0 STORAGE FACILITIES AND USE OF PREMISES

42.1 The CONTRACTOR may use such facilities and areas as the OWNER may be willing and able to designate for the storage of MATERIAL and PRODUCT for the WORK, without charge to the CONTRACTOR. The CONTRACTOR shall take full responsibility for the OWNER'S facilities so provided.

42.2 Should the CONTRACTOR require additional facilities or areas he shall make all the necessary arrangements with the OWNERS or occupants of such other facilities or areas and shall pay all rentals and all damages caused by such occupancy.

42.3 The CONTRACTOR shall confine his apparatus, the storage of MATERIAL and PRODUCT and the operations of his workmen to limits indicated by LAW, ordinances, permits or directions of the ENGINEER and shall not unreasonably encumber the premises with his MATERIAL, PRODUCT or PLANT.

42.4 The CONTRACTOR shall enforce all regulations and rules for the WORKSITE regarding signs, advertisements, fires, smoking, and storage of inflammable MATERIAL or PRODUCT, and disposal of wastes.

42.5 The CONTRACTOR shall not load or permit any part of the WORK or of the OWNER'S structures to be loaded in any way that will endanger their safety.

GC43.0 USE OF COMPLETED PORTIONS OF THE WORK

43.1 The OWNER shall have the right to take possession of and use any completed or partially completed portions of the WORK, notwithstanding that the time for completing the WORK or such portions of the WORK; but such taking possession of and use shall not be deemed an acceptance of the WORK.

43.2 If such prior use increases the cost of the WORK, the CONTRACTOR shall be entitled to such compensation as the ENGINEER in the first instance may determine.

43.3 If a planned taking possession of and use of portions of the WORK has been stipulated in the CONTRACT DOCUMENTS, then the CONTRACTOR shall have no claim for extra compensation on that account.

GC44.0 CLEANUP AND FINAL CLEANING OF THE WORK

44.1 The CONTRACTOR shall maintain the WORK and the WORKSITE in a tidy condition, free from accumulation of waste products and debris caused by his own operations.

44.2 When the WORK is fully completed, the CONTRACTOR shall remove all surplus MATERIAL and PRODUCT, tools and PLANT from the WORKSITE. He shall also remove any waste products and debris, other than those caused by the OWNER, OTHER CONTRACTORS or their employees. He shall leave the WORKSITE in a neat and orderly condition.
GC45.0 PROTECTION OF THE ENVIRONMENT

45.1 The CONTRACTOR shall take all reasonable steps to protect the environment (both on and off the WORKSITE) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.

45.2 The CONTRACTOR shall ensure that emissions, surface discharges and effluent from the CONTRACTOR'S activities shall not exceed the values stated in the CONTRACT DOCUMENTS or prescribed by the governing LAWS.

45.3 It is prohibited to pump any liquid directly onto the ground or into any sewer system or drainage ditch without first obtaining written permission from the appropriate authorities.

45.4 All special or hazardous wastes generated by the CONTRACTOR shall be removed from the WORKSITE and disposed of, by the CONTRACTOR, in accordance with local waste management regulations. Unless provided otherwise in the CONTRACT DOCUMENTS, the OWNER'S site is not available for the disposal of any waste.

GC46.0 SECURITY OF THE WORKSITE

46.1 Unless otherwise stated in the CONTRACT DOCUMENTS:

46.1.1 the CONTRACTOR shall be responsible for keeping unauthorized persons off the WORKSITE; and

46.1.2 authorized persons shall be limited to the CONTRACTOR'S, ENGINEER'S and OWNER'S personnel; and any other personnel notified to the CONTRACTOR by the OWNER or ENGINEER, as authorized personnel.

GC47.0 DISPUTE RESOLUTION

47.1 The ENGINEER shall, in the first instance, interpret the CONTRACT and make any determinations for which it is responsible and which it is authorized to make under the CONTRACT. Should either the CONTRACTOR or the OWNER dispute the written interpretation or determination made by the ENGINEER in the first instance, that PARTY shall, within six (6) calendar days of receiving the determination or interpretation, submit to the ENGINEER a written notice of his dispute setting out all of the relevant details ("NOTICE OF DISPUTE").

47.2 Upon receipt of a NOTICE OF DISPUTE, the ENGINEER shall immediately notify in writing the other party to the CONTRACT and provide to the other party a copy of the NOTICE OF DISPUTE.

47.3 The OWNER and the CONTRACTOR shall, within six (6) calendar days of receiving such NOTICE OF DISPUTE, review the dispute jointly and attempt a resolution by negotiation.

47.4 If the OWNER and the CONTRACTOR are not able to resolve the dispute by negotiation, they may, by mutual agreement, engage a mediator to assist them in further negotiation towards reaching a resolution.
47.5 Alternatively, or after mediation has failed, the OWNER and the CONTRACTOR may, by mutual agreement, submit the dispute to arbitration under the laws of the jurisdiction in which the WORK is situated. Insofar as it is compatible with the law in the jurisdiction in which the WORK is situated, and unless otherwise mutually agreed between the OWNER and the CONTRACTOR, arbitration will follow the London Court of International Arbitration in accordance with UNCITRAL arbitration rules. The arbitration shall be conducted in the English language. The arbitrator’s decision shall be binding.

47.6 Alternatively, the CONTRACTOR or the OWNER may commence an action at law with respect to the dispute if it cannot be resolved by negotiation either with or without mediation. Neither negotiation with or without mediation, nor arbitration, shall be conditions precedent to proceeding with an action at law.

47.7 If the dispute is not resolved promptly, the ENGINEER shall give instructions in writing to the CONTRACTOR to do such work or to take such actions or refrain from taking such actions as may be required to avoid delay, mitigate damage and continue the proper performance of the WORK pending resolution of the dispute. The CONTRACTOR shall act promptly in accordance with such instructions and by so doing shall not jeopardize any claim he may have with respect to the dispute.

GC48.0 COMMUNICATIONS

48.1 Wherever the CONTRACT provides for the giving or issuing of approvals, certificates, consents, determinations, notices, requests and discharges, these communications shall be in writing and delivered by hand, sent by mail or courier, or transmitted using any of the legally recognized systems of electronic transmission. At all times requests for written hard copy documentation will be provided.

48.2 The ruling language of the Contract and all related communications will be the English language.

GC49.0 CONFIDENTIALITY

49.1 Any SPECIFICATIONS, DRAWINGS or other technical, commercial or financial information relating to the OWNER'S business (the "CONFIDENTIAL INFORMATION") which the CONTRACTOR may obtain in connection with the CONTRACT will be deemed confidential. The CONTRACTOR will not use the CONFIDENTIAL INFORMATION for its own purposes (other than fulfilling its obligations under the CONTRACT), nor will the CONTRACTOR disclose the CONFIDENTIAL INFORMATION to any third party except as specifically authorized by the OWNER in writing.

GC50.0 OWNER'S RIGHT TO AUDIT

50.1 During the execution of the WORK and for a period of 3 years from the termination of the CONTRACT or the date of the FINAL CERTIFICATE (whichever date is later), the CONTRACTOR agrees to allow access and to arrange for access to the OWNER or to its authorized personnel at all reasonable times to:

50.1.1 the CONTRACTOR and its personnel; and
50.1.2 all documentation pertaining to the execution of the WORK under the CONTRACT, including the award of subcontracts; for the purpose of auditing and verifying that:

50.1.3 any PROGRESS PAYMENT CERTIFICATE or payment claim submitted by the CONTRACTOR to the OWNER or ENGINEER for payment is in accordance with the CONTRACT;

50.1.4 whether the CONTRACTOR has complied with the CONTRACT; or

50.1.5 whether the CONTRACTOR has satisfied its payment obligations to its personnel (including SUBCONTRACTORS) arising out of the CONTRACT.

GC51.0 REMEDIES

51.1 The specific remedies to which the CONTRACTOR and the OWNER may resort under the terms of the CONTRACT DOCUMENTS are cumulative and are not intended to be exclusive of any other remedies to which the CONTRACTOR and the OWNER may be lawfully entitled in a case of breach or threatened breach of any covenant, term or provision of the CONTRACT.

51.2 The waiver by the OWNER or ENGINEER of any breach of any covenant or warrant in the CONTRACT shall not be construed as a waiver of any future breach of the same terms of the Contract, and the approval by the OWNER or ENGINEER of any act by the CONTRACTOR or SUBCONTRACTOR shall not be construed as an approval to any subsequent similar acts by the CONTRACTOR or SUBCONTRACTOR.

GC52.0 CORRUPT OR FRAUDULENT PRACTICES

52.1 If the OWNER or Government of the COUNTRY determines that the CONTRACTOR has engaged in corrupt, fraudulent, collusive coercive or obstructive practices, in competing for or in executing the Contract, then the OWNER may, after giving 14 days notice to the CONTRACTOR, terminate the CONTRACTOR’S employment under the Contract and expel him from the WORKSITE.

52.2 If an employee of the CONTRACTOR has engaged in corrupt, fraudulent, collusive coercive or obstructive practices during the execution of THE WORK, then the employee shall be removed by the CONTRACTOR from THE PROJECT.

52.3 Either party shall be entitled to determine the Contract and to recover from the other party the amount of any loss resulting from such action if:

52.3.1 Any party that has offered or given or agreed to give to any person any gift or consideration of any kind as inducement or reward for doing or forbearing to do or for having done or forborne to do any action in relation to the Contract or any other contract with the other party; or

52.3.2 The like acts shall have been done by any person employed by the Parties or acting on its behalf (whether with or without the knowledge of the Party); or
52.3.3 In relation to any contract with the Government of Montserrat the Supplier or person employed by it or acting on its behalf shall; or

52.3.4 Have committed an offence under the Integrity in Public Office Act No. 2 of 2010; or

52.3.5 Have given any fee or reward, the receipt of which is an offence, under the relevant laws.

52.4 In the performance of their obligations under or in connection with this Contract the parties, their agents and employees shall comply with all applicable laws, rules and regulations including and not limited to the Bribery Act 2010 and where appropriate, the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions. The Laws of Montserrat will take precedence where applicable over any other foreign Act.

GC53.0 ROYALTY FEES

53.1 Unless otherwise stated in the Specification, the CONTRACTOR shall pay all royalties, rents and other payments for:

53.1.1 Natural Materials obtained from outside the site; and

53.1.2 The disposal of material from demolitions and excavations and of other surplus material, except to the extent that the disposal areas are within the WORKSITE.

GC54.0 FORCE MAJEURE

54.1 Definition of Force Majeure

54.1.1 In this clause, “Force Majeure” means an exceptional event or circumstance:

54.1.1.1 Which is beyond a Party’s control,

54.1.1.2 Which such Party could not reasonably have provided against before entering into the Contract,

54.1.1.3 Which, having arisen, such Party could not reasonably have avoided or overcome; and

54.1.1.4 Which is not substantially attributable to the other party.

54.1.2 Force Majeure may include but is not limited to, exceptional events or circumstances of the kind listed below:

54.1.2.1 war, hostilities, invasion, act of foreign enemies (whether declared or not),

54.1.2.2 rebellion, terrorism, sabotage by persons other than the Contractor’s personnel, revolution, insurrection, military or usurped power or civil war,
54.1.2.3 riot, commotion, disorder, strike or lockout by persons other than the Contractor’s personnel,

54.1.2.4 munitions of war, explosive materials, ionising radiation or contamination by radio-activity, except as may be attributable to the Contractor’s use of such munitions, explosives, radiation or radio-activity,

54.1.2.5 natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity, or

54.1.2.6 government-mandated quarantine or restrictions on travel to the Country of the worksite.

54.2 Notice of Force Majeure

54.2.1 If a Party is or will be prevented from performing any of its obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented.

54.2.2 The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.

54.2.3 The Party shall, having given notice, be excused performance of such obligations for so long as such Force Majeure prevents it from performing them.

54.2.4 Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.

54.3 Duty to Minimise Delay

54.3.1 Each Party shall at all times use all reasonable endeavours to minimise any delay in the performance of the Contract as a result of a Force Majeure.

54.3.2 A Party shall give notice when it ceases to be affected by a Force Majeure.

54.4 Consequences of Force Majeure

54.4.1 In the event of circumstances as described in Sub-Clause 54.1, occurs in the Country and the Contractor is delayed in the performance of the work then the contract time shall be extended for such reasonable time as the Engineer may recommend in consultation with the Contractor. The extension of time shall not be less than the time lost as the result of the event causing the delay, unless the Contractor agrees to a shorter extension. The Contractor shall not be entitled to payment for costs incurred by such delays, unless such delays result from actions by the Owner, Engineer or anyone employed or engaged by them directly or indirectly.
54.5 Force Majeure Affecting Subcontractor

54.5.1 If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor’s non-performance or entitle him to relief under this Clause.

54.6 Optional Termination, Payment and Release

54.6.1 If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure, of which notice has been provided, or for multiple periods which total 140 days due to the same notified Force Majeure, then either Party may give to the other Party notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given.

54.6.2 Upon such termination, the Engineer shall determine the value of the work done and issue a Payment Certificate which shall include:

54.6.2.1 the amounts payable for any work carried out for which a price is stated in the Contract;

54.6.2.2 the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Owner when paid for by the Owner, and the Contractor shall place the same at the Owner’s disposal;

54.6.2.3 other Costs or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works;

54.6.2.4 the Cost of removal of Temporary Works and Contractor’s Equipment from the Site and the return of these items to the Contractor’s works in his country (or to any other destination at no greater cost); and

54.6.2.5 the Cost of repatriation of the Contractor’s staff and labour employed wholly in connection with the Works at the date of termination.

The Contractor shall not be paid or be entitled to claim any damages for any profit it may have lost consequent upon the termination of the Contract under this Clause.

54.7 Release from Performance

54.7.1 Notwithstanding any other provision of this Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure)
arises which makes it impossible or unlawful for either or both Parties to fulfil its or their contractual obligations or which, under the law governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Party of such event or circumstance:

54.7.1.1 the Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any previous breach of the Contract, and

54.7.1.2 the sum payable by the Owner to the Contractor shall be the same as would have been payable under Sub-Clause 54.6 if the Contract had been terminated under Sub-Clause 54.6.
DIVISION 01

(General Requirements)
1.0 WORK UNDER THIS CONTRACT

1.1 THE WORK included is described in general in Section 00 05 00.

2.0 WORK INCLUDED

2.1 THE WORK, unless specifically stated otherwise, shall include the furnishing of all MATERIAL, PRODUCT, PLANT, labour and transportation necessary to complete THE WORK. The intent is that the CONTRACTOR provides a complete job.

2.2 Any minor item of THE WORK not called for in the specifications or shown on the drawings but clearly required to meet the intent of design and normally provided for the proper operation of THE WORK shall be provided as if specifically called for in the CONTRACT DOCUMENTS.

3.0 DOCUMENTS REQUIRED

3.1 Maintain at the job site at least one copy of each of the following:

a) Contract Drawings.
b) Specifications.
c) Addenda.
d) Plan of Construction Operations (PCO).
e) Reviewed Shop Drawings and Job Mix Formula.
f) List of Outstanding Shop Drawings.
g) Change Orders, Field Orders, Notices.
h) Other Modifications to Contract.
i) Field Test Reports.
j) Copy of Approved Work Schedule.
k) Material Safety Data Sheet (MSDS).
l) Redline as-built drawings.
m) Health and Safety Plan and Other Safety Related Documents.
n) Other documents as stipulated elsewhere in the Contract Documents.

4.0 SPECIFICATIONS

4.1 Sentence structure in parts of the specifications is abbreviated, and phrases such as "shall be," and "the Contractor shall" are deliberately omitted. Such sentences shall be read as though they are complete.

4.2 The use of the word "PROVIDE" means "supply and install"; or "supply labour and materials for the installation of". It does not mean supply only.

4.3 The word "concealed" in connection with piping, electrical work, controls and wherever used in other sections shall mean "hidden from sight" as in ceiling spaces or furred out spaces, and
not normally visible to persons in the construction area.

4.4 The word "exposed" in connection with piping, electrical work, controls and whenever used in other sections shall mean visible to persons within a building in normal working areas.

5.0 STANDARDS

5.1 Wherever standards (e.g., CSA, ASTM and others), are referred to in these CONTRACT DOCUMENTS the current edition at the date of closing of TENDERS shall apply.

5.2 Where there is a clear conflict between the referenced Standard and the CONTRACT DOCUMENTS, the CONTRACT DOCUMENTS shall apply.

5.3 Where there is an ambiguity between a Standard and any term of these CONTRACT DOCUMENTS, the ENGINEER shall, in the first instance, give an interpretation of the intent of the CONTRACT.

------------------------ END OF SECTION 01 01 00------------------------
1.0 THE WORKSITE

1.1 The OWNER will provide the lands as delimited on the Drawings upon which THE WORK is to be constructed.

2.0 CONTRACTOR’S USE OF THE WORKSITE

2.1 Subject to and in accordance with the PCO and the other CONTRACT DOCUMENTS, the CONTRACTOR shall have exclusive use and control of the WORKSITE, provided that the CONTRACTOR shall permit access to the OWNER, the ENGINEER and OTHER CONTRACTORS on the WORKSITE for purposes of inspections, reviews, tests and carrying out work related to THE WORK.

2.2 Notwithstanding the CONTRACTOR’s permitted use of the premises, the CONTRACTOR shall comply with all Airport security and operational requirements, regulations and directives when working on the WORKSITE. Do not unreasonably encumber the WORKSITE with materials and equipment. At no time shall public, Airport or Airline Operational or Emergency Response access/egress routes be blocked or obstructed by materials or equipment, unless previously authorized by the OWNER.

2.3 Move stored products or equipment which interferes with operations, with OWNER, other contractors or Airport and/or Airline Operations and Facilities at no additional cost.

2.4 The OWNER shall have unfettered use of areas within the WORKSITE until the CONTRACTOR requires those areas for execution of THE WORK, and after the CONTRACTOR has finished the portions of THE WORK in those areas.

2.5 Unless otherwise agreed with the OWNER, the CONTRACTOR shall give minimum 72 hours notice to the OWNER before entering the WORKSITE to execute THE WORK.

2.6 The CONTRACTOR shall be responsible for access to the WORKSITE by means of temporary roads or agreements with the appropriate authorities to use existing means of access.

2.7 At completion of THE WORK, the CONTRACTOR shall restore all disturbed areas affected by THE WORK to equal to or better than that which existed before THE WORK started.

3.0 MEASUREMENT

3.1 No measurement for payment. All costs are incidental to the contract.

----------------------- END OF SECTION 01 01 50-------------------------
1.0 GENERAL

1.1 The Laws and Regulations of Montserrat shall apply.

1.2 Perform WORK in accordance with ICAO Aerodrome Standards and Recommended Practices, Overseas Territory Aviation Regulations (OTARs), local Building Codes, and any other code of federal or local application, including all amendments up to Tender closing date, provided in any case of conflict of discrepancy the more stringent requirement apply.

1.3 Materials and workmanship must meet or exceed requirements of specified standards, codes and referenced documents.

1.4 In the event of a dispute resolution by arbitration, the arbitration shall be governed by the Montserrat Arbitration Act and Related Legislation.

1.5 The CONTRACTOR shall ensure compliance on his part and on the part of all of his SUBCONTRACTORS with the Montserrat Labour Code thereunder.

1.6 All other Montserrat Acts and Regulations thereof shall apply and the CONTRACTOR shall comply with the requirements thereof as though they had been specifically named in these specifications.

2.0 REGULATIONS, STANDARDS AND CODES

2.1 Codes, Standards and Regulations are specified in other sections of the specifications and the WORK shall be done in accordance with those Codes, Standards and Regulations where applicable.

3.0 MEASUREMENT

3.1 No measurement for payment. All costs are incidental to the contract.
## 1.0 Abbreviations, Specifications, Methods, Standards

### 1.1 General

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AASHTO</td>
<td>American Association of State Highway and Transportation Officials</td>
</tr>
<tr>
<td>ACI</td>
<td>American Concrete Institute</td>
</tr>
<tr>
<td>AISC</td>
<td>American Institute of Steel Construction</td>
</tr>
<tr>
<td>AISI</td>
<td>American Iron and Steel Institute</td>
</tr>
<tr>
<td>ARCA</td>
<td>Alberta Roofing Contractors Association</td>
</tr>
<tr>
<td>ASCE</td>
<td>American Society of Civil Engineers</td>
</tr>
<tr>
<td>ASTM</td>
<td>American Society for Testing and Materials</td>
</tr>
<tr>
<td>AWPA</td>
<td>American Wood Preservers Associations</td>
</tr>
<tr>
<td>AWS</td>
<td>American Welding Society</td>
</tr>
<tr>
<td>BCLMA</td>
<td>B.C. Lumber Manufacturer's Association</td>
</tr>
<tr>
<td>CAN</td>
<td>National Standard of Canada</td>
</tr>
<tr>
<td>CCA</td>
<td>Canadian Construction Association</td>
</tr>
<tr>
<td>CISC</td>
<td>Canadian Institute of Steel Construction</td>
</tr>
<tr>
<td>CITC</td>
<td>Canadian Institute of Timber Construction</td>
</tr>
<tr>
<td>CPCI</td>
<td>Canadian Prestressed Concrete Institute</td>
</tr>
<tr>
<td>CRCA</td>
<td>Canadian Roofing Contractors Association</td>
</tr>
<tr>
<td>CSA</td>
<td>Canadian Standards Association</td>
</tr>
<tr>
<td>CWB</td>
<td>Canadian Welding Bureau</td>
</tr>
<tr>
<td>ISO</td>
<td>International Organization for Standardization</td>
</tr>
<tr>
<td>NBC</td>
<td>National Building Code</td>
</tr>
<tr>
<td>PCI</td>
<td>Prestressed Concrete Institute</td>
</tr>
<tr>
<td>PMBC</td>
<td>Plywood Manufacturer’s Association</td>
</tr>
<tr>
<td>SJI</td>
<td>Steel Joist Institute</td>
</tr>
<tr>
<td>SSPC</td>
<td>Steel Structures Painting Council</td>
</tr>
<tr>
<td>WCB</td>
<td>Worker’s Compensation Board</td>
</tr>
</tbody>
</table>

### 1.2 Utilities

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>API</td>
<td>American Petroleum Institute</td>
</tr>
<tr>
<td>AWWA</td>
<td>American Water Works Association</td>
</tr>
<tr>
<td>CGA</td>
<td>Canadian Gas Association</td>
</tr>
<tr>
<td>CGSB</td>
<td>Canadian General Standards Board</td>
</tr>
<tr>
<td>CSPI</td>
<td>Corrugated Steel Pipe Institute</td>
</tr>
<tr>
<td>IAO</td>
<td>Insurer’s Advisory Organization</td>
</tr>
<tr>
<td>RTAC</td>
<td>Roads and Transportation Association of Canada</td>
</tr>
<tr>
<td>ULC</td>
<td>Underwriters Laboratories of Canada</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America Standards (ASA)</td>
</tr>
</tbody>
</table>
1.3 Mechanical

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFBMA</td>
<td>Anti Friction Bearing Manufacturer's Association</td>
</tr>
<tr>
<td>AGMA</td>
<td>American Gear Manufacturer's Association</td>
</tr>
<tr>
<td>AMCA</td>
<td>Air Moving and Conditioning Association</td>
</tr>
<tr>
<td>ANSI</td>
<td>American National Standards Institute</td>
</tr>
<tr>
<td>ACR</td>
<td>Air Conditioning and Refrigeration Institute</td>
</tr>
<tr>
<td>ASHRAE</td>
<td>American Society of Heating Refrigerating and Air Conditioning Engineers</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Association</td>
</tr>
<tr>
<td>SAE</td>
<td>Society of Automotive Engineers</td>
</tr>
</tbody>
</table>

1.4 Electrical

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIEE</td>
<td>American Institute of Electrical Engineers</td>
</tr>
<tr>
<td>CEC</td>
<td>Canadian Electrical Code</td>
</tr>
<tr>
<td>EEMAC</td>
<td>Electrical and Electronic Manufacturers Association of Canada</td>
</tr>
<tr>
<td>IEC</td>
<td>International Electrotechnical Commission</td>
</tr>
<tr>
<td>IEEE</td>
<td>Institute of Electrical and Electronic Engineers</td>
</tr>
<tr>
<td>IES</td>
<td>Illuminating Engineers Society</td>
</tr>
<tr>
<td>IPCEA</td>
<td>Insulated Power Cable Engineer's Association</td>
</tr>
<tr>
<td>LEMA</td>
<td>Lighting Equipment Manufacturer’s Association</td>
</tr>
<tr>
<td>NEC</td>
<td>National Electrical Code</td>
</tr>
<tr>
<td>NEMA</td>
<td>National Electrical Manufacturers Association</td>
</tr>
<tr>
<td>NESC</td>
<td>National Electrical Safety Code</td>
</tr>
</tbody>
</table>

1.5 Use of Abbreviations

These abbreviations refer to Specifications, Methods and Standards issued by the respective Association, and the abbreviations are used in the specifications.

Alphanumeric designations following the abbreviations denote the specification, method, or standard.
2.0 ABBREVIATIONS – METRIC

3.2 General

The specifications are metric and metric usage is based upon SI units in accordance with CSA Standard CAN/CSA-Z234.1 Canadian Metric Practice Guide. In this specification SI units are abbreviated in accordance with the Metric Units and Abbreviations below.

3.3 Linear Measure

<table>
<thead>
<tr>
<th>Unit</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metre</td>
<td>m</td>
</tr>
<tr>
<td>Millimetre</td>
<td>mm</td>
</tr>
<tr>
<td>Kilometre</td>
<td>km</td>
</tr>
<tr>
<td>Micrometre</td>
<td>micro-m</td>
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</tbody>
</table>

3.4 Area

<table>
<thead>
<tr>
<th>Unit</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Square metre</td>
<td>m²</td>
</tr>
<tr>
<td>Square millimetre</td>
<td>mm²</td>
</tr>
<tr>
<td>Hectare</td>
<td>ha</td>
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</tbody>
</table>

3.5 Volume

<table>
<thead>
<tr>
<th>Unit</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cubic metre</td>
<td>m³</td>
</tr>
<tr>
<td>Litre</td>
<td>L</td>
</tr>
</tbody>
</table>

3.6 Mass and Density

<table>
<thead>
<tr>
<th>Unit</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kilogram</td>
<td>kg</td>
</tr>
<tr>
<td>Gram</td>
<td>g</td>
</tr>
<tr>
<td>Tonne</td>
<td>t</td>
</tr>
<tr>
<td>Kilogram per metre</td>
<td>kg/m</td>
</tr>
<tr>
<td>Gram per metre</td>
<td>g/m</td>
</tr>
<tr>
<td>Kilogram per square metre</td>
<td>kg/m²</td>
</tr>
<tr>
<td>Gram per square metre</td>
<td>g/m²</td>
</tr>
<tr>
<td>Kilogram per cubic metre</td>
<td>kg/m³</td>
</tr>
</tbody>
</table>

3.7 Temperature

<table>
<thead>
<tr>
<th>Unit</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree Celcius</td>
<td>°C</td>
</tr>
</tbody>
</table>

3.8 Force, Pressure, Stress

<table>
<thead>
<tr>
<th>Unit</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newton</td>
<td>N</td>
</tr>
<tr>
<td>Kilonewton</td>
<td>kN</td>
</tr>
</tbody>
</table>
Pascal               Pa
Kilopascal           kPa
Megapascal           MPa

3.9 Velocity, Rate of Flow

Metre per second     m/s
Metre per hour       m/h
Kilometre per hour   km/h
Litre per second     L/s
Cubic metre per second $m^3/s$

3.10 Power, Energy, Heat, Work

Watt                 W
Kilowatt             kW
Kilowatt hour        kWh
Joule                J

3.11 Electricity

Ampere               A
Volt                 V

------------------------ END OF SECTION 01 07 00 ------------------------
1.0 GENERAL

1.1 General

1.1.1 The asphalt shall be weighed on approved scales furnished by the Contractor, or on certified public scales at the Contractor's expense. Scales shall be inspected and sealed as often as the Engineer deems necessary to assure their accuracy.

In lieu of scales, asphalt may be weighed by use of a certified electronic silo scale system equipped with an automatic printer that weighs the total asphalt production and as often thereafter as requested by the Engineer.

1.2 Regulatory Requirements

1.2.1 Prior to use, have weigh scales certified as meeting requirements of Statutes of Montserrat and subsequent amendments. Display certificate in prominent position.

1.2.2 ENGINEER will accept the use of commercial scales meeting all requirements following and located within 5 km of the construction site.

1.3 Measurement Procedures

1.3.1 Include cost of certification, installation, maintenance, operation and removal of scales or use of local commercial scales in items of work to be measured by mass.

1.3.2 If the CONTRACTOR does not utilize an electronic scale, the contractor shall reimburse the ENGINEER $1,500 USD per day to provide an independent scale ticket attendant. The ENGINEER's scale attendant shall not take the place of the CONTRACTOR's scale attendant and is in place only to verify and check the daily haul quantities of the scale house operator.

2.0 PRODUCTS

2.1 Equipment

2.1.1 Weigh scales: electronic truck scale of sufficient capacity to weigh loaded vehicles in single operation.

2.1.2 Certified commercial scales may be utilized.

2.1.3 Scale house: to enclose mass indicator and provide workspace for ENGINEER's use.

2.1.3.1 Weatherproof and have minimum 750 lx of illumination, one sliding window facing scale platform, one other window for cross ventilation, shelf desk at least 0.6 x 1.8 m, and air conditioning to maintain inside temperature at 20°C. Entrance door not to face onto scale platform.

2.1.4 Platform scales are required for items measured and paid for by the tonne. Internal certified scales for asphalt plants will not be permitted as they would be difficult for the Engineer to monitor and do not have a truck ticket system.
Contractor will need to provide electronic silo scale certificate/calibration documentation and scale weight precision in order to be considered for use in lieu of the platform scales.

3.0 EXECUTION

3.1 Installation

3.1.1 Provide, install and maintain electronic scales, scale house and ramps, convenient to project site, at location approved by ENGINEER.

3.2 Operation

3.2.1 The contractor shall be responsible for providing a trained operator to weigh trucks and prepare weigh tickets. ENGINEER to monitor weighing of materials.

3.2.2 The contractor shall record the tare weight of each truck at the beginning of each day, maintain a record of daily tare weights for each truck and shall advise the ENGINEER of any significant deviations therefrom.

3.2.3 Provide sufficient number of weigh tickets, in triplicate, with consecutive serial numbers. Obtain ENGINEER’s approval of design.

3.3 Maintenance

3.3.1 Maintain scale platform and scale mechanism clean and free from gravel, asphalt, and debris.

3.3.2 Maintain approach and exit ramps free from sags and ruts.

3.3.3 Have scales re-certified if requested by ENGINEER.

3.4 Removal

3.4.1 Remove scales and scale house when no longer required by ENGINEER.

3.4.2 Level approach and exit ramps and regrade to approval of ENGINEER.

4.0 MEASUREMENT

4.1 No measurement for payment. All costs are incidental to the Contract.

------------------------- END OF SECTION 01 15 00-------------------------
1.0 GENERAL

1.1 Payments will be made on the basis of the lump sum prices bid and the unit prices bid in the Tender, and in accordance with the General Conditions.

Progress Payments will be prepared in XCD currency. The OWNER uses a standard conversion rate of 1 USD = 2.7169 XCD. This conversion would be used for Payments made in US Dollars for THE WORK.

1.2 Where work is required under the CONTRACT but not explicitly described as a line item in the Schedule of Unit Prices, the work shall be considered incidental to the CONTRACT and no separate payment shall be made. It is the CONTRACTOR’S responsibility to include all such costs as part of lump sum and unit prices included in the Schedule of Unit Prices.

1.3 The prices included in the Contract Documents for various items of work, unless specifically noted otherwise, shall include the supply of all labour, MATERIAL and PRODUCT equipment necessary to construct THE WORK in accordance with the specifications.

1.4 The prices included in the Contract Documents for supply and installation shall be full compensation for supplying, hauling, installing, cleaning, testing, and placing in service together with all other work subsidiary and incidental thereto for which separate payment is not provided elsewhere.

1.5 The method of measurement of the quantities for payment and the basis for payment will be in accordance with the various specifications contained in this document. All measurement will be done by the CONTRACTOR using generally accepted field survey methods. Stationing interval for volume calculations shall not exceed requirements indicated.

1.6 Where the Tender shows separate items for supply and installation, the unit prices or lump sum prices bid for supply shall include supplying, delivering, loading, unloading and all allowances for handling, storage, breakage and waste. Payment will be made only for MATERIAL actually installed in THE WORK.

1.7 The tender quantities shown are not intended for use in ordering materials. The Contractor is expected to obtain his own quantity estimates prior to ordering materials.

1.8 Payment will be considered for MATERIAL delivered to the WORKSITE that will be incorporated into THE WORK. MATERIAL shall remain in the CONTRACTOR’S care and shall become the property of the OWNER. Requests for payment must be supported by actual material invoices supplied by the CONTRACTOR and approved by the OWNER. Supporting photos may be requested in support of payment to provide evidence of delivery/storage.

1.9 It is the CONTRACTOR’S responsibility to be aware of the existing site conditions. Any dewatering, or temporary water diversion activities, as required during the construction to keep the work areas free of water are the responsibility of the CONTRACTOR. There will be no separate measurement for this item and shall be considered as incidental to THE WORK.

1.10 Other materials on WORKSITE, whether existing structures, vegetation, topsoil, gravel, sand or other excavated or piled materials, are the property of the OWNER or of the OWNER of the land on which THE WORK is located. Only those materials specifically noted in the specification or on drawings as belonging to the CONTRACTOR shall become the CONTRACTOR’S property. For the purpose of this contract, any materials called for OFF-SITE disposal belong to the Contractor. On-site disposal shall imply the materials belong to the
OWNER and that disposal shall be in designated areas on the airport property.

1.11 Where there are excess excavated materials, unsuitable materials excavated or materials of any kind that are excavated but not used in THE WORK, such materials are not the property of the CONTRACTOR unless authorized in writing by the ENGINEER or specified to be disposed of by the CONTRACTOR.

2.0 SUBMITTALS

2.1 Administrative:

2.1.1 Submit to ENGINEER submittals listed for all materials and procedures requiring approval as indicated. Submit electronically (PDF file format) in a timely manner and orderly sequence so as to not cause delay in the Work.

2.1.2 Work affected by submittal shall not proceed until review is complete.

2.1.3 Review submittals prior to submission to Engineer. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and coordinated with requirements of the Work and Contract Documents.

2.1.4 Verify field measurements and affected adjacent Work are coordinated.

2.1.5 Refer to Section 01 33 00 for detailed submittal procedures.

3.0 DEWATERING

3.1 Provide temporary drainage and pumping facilities to keep excavations and site free from standing water.

4.0 BACKUP EQUIPMENT

4.1 Contractor must provide on-site at least one (1) backup of all key equipment required in case of breakdown during construction. Backup equipment to be in good working order and of similar age and characteristics as the primary equipment used in the Work.

5.0 MEASUREMENT FOR PAYMENT

5.1 Payments will be made on the basis of the following:

5.1.1 Lump Sum items in the Schedule of Unit Prices.

5.1.2 Unit prices bid in the Schedule of Unit Prices.

5.1.3 Unit prices bid in the Schedule of Unit Prices for Provisional Work Items (as applicable).

5.1.4 Changes in the Work for items not covered by unit prices, in accordance with the General Conditions.

5.2 For each Lump Sum item in the Schedule of Unit Prices, the Engineer will, in cooperation with the Contractor, estimate the percentage of the item completed at the end of the payment period.

5.3 For each Unit Price item in the Schedule of Unit Prices, the calculation for payment will be based on Contract unit price and Engineer's determination of units of work item completed.
6.0 UNIT PRICE CONTRACTS SPECIAL PROVISIONS AND BASIS OF MEASUREMENT AND PAYMENT

6.1 The following sections are intended to provide supplemental detail to the contract items listed in Section 00 33 00 Form of Tender – Unit Price, the associated specifications and the Contract Drawings. All of the information presented should be considered as a whole. The Contractor is advised that not all items within the Form of Tender may have an associated Special Provision.
MOBILIZATION / DEMOBILIZATION, BONDING, INSURANCE, ETC.

1. Mobilization and demobilization shall include the Contractor’s costs of mobilization at the beginning of the project; and the costs of demobilization at the end of the project.

2. Included in mobilization are such items as bonding, insurance, permits, costs associated with transportation of personnel, materials and equipment to the site, setting up and removing temporary facilities including but not limited to storage containers, generators, site privies, temporary plants and services, and all preparation for performing the Work.

   Included in demobilization are such items as the removal of personnel, materials, plant and equipment; and restoration/cleanup of the Worksite in accordance with Section 01 50 00 – Construction Facilities.

3. Work under this item shall include the preparation, maintenance and removal of temporary construction access roads (as required) including any temporary culverts, traffic signage, or any other improvements which may be required to facilitate construction. The Contractor is advised to make their own determination of the quality of the public roadways for this project. No separate payment will be made for restoring or repairing these roadways/haul routes (whether gravel or paved) to original or better condition.

   The public roads in Montserrat are designed for 10 tonnes per axle. Notwithstanding this, the Contractor is responsible to repair any damage to any roadways or haul routes used for the project. A joint inspection shall be undertaken of the roadways proposed for use before and after construction between the Owner and Contractor.

   At the end of the project, all disturbed areas shall be left in neat condition. Any disturbed gravel routes are to be fine graded at the end of the project and re-compacted.

4. The Contractor shall provide a temporary, weather tight site office for his own use complete with facilities for filing, drawings, specification, correspondence etc. and other appurtenances necessary for proper execution of the Work. He shall also make his own provision for suitable accommodation and transportation of his personnel, his workshop and all other elements of accommodations.

5. Should the Contractor utilize camp(s), he shall provide all necessary power, water, sewerage, lighting and all other facilities necessary for his personnel, equipment, material and all other operations of his camp(s).

   5.1 The Contractor’s camp(s) shall include an air conditioned clinic adequately furnished (including a refrigerator) provided with first aid and other medicines normally required on camp sites.

   5.2 The Contractor’s camp(s) shall be located at location(s) designated and approved by the Engineer. The Contractor shall coordinate with Owner and the related local Government Agencies for approval by submitting complete details of his camp plan suiting to his requirement for the project.

   5.3 The Contractor shall be responsible for making all arrangements and payments in respect of any land required for establishing his camp(s).

6. The work under this item shall include costs associated with health and safety including the preparation of a project specific Health and Safety Plan which is to be provided to the Engineer and the Owner at least 30 days prior to construction. The Contractor shall also submit a COVID-19 Prevention and Site Procedures Plan outlining procedures that will be followed and enforced on-site during construction.
7. This item shall include all costs associated with providing Construction Photographs in accordance with Section 01 38 00.

8. The item shall include all costs associated with the supply, maintenance, routine cleaning and removal of site privies in accordance with Section 01 50 00 – Construction Facilities.

9. The lump sum price bid for this work shall be relative to the costs involved but shall not exceed twenty percent (20%) of the Estimated Total Tender Price.

10. Payment shall be made as follows, as approved by the Engineer:
   
   10.1 Up to 60% of the total lump sum bid will be included in the following Progress Payment Certificate when the Contractor has achieved minimum 10% of the Contract (construction) Work;
   
   10.2 40% of the lump sum bid will be included in the Progress Payment Certificate subsequent to site cleanup and demobilization occurring.

11. The Engineer may at his discretion recommended alternative or partial payment if mobilization or demobilization is not complete, or upon reaching Substantial Performance of the Work.

CONTRACTOR LAYDOWN AREA

1. The Owner has designated a site within the airport property to allow temporary setup of a contractor laydown area. Plant, material and equipment stored within this area is height restricted, with maximum permitted heights as indicated in the Plan of Construction Operations and Drawings.

2. The Contractor shall make its own determination as to the suitability of the designated Contractor Laydown Area for their operations, accessibility, and account for any necessary site preparation, improvements, grading, etc. required to accommodate their plant, equipment and materials required for performance of the Work.

3. At least 30 days prior to construction the Contractor shall submit a laydown area plan showing location of security fence, asphalt plant layout, material stockpiles, equipment storage, circulation routes, site offices, parking, entrance/exit gates, temporary roads, etc. including elevations of plant/equipment/materials relative to the runway centreline for the Engineer's review and approval.

4. Contractor Laydown Area limits shall be marked by the Contractor and agreed to by the Owner.

5. All existing edge lights, structures, etc. within the Contractor Laydown Area shall be protected.

6. Temporary Security Fencing:

   6.0 A temporary 8ft (2.44m) high chain link security fence complete with 1ft (0.3m) high 3-strand barbed wire for total height of 9ft (2.74m) shall be securely installed to separate the Contractor Laydown Area and the airside. At minimum, the fence bordering the apron shall be installed with privacy screen (geotextile fabric or similar effect) to serve the purpose of FOD and dust control during construction. Any temporary fencing that requires crossings of drainage ditches shall do so by ensuring no openings greater than 300mm in size exist.

   6.1 Fence posts shall be installed on concrete footings or on temporary precast concrete barriers for total minimum height of 8ft above ground, plus 1ft barbed wire.

   6.2 The estimated length of fencing required is 180m however the contractor shall make its own determination as to the length of fencing necessary to suit and optimize their
laydown configuration/requirements while respecting the Obstacle Limitation Surfaces.

6.3 A minimum 3m clear buffer shall be provided between any plant/equipment/material and the fencing for security purposes and to permit the Airport Operator to patrol/monitor the perimeter as required. Fencing bordering the apron shall be equipped with steady burning red lights installed at maximum 3m spacing.

6.4 The temporary fencing shall be removed at the completion of construction following demobilization and restoration of the Contractor Laydown Area.

6.5 A new gate shall be installed for contractor purposes to control access and security to their laydown area. This gate should be installed only after the temporary security fencing is in place. After construction is complete, the gate may remain in place provided it meets the requirements shown in the Contract Drawings and specification FAA-F-162, otherwise it is to be removed and fencing gap restored to original conditions or better.

7. The Contractor is responsible for any temporary power or other services to the site including their removal/restoration at the completion of the Work.

8. This item includes the preparation, setup, take down, and restoration of the Contractor Laydown Area to original conditions. No separate payment will be made for any site preparation (grading, etc.) as may be required or for restoration of the Contractor Laydown Area.

9. Measurement and payment will be on a “lump sum” basis and shall be full compensation for all related work.

IMPLEMENTATION OF THE PLAN OF CONSTRUCTION OPERATIONS (PCO)

1. The work under this item shall include without limitation, the supply, maintenance, relocation as necessary and removal of all temporary runway closure markers, low profile barricades c/w unserviceability lighting (if and where necessary) and all temporary arrangements to meet the requirements of the Plan of Construction Operations as contained in (Appendix A) unless otherwise specifically contained within a separate work item.

2. "maintenance" shall be deemed the periodic review and condition assessment of the placed markers/barricades/lights to ensure they are secure, operational, and to the proper configuration and dimensions.

3. Contractor shall take adequate precaution to ensure the markers and barricades (where provided) are protected from wind forces. Unless approved by Engineer, barricades shall not be anchored by means of stakes or nails which require penetration of the new pavement surface. Barricades shall be filled with water or sand. Additional sand bags may be approved by the Engineer. It is imperative that these barricades are securely anchored.

4. Contractor must take necessary steps to ensure FOD, debris and dust is contained and/or mitigated within the construction zone.

5. Included in this item shall be all costs to provide, install and maintain temporary floodlighting for night construction (including erection and disassembly at the start/end of each shift) as may be required by the Contractor to facilitate construction.

6. Contractor must protect existing airfield electrical cables, fixtures and units throughout construction.

7. Contractor is advised to review Appendix A and be completely familiar with the requirements of the PCO and its impact on this cost item and construction logistics. The sequencing of work, production
rates, equipment/personnel, etc. will be reviewed by the Owner and Engineer prior to and during the Work. The Owner reserves the right to require the Contractor to increase both personnel and equipment if they feel the proposed schedule is not achievable. No additional compensation would be made under this instance.

8. Measurement and payment will be on a “lump sum” basis and shall be full compensation for all related work.

QUALITY CONTROL

1. The Work under this item shall include all costs associated with the provision of Quality Control during construction including independent laboratory monitoring, testing and reporting, and all incidentals in accordance with Section 01 45 00 – Quality Control, FAA Specification P-403 – Hot Mix Asphalt (HMA) Pavements, and as amended herein.

2. An on-site laboratory for the Owner’s Quality Assurance team is to be provided by the Contractor. This shall be a joint use/shared laboratory between the Contractor QC and Owner’s QA team, at no cost to the Owner or Owner’s QA team.

3. In lieu of the Contractor retaining an independent third-party organization for its on-site laboratory, quality control testing and inspection of the work, the Contractor is permitted to use their own fully equipped mobile lab and technicians for field/lab testing provided they meet specification and accreditation requirements of FAA P-403-6.1. In this case, the Contractor must retain and pay for an independent third-party organization that meets the contract requirements who will prepare, implement and manage the Contractor’s Quality Control Program and provide geotechnical oversight/supervision of all contractor testing through a licensed Professional Engineer who is stationed on-site during construction.

4. The Work under this item shall include the preparation of a Contractor Quality Control Program which shall be submitted at least 45 days prior to construction start. The Quality Control Program shall be organized to address, as a minimum, the following items:
   - Quality control organizational
   - Submittals schedule
   - Inspection requirements
   - Quality control testing plan
   - Documentation of quality control activities
   - Corrective action requirements when quality control and/or acceptance criteria are not met
   - Quality management plan for each activity including production and stockpiling of construction aggregates, production and placement of asphalt concrete pavement, testing and sampling frequencies and requirements, reporting format and schedule

Additional elements to the Quality Control Program shall be added by the Contractor as necessary to adequately control all production and/or construction processes required by this Contract.

The Contractor shall not begin any construction or production of materials to be incorporated into the completed work until the Quality Control Program has been reviewed and accepted by the Engineer. No payment will be made for materials subject to specific quality control requirements until the Quality Control Program has been reviewed.

The written Quality Control Program shall be submitted to the Engineer for review and approval at least 45 calendar days before the start of on-site construction.
5.1 Quality Control Organization

5.1.1 The Contractor Quality Control Program shall be implemented by the establishment of a separate quality control organization. An organizational chart shall be developed to show all quality control personnel including quality control manager, supplier certifications, site testing and inspection representatives, laboratory testing personnel, laboratory certification and staff qualifications, etc., and show how these personnel integrate with other management/production and construction functions and personnel.

5.1.2 Organizational chart shall identify all quality control staff by name and function and shall indicate the total staff required to implement all elements of the Quality Control Program, including inspection and testing for each item of work.

5.2 Submittals Schedule

5.2.1 The Contractor shall submit a detailed listing of all submittals (for example, mix designs, material certifications) and shop drawings required by the specifications. The listing can be developed in a spreadsheet format and shall include:

- 5.2.1.1 Specification item number
- 5.2.1.2 Item description
- 5.2.1.3 Description of submittal
- 5.2.1.4 Specification paragraph requiring submittal
- 5.2.1.5 Scheduled date of submittal

5.3 Inspection Requirements

5.3.1 Quality control inspection functions shall be organized to provide inspections for all definable features of work, as detailed below. All inspections shall be documented by the Contractor.

5.3.2 Inspections shall be performed daily to ensure continuing compliance with contract requirements until completion of the particular feature of work. These shall include the following minimum requirements:

- 5.3.2.1 During plant operation for material production, quality control test results and periodic inspections shall be used to ensure the quality of aggregates and other mix components, and to adjust and control mix proportioning to meet the approved mix design and other requirements of the technical specifications. All equipment used in proportioning and mixing shall be inspected to ensure its proper operating condition. The Quality Control Program shall detail how these and other quality control functions will be accomplished and used.

- 5.3.2.2 During field operations, quality control test results and periodic inspections shall be used to ensure the quality of all materials and workmanship. All equipment used in placing, finishing, and compacting shall be inspected to ensure its proper operating condition and to ensure that all such operations are in conformance to the technical specifications and are within the plan dimensions, lines, grades, and tolerances specified. The Quality Control Program shall document how these and other quality control functions will be accomplished and used.
5.4 Quality Control Testing Plan

5.4.1 As a part of the overall Quality Control Program, the Contractor shall implement a quality control testing plan, as required by the technical specifications. The testing plan shall include the minimum tests and test frequencies required by each technical specification Item, as well as any additional quality control tests that the Contractor deems necessary to adequately control production and/or construction processes.

5.4.2 The testing plan can be developed in a spreadsheet fashion and shall, as a minimum, include the following:

5.4.2.1 Specification item number
5.4.2.2 Item description (for example, Hot Mix Asphalt (HMA) Pavement)
5.4.2.3 Test type (for example, gradation, grade, asphalt content)
5.4.2.4 Test standard (for example, ASTM or American Association of State Highway and Transportation Officials (AASHTO) test number, as applicable)
5.4.2.5 Test frequency (for example, as required by technical specifications or minimum frequency when requirements are not stated)
5.4.2.6 Responsibility (for example, plant technician)
5.4.2.7 Control requirements (for example, target, permissible deviations)

5.4.3 The testing plan shall contain a statistically-based procedure of random sampling for acquiring test samples in accordance with ASTM D3665. The Engineer’s Site Representative shall be provided the opportunity to witness quality control sampling and testing. All quality control test results shall be documented by the Contractor as required.

5.5 Documentation

5.5.1 The Contractor shall maintain current quality control records of all inspections and tests performed. These records shall include factual evidence that the required inspections or tests have been performed, including type and number of inspections or tests involved; results of inspections or tests; nature of defects, deviations, causes for rejection, etc.; proposed remedial action; and corrective actions taken.

5.5.2 These records must cover both conforming and defective or deficient features, and must include a statement that all supplies and materials incorporated in the work are in full compliance with the terms of the contract. Legible copies of these records shall be furnished to the Engineer daily. The records shall cover all work placed subsequent to the previously furnished records and shall be verified and signed by the Contractor’s quality control manager.

Specific Contractor quality control records required for the contract shall include, but are not necessarily limited to, the following records:

5.5.2.1 Daily inspection reports
5.5.2.2 Daily test reports
5.6 Corrective Action Requirements

5.6.1 The Quality Control Program shall indicate the appropriate action to be taken when a process is deemed, or believed, to be out of control (out of tolerance) and detail what action will be taken to bring the process into control. The requirements for corrective action shall include both general requirements for operation of the Quality Control Program as a whole, and for individual items of work contained in the technical specifications.

5.6.2 The Quality Control Program shall detail how the results of quality control inspections and tests will be used for determining the need for corrective action and shall contain clear sets of rules to gauge when a process is out of control and the type of correction to be taken to regain process control.

5.6.3 When applicable or required by the technical specifications, the Contractor shall establish and use statistical quality control charts for individual quality control tests. The requirements for corrective action shall be linked to the control charts.

6. The Owner reserves the right to carry out its own quality assurance testing. The Contractor shall provide the site testing laboratory and all equipment necessary to complete the testing, including coring equipment. Refer to respective specifications for additional requirements.

7. Measurement and payment will be on a “lump sum” basis amortized in equal monthly installments over the duration of the Work and shall be full compensation for all related work.

ENVIRONMENTAL PROTECTION PLAN

1. The Work under this item shall include costs associated with the preparation and execution of a project specific Environmental Protection Plan as specified in Section 01 35 43 – Environmental Procedures.

2. Submit Environmental Protection Plan to the Engineer a minimum of 30 days prior to construction.

3. Measurement and payment will be on a “lump sum” basis amortized in equal monthly installments over the duration of the Work and is full compensation for all related Work.

ENGINEER’S FIELD OFFICE (PROVISIONAL)

1. The Work under this item shall include without limitation the supply, servicing, maintenance, and removal of Field Office for the Engineer in accordance with Section 01 50 00 – Construction Facilities.

2. Location of Engineer’s Field Office shall be determined onsite with the Contractor and the Engineer prior to Construction and will generally be in the same location as the Contractor’s Office and Yard as indicated on the Contract Drawings or as otherwise approved by the Engineer and the Owner.

3. Measurement and payment will be on a “lump sum” basis amortized in equal monthly installments over the duration of the Work and shall be full compensation for all related Work.

4. Prior to Contract execution, and at the sole discretion of the Owner, this item of work may be deleted from the Contract. No claim for lost profit or otherwise from the Contractor will be considered.

TRANSPORT FOR THE ENGINEER

1. The Contractor shall provide and maintain ground transportation for the exclusive use of the Engineer, his representatives and representatives of the OWNER for the duration of construction.
2. Road transport, which shall be used both on and off the Worksite, shall include one (1) – four wheel drive vehicle with a minimum of 4 seats and equipped with air conditioning.

3. The vehicle shall be in good working order, suitable for the Works and shall not be more than 5 years old.

4. The vehicle shall be fitted with hazard warning flashing beacons as required by the PCO.

5. When transport is out of use for repairs, servicing etc., equivalent substitutes shall be provided by the Contractor. Items of transport considered unsuitable by the Engineer shall be replaced.

6. The Contractor shall arrange for immediate replacement of the vehicle if unavailable for any reason whatsoever.

7. A joint inspection between the Engineer's Site Representative and Contractor shall be completed on the construction vehicle before and after construction to record its condition and any damages thereof.

8. Payment will be based on a weekly rate during its use by the Engineer’s Site Representative during construction. The Contractor’s weekly rate for the provision and maintenance of vehicle shall include, servicing, maintenance, taxes, duties, registration, insurance etc., as applicable.

9. The Contractor, prior to completion of construction, shall submit an offer for sale of the vehicle to the Owner and for it to remain in Montserrat as the property of the Owner.

AS-BUILT SURVEY, PROJECT RECORD DRAWINGS AND DOCUMENTS

1. This item shall include all costs associated with a total station survey of the completed Work including submission of all closeout documentation required by the Contract under Section:

   1.1 01 39 00 – Drawings of Record;
   1.2 01 78 00 – Closeout Submittals; and
   1.3 as amended herein.

2. As-built Survey:

   2.1 Survey all areas to effectively as-built the Work completed under the project. Submit to Engineer a UTM WGS84 (Zone 20) digital topographical survey of completed Work as indicated. Include without limitation:

   2.1.1 Tie survey into a minimum of three existing geodetic monuments.
   2.1.2 Pavement surfaces to be surveyed on grid at maximum 10m longitudinal sections. At each section record centreline, mid-point between centreline and edge of pavement and edge of pavement, including asphalt tie-in’s, grade breaks, and other key information.
   2.1.3 Unpaved surfaces to be surveyed at sufficient intervals to permit accurate generation of 0.25m contours.
   2.1.4 Survey all new electrical features and record locations of concealed components/cables.
   2.1.5 Survey limits/outline of all new pavement line markings for sufficient area, dimension and location measurements.
2.1 Present all surveys in SI metric units.

2.2 Provide final total station survey data to Engineer upon project Substantial Performance.

2.3 Measure elements which fall within the scope of the contract and locate in reference to the coordinate system used.

2.4 Logically assemble and label like features/object data, annotate by colour, and group by layer in a CAD file. Engineer to provide layer and line style conventions as required.

2.5 Transpose all as-built record information to AutoCAD (ver. 2018 or newer) format.

2.6 Provide a separate ASCII (.txt) format file containing point number Northing, Easting, Elevation control, and label information respectively for all points (P, N, E, Z, D – Comma Delineated Format).

2.7 Submit electronic copy of the CAD file and the ASCII file to Engineer upon project Substantial Performance.

3. As-built Drawings and Total Station Survey Data:

3.1 After award of Contract, the Contractor shall use a clean set of drawings for purpose of maintaining as-built drawings.

3.2 Accurately and neatly record deviations from Contract Documents caused by site conditions and changes ordered by Engineer through Field Order and/or Change Order to ensure that an accurate record is provided for future maintenance and alterations.

3.3 Identify drawings as "As Built Drawings". Maintain in new condition and make available for inspection on site by Engineer.

3.4 Contractor's responsibility for errors and omissions in submission is not relieved by Engineer's review of submissions.

3.5 The Certificate of Substantial Performance will not be issued until as-built drawings and completed total station survey have been provided and accepted by the Engineer.

4. Measurement and payment will be on a "lump sum" basis and progressed based on percentage of completion.

HOT MIX ASPHALT

1. The Work of this item shall include, without limitation, the completion of all required mix design, trial batches, supply to the project site, production, placement and compaction of hot mix asphalt in accordance with FAA Specification P-403 Hot Mix Asphalt (HMA) Pavements, and as amended herein.

2. Hot Mix Asphalt (HMA) Plant:

2.1 Testing facilities

2.1.1 The Contractor shall ensure laboratory facilities are provided at the plant for the use of the Engineer. The lab shall have sufficient space and equipment so that both testing representatives (Engineer's and Contractor's) can operate efficiently. The lab shall meet the requirements of AASHTO or CCIL including all necessary equipment, materials, calibrations, current reference standards to comply with the specifications and a masonry saw with diamond blade for trimming pavement cores and samples.
2.1.2 The plant testing laboratory shall have a floor space area of not less than 25 m², with a ceiling height of not less than 2.5 m. The laboratory shall be weather tight, air-conditioned in hot weather to maintain temperatures for testing purposes of 21°C ±2.3°C. The plant testing laboratory shall be located on the plant site to provide an unobstructed view, from one of its windows, of the trucks being loaded with the plant mix materials. In addition, the facility shall include the minimum:

2.1.2.1 Adequate artificial lighting.
2.1.2.2 Electrical outlets sufficient in number and capacity for operating the required testing equipment and drying samples.
2.1.2.3 A minimum of two (2) Underwriter’s Laboratories approved fire extinguishers of the appropriate types and class.
2.1.2.4 Work benches for testing.
2.1.2.5 Desk with chairs and file cabinet.
2.1.2.6 Sanitary facilities convenient to testing laboratory.
2.1.2.7 Exhaust fan to outside air.
2.1.2.8 Sink with running water.

Failure to provide the specified facilities shall be sufficient cause for disapproving HMA plant operations. Laboratory facilities shall be kept clean, and all equipment shall be maintained in proper working condition. The Engineer shall be permitted unrestricted access to inspect the Contractor’s laboratory facility and witness quality control activities. The Engineer will advise the Contractor in writing of any noted deficiencies concerning the laboratory facility, equipment, supplies, or testing personnel and procedures.

When the deficiencies are serious enough to be adversely affecting the test results, the incorporation of the materials into the work shall be suspended immediately and will not be permitted to resume until the deficiencies are satisfactorily corrected.

3. Local Training:
   3.1 The Contractor shall allow for two (2) Government assigned personnel to shadow the Contractor’s plant, laboratory and paving operations for training purposes during construction. The Government personnel shall not interfere with the Contractor’s work.

4. Reference to FAA 403-3.5 Control Strip:
   4.1 Control strip may be completed on Taxiway in lieu of Optional Taxiway resurfacing work.

5. Reference to FAA 403-2.3 Asphalt cement binder:
   5.1 PG 76-22 PMA would be an acceptable alternative to PG 70-22 PMA.

6. Reference to FAA 403-8.1 Basis of Payment:
   6.1 Payment for Hot Mix Asphalt (HMA) Pavements will be made by the tonnes at the unit rates specified under Section 00 33 00 – Form of Tender – Unit Price.
FINAL PAVEMENT LINE MARKINGS

1. The Work under this item shall include, without limitation, all labour, equipment and materials required for the layout, marking and painting of initial and final pavement line markings as indicated in the Contract Drawings. Pavement line markings in accordance with FAA Specification P-620 Runway and Taxiway Marking and as amended herein.

2. Contractor shall submit application details to Engineer a minimum of two (2) weeks prior to construction. Plan to include the following:
   • Paint and glass bead manufacturer specifications
   • Application methodology and rates
   • Manufacturer documentation (MSDS, product information, application recommendations, etc.)

3. The Work shall include the test strip in a non-critical area to evaluate the finished product for compliance with the specifications. Test strip location to be approved by the Engineer prior to conducting test strip.

4. Pavement line markings shall not be painted until initial layout is approved by the Engineer.

5. Paint shall meet the requirements of Federal Specification TT-P-1952E or F for Type II waterborne traffic paint.

6. Beads shall meet the requirements of Federal Specification TT-B-1325D, Type III. Glass beads only required on final paint application and only on runway markings (not taxiway or apron).

7. Payment at the lump sum bid shall be full compensation for all labour, equipment and material to do the Work and shall be inclusive of both the initial and final paint applications.

FRICION TESTING

1. Provide runway friction testing before and after resurfacing using a self-wetting Continuous Friction Measuring Equipment (CFME) meeting the requirement of ICAO Annex 14 and ICAO Airport Services Manual – Part 2 and manufacturer’s operating instructions.

2. Contractor to undertake surface friction testing as follows:
   
   2.1 Before construction, the surface of the runway should be evaluated as a baseline and comparison of friction levels.

   2.2 After construction, the surface of the runway should be evaluated through two (2) separate tests conducted to determine that the surface friction characteristics achieve the design objectives for new surface set by ICAO Airport Services Manual – Part 2. Each test shall be separated by a minimum of 24 hours.

   2.3 If the ICAO design objectives for new surface are not met after resurfacing then additional testing may be required to determine design friction objectives have been achieved. The frequency of these measurements shall be sufficient to determine the trend of the surface friction characteristics of the runway. Any additional testing is excluded from the Contract price for this item.

3. The Contractor shall use same equipment for all friction testing and submit friction testing results/report to the Airport and Engineer within one (1) week after the on-site testing.
4. The Contractor shall coordinate its friction testing alongside the Airport’s CFME friction testing such that tests are conducted in a similar fashion. Contractor shall provide any troubleshooting and calibration to the Airport’s CFME equipment as may be required or requested by the Airport.

5. Friction Measurement Equipment:

   5.1 CFME can be a vehicular mounted or trailer pulled. Operator shall be trained and certified for the specific equipment.

   5.2 CFME should be a self wetting system, capable of delivering a water depth of 1 depth of 1 mm in front of the friction measuring tire.

   5.3 CFME shall have an electronic data logger capable of providing continuous, accurate and reliable friction measurements along the entire length of the runway. Have electronic instrumentation including keyboard, internal microprocessor, and readily visible to the operator of the vehicle.

   5.4 Capable of automatically providing the operator with a section average friction value for both 150-meters and one-third segments.

   5.5 Capable of producing a permanent trace of friction measurement versus pavement length.

6. Pavement Surface Friction Evaluation:

   6.1 Testing shall include conducting tests at applied water depths of 0.25 & 1.0 mm, at speeds of 65 and 95 km/h, at offsets prescribed by ICAO and Overseas Territories Advisory Circular (OTAC) 139-23.

   6.2 Evaluations should be carried out in accordance with the FAA AC 150/5320-12.

   6.3 Friction Evaluation should be performed along the length of the runway with a CFME. All friction measurements to be performed on wet pavement.

7. Final acceptance of runway pavement shall be based on new pavement Mu values for each 150-meter segment reporting no less than those values specified in column 5 (design objective for new surface) in Table 3-1 of ICAO Airport Services Manual (Doc 9137) – Part 2, shown below.

<table>
<thead>
<tr>
<th>Test equipment</th>
<th>Test tire</th>
<th>Test pressure (kPa)</th>
<th>Test speed (km/h)</th>
<th>Test water depth (mm)</th>
<th>Design objective for new surface</th>
<th>Maintenance planning level</th>
<th>Minimum friction level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mu-meter Trailer A</td>
<td>A</td>
<td>70</td>
<td>65</td>
<td>1.0</td>
<td>0.72</td>
<td>0.52</td>
<td>0.42</td>
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<tr>
<td>Skiddometer Trailer B</td>
<td>210</td>
<td>95</td>
<td>65</td>
<td>1.0</td>
<td>0.66</td>
<td>0.38</td>
<td>0.26</td>
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<tr>
<td>Surface Friction Tester Vehicle B</td>
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<td>65</td>
<td>1.0</td>
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</tr>
<tr>
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<td>65</td>
<td>1.0</td>
<td>0.74</td>
<td>0.47</td>
<td>0.34</td>
</tr>
<tr>
<td>TATRA Friction Tester Vehicle B</td>
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<td>95</td>
<td>65</td>
<td>1.0</td>
<td>0.74</td>
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<tr>
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</tbody>
</table>
8. Runway pavement friction testing shall be measured and paid lump sum inclusive of conducting the ICAO approved testing, submission of reports and conducting any action necessary to address the deficiencies in pavement friction.

RESTORATION

1. This item shall consist of grading of the area immediately adjacent to the runway edge of pavement to slope from new pavement edge to existing grade (grass) at a downward slope of between 1.5% and 2.5%. Ensure no ridges exist that could trap water on the paved surface.

2. For any areas of removed/stripped topsoil, place and spread the salvaged topsoil in other runway shoulder areas or as directed by the Engineer.

3. Any topsoil hauled and/or stockpiled shall be rehandled and placed without additional compensation.

4. All areas disturbed by the Contractor shall be graded if required and put into a condition acceptable for seeding.

5. The Contractor shall propose seed species and application rates for grass for approval by Engineer.

6. Payment at the square metre unit price bid and shall be full compensation for all labour, equipment and material to do the Work.

OPTIONAL ITEMS

REMOVAL/ABANDON OF EXISTING AIRCRAFT TIE-DOWNS

1. The Work under this item shall include, without limitation, all labour, equipment and materials required for the removal and disposal of existing aircraft tie downs as indicated on the Contract Drawings.

2. Grinding of existing anchors and concrete down to at least 50mm below the new asphalt surfaces would be acceptable method of abandoning the existing tie-downs in-place. The ground surfaces shall be sound and cleaned prior to overlay. Details of abandonment plan shall be submitted by the Contractor for Engineer review and acceptance at least 15 days prior to construction.

3. Measurement for payment for removal/abandon of existing aircraft tie-downs shall be made in units of each. Payment at the applicable unit price bid will be considered full compensation for all labour, materials, equipment and incidentals required to complete the Work.

INSTALLATION OF NEW AIRCRAFT TIE-DOWNS

1. The Work under this item shall include, without limitation, all labour, equipment and materials required for the supply, layout, and installation of aircraft new tie downs as indicated on the Contract Drawings.

2. All new-tie downs shall be located in the same position as existing tie-downs, or if abandoned in-place, the new tie-downs should be installed at a consistent location/distance from the former tie-downs (within 0.6m of the abandoned locations), or as otherwise indicated by the Engineer/Owner during construction. The Contractor shall submit proposed new locations for Engineer review and acceptance at least 15 days prior to construction.

3. Measurement for payment for installation of new aircraft tie-downs shall be made in units of each. Payment at the applicable unit price bid will be considered full compensation for all labour, materials, equipment and incidentals required to complete the Work.
AIRSIDE ELECTRICAL WORKS – GENERAL SPECIAL PROVISIONS

SCHEDULE OF UNIT PRICES

1. Identify and note all components of the electrical Work, as specified, and include in the Total Price the supply and installation of all material as shown on drawings and specifications to make a complete and fully operational system.

2. The Schedule of Unit Prices does not detail or list each and every task / material / equipment necessary to result in a complete and fully operational system. Factor the cost of all such tasks / material / equipment into the Tender Items shown.

3. The tendered quantities are not to be used for ordering materials. The Contractor must conduct their own quantity take-off prior to ordering the materials.

4. Unless otherwise indicated, all tender items shall include cost of restoration and/or salvage as applicable.

EXISTING LIGHTING

1. Schedule all new construction to minimize disruption to the existing lighting facilities. The existing lighting facilities must be left in full working order at all times throughout construction. Under no circumstances is the existing lighting to be left non operational at the end of a working day. Make all temporary connections necessary and repair any damage to the existing lighting facilities to ensure they are fully operational at the end of each working day. There will be no separate payment for this work and cost of same being deemed to be included in the unit prices for the Contract.

2. The Contract Administrator may require the Contractor to periodically wash existing taxiway/runway edge lighting in the proximity of the project limits should excessive dust build-up affect the performance of the edge lighting. Washing shall be by application of water. There will be no separate payment for this work and cost of same being deemed to be included in the unit prices for the Contract.

3. All existing lighting, transformers and hardware removed is to be retained by the Owner and kept at the Airport unless otherwise noted within the Contract Documents.

AIRSIDE ELECTRICAL WORKS – ITEM SPECIAL PROVISIONS

ITEM 3.1 - LOCATES

1. All existing buried cables within the Project limits which could be damaged by any construction operation (i.e. trenching, grading, excavating, etc) must be accurately located as described in the specifications and marked on site prior to construction. Ensure markers placed do not damage cables. Replace any markers that become lost or obscured during and throughout construction. Record all cable locations c/w dimensions to permanent physical site conditions on a set of project record drawings.

2. Payment for this item shall be full compensation for all costs necessary to complete the work as described in the Specifications.

3. Measurement and payment will be on a “lump sum” basis.
ITEM 3.2 – ELECTRICAL REMOVALS

1. All salvaged equipment remains the property of the Owner, except where noted otherwise. All salvaged equipment is to be re-installed or stored on site as directed.

2. All obsolete conduits, ducts, or other raceways are to be removed completely and properly disposed of off site.

3. Obsolete direct buried cable is to be disconnected, isolated and made safe. Cable may be removed and disposed of off site or abandoned in place at the Contractor's discretion.

4. Payment for this item shall be full compensation for all costs necessary to complete the work.

5. Measurement and payment will be on a "lump sum" basis.

ITEM 3.3 – SAWCUT & REMOVE PAVEMENT

1. Sawcut and remove a strip of existing pavement across each threshold as necessary to trench for the secondary conduits.

2. Include for proper disposal of removed pavement off site at an approved location.

3. Payment for the sawcutting and removal of existing pavement shall be on the basis of lineal metre of trench measured in the field.

ITEM 3.4 – TRENCHING

1. The Contractor shall provide all trenching, concrete, backfilling, compaction and restoration as outlined on the drawings and specifications. Where multiple circuits are installed along the same route, a common, "joint use" trench shall be provided.

2. Ensure the vertical walls of the trenched “chase” are rough and jagged to promote good bonding and adhesion to the concrete.

3. Earth excavation includes removal of rock and/or boulders up to 0.5m$^3$.

4. Measurement and payment for the installation of trenching of required depth, including concrete backfill shall be on the basis of lineal metre at trench measured in the field. Such unit prices shall include all earth excavation for trenching, concrete backfill and reconditioning of surrounding disturbed surface.

ITEM 3.5 – CONCRETE ENCASED RACEWAYS

1. Payment for this item shall be full compensation for all labour, materials and equipment necessary to install the raceways as shown on the drawings.

2. Any associated trenching or concrete will be paid under separate items.

3. Include sufficient allowance to provide a pullrope in all empty raceways and to cap and mark the locations of all raceway ends. The locations of all raceway ends are to be recorded on the project record drawings and dimensional to permanent site features.

4. Include sufficient allowance in the tendered price to install the raceways into all pullpits and base cans complete with bell ends to prevent cable jacket/insulation damage.

5. Payment for this item will be based on linear metres of raceway measured horizontally along trenches from the source to the end use device. It shall be this Contractor's responsibility to factor the cost of all fittings, couplings, connections, surplus for elevation changes, surplus for offsets and vertical rises into their tendered price.
ITEM 3.6 – SALVAGE/REFURBISH EXISTING LIGHT FIXTURE

1. Payment at the tendered price shall be full compensation for all labour, materials and equipment necessary to carefully salvage the existing threshold lights, refurbish them with new lamps, clean their lenses and protect them for re-installation.

2. Ensure the existing fixtures are not damaged during disassembly, salvaging or storage. Ensure the fixtures are stored properly and kept dry and secure until they are re-installed.

3. Inform the Engineer of any salvaged equipment items that are found to be unusable.

4. Measurement and payment for this item shall be on the basis of each threshold light salvaged and refurbished.

ITEM 3.7 – INSET BASE CANS

1. Payment at the tendered price shall be full compensation for all labour, materials and equipment necessary to supply and install a new 2-piece inset light base can c/w bottom section and top section c/w coring, installation jig, concrete encasement, adhesives, sealant, special tools, properly torqued bolts, CEC washers and a coverplate including clean-up and surface restoration.

2. Payment shall include grommets, couplings, spacer rings, bevelled ring set, plywood covers, mudplate, surveying, layout, drilling and coring, removal of granular materials, sawcutting of existing pavement, sealing compound, silicone joint sealant, hot poured sealing material, mortar, concrete, disposal of waste material and making good work disturbed.

3. Include sufficient allowance in the tendered price to survey the centre of each mudplate and drill a pilot hole to confirm the exact required height of each base can top section. Order the corresponding top can sections to ensure they are delivered to meet the required construction schedule.

4. Ensure the inset base cans are custom fabricated to be compatible with the exact inset fixture they are intended to support (Thorn threshold light).

5. Install the top section and bolt it to the bottom section in accordance with the inset base can manufacturer’s instructions and properly torqued bolts with CEC washers and as detailed on the Drawings and described in the Specifications. Install the coverplate and make completed installation ready for intended inset light fixture.

6. Measurement and payment for this item shall be on the basis of each complete base can assembly installed.

ITEM 3.8 – INSTALL SECONDARY CABLE

1. Payment at the tendered price shall be full compensation for all labour, materials and equipment necessary to install the existing secondary cables through new raceways from isolating transformers in pullpits at the runway edges to the inset lights as shown on the Drawings. This shall include the installation of all cables, connectors, tape, pullropes, wire lubricant, pulling equipment, terminations, identification, ground wires and cable tags.

2. Sawcutting, trenching and raceways will be measured and paid under separate items.

3. Payment for this Item will be made on the basis of existing secondary cable installed through raceways as measured horizontally along the length of the raceway from centre of pullpit to centre of inset base can.
ITEM 3.9 – INSET LIGHTING FIXTURES

1. Payment for this Item shall be full compensation for all labour, materials and equipment necessary to install the salvaged, refurbished inset light fixtures on new inset base cans as shown on the drawings.

2. Include sufficient allowance in the tendered price to use a calibrated torque wrench to tighten the inset fixtures’ bolts to recommended values.

3. Refurbishing of the existing inset threshold lights and the inset base cans are covered under separate Items.

4. Measurement and payment will be on the basis of each inset light installed.

------------------------- END OF SECTION 01 15 50-------------------------
1.0 PRECONSTRUCTION MEETING

1.1 Preconstruction meetings will be arranged by the ENGINEER after the acceptance of the TENDER.

1.2 Meetings will be held at the OWNER’s office or at an alternate location at or near the site.

1.3 The agenda for the Preconstruction Meeting shall include, but is not limited to, the following:

1.3.1 Confirm the SUPERINTENDENT, CONTRACTOR’S PROJECT MANAGER, and the ENGINEER’S Resident personnel on the WORKSITE.

1.3.2 Establish WORKSITE protocols for communication, reporting, inspection, etc.

1.3.3 Clear up any ambiguities or questions of interpretation known at that time.

1.3.4 CONTRACTOR shall present its detailed WORK SCHEDULE.

1.3.5 Occupational Health and Safety relationships and responsibilities.

1.3.6 Discuss other responsibilities of the OWNER, the CONTRACTOR, and the ENGINEER.

2.0 PROGRESS MEETINGS

2.1 Progress meetings will be held on a weekly basis or as required as requested by the ENGINEER.

2.2 Accommodation for progress meetings shall be provided by the CONTRACTOR at or near the site. The ENGINEER will give to all parties advance notice of meeting dates, times and locations.

2.3 The CONTRACTOR shall have in attendance the SUPERINTENDENT, the CONTRACTOR’S Project Manager and representatives of the SUBCONTRACTORS if requested by the ENGINEER.

2.4 The ENGINEER will have the ENGINEER’S Project Manager and/or it’s On-site Representative in attendance.

2.5 The OWNER may have a representative in attendance.

2.6 Occupational Health and Safety incidents, records and procedures shall be part of the agenda for every progress meeting.

2.7 Minutes will be taken by the ENGINEER and copies will be distributed to all attendees.

3.0 MEASUREMENT

3.1 No measurement for payment. All costs are incidental to the contract.

------------------------ END OF SECTION 01 20 00------------------------
1.0 CONSTRUCTION SCHEDULE

1.1 The CONTRACTOR is expected to plan the Construction Schedule based on a seven (7) day work week during Airport closure.

1.2 Upon award of the CONTRACT and prior to commencement of THE WORK, the CONTRACTOR shall submit for approval to the ENGINEER a detailed construction schedule in critical path format, or other format as approved by the ENGINEER, showing all the principal phases of the work. No Progress Payment Claim shall be certified until an acceptable Construction Schedule has been received by the ENGINEER.

1.3 The Construction Schedule shall be updated weekly or as required by the ENGINEER against actual progress of THE WORK by the CONTRACTOR.

1.4 A copy of the updated schedule is to be provided to the ENGINEER with each Progress Claim. Failure to comply will result in the Progress Claim being deemed incomplete until the updated schedule is provided.

1.5 It is the CONTRACTOR's responsibility to carry out THE WORK to assure the progress of the construction does not fall behind the proposed schedule as approved by the ENGINEER.

1.6 If, in the opinion of the ENGINEER, any Construction Schedule is inadequate as a control tool or if it does not show THE WORK being fully completed by the Substantial Performance or Construction Completion specified in the CONTRACT DOCUMENTS, the ENGINEER may reject it and the CONTRACTOR shall provide a Construction Schedule and work program that is acceptable to the ENGINEER.

2.0 MEASUREMENT

2.1 No separate measurement for this payment. All costs are incidental to the Contract.

----------------------- END OF SECTION 01 13 00------------------------
1.0 REQUIREMENTS FOR SHOP DRAWINGS AND PRODUCT DATA

1.1 The CONTRACTOR shall arrange for the preparation of clearly identified shop drawings and submit shop drawings in one of the following forms:

1.1.1 One copy of a reproducible transparency to be returned to the CONTRACTOR plus two prints to be retained by the ENGINEER, or

1.1.2 Two prints to be retained by the ENGINEER plus the number of copies required by the CONTRACTOR.

1.2 The Contractor shall provide clearly identified Product Data and submit two prints to be retained by the Engineer plus the number of copies required by the Contractor.

1.2.1 Product Data shall include but not be limited to:

1.0 Product assembly drawings
2.0 Materials list
3.0 Principal dimensions
4.0 Parts and components details
5.0 Letters of compliance with recognized standards where required
6.0 Operation data
7.0 Operation curves
8.0 Operation manuals where specified
9.0 Product Name and Model Number

1.3 Shop drawings shall be accurately drawn to a scale sufficiently large to show all pertinent features of the item, and its method of connection to THE WORK and shall have sufficient space for the CONTRACTOR’S stamp and the ENGINEER’S stamp.

1.4 Shop drawings shall be in accordance with the International System of Units (S.I.) metric units.

1.5 Prior to submission to the ENGINEER the CONTRACTOR shall review all shop drawings. By this review, the CONTRACTOR represents that he has determined and verified all field measurements, field construction criteria, materials, catalogue numbers and similar data or will do so, and that he has checked and coordinated each shop drawing with the requirements of THE WORK and of the CONTRACT DOCUMENTS. The CONTRACTOR’S review of each shop drawing shall be indicated by stamp, with the date and signature of a responsible person.
1.6 The CONTRACTOR shall submit shop drawings to the ENGINEER for his review with reasonable promptness and in orderly sequence so as to cause no delay in THE WORK or in the work of OTHER CONTRACTORS. If either the CONTRACTOR or the ENGINEER so requests they shall jointly prepare a schedule fixing the dates for submission and return of shop drawings.

1.7 At the time of submission the CONTRACTOR shall notify the ENGINEER in writing of any deviations in the shop drawings from the requirements of the CONTRACT DOCUMENTS.

1.8 The ENGINEER will review and return shop drawings in accordance with a schedule agreed upon, or otherwise with reasonable promptness. The ENGINEER’S review shall be for conformity to the design concept and for general arrangement only and such review shall not relieve the CONTRACTOR of responsibility for errors or omissions in the shop drawings or of responsibility for meeting all requirements of the CONTRACT DOCUMENTS. A specific deviation on the shop drawings from the design concept requested by the CONTRACTOR may be approved or rejected in writing by the ENGINEER.

1.9 The CONTRACTOR shall make any changes in shop drawings which the ENGINEER may require consistent with the CONTRACT DOCUMENTS and resubmit unless otherwise directed by the ENGINEER. When resubmitting, the CONTRACTOR shall notify the ENGINEER in writing of any revisions made by the CONTRACTOR other than those requested by the ENGINEER, in his previous review.

1.10 Each reviewed shop drawing will be stamped by the ENGINEER with the following form of stamp:

```
REVIEWED ( )
REVIEWED AS MODIFIED ( )
REVISE AND RESUBMIT ( )
NOT REVIEWED ( )
```

This review by the ENGINEER is for the sole purpose of ascertaining conformance with the general design concept. This review shall not constitute approval of the detail design inherent in the shop drawings, responsibility for which shall remain with the Contractor submitting same. Review by the ENGINEER shall not relieve the Contractor of his responsibility for errors or omissions in the shop drawings or of his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction, for installation, and for co-ordination of the work of all sub-trades.

ENGINEER
By:
Date:
2.0 DESIGN BY THE CONTRACTOR

2.1 When the CONTRACTOR is responsible for engineering design of portions of THE WORK, this shall be clearly and specifically indicated in the drawings or in the specifications of the CONTRACT DOCUMENTS.

2.2 Where the CONTRACTOR is required, either by law or regulation or by the CONTRACT to provide engineering design, he shall use the services of a Professional Engineer registered in the area in which THE WORK is to be performed (or otherwise acceptable by the ENGINEER), and he shall submit Shop Drawings bearing the Seal and Signature of that Registered Professional Engineer.

3.0 SAMPLES

3.1 The CONTRACTOR shall submit for the ENGINEER'S approval such Manufacturers' and Suppliers' samples as the ENGINEER may reasonably require. Samples shall be labelled as to origin and intended use in THE WORK and shall conform to the requirements of the CONTRACT DOCUMENTS.

3.2 Samples and sample mock ups prepared by the CONTRACTOR for the ENGINEER'S approval shall be retained on the WORKSITE for comparison with the actual installation of the portions of THE WORK that the samples are intended to represent.

3.3 Upon conclusion of THE WORK, the samples and mock ups may be returned to the CONTRACTOR or to the Supplier or Manufacturer who provided them, and shall then be removed from the WORKSITE.

------------------------ END OF SECTION 01 33 00------------------------
1.0 SUMMARY

1.1 Section Includes:

1.1.1 Movement of equipment and other special procedures that must be considered when construction is being carried out while the airport facility is in use.

2.0 RELATED SECTIONS

2.1 Refer to the Plan of Construction Operations (PCO) appended to this document for additional details related to how construction will take place at the airport.

3.0 GENERAL PROTECTION

3.1 Do not disrupt airport business except as permitted by the ENGINEER.

4.0 MOVEMENT OF EQUIPMENT AND PERSONNEL

4.1 In areas of airport not closed to aircraft traffic:

4.1.1 Obtain the ENGINEER's acceptance on scheduling of Work.

4.1.2 Control movements of equipment and personnel as directed by the security escort in accordance with approved PCO.

4.1.3 All movement to and from construction sites is under control of the security escort.

4.1.4 All construction activity is monitored by the security escort.

4.1.5 All instructions from the security escort regarding airport rules, safety and conduct while on airside are to be obeyed immediately.

5.0 UNSERVICEABLE AREAS

5.1 The CONTRACTOR will be responsible for the supply, installation and maintenance and removal of all runway closure markers as shown on the plans, described in the Plan of Construction Operations and as directed by the ENGINEER.

5.2 Open flames and inflammable fuels are not permitted.

5.3 Park equipment not in use and stockpile materials as indicated in the Plan of Construction Operations.

1.0 OPERATIONAL RESTRICTIONS AND CONSTRAINTS

5.4 Comply with Operational, Safety and Security and other applicable requirements in the execution of the work and working in close proximity of live runways and taxiways, including but not limited to the following:

5.4.1 The integrity of all electronic and visual navigational aids associated with live aviation activities on airside must be maintained for aircraft operations, which take
5.4.2 Buried power, communication and control cables and other underground structures and services in the vicinity of the construction areas are to be identified and protected.

5.4.3 Emergency Rescue Services mobility must be preserved at all times. Operating routes must be reviewed on a bi-weekly basis to ensure that access is maintained at all times. Alternative and approved routes are to be established if new construction is anticipated to interfere with such access.

6.0 TRENCHING

6.1 On or adjacent to pavements open to aircraft traffic, obtain OWNER’s written permission to undertake trenching which cannot be completed, backfilled and sealed within one working day.

7.0 AIRPORT FACILITIES

7.1 Coordinate with the airport for permits and procedures to locate and / or disclose the underground facilities such as cables, pipes and ducts.

8.0 GENERAL PROVISIONS FOR AIRPORT ACTIVITIES

8.1 Access to the site by the CONTRACTOR’s vehicles and equipment shall be restricted to the secured entrances detailed on the Contract Drawings. These access points will require security personnel at all times during active periods, which will be provided by the OWNER.

8.2 No construction related vehicles or traffic shall travel on paved surfaces which are not part of the project limits without authorization by the OWNER.

8.3 Construction equipment and stockpiled materials shall be restricted to areas detailed on the Contract Drawings and PCO.

8.4 The CONTRACTOR shall designate one (1) person who will be responsible to ensure all aspects of security and operational safety requirements are adhered to and have authority to rectify the situation. Such a person shall be available at all times during construction and referred to as the "Contractor Safety Superintendent".

The ENGINEER shall be advised of this person at the Pre-Construction Meeting. The "Contractor Safety Superintendent" shall be accompanied by an airport security escort whenever the airport is opened to provide radio contact with the Control Tower and provide necessary escort services adjacent to and on active airside areas.

The CONTRACTOR shall be able to communicate via hand held radios to all persons on-site to facilitate efficient and fast response times should direction be received to mobilize from the construction areas. This contact shall be full-time during construction periods.

8.5 Construction mobilization shall be closely co-ordinated with the ENGINEER to ensure all airport safety precautions are implemented properly. Direction will be provided at the Pre-Construction Meeting.
8.6 All airside areas, i.e. Runways, taxiways, aprons, etc., are considered NO SMOKING zones. The Contractor Safety Superintendent shall ensure all construction personnel are briefed and adhere to these restrictions.

9.0 DUST CONTROL, PAVEMENT CONDITIONS FOREIGN OBJECT DAMAGE (FOD) CONTROL

9.1 Dust control shall be achieved through the application of water within the project limits during periods of construction or as indicated by the ENGINEER. There will be no separate payment for this item and cost of same being deemed to be included in the unit prices for the Contract. CALCINIUM CHLORIDE SHALL NOT BE USED ANYWHERE WITHIN THE PROJECT LIMITS.

9.2 The CONTRACTOR shall supply appropriate labour and equipment to ensure pavement surfaces abutting the project limits are kept clean and free of loose debris at all times. This work shall be completed as indicated by the ENGINEER.

9.3 For reference, the following outlines the "FOD" Foreign Object Damage Prevention Program effective for the airport during the course of the Contract:

Guidelines:

1. The CONTRACTOR is responsible to ensure that each contractor on site is responsible for all debris caused by their forces, and must clean up the job site on a continuous basis and must maintain the site in good order.

2. Any materials likely to be wind swept must be tied down or made secure.

3. All food stuff waste must not be scattered about the site, and must be placed in a closed container if outside the site trailers. (This will not only limit wind swept debris but will also provide some wildlife (bird) control Measures.)

4. All materials stored on site must be kept in an orderly fashion while not in use.

5. The CONTRACTOR must take immediate action if materials are wind swept from the site location to prevent possible aircraft accident or damage.

6. All the above precautions must be followed to minimize the possibility of aircraft accident or damage. Failure to follow the above precautions may result in closing of work site until FOD materials are cleaned up. If the CONTRACTOR does not remedy the problem immediately, other forces may be retained to remedy the problem at the CONTRACTOR’s expense.

7. Should the CONTRACTOR fail to control dust and debris (FOD), the ENGINEER reserves the right to order the CONTRACTOR to cease all operations until adequate measures have been taken. No claims for delay of contract can be made by the CONTRACTOR on this item.

---------------------- END OF SECTION 01 35 13.13-------------------------
PART 1 – GENERAL

1.0 RELATED REQUIREMENTS

1.1 Environmental measures meet or exceed the requirements of all environmental legislation and regulations, including all amendments up to the project date provided that in any case of conflict or discrepancy the more stringent requirements will apply.

2.0 REFERENCES

2.1 Definitions:

2.1.1 Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humans; or degrade environment aesthetically, culturally and/or historically.

2.1.2 Environmental Protection: prevention/control of pollution and habitat or environment disruption during construction.

2.1.3 Hazardous Material: Product, substance, or organism that is used for its original purpose; and that is either dangerous goods or a material that may cause adverse impact to the environment or adversely affect health of persons, animals, or plant life when released into the environment.

3.0 ACTION AND INFORMATIONAL SUBMITTALS

3.1 Submit in accordance with Section 01 33 00 - Submittal Procedures.

3.2 Before commencing construction activities or delivery of materials to site, submit Environmental Protection Plan for review and approval by Owner and Engineer.

3.3 Environmental Protection Plan must include comprehensive overview of known or potential environmental issues to be addressed during construction.

3.4 Address topics at level of detail commensurate with environmental issue and required construction tasks.

3.5 Include in Environmental Protection Plan:

3.5.1 Names of persons responsible for ensuring adherence to Environmental Protection Plan.

3.5.2 Names and qualifications of persons responsible for manifesting hazardous waste to be removed from site.

3.5.3 Names and qualifications of persons responsible for training site personnel.

3.5.4 Descriptions of environmental protection personnel training program.

3.5.5 Erosion and sediment control plan identifying type and location of erosion and sediment controls to be provided including monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, and local government laws and regulations.
3.5.6 Drawings indicating locations of proposed temporary for haul roads, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials including methods to control runoff and to contain materials on site.

3.5.7 Traffic Control Plans including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather.

3.5.8 Work area plan showing proposed activity in each portion of area and identifying areas of limited use or non-use. Plan to include measures for marking limits of use areas and methods for protection of features to be preserved within authorized work areas.

3.5.9 Spill Control Plan to include procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.

3.5.10 Non-Hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris.

3.5.11 Air pollution control plan detailing provisions to assure that dust, debris, materials, and trash, are contained on project site.

3.5.12 Contaminant Prevention Plan identifying potentially hazardous substances to be used on job site; intended actions to prevent introduction of such materials into air, water, or ground; and detailing provisions for compliance with local government laws and regulations for storage and handling of these materials.

3.5.13 Waste Water Management Plan identifying methods and procedures for management discharge of waste waters which are directly derived from construction activities, such as concrete curing water, clean-up water, dewatering of ground water, disinfection water, hydrostatic test water, and water used in flushing of lines.

4.0 FIRES

4.1.1 Fires and burning of rubbish on site is not permitted.

5.0 DRAINAGE

5.1.1 Provide temporary drainage and pumping required to keep excavations and site free from water.

5.1.2 Do not pump water containing suspended materials into waterways, sewer or drainage systems.

5.1.3 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

5.1.4 Provide control devices such as filter fabrics, sediment traps and settling ponds to control drainage and prevent erosion of adjacent lands. Maintain in good order for duration of work.

6.0 SITE CLEARING AND PLANT PROTECTION

6.1.1 Protect trees and plants on site and adjacent properties where indicated.

6.1.2 Minimize stripping of topsoil and vegetation.

6.1.3 Restrict tree removal to areas indicated or designated by the Engineer.
7.0 WORK ADJACENT TO WATERWAYS

7.1.1 Construction equipment to be operated on land only.
7.1.2 Waterways to be kept free of waste material and debris.
7.1.3 Do not skid logs or construction materials across waterways.
7.1.4 Do not refuel any type of equipment within 100 metres of a water body. Maintain equipment in good working condition with no fluid leaks, loose hoses, or fittings.

8.0 POLLUTION CONTROL

8.1.1 Maintain temporary erosion and pollution control features installed under this Contract.
8.1.2 Control emissions from equipment and plant in accordance with local authorities’ emission requirements.
8.1.3 Prevent sandblasting and other extraneous materials from contaminating air and waterways beyond application area by providing temporary enclosures.
8.1.4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads, laydown area, and any working areas.
8.1.5 Have appropriate emergency spill response equipment and rapid clean-up kit on site located adjacent to hazardous materials storage area. Provide personal protective equipment required for clean-up.
8.1.6 Notify and submit a written spill report to Engineer within 24 hours of occurrence.

9.0 WILDLIFE PROTECTION

9.1 Should nests of migratory birds in wetlands be encountered during work, immediately notify Owner and Engineer for directives to be followed.
9.2 Do not disturb nest site and neighboring vegetation until nesting is completed.
9.3 Minimize work immediately adjacent to such areas until nesting is completed.
9.4 Protect these areas by following recommendations of local environmental authority.

10.0 SPILL RESPONSE

10.1 The Spill Response Plan must be able to be implemented to enable rapid and effective response in the event of a release or spill.
10.2 Maintain response equipment readily available on site. Response equipment such as absorbent material and open-ended barrels for collection of cleanup debris shall be stored in an accessible location on site. Open-ended barrels must be UN performance packaging certified open head drums.
10.3 Personnel working on the project must be knowledgeable about spill response procedures.
10.4 Refueling and maintenance of equipment must only occur at approved area on level, hard surface areas away from sensitive receptor such as drainage areas.
10.5 All heavy equipment, machinery and tools must be free from leaks. Repair or remove from the
site any faulty equipment/machinery immediately.

11.0 NON-MAINTENANCE RELATED SPILLS

11.1 Maintenance related spills are spills that occur due to mishandling of fuels and or equipment operations/failures during the fuelling process, failure of hoses or other components on equipment, etc.

11.2 Submit a contingency plan for dealing with such occurrences to the Engineer for approval. The plan must describe in detail the action to be taken and the persons and the agencies to be notified in the event of such a spill.

12.0 CONTROL FEATURES

12.1 Provide and maintain erosion and sedimentation control features where required, as directed, or as indicated prior to construction. Co-ordinate locations with Engineer. Do not remove control features until authorized by the Engineer.

13.0 SEDIMENT CONTROL FENCE

13.1 Provide silt fencing to fully surround Contractor Laydown Area to prevent silt migration to adjacent areas, or as directed by the Engineer.

13.2 Silt fences shall extend a minimum of 16 inches (41 cm) and a maximum of 34 inches (86 cm) above the ground surface. Posts shall be set no more than 10 feet (3 m) on center. Filter fabric shall be cut from a continuous roll to the length required minimizing joints where possible. When joints are necessary, the fabric shall be spliced at a support post with a minimum 12-inch (300-mm) overlap and securely sealed. A trench shall be excavated approximately 4 inches (100 mm) deep by 4 inches (100 mm) wide on the upslope side of the silt fence. The trench shall be backfilled and the soil compacted over the silt fence fabric. The Contractor shall remove and dispose of silt that accumulates during construction and prior to establishment of permanent erosion control. The silt fence shall be maintained in good working condition and shall be removed upon approval of the Engineer.

13.3 Sediment control fence: preassembled silt fence with industrial woven geotextile fabric pre-stapled to wood posts spaced as indicated.

13.3.1 Grab Tensile Strength: to ASTM D4632, No. 7.3 minimum 500 N

13.3.2 Elongation at break: to ASTM D4632, No. 7.3 maximum 15% for woven geotextile

13.3.3 Mullen Burst Strength: to ASTM D3786, minimum 2000 kPa

13.3.4 Puncture Strength: to ASTM D4833, minimum 250 N

13.3.5 Apparent Opening Size (AOS): to ASTM D4751, minimum 0.6mm

13.3.6 Permittivity: to ASTM D4491, No. 4 minimum 0.05 s-1

13.3.7 Water Flow Rate: to ASTM D4491, minimum 400 1/min/m²

13.3.8 Ultraviolet stability: to ASTM D 4355 minimum 70% at 500 hours

13.4 Drive wood or steel posts into ground to a depth of 600 mm as shown. Provide adequate protection in order that wood posts do not splinter during driving and that steel posts do not warp or get damaged.
13.5 Install fabric on side facing the flow and staple well taut to wood posts. Staples, not less than 4 per stake. Use not less than 4 tie wires for steel posts.

13.6 Install stretch wire at the top of posts for the full length of fence and ensure that wire is well set in place to provide stability for fence.

14.0 CONSTRUCTION WASTES

14.1 Provide sufficient suitable refuse containers throughout the site to receive and control construction wastes. Keep containers closed to prevent contents from blowing around site.

15.0 EQUIPMENT MAINTENANCE AREAS

15.1 Prepare and submit for approval, a drawing showing a proposed equipment maintenance area. This area must be located a minimum of 30 m from a watercourse.

16.0 DUST CONTROL

16.1 Excessive dust from construction activities creates a serious hazard for operational airports and must be controlled at all times.

16.2 Maintain sufficient watering equipment on site at all times to control construction dust.

16.3 Should the contractor fail to control dust emissions, the Engineer reserves the right to order the Contractor to cease all operations until adequate measures have been taken. No claims for delay of contract can be made by the Contractor on this item. Any costs incurred by the Engineer or the Owner for this work shall be deducted from future progress payment certificates due to the Contractor.

17.0 ENFORCEMENT

17.1 Protection of the environment is considered to be of prime importance.

17.2 Progress payments will not be made to the Contractor while any requirements for Environmental Protection are outstanding.

17.3 Directions given by the Engineer with respect to action to be taken to correct environmental deficiencies must be acted upon immediately.

17.4 In the event that deficiencies in work are not corrected, the Engineer will take the necessary action for correction purposes and will deduct the cost thereof from any monies due to the Contractor.

18.0 MEASUREMENT

18.1 There will be no measurement for payment of this item. All associated costs are incidental to the contract.

PART 2 – PRODUCTS

19.0 NOT USED

19.1 Not Used.

PART 3 – EXECUTION
20.0 CLEANING

20.1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
   20.1.1 Leave Work area clean at end of each day.

20.2 Ensure public waterways, storm and sanitary sewers remain free of waste and volatile materials disposal.

20.3 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

20.4 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

-------------------- END OF SECTION 01 35 43--------------------
1.0 REQUIREMENTS FOR CONSTRUCTION PHOTOGRAPHS

1.1 During the progress of THE WORK and at the completion of the project as determined by the ENGINEER, the CONTRACTOR shall take photographs that adequately cover the progress of THE WORK.

1.2 Sufficient views of THE WORK shall be taken to show all parts of THE WORK being undertaken during the progress period being photographed.

1.3 The CONTRACTOR shall pay for two (2) sessions of high-resolution aerial drone footage that adequately covers the progress of THE WORK. One during construction and one at Substantial Performance of THE WORK.

A minimum of 20 clear photos shall be provided each session along with video without any obstructions (i.e. drone components) in the photograph. The CONTRACTOR shall submit samples showing typical image quality expected to be produced by the drone for prior approval by ENGINEER. The CONTRACTOR is responsible for all approvals by airport and civil aviation authorities prior to drone use at the WORKSITE.

The photography is not required to be completed by a professional provided the images/video meet the requirements and expectations.

1.4 On completion of THE WORK, the CONTRACTOR shall submit all photographs of THE WORK to the OWNER and ENGINEER for their records and redistribution as required.

1.5 The OWNER reserves the right to take additional photographs of any part of THE WORK at any time.

1.6 Payment for this work is to be included in the Contractors mobilization/demobilization costs.

2.0 MEASUREMENT

2.1 No measurement for payment. All costs are incidental to the contract.
1.0 RECORDS DURING CONSTRUCTION

1.1 The CONTRACTOR shall keep at minimum, one complete set of all construction drawings on the WORKSITE.

1.2 On the WORKSITE set of CONTRACT Drawings, the CONTRACTOR shall record any changes that are made during the actual construction of THE WORK. The purpose of recording these changes is to provide drawings of record at the end of THE WORK. The CONTRACTOR shall be responsible for the adequacy and the reliability of the information recorded on the drawings of record.

1.3 A copy of the current record drawings are to be provided to the ENGINEER with each Progress Claim, to verify the record information is being recorded in accordance with the contract. Failure to comply will result in the Progress Claim being deemed incomplete until the record drawings are provided.

1.4 At the completion of the construction period, the CONTRACTOR shall turn over the set of construction drawings which have been marked up with changes during the course of THE WORK to the ENGINEER to permit the ENGINEER to prepare Drawings of Record for THE WORK.

2.0 MEASUREMENT

2.1 No measurement for payment. Refer to Section 01 15 50.

------------------------ END OF SECTION 01 39 00------------------------
1.0 DESCRIPTION

1.1 This section specifies the requirements for testing laboratory services to be provided by the CONTRACTOR during the execution of THE WORK.

2.0 REFERENCES

2.1 All references to this Specifications, Standards, or Methods shall be understood to refer to the latest adopted revision, including all amendments.

3.0 MEASUREMENT PROCEDURES

3.1 No separate payment will be made for testing laboratory services. Unit rates and lump sum price bid shall include all labour, materials, tools, equipment, etc. as required by the CONTRACTOR to complete the quality control testing as specified under the various sections.

3.2 Where tests or inspections by designated testing laboratory reveal work not in accordance with contract requirements, the CONTRACTOR shall pay costs for additional tests or inspections as the ENGINEER may require verifying acceptability of corrected work.

4.0 CONTRACTOR’S RESPONSIBILITIES

4.1 The CONTRACTOR is totally responsible for the quality of material and product which he provides and for THE WORK.

4.2 The CONTRACTOR is responsible for Quality Control and shall perform such inspections and tests as are necessary to ensure that THE WORK conforms to the requirements of the Contract Documents.

4.3 During the progress of THE WORK, a sufficient number of tests shall be performed by the CONTRACTOR to determine that material, product and installation meet the specified requirements.

4.4 Minimum requirements regarding Quality Control are specified in various sections of the specifications, however, the CONTRACTOR shall perform as many inspections as tests as necessary to ensure that THE WORK conforms to the requirements of the Contract Documents.

4.5 Testing shall be in accordance with pertinent codes and regulations and with selected standards of the American Society for Testing and Materials (ASTM) and Canadian Standard Association (CSA).

4.6 Product testing, mill certificates and laboratory reports shall demonstrate that product and materials supplied by the CONTRACTOR meet the specifications that are specified under various sections of the Contract Documents.
5.0 QUALITY CONTROL TESTING BY THE CONTRACTOR

5.1 The CONTRACTOR shall retain the services of an independent testing agency under supervision of a registered professional engineer, and pay the cost of testing laboratory and services for quality control including,

5.2 The CONTRACTOR shall provide laboratory facilities at the WORKSITE. Such laboratory facilities shall be for joint use by the ENGINEER's Quality Assurance team, as may be required. The lab shall have sufficient space and equipment so that both the CONTRACTOR’s and ENGINEER's testing representatives can operate efficiently.

5.3 Quality control testing and testing laboratory services by the CONTRACTOR shall consist of but not limited to the following:
   5.3.1 Mix Design for Asphaltic Concrete.
   5.3.2 Mix Design for Portland Cement Concrete (inset light backfill surround material).
   5.3.3 Aggregate quality testing for asphalt supplied for the Work.
   5.3.4 Gradation analysis of aggregate supplied for the Work.
   5.3.5 Soil and aggregates density and moisture content testing.
   5.3.6 Density/compaction testing.
   5.3.7 Hot Mix Asphalt Concrete quality control and product acceptance testing.
   5.3.8 Miscellaneous electrical testing.
   5.3.9 All testing as specified under the various sections of the specifications.

5.4 Furnish labour and facilities to:
   5.4.1 Provide access to work to be inspected and tested.
   5.4.2 Facilitate inspections and tests.
   5.4.3 Make good work disturbed by inspection and test.

5.5 Provide storage on site for laboratory’s exclusive use to store equipment and cure test samples.

5.6 Where materials are specified to be tested, deliver representative samples in required quantity to testing laboratory.

5.7 Pay costs for uncovering and making good work that is covered before required inspection or testing is completed and accepted by the ENGINEER.

5.8 The CONTRACTOR shall promptly process and distribute all required copies of test reports and test information and related instructions to all of his SUBCONTRACTORS and Suppliers to ensure that all necessary retesting and replacement of construction can proceed without delay.

5.9 The CONTRACTOR shall promptly (within 24 hours of the test being taken and prior to any additional work being done in the area) provide the ENGINEER with copies of all test results.
6.0 MINIMUM QUALITY CONTROL TESTING REQUIREMENTS

6.1 In addition to providing proof of material conformance with the requirements for products itemized in their respective specification sections, the CONTRACTOR’S Quality Control Program shall meet or exceed the following minimum testing requirements:

<table>
<thead>
<tr>
<th>MINIMUM QUALITY CONTROL TESTING REQUIREMENTS</th>
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<tbody>
<tr>
<td>Work Phase</td>
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<tr>
<td>Asphalt Concrete:</td>
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<tr>
<td>Aggregate Stockpiling</td>
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<td>Mix Production</td>
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<td>Compaction</td>
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<td>Trench Bedding or Backfill</td>
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<td>Common Fill</td>
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(1) Each Marshall test to include a minimum of 3 briquettes tested for: bulk density, stability, flow, air voids and VMA and one mix sample tested for: extraction bitumen content, aggregate gradation and crushed content.

(2) When using a nuclear gauge, use special precautions to correct for 'trench wall effects' as per nuclear gauge manufacturer’s instructions. Includes pipe bedding and surround.

7.0 CONTRACTOR QUALITY CONTROL PROGRAM

7.1 The CONTRACTOR shall develop, provide and maintain an effective Quality Control Program that details the methods and procedures that will be taken to assure that all materials and completed construction required by this contract conform to contract plans, technical specifications and other requirements, whether manufactured by the CONTRACTOR, or procured from SUBCONTRACTOR or suppliers. Although guidelines are established and certain minimum requirements are specified in the CONTRACT DOCUMENTS, the CONTRACTOR shall assume full responsibility for accomplishing the stated purpose.

7.2 This Quality Control Program shall ensure conformance to applicable specifications and plans with respect to materials, workmanship, construction, finish, and functional performance.

7.3 The intent of the Quality Control Program is to enable the CONTRACTOR to establish a necessary level of control that will:

7.3.1 Adequately provide for the production of acceptable quality materials.

7.3.2 Provide sufficient information to assure both the CONTRACTOR and the ENGINEER that the specification requirements can be met.

7.3.3 Allow the CONTRACTOR as much latitude as possible to develop his or her own standard of control.
8.0 INSPECTION

8.1 Allow the ENGINEER access to Work. If part of the Work is in preparation at locations other than Place of Work, allow access to such Work whenever it is in progress.

8.2 Give timely notice requesting inspection if Work is designated for special tests, inspections or acceptance by the ENGINEER instructions, or law of the Place of Work.

8.3 If the CONTRACTOR covers or permits to be covered Work that has been designated for special tests, inspections or acceptance before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.

8.4 The ENGINEER will order part of Work to be examined if Work is suspected not to be in accordance with the Contract Documents. If, upon examination such work is found not in accordance with the Contract Documents, the CONTRACTOR shall correct such Work and pay the cost of examination and correction.

9.0 QUALITY ASSURANCE TESTING BY THE OWNER

9.1 The OWNER may retain and pay for the services of an independent testing agency for testing for quality assurance, for the OWNER’s purposes.

9.2 The OWNER’s testing agency and the ENGINEER may inspect and test MATERIAL, PRODUCT and THE WORK for conformance with the requirements of the CONTRACT DOCUMENTS; however, they do not undertake to check the quality of THE WORK on behalf of the CONTRACTOR nor to provide quality control.

9.3 Inspections and tests by the OWNER's testing agency and by the ENGINEER do not relieve the CONTRACTOR of his responsibility to supply MATERIAL and PRODUCT and to perform THE WORK in accordance with the requirements of the CONTRACT DOCUMENTS.

9.4 The ENGINEER, at his discretion, may order or perform any additional inspections and tests for purposes of his own or for purposes of the OWNER.

9.5 The CONTRACTOR shall coordinate with the ENGINEER the scheduling of testing and inspection by the OWNER’S testing agencies or by the ENGINEER, to enable testing to be done as necessary, without delay, and the CONTRACTOR shall notify the ENGINEER sufficiently in advance of operations to allow for such inspection and tests by the ENGINEER's or the OWNER’s testing agency.

10.0 PROCEDURES

10.1 Notify appropriate agency and the ENGINEER in advance of requirement for tests, in order that attendance arrangements can be made.

10.2 Submit samples and/or materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in orderly sequence to not cause delays in the Work.

10.3 The CONTRACTOR shall promptly process and distribute all required copies of test reports and test information and related instruction to all his Subcontractors and Suppliers to ensure that all necessary retesting and replacement of construction can proceed without delay.

10.4 The CONTRACTOR shall promptly (within 24 hours of the test being taken and prior to any additional work being done in the area) provide the ENGINEER with copies of all test results.
10.5 Provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples.

11.0 REJECTED WORK

11.1 Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by the ENGINEER as failing to conform to the Contract Documents. Replace or re-execute in accordance with the Contract Documents.

11.2 Make good other CONTRACTOR’s work damaged by such removals or replacements promptly.

11.3 If in opinion of the ENGINEER it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, the Owner will deduct from the Contract Price the difference in value between the Work performed and that called for by the Contract Documents, the amount of which will be determined by the ENGINEER.

12.0 NON-COMPLIANCE

12.1 In cases where quality control activities do not comply with either the CONTRACTOR Quality Control Program or the contract provisions, or where the CONTRACTOR fails to properly operate and maintain an effective Quality Control Program, as determined by the Engineer, the ENGINEER may:

12.1.1 Order the CONTRACTOR to replace ineffective or unqualified quality control personnel or subcontractors.

12.1.2 Order the CONTRACTOR to stop operations until appropriate corrective actions are taken.

13.0 RETESTING

13.1 When tests on PRODUCT, MATERIAL or completed portions of THE WORK carried out by the CONTRACTOR or the CONTRACTOR’S testing agency or by the OWNER’S testing agency yield results not meeting the requirements of the CONTRACT DOCUMENTS, the CONTRACTOR, in addition to carrying out remedial work or replacement of the PRODUCT or MATERIAL shall provide for retesting of the remedied work and the replacement PRODUCT and MATERIAL. Retesting, including retesting by the OWNER’S testing agency, shall be at the CONTRACTOR’S expense.

13.2 In every case where the CONTRACTOR has submitted test results which fail to meet the requirements of the CONTRACT DOCUMENTS, the CONTRACTOR shall submit within a practical and reasonable time results of a retest showing that the results are in accordance with the requirements of the CONTRACT DOCUMENTS.

NOTE: Retest results that meet the requirements of the CONTRACT DOCUMENTS must be reviewed and approved by the ENGINEER prior to any further work being done.

13.3 If the CONTRACTOR fails or refuses to do remedial work or replace unacceptable MATERIAL or PRODUCT, the ENGINEER may refuse to certify payment and the OWNER may refuse to make payment, in addition to any other remedies the OWNER may have.
1.0 TEMPORARY UTILITIES

1.1 Natural Gas, Gasoline and Other Fuels

1.1.1 Provide and pay all costs for natural gas, gasoline and other fuels required for the performance of THE WORK, in accordance with governing regulations and ordinances, and the CONTRACT DOCUMENTS.

1.1.2 Furnish and install all necessary temporary piping and upon completion of THE WORK remove all such temporary piping.

1.2 Water

1.2.1 Provide and pay all costs for all water required for the performance of THE WORK, in accordance with governing regulations and ordinances, and the CONTRACT DOCUMENTS.

1.2.2 The use of sea water for dust control, and compaction of common fill and granular base will be permitted on the project.

1.2.3 Water may be sourced from sea water nearby the construction site. Any necessary environmental approvals/permits must be adhered to in order to perform these activities. It is the CONTRACTOR’s responsibility to source an appropriate location where sea water may be extracted from and obtain any approvals necessary.

1.2.4 Furnish and install all necessary temporary piping and upon completion of THE WORK remove all such temporary piping.

1.3 Electricity and Lighting

1.3.1 Provide and pay all costs for electricity and artificial lighting required for the performance of THE WORK, in accordance with governing regulations and ordinances, and the CONTRACT DOCUMENTS.

1.3.2 Furnish and install all necessary temporary wiring, distribution boxes, panels, etc., and upon completion of THE WORK, remove all such temporary installations.

1.3.3 Lights for Working During Nighttime

1.3.3.1 The CONTRACTOR shall provide adequate lighting for working during the night to permit good workmanship.

1.3.3.2 The CONTRACTOR is advised that the illumination is to be a minimum of 50 horizontal lux throughout the Work area and a minimum of 200 horizontal lux around the spreaders, rollers and other heavy equipment with a ratio of 2:1 throughout the Work area.

1.3.3.3 The CONTRACTOR shall use metal halide floodlight units mounted on portable masts and spaced along the edge of the pavement or Work area.
1.3.3.4 The CONTRACTOR shall fit glare shields to the floodlight units to eliminate any direct illumination between the units and the Control Tower and runway approaches. These glare shields must be adjustable. If requested by the Control Tower personnel, the CONTRACTOR shall adjust shields or reposition the lights to limit glare interference with Airport traffic or the Control Tower. The CONTRACTOR shall always point light sources away from the Control Tower.

1.3.3.5 The CONTRACTOR shall use mobile engine-driven generator units suitable to power one (1) or a group of lighting units.

1.3.3.6 When requested, the CONTRACTOR shall submit to the Engineer isolux curves or charts showing the pattern of illumination, and quantity and spacing calculations to verify that the average illumination levels required are met.

1.3.3.7 In addition to the above overall flood lighting, the CONTRACTOR shall use smaller self-contained lighting units in other localized work areas to provide sufficient illumination to ensure that the installation does not suffer due to inadequate illumination.

1.3.3.8 The CONTRACTOR shall keep sufficient number of spare units on site to eliminate any reduction in quality and illumination level in the work area at any time during construction, should any of the operating units fail.

1.4 Telephone

1.4.1 ENGINEER to provide own telephone.

1.5 Heating and Ventilating

1.5.1 Provide and pay all costs for heating and ventilating, coverings and enclosures as necessary to protect and perform THE WORK.

1.5.2 Furnish and install all necessary temporary equipment, piping, wiring, ducting, and other materials to perform THE WORK and upon completion of THE WORK, remove all such temporary equipment.

1.5.3 Temporary heating/cooling and ventilating shall be in accordance with all governing regulations and ordinances, and the CONTRACT DOCUMENTS.

1.5.4 Temporary heating/cooling and ventilating shall be provided to:

1.5.4.1 facilitate progress of THE WORK

1.5.4.2 protect THE WORK and PRODUCT and MATERIAL against dampness and heat/cold

1.5.4.3 prevent moisture condensation on surfaces

1.5.4.4 provide an atmosphere for curing MATERIAL as required
1.5.4.5 provide adequate ventilation to meet safety regulations

1.5.4.6 prevent hazardous accumulation of dust, fumes, mists, vapours or gases in areas occupied during construction

1.5.4.7 ventilate storage spaces containing hazardous or volatile materials

1.6 Sanitary Facilities

1.6.1 Furnish and install all required temporary toilet buildings with sanitary toilets for use of all workers; comply with all minimum requirements of the Health Department or other public agency having jurisdiction; maintain in a sanitary condition at all times.

1.7 Fire Protection

1.7.1 Provide and pay all costs for adequate fire protection of THE WORK and adjacent property.

1.7.2 Furnish and install temporary extinguishers, hydrants and other equipment, and upon completion of THE WORK remove all such temporary equipment.

2.0 CONSTRUCTION AIDS

2.1 Temporary Plant

2.1.1 Provide, arrange for, maintain and pay for all temporary items such as, but not limited to, stairs, ladders, scaffolding, ramps, transportation of labour and MATERIAL, runways, chutes, hoists, elevators, tools, templates, as required for the completion of THE WORK.

2.1.2 The location of such items shall be such as to prevent interference with, marking of, or damage to any portion of THE WORK.

2.1.3 All such items shall conform to all applicable national and local ordinances regulating safety, and to the National (or International) Building Code, and to the requirements of the CONTRACT DOCUMENTS.

2.2 Falsework and Temporary Construction Supports

2.2.1 The CONTRACTOR shall be responsible for means and methods used for the falsework and temporary construction supports.

2.2.2 If required by the CONTRACT, employ a qualified Registered Professional Engineer for the design of temporary works, and design in accordance with CSA S269.1.

2.2.3 Record design calculations and drawings to show that temporary works are adequate. Provide design loads, material details, and dimensions. Sign and seal design calculations and drawings, and revisions thereto.

2.2.4 The ENGINEER’S approval to proceed with falsework and temporary construction
supports shall not relieve the CONTRACTOR of his responsibility under the CONTRACT. The ENGINEER'S review shall be for general conformance to the intent of design and for permanent effects on the WORKSITE, or areas adjacent to the WORKSITE.

2.3 Temporary Excavation

2.3.1 The CONTRACTOR is responsible for the means and methods of making temporary excavations in order to install components of THE WORK.

2.4 Access Roads

2.4.1 Construct temporary access roads as necessary to perform THE WORK and maintain temporary access roads until construction is over or until permanent access is established.

2.4.2 Locations and drainage facilities for temporary access roads are subject to the approval of the ENGINEER.

3.0 PROTECTION

3.1 Remove and reinstate fences and other structures from the site of THE WORK, as necessary to perform THE WORK.

3.2 Remove only those items that must be removed, or are clearly shown on the drawings to be removed.

4.0 EXISTING UTILITIES AND STRUCTURES

4.1 Existing utilities and structures include pipes, culverts, ditches or other items which are a part of an existing sewerage, drainage or water system; or which are a part of a gas, electrical, telephone, television, telecommunications or other utility system. Also included are sidewalks, curbs, gutters, swales, poles, fences or any other structures encountered during construction.

4.2 The CONTRACTOR shall be responsible for location, protection, removal or replacement of existing utilities and structures, or for repair of any damage which may occur during construction.

4.3 Existing utilities and structures may be shown on the drawings, or described in the specifications. Such information is shown for design purposes and the existence, location and detail given is information that is obtained during the design period and is not necessarily complete, correct or current.

4.4 The CONTRACTOR shall pay all costs and be responsible for establishing locations and state of use of all existing utilities that may affect THE WORK. The CONTRACTOR shall make satisfactory arrangements with the utilities companies involved for the location, protection and inspection of existing utilities.
4.5 Notice in writing shall be given by the CONTRACTOR to the utilities companies at least 48 hours before work commences in the vicinity of existing utilities.

4.6 The CONTRACTOR shall pay all the costs involved in protection of utilities, inspection of utilities, and all costs due to delays because of existing utilities and structures.

4.7 The CONTRACTOR shall provide for the uninterrupted flow of all water courses, sewers and drains encountered during THE WORK.

4.8 Access shall be maintained to all existing structures such as valves, hydrants, meter chambers and control structures at all times during construction.

4.9 If interruption of service provided by an existing utility is necessary, the planned shut down shall be approved by the OWNERS of the utilities. Requests for shut down shall be made by the CONTRACTOR in writing at least 48 hours in advance.

4.10 The CONTRACTOR shall notify all customers or make arrangements with the utility company to notify all customers 24 hours in advance of a shut down.

4.11 Unless otherwise specified the CONTRACTOR shall make arrangements for relocation of existing utilities that the ENGINEER requests to be relocated; and the actual relocation shall be constructed by the OWNER of the utility. The CONTRACTOR will be reimbursed the invoiced cost of the relocation. No extra payment is permitted for delays, or standby time.

5.0 TEMPORARY CONTROLS

5.1 Security Shelters

5.1.1 Where required, provide temporary shelters for access control security personnel, as specified in the General Conditions or as directed by the OWNER.

5.1.2 Minimum inside dimensions, 3.0 meters long x 2.4 meters wide x 2.4 meters high, with floor 0.3 meters above grade, complete with a minimum of one (1) window on three of the four walls. Windows to be 50% opening. Trailer to have one lockable door. Provide one desk and two chairs.

5.1.3 Provide power and lighting system.

5.1.4 Provide air conditioning to provide and maintain a temperature of between 18°C and 20°C.

5.1.5 Arrange and pay for telephone or OWNER approved mobile radio for use by security personnel.

5.1.6 Provide washroom facilities adjacent to shelter for the exclusive use of security personnel, complete with flush or chemical type toilet and lavatory and maintain supply of water, paper towels and toilet tissue.

5.1.7 Provide garbage bin pick-up weekly or more often during warm periods, or if otherwise required.

5.1.8 Maintain security shelters clean for the duration of the Contract.
5.2 Noise Controls

5.2.1 Perform THE WORK in conformity with all municipal by-laws with respect to noise, hours of work, night work and holiday work. Night work or holiday work requires the written permission of the ENGINEER.

5.3 Dust Control

5.3.1 Perform THE WORK in a manner that will not produce an objectionable amount of dust. Dust control measures shall be paid for by the CONTRACTOR.

5.4 Pollution Control

5.4.1 Perform THE WORK in conformance with the applicable sections of the Government Regulations and/or local environmental authority with respect to air and water pollution control requirements.

5.5 Disposal of Wastes

5.5.1 Burying of rubbish and waste (i.e. cleared and grubbed material) on site is not permitted unless under the expressed written consent of the OWNER and local environmental authority.

5.5.2 Disposal of waste or volatile materials into waterways, storm or sanitary sewers is not permitted.

5.5.3 Pumping or draining water containing silt in suspension into waterways, sewers or drainage systems is prohibited.

5.5.4 Abide by requirements of local waste management regulations respecting disposal of wastes.

5.5.5 Obtain required Permits for waste disposal.

6.0 TRAFFIC CONTROL

6.1 The CONTRACTOR shall be responsible for the regulation of traffic during construction, and shall perform THE WORK in a manner that will cause the least disruption of traffic.

6.2 The CONTRACTOR shall co ordinate THE WORK with the ENGINEER, and the OWNER to reduce traffic problems.

6.3 Provision of flagmen, traffic signs, and other traffic controls shall be the CONTRACTOR’S responsibility and shall be in accordance with the TAC Manual of Uniform Traffic Control Devices or OWNER approved equivalent.

6.4 The CONTRACTOR shall supply all barriers, barricades, warning signs, detours, fences, flagmen and all other devices to protect the public. All applicable safety standards shall be followed.

6.5 The CONTRACTOR shall obtain approval to block traffic temporarily if it is necessary to do so to perform THE WORK. Obtain the written approval of applicable municipal departments, the
OWNER and the ENGINEER. At least 48 hours prior to actually blocking traffic notify the following:

6.5.1 Roadway Authority
6.5.2 Public Works Departments
6.5.3 Utilities Companies
6.5.4 Fire Department
6.5.5 Police Department

6.6 Adequate construction parking, meeting local regulations, shall be provided by the CONTRACTOR.

6.7 Haul routes shall be maintained by the CONTRACTOR. They shall be kept open to traffic and shall be clean at all times.

6.8 Obtain permits as required to use public roads or streets for haul routes.

7.0 CONTRACTOR’S FIELD OFFICE

7.1 Furnish and install a temporary field office building adequate in size and accommodation for all CONTRACTOR’S offices, superintendent’s office, supply and tool rooms throughout the entire construction period.

8.0 ENGINEER’S FIELD OFFICE (PROVISIONAL)

8.1 Provide temporary field office for the Engineer’s own use. Engineer’s office may be co-located within the Contractor’s field office however must be separated by interior wall and have its own separate entrance.

8.2 Inside dimensions not less than 6.0 meters long x 3.5 meters wide x 2.4 meters high, with floor 300 mm above grade. Provide lockable doors and sufficient number of windows but not less than 10% of floor area. Windows to be 50% opening with insect screens.

8.3 Provide cooling system to maintain inside temperature between 18°C and 20°C.

8.4 Install electrical lighting system to provide minimum of 750 lux for each office using surface mounted shielded commercial fixtures with 10% upward light components.

8.5 Arrange and pay for power supply, water supply and subsequent consumption.

8.6 Arrange and pay for one (1) high speed internet connection with minimum 5 Mbps download speed.

8.7 Provide 1 desk and chair, 1 meeting room table with folding legs and 6 chairs.

8.8 Provide and maintain one all in one colour printer/scanner capable of printing and scanning 11” x 17” paper.
8.9 Contractor shall provide all consumables for the office including paper and printer cartridges.

8.10 Provide and pay for bottled water and dispenser with disposable cups.

8.11 Office and toilets to be maintained daily in clean and hygienic condition. Cleaning detergents and hand washing soap, towels, toilet paper, etc. to be provided.

9.0 TEMPORARY USE OF OWNER’S FACILITIES AND THE WORK

9.1 If the OWNER permits the CONTRACTOR to make temporary use of the OWNER’S facilities, the CONTRACTOR shall use the facilities with care, providing all maintenance and repair, and shall leave the facilities in good working order when he is finished.

9.2 If the OWNER permits the CONTRACTOR to use facilities incorporated into THE WORK, the CONTRACTOR shall use them with care and be responsible for all maintenance and repair and for leaving the facilities in good order.

9.3 Permanent systems shall not be used by the CONTRACTOR without the written permission of the ENGINEER.

9.4 If the CONTRACTOR obtains written permission to use existing systems temporarily, before completion, the CONTRACTOR shall change lubricants, filters and other accessory items completely upon completion of THE WORK. Warranties shall be extended by the CONTRACTOR to ensure that the OWNER receives the full warranty, as specified.

9.5 Temporary or trial usage by the OWNER of any mechanical machinery, apparatus, equipment or any other work or materials supplied under the contract before final acceptance by the ENGINEER is not to be construed as evidence of acceptance. The OWNER shall have the privilege of such temporary and trial usage as soon as the CONTRACTOR shall claim that said work is completed.

10.0 TEMPORARY PLANT AND OPERATIONS

10.1 The CONTRACTOR shall submit to the ENGINEER for approval, details of their Laydown Area site including height and limits of any temporary PLANT equipment prior to construction.

10.2 The CONTRACTOR is responsible for any site preparation and permissions necessary to operate and access this WORKSITE. The Contractor shall restore the site and all access roads used at the completion of the project to conditions acceptable to the OWNER. The costs to prepare and restore the operations site will be considered incidental to the Contract.

11.0 MEASUREMENT

11.1 No measurement for payment. All costs are incidental to the Contract.

----------------------- END OF SECTION 01 50 00 -----------------------
1.0 CONTRACTOR SECURITY PROVISIONS

1.1 General

1.1.1 “Restricted Area” means an area at an aerodrome identified by a sign as an area to which access is restricted to authorized persons.

1.1.2 “Restricted Area Pass” means a document or other piece of identification approved or issued by or under the authority of an aerodrome operator authorizing the holder to have access to a restricted area.

1.1.3 It is compulsory to display the Restricted Area Pass in a clearly visible fashion at all times within a Restricted Area.

1.1.4 The decision as to who may be authorized access to a Restricted Area shall be determined on a need and right of entry basis. No person shall be issued an Airport Restricted Pass unless need and right of entry has been established and/or substantiated as determined by the Aerodrome Operator.

1.2 Contractor’s Responsibility

1.2.1 The Contractor shall be responsible for compliance with all aspects of security requirements for his personnel. This includes obtaining security clearances, and complying with escort services to be provided by the OWNER.

1.2.1.1 The Contractor shall complete an “Application for a Security Restricted Area Visitor / Vehicle (escorted) Pass” for all Contractor personnel on the Worksite. The application will be provided by the Government of Montserrat (John A. Osborne Airport) for the Contractor to complete.

1.2.1.2 Applicants must present a valid form of picture ID to the Airport Security Officer along with the completed application form before a visitor pass can be issued.

1.2.2 Be responsible for construction personnel and vehicles, employees on project and requiring access to restricted areas.

1.2.3 Ensure the Superintendents, Foreman, Flagmen and key personnel of the subcontractor attend a briefing, at site, to be scheduled before the start of the project, regarding safety and security.

1.2.4 Designate a person who will be responsible to ensure all aspects of security and operational safety requirements are adhered to and have authority to take immediate action to rectify the situation. Such person should be available at all times during construction.

1.3 Security Barrier/Gates

1.3.1 Security barriers such as fences, gates, locks, etc. are used to prevent or deter access by unauthorized persons to airport restricted areas. In the event it is necessary to remove such barriers, they must be replaced, where practical, at the end of each work...
day. If it is necessary to remove such barriers for an extended period of time, unprotected restricted areas shall be enclosed with temporary boarding and/or fencing. The ENGINEER must be immediately informed of any possibilities that a restricted area may be left unprotected at the end of a work day.

1.3.2 Failure to restore such security barriers when required will result in their restoration being recovered from the Contractor.

1.3.3 The ENGINEER must be given prior notification when it is necessary to remove security barriers to permit access to construction areas. Security barriers will not be removed without the prior approval of the ENGINEER.

1.4 Daily Security

1.4.1 The Airport will provide gate personnel to perform security duties. Gate security is only required when the gate is required to be open. When gate is closed, no gate security is required.

1.4.2 Ensure that accesses to restricted areas are secured at the end of each work day.

1.4.3 When work is to be carried out within restricted areas outside of normal working hours, the ENGINEER and OWNER must be notified and approve of area and time frame.

1.5 Security Escort

1.5.1 The OWNER will provide personnel in possession of permanent restricted area passes to perform escort duties within airport restricted areas, when and where required.

1.5.2 The CONTRACTOR will be required to cooperate with the security plan as part of the overall project schedule and The Plan of Construction Operations. The Security Plan and review of responsibilities is to be presented at the Pre-Construction Meeting by the CONTRACTOR.

1.5.3 At minimum, the Security Plan shall clearly identify:

1.5.3.1 Frequency of security meetings;

1.5.3.2 Designated safety coordinator;

1.5.3.3 Location of entry/exit access gate to be used during specific work Stages, when gate will be closed, inspection procedures;

1.5.3.4 Security personnel positioning;

1.5.3.5 Emergency plans.

1.6 Measurement for Payment

1.6.1 No separate measurement for this item. All costs are incidental to the Contract.

------------------------ END OF SECTION 01 54 00 ------------------------
1.0 GENERAL

1.1 Use new material and equipment unless otherwise specified.

1.2 Within 7 days of written request by the ENGINEER, submit the following information for materials and equipment proposed for supply:
   1.2.1 name and address of manufacturer,
   1.2.2 trade name, model and catalogue number,
   1.2.3 performance, descriptive and test data,
   1.2.4 compliance to specified standards,
   1.2.5 manufacturer’s installation or application instructions,
   1.2.6 evidence of arrangements to procure.

1.3 Provide material and equipment of specified design and quality, performing to published ratings and for which replacement parts are readily available.

1.4 Use products of one manufacturer for material and equipment of same type or classification unless otherwise specified.

1.5 All airport equipment shall be International Civil Aviation Organization (ICAO) approved.

2.0 PRODUCT QUALITY

2.1 The CONTRACTOR is solely responsible for submitting relevant technical data and independent test reports to confirm whether a product or system proposed for use meets contract requirements and specified standards.

2.2 Final decision as to whether a product or system meets Contract requirements rest solely with the ENGINEER.

3.0 MANUFACTURERS INSTRUCTION

1.6 Unless otherwise specified, comply with manufacturer’s latest printed instructions for materials and installation methods.

1.7 Notify the ENGINEER in writing of any conflict between these specifications and manufacturers instructions. The ENGINEER will designate which document is to be followed.

4.0 AVAILABILITY

4.1 Immediately notify ENGINEER in writing of unforeseen or unanticipated material delivery problems by manufacturer.
5.0 WORKMANSHIP

5.1 Ensure quality of work is of highest standard, executed by workers experienced and skilled in respective duties for which they are employed.

5.2 Remove unsuitable or incompetent workers from WORKSITE.

5.3 Ensure cooperation of workers in laying out work. Maintain efficient and continuous supervision on the WORKSITE at all times.

5.4 Coordinate work between trades and subcontractors.

5.5 Coordinate placement of openings, conduits and equipment.

6.0 FASTENINGS – General

6.1 Provide metal fastenings and accessories in same texture, colour and finish as base metal in which they occur. Prevent electrolytic action between dissimilar metals. Use non-corrosive fasteners, anchors and spacers for securing exterior work and in humid areas.

6.2 Space anchors within limits of load bearing or shear capacity and ensure that they provide positive permanent anchorage. Wood or organic material plugs not acceptable.

6.3 Keep exposed fastenings to minimum, space evenly and lay out neatly.

6.4 Fastenings which cause spalling or cracking of material to which anchorage is made, are not acceptable.

6.5 Do not use explosive actuated fastening devices unless approved by ENGINEER.

7.0 FASTENINGS – Equipment

7.1 Use fastenings of standard commercial sizes and patterns with material and finish suitable for service.

7.2 Use heavy hexagon heads, semi-finished unless otherwise specified.

7.3 Bolts may not project more than one diameter beyond nuts.

7.4 Use plain type washers on equipment, sheet metal and soft gasket lock type washers where vibrations occur and, use resilient washers with stainless steel.

8.0 DELIVERY AND STORAGE

8.1 Deliver, store and maintain packaged material and equipment with manufacturer's seals and labels intact.

8.2 Prevent damage, adulteration and soiling of material and equipment during delivery, handling and storage. Immediately remove rejected material and equipment from site.
8.3 Store material and equipment in accordance with suppliers’ instructions.

8.4 Touch up damaged factory finished surfaces to the ENGINEER’s satisfaction. Use primer or enamel to match original. Do not paint over name plates.

9.0 CONFORMANCE

9.1 Materials specified by referenced standard, select any material that meets or exceeds the specified standard.

9.2 Materials specified by "Prescriptive" or "Performance" specification, select any material meeting or exceeding specification.

9.3 Materials specified by naming one or more materials, select any material named. For the purpose of these specifications, the term "Acceptable Material" is deemed to be a complete and working commodity as described by a manufacturer’s name, catalogue number, trade name or any combination thereof.

9.4 When materials are specified by a Standard, Prescriptive or Performance specifications, upon request of the ENGINEER, obtain from manufacturer an independent testing laboratory reporting, showing that the material or equipment meets or exceeds the specified requirements.

10.0 CONSTRUCTION EQUIPMENT AND PLANT

10.1 On request, prove to the satisfaction of the ENGINEER that the construction equipment and plant are adequate to manufacture, transport, place and finish work to quality and production rates specified. If inadequate, replace or provide additional equipment or plant as directed.

10.2 Maintain construction equipment and plant in good operating order.

11.0 METRIC SIZED MATERIALS

11.1 SI metric units of measurement are used exclusively on the drawings and in the specifications for this project.

11.2 The CONTRACTOR is required to provide metric products in the sizes called for in the Contract Documents except where a valid claim can be made that a particular product is not available on the industry market.

11.3 Claims for exemptions from use of metric sized products shall be in writing and fully substantiated with supportive documentation. Promptly submit application to ENGINEER for consideration and ruling. Non-metric sized products may not be used unless CONTRACTOR’s application has been approved in writing by the ENGINEER.

11.4 Difficulties caused by the CONTRACTOR’s lack of planning and effort to obtain modular metric sized products which are available on the industry market will not be considered sufficient reasons for claiming that they cannot be provided.
11.5 Claims for additional costs due to provision of specified modular metric sized products will not be considered.

12.0 SUBSTITUTION

12.1 No substitutions will be permitted without prior written approval of the ENGINEER.

12.2 Proposals for substitution may only be submitted after award of contract. Such request must include statements of respective costs of items originally specified and the proposed substitution.

12.3 Proposals will be considered by ENGINEER if:

12.3.1 materials specified are not available.

12.3.2 delivery date of materials specified would unduly delay completion of contract, or

12.3.3 substitute material which are brought to the attention of and considered by ENGINEER as equivalent to the material specified and will result in a credit to the Contract amount.

12.4 Should proposed substitution be accepted either in part or in whole, assume full responsibility and costs when substitution affects other work on project. Pay for design or drawing changes required as result of substitution.

12.5 Amounts of all credits arising from approval of substitutions will be determined by ENGINEER and Contract Price will be reduced accordingly.

13.0 MEASUREMENT

13.1 No measurement for payment. All costs are incidental to the Contract.

------------------------ END OF SECTION 01 60 00 ------------------------
1.0 QUALIFICATIONS OF SURVEYOR

1.1 Qualified registered land surveyor, licensed to practice in Montserrat, or equivalent acceptable to the Engineer.

2.0 SURVEY REFERENCE POINTS

2.1 Existing base horizontal and vertical control points are designated on drawings.

2.2 Locate, confirm and protect control points prior to starting site work. Preserve permanent reference points during construction.

2.3 Make no changes or relocations without prior written notice to the Engineer.

2.4 Report to the Engineer when reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.

2.5 Require surveyor to replace control points in accordance with original survey control.

3.0 SURVEY REQUIREMENTS

3.1 All layout of the Work shall be the responsibility of the Contractor.

3.2 The Contractor shall set all Work stakes and/or marks necessary to complete the work and be responsible for the preservation of all stakes and marks. The layout of the Work shall be as required to ensure tolerances are achieved. All temporary stakes and/or marks shall be removed at completion of the Work.

3.3 The Contractor is responsible for checking and verifying the accuracy of the survey control points established on the plans and if he observes any variance he shall promptly notify the Engineer in writing. If the Contractor performs any work without having given prior notice in writing of problems with the existing survey control, the Contractor shall assume all responsibility for the accuracy and location of work arising from the setting out and shall have no recourse to the Owner or the Engineer for the consequences.

3.4 If at any time during the progress of the Work any error shall appear or arise in the position, levels, dimensions or alignment of any part of the Work, the Contractor shall stop working on that portion of the Work and notify the Engineer. If the Contractor proceeds with the Work after a discrepancy is discovered, he does so at his own risk. The Contractor shall make allowances in his work schedule for delays of this nature and shall not claim or be paid for standby or shut down.

4.0 CONSTRUCTION SURVEY LAYOUT

4.1 The Contractor shall provide asphalt grades referenced to finished pavement elevations. The interval for setting asphalt grades shall be 10 metres in the longitudinal direction of paving and 5 metres in the transverse direction and at each change in transverse slope and/or the width of the paving mat as agreed to by the Contractor and the Engineer.
4.2 Levelling for asphalt shall be verified using total station to ensure that specified tolerances have been achieved.

5.0 CONTRACTOR’S RESPONSIBILITIES

5.1 The Contractor must satisfy himself before commencing any work as to the meaning and intent of all marks and stakes. Should the Contractor discover or suspect any apparent error or omission in the Drawings, Specifications, stakes, marks, engineering tests, or other measurements done or provided by the Engineer, the Contractor shall immediately bring such apparent error or omission to the attention of the Engineer. The Engineer will make corrections and interpretations as may be necessary for the fulfillment of the intent of the Drawings and Specifications.

5.2 The Contractor shall be responsible for transferring the information from the Drawings, Specifications, or other measurements provided by the Engineer for performance of the Work in accordance with the Contract Documents.

6.0 GENERAL

6.1 Contractor to submit all survey data in acceptable form to Engineer for quantity verification and processing.

6.2 Maintain a complete, accurate log of control and survey work as it progresses.

6.3 Engineer or site representative may also perform independent field check of quantities for verification. The Contractor shall assume full responsibility for alignment, elevations, and dimensions of each and all parts of the Work, regardless of whether the Contractor's layout Work has been checked by the Engineer.

6.4 The Contractor is responsible for checking and verifying the accuracy of the survey control points established on the plans and if he observes any variance he shall promptly notify the Engineer in writing. If the Contractor performs any work without having given prior notice in writing of problems with the existing survey control, the Contractor shall assume all responsibility for the accuracy and location of work arising from the setting out and shall have no recourse to the Owner or the Engineer for the consequences.

6.5 The Contractor shall provide the Engineer with the required survey data in an acceptable format to review (referred to as a “GRADESHEET” for all items that are being paid by measured quantity and/or being compared to the design (as shown in the Contract Drawings).

6.5.1 GRADESHEET to include, but not limited to, the following:

   6.5.1.1 Date when data was taken;
   6.5.1.2 Name of Surveyor;
   6.5.1.3 Material/Layer description;
   6.5.1.4 Location (can be shown on the drawing that can be compared to Contract drawings. The minimum check points for the Runway and Taxiways will be at centerline, mid-point and edge of pavement);
6.5.1.5 Design elevation taken at survey location;
6.5.1.6 As-built elevation taken at survey location;
6.5.1.7 Difference between design and as-built elevation.

6.5.2 GRADESHEET must be provided for:
6.5.2.1 Top of milled asphalt surface
6.5.2.2 Top of finished asphalt surface (refer to As-Built Survey requirements)

6.5.3 GRADESHEET for top of asphalt surfaces must be completed by total station. GPS survey will not be permitted for vertical elevation checks. GRADESHEET checks to be spaced at maximum 10.0m station intervals (longitudinal), and 5.0m in the transverse direction for acceptance.

6.5.4 With the Airport’s approval, Contractor may complete the survey grade checks during the daytime under pull-back procedures while under supervision of an airport security escort.

7.0 EXISTING SERVICES

7.1.1 Before commencing work, establish location and extent of service lines in area of Work and notify Engineer of findings.

7.1.2 Remove abandoned service lines within 2 m of structures. Cap or otherwise seal lines at cut-off points as directed by Engineer.

8.0 RECORDS

8.1.1 Maintain a complete, accurate log of control and survey work as it progresses.

8.1.2 On completion of major site improvements, prepare a certified survey showing dimensions, locations, angles and elevations of Work.

8.1.3 Record locations of maintained, re-routed and abandoned service lines.

9.0 ACTION AND INFORMATIONAL SUBMITTALS

9.1.1 Submit name and address of the Surveyor to the Engineer.

9.1.2 On request of the Engineer, submit documentation to verify accuracy of field engineering work.

9.1.3 Submit certificate signed by surveyor certifying and noting those elevations and locations of completed Work that conform and do not conform with Contract Documents.

10.0 SUBSURFACE CONDITIONS

10.1.1 Promptly notify Engineer in writing if subsurface conditions at Place of Work differ materially from those indicated in Contract Documents, or a reasonable assumption
of probable conditions based thereon.

10.1.2 After prompt investigation, should Engineer determine that conditions do differ materially, instructions will be issued for changes in Work as provided in Changes and Change Orders.

11.0 MEASUREMENT FOR PAYMENT

11.1.1 Payment will be made at the contract lump sum price within Section 00 33 00 – Form of Tender Unit Price – Bid Item 1.5 – Construction Surveying and Layout. This price shall be full compensation for furnishing all labour, materials, tools, equipment, transportation and incidentals necessary to complete this item.

----------------------------- END OF SECTION 01 71 00-----------------------------
1.0 RELATED REQUIREMENTS

1.1 This section specifies the requirements for the cleaning of the project site and the completed work during the time of the Work and at the completion of the Work.

2.0 CLEANING DURING CONSTRUCTION

2.1 Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.

2.2 Store volatile waste in covered metal containers, and remove from premises at end of each working day.

2.3 Provide onsite containers for collection of waste materials, and debris.

2.4 Dispose of waste materials, and debris off site.

2.5 Check continuously that no piece of concrete, gravel or any object has been dropped on a runway or taxiway by equipment during travelling to and from the site or during construction activities.

2.6 In the event of an open section of a runway, taxiway or apron fouled by truck spillage or debris, Contractor must:

2.6.1 Immediately notify the Engineer that area is temporarily unserviceable.

2.6.2 Without delay arrange for clean-up by Contractor's own personnel.

2.6.3 Notify Engineer when area is clear.

2.7 Clean lighting reflectors, lenses and other lighting surfaces, as directed by the engineer at no cost to Engineer.

2.8 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.

2.9 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces.

2.10 Maintain the Construction Yard area in a clean and orderly manner as the Work progresses.

3.0 FINAL CLEANING

3.1 When the Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining the Work.

3.2 Remove waste products and debris, and leave the Work area clean.

3.3 Prior to final review remove surplus products, tools, construction machinery and equipment.
3.4 Remove waste materials from site at regularly scheduled times or dispose of as directed by the Engineer. Do not burn waste materials on site.

3.5 Restore Contractor Yard to its original condition, including any necessary grading as required to the satisfaction of the Engineer.

3.6 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.

3.7 Clean lighting reflectors, lenses, and other lighting surfaces.

3.8 Remove dirt and other disfiguration from exterior surfaces.

3.9 Sweep and wash clean paved areas.

3.10 All pavements shall be cleaned of mud, cement slurry or other deleterious materials prior to final inspection.

3.11 Broom clean paved surfaces; rake clean other surfaces of grounds.

3.12 Haul surplus or salvage materials that are the property of the Owner to the Owner’s storage site.

3.13 Remove surplus or salvaged materials belonging to the Contractor from the site.

3.14 Clean haul routes and restore to pre-construction condition.

4.0 MEASUREMENT FOR PAYMENT

4.1 No separate payment will be made under this section. Include costs in the appropriate tender items.
1.0 DEFINITIONS

1.1 Hazardous Material: Product, substance, or organism that is used for its original purpose, and that is either dangerous goods or a material that may cause adverse impact to the environment or adversely affect health of persons, animals, or plant life when released into the environment.

2.0 WASTE MANAGEMENT

2.1 Incorporate environmental and sustainable practices in managing waste resulting from work.

2.2 Divert as much waste as possible from landfill.

2.3 Coordinate work of sub trades and subcontractors to ensure all possible waste reduction and recycling opportunities are taken. Follow waste management requirements specified in trade sections of the Specifications.

2.4 Reduce waste during installation of new materials. Undertake practices which will optimize full use of materials and minimize waste.

2.5 Develop innovative procedures to reduce quantity of waste generated by construction such as by delivering materials to site with minimal packaging etc.

2.6 Provide on-site facilities at approved location to collect, handle and store anticipated quantities of reusable, salvageable and recyclable materials.

2.7 Isolate product packaging and delivery containers from general waste stream. Send to recycling facility or return to supplier/manufacturer.

2.8 Send leftover material resulting from installation work for recycling whenever possible.

2.9 Establish methods whereby hazardous and toxic materials, and their containers used on site are properly handled, stored and disposed in accordance with applicable local regulations.

3.0 DISPOSAL REQUIREMENTS

3.1 Burying or burning of rubbish and waste material is prohibited.

3.2 Disposal of volatile materials, mineral spirits, oil, paint, and other hazardous materials into waterways, storm, or sanitary sewers is prohibited.

3.3 Dispose of waste only at approved waste processing facility or landfill sites approved by authority having jurisdiction.

3.4 Contact the authority having jurisdiction prior to commencement of work, to determine what, if any, demolition and construction waste materials have been banned from disposal in landfills and at transfer stations. Take appropriate action to isolate such banned materials at site of work and dispose in strict accordance with local waste management regulations.
3.5 Transport and dispose of waste intended for waste processing plant or landfill facility in separated condition and to landfill operator's rules and recommendations in support of their effort to recycle, reduce and divert certain waste stream from general landfill.

3.6 Collect, bundle and transport salvaged materials to be recycled in separated categories and condition as directed by recycling facility. Ship materials only to approved recycling facilities.

4.0 MEASUREMENT FOR PAYMENT

4.1 No measurement for payment. All costs are incidental to the Contract.

----------------------- END OF SECTION 01 74 22------------------------
1.0 SECTION INCLUDES

1.1 Administrative procedures preceding inspection and acceptance of Work by Engineer.

2.0 ACCEPTANCE OF WORK PROCEDURES

2.1 Contractor’s Inspection: coordinate and perform, in concert with subcontractors a thorough inspection of all Work. Identify and correct deficiencies, defects, repairs and perform outstanding items as required to conform to Contract Documents.

   2.1.1 Notify Engineer in writing when deficiencies and incomplete work from Contractor’s inspection have been rectified and that Work is deemed to be completed.

   2.1.2 Request Engineer's inspection.

2.2 Engineer’s Inspection:

   2.2.1 Engineer and Contractor to inspect Work and identify defects and deficiencies.

   2.2.2 Contractor to correct Work as directed and advise Engineer when all deficiencies have been rectified.

2.3 Final Inspection:

   2.3.1 When completion tasks are done, request final inspection of Work by Engineer.

   2.3.2 When Work incomplete according to Owner or Engineer, complete outstanding items and request re-inspection. Any re-inspections deemed to be required by the Engineer shall be at the cost of the Contractor.

   2.3.3 The Engineer will not issue a Certificate of Substantial Performance of the work until such time that Contractor performs following work and turns over the specified documents:

      2.3.3.1 Project record and as-built documents.

      2.3.3.2 Final Operations and Maintenance manuals.

      2.3.3.3 Maintenance materials, parts and tools.

      2.3.3.4 Compliance certificates from applicable authorities.

      2.3.3.5 Reports resulting from designated tests.

      2.3.3.6 Manufacturer’s Guarantee certificates.

3.0 FACILITY OCCUPANCY

3.1 The Owner will have the right to take possession of and use any completed or partially
completed portion of the Work regardless of time of completion of entire work, providing it does not interfere with the Contractor’s work. Such taking possession or use of all, or part of the works thereof, will not be construed as final acceptance of the Work, or any portion thereof, or an acknowledgement of fulfillment of the terms of the Contract.

4.0 REMOVE OF TEMPORARY FACILITIES

4.1 Remove temporary offices, storage sheds, fencing, barricades, and any other temporary facilities from site.

4.2 Clean up and restore proper finish grade to all areas which have been used for stockpiling materials and/or waste, for temporary buildings or facilities, for temporary roads and traffic areas or on which the final grade has been disturbed or damaged by any cause.

5.0 COMPLETION CERTIFICATES

5.1 Refer to General Conditions for procedures regarding the issuance of completion certificates.

6.0 FINAL CLEANING

6.1 Clean in accordance with Section 01 74 11 - Cleaning.

----------------------- END OF SECTION 01 77 00-------------------------
1.0 SECTION INCLUDES

1.1 Project Record Documents.

1.2 Operations and Maintenance data.

2.0 ACTION AND INFORMATIONAL SUBMITTALS

2.1 Provide submittals in accordance with Section 01 33 00 – Submittal Procedures.

2.2 Prior to Substantial Performance of the Work, submit to the Engineer in soft copy the operating and maintenance manuals in English. Upon acceptance by the Engineer, submit two final hardcopies to the Owner.

2.3 Provide spare parts, maintenance materials and special tools of same quality and manufacture as products provided in the Work.

2.4 Provide evidence, if requested, for type, source and quality of products supplied.

3.0 FORMAT

3.1 Organize data as instructional manual.

3.2 Binders: vinyl, hard covered, 3 'D' ring, loose leaf 219 x 279 mm with spine and face pockets.

3.3 When multiple binders are used correlate data into related consistent groupings: Identify contents of each binder on spine.

3.4 Cover: identify each binder with type or printed title 'Project Record Documents'; list title of project and identify subject matter of contents.

3.5 Arrange content by systems, under Section numbers and the sequence of Table of Contents.

3.6 Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.

3.7 Text: manufacturer's printed data.

3.8 Drawings: provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

3.9 Provide CAD files dwg format on CD, USB or other format acceptable to Engineer.

4.0 CONTENTS - PROJECT RECORD DOCUMENTS

4.1 Table of Contents for Each Volume: provide title of project;

4.1.1 Date of submission; names.
4.1.2 Addresses, and telephone numbers of the Contractor with the name of responsible parties.

4.1.3 Schedule of products and systems, indexed to the content of volume.

4.2 For each product or system:

4.2.1 List names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.

4.3 Product Data: mark each sheet to identify specific products and component parts, and data applicable to installation; delete inapplicable information.

4.4 Drawings: supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.

4.5 Typewritten Text: as required to supplement product data.

4.5.1 Provide logical sequence of instructions for each procedure, incorporating manufacturer’s instructions specified in Section 01 45 00 – Quality Control.

5.0 PROJECT RECORD DOCUMENTS

5.1 Engineer will provide Contract Drawings in PDF format for Contractor printing and “as-built” purposes.

5.2 Maintain at site one set of the Contract Drawings to record actual as-built site conditions.

5.3 Record changes in red and submit set of prints to the Engineer at completion of the project. Use felt tip marking pens, maintaining separate colours for each major system, for recording information.

5.4 Record information concurrently with construction progress. Do not conceal Work until required information is recorded.

5.5 As-Built Drawings:

5.5.1 Record changes in red ink on the prints. Mark only on one set of prints.

5.5.2 Present all as-built drawing measurements in SI metric units.

5.5.3 Stamp all drawings with "As-Built Drawings". Label and place Contractor’s signature and date.

5.5.4 Submit to Engineer prior to application for Certificate of Substantial Performance.

5.5.5 Show all modifications, substitutions and deviations from what is shown on the contract drawings or in specifications.
5.5.6 Record following information:

5.5.6.1 Horizontal and vertical location of exterior underground utilities and appurtenances referenced to permanent surface improvements.

5.5.6.2 Horizontal and vertical location of various elements in relation to WGS84 Geodetic Datum;

5.5.6.3 Location of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of structure;

5.5.6.4 Field changes of dimension and detail;

5.5.6.5 Location of all capped or terminated services and utilities.

5.5.6.6 All elevations and details dimensioned and marked-up to consistently report finished installation conditions.

5.5.6.7 Electrical and other services;

5.5.6.8 Any details produced in the course of the contract by the Engineer to supplement or to change existing design drawings;

5.5.6.9 All change orders issued over the course of the contract must be documented on the finished as-built documents, accurately and consistently depicting the changed condition as it applies to all affected drawing details.

5.6 Specifications: mark each item to record actual construction, including:

5.6.1 Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.

5.6.2 Changes made by Addenda and change orders.

5.7 Other Documents: maintain the manufacturer’s certifications, inspection certifications, field test records, required by individual specifications sections.

5.8 Provide digital photos, if requested, for site records.

6.0 REVIEWED SHOP DRAWINGS

6.1 Provide a complete set of all shop drawings reviewed for project to incorporate into each copy of the Operations & Maintenance manuals.

6.2 Submit full sets at same time and as part of the contents of the Operation and Maintenance manuals specified.

7.0 FINAL (as-built) SURVEY
7.1 Submit final (as-built) survey in accordance with Section 01 15 50 –Special Provisions.

7.2 Submit final site survey certificate, certifying that elevations and locations of completed Work are in conformance, or non-conformance with the Contract Documents.

8.0 SPARE PARTS, TOOLS AND MAINTENANCE

8.1 Provide spare parts, special tools and extra materials for maintenance purposes in quantities specified in individual specification sections:

8.2 Provide items of same manufacture and quality as items in the Work.

8.3 Provide items with tags identifying their associated function and equipment.

8.4 Deliver to site; place and store as directed by Owner.

8.4.1 Receive and catalogue items.

8.4.1.1 Submit inventory listing to the Engineer.

8.4.1.2 Include accepted listings in the Maintenance Manual.

8.4.2 Store spare parts, maintenance materials, and special tools in manner to prevent damage or deterioration.

8.4.3 Store in original and undamaged condition with manufacturer's seal and labels intact.

8.4.4 Store components subject to damage from weather in weatherproof enclosures.

8.4.5 Obtain receipt for delivered products and submit prior to final payment.

8.4.6 Remove and replace damaged products at Contractor's expense.

9.0 MEASUREMENT

9.1 No measurement for payment. Refer to Section 01 15 50.
DIVISION 02

(Sitework)
DIVISION 16
(Airfield Electrical)
FAA Specifications
(Various)
APPENDIX A

PLAN OF CONSTRUCTION OPERATIONS
APPENDIX B

ELECTRICAL CONTRACTOR QUALIFICATION FORM