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**6.0 SUBSURFACE CONDITIONS**

- 6.1 Promptly notify the Engineer, in writing, if subsurface conditions at the place of the Work differ materially from those indicated, or a reasonable assumption of probable conditions based thereon.
- 6.2 After investigation, should the Engineer determine that the conditions do differ materially, instructions will be issued for changes in the Work as provided in GC 29 - Changes in the Work.

<b>END OF SECTION</b>
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## **1.0 PERMITS/INSPECTIONS**

- 1.1 The Contractor shall obtain and pay for the building permit.
- 1.2 The Contractor shall obtain and pay for all other permits, licences, certificates and governmental inspections required for the performance of the Work in force at the Tender closing date. Renew all permits, licences, certificates and inspections required for each phase of the work, as required, for each construction year. Submit copies of all permits, licences, certificates and inspection reports to the Engineer, prior to the beginning of work each year.
- 1.3 Give all required notices and comply with all local, territorial and federal laws, ordinances, rules, regulations, codes and orders relating to the Work, which are or become in force during the performance of the Work.

## **2.0 APPLICABLE CODES/STANDARDS**

- 2.1 The National Building Code was used as a basis for designing the Work.
- 2.2 Where specified codes/standards are not dated, conform to latest issue of specified codes/standards as amended and revised to the Tender closing date.
- 2.4 Confine apparatus, the storage of Products and the operations of workers to limits indicated by laws, ordinances, permits and by directions of the Engineer. Do not unreasonably encumber the premises with products.

## **3.0 SAFETY**

- 3.1 Observe and enforce all construction safety measures required by code, Workers' Compensation Board, the Safety Act and all applicable statutes. Appoint a suitably qualified employee who has sole responsibility on site on behalf of the Contractor, for compliance with the requirements and so advise the Owner in writing with copy to the Engineer.
- 3.2 In the event of discrepancy between such provisions, the most stringent provision shall apply.
- 3.3 Employ a qualified specialty Engineer, registered in the Northwest Territories/Nunavut., for the design of all shoring and falsework for the temporary supports of all structural elements, earth banks, roads, etc.
- 3.4 Make available two (2) "Visitor safety helmets" for authorized visitors.
- 3.5 Burning of refuse will not be permitted.
- 3.6 If "NO SMOKING" regulations are in effect in areas of the Work, ensure that all workers comply with the regulations.
- 3.7 Ensure that all workers comply with the Owner's safety regulations where such regulations are in effect.

- 3.8 Do not load or permit to be loaded any part of the Work with a weight, load or force that will exceed the design load and/or endanger its safety.

#### 4.0 CLEANING OF STREETS

- 4.1 Conform to local ordinances and by-laws relating to littering of streets.
- 4.2 Take precautions to prevent depositing mud or debris on public or private roadways adjacent to the Work. Clean up immediately, otherwise the Engineer will direct necessary cleanup with all costs back charged to the Contractor.

#### 5.0 WORKING LIMITS/TEMPORARY EASEMENTS

- 5.1 Confine all operations within the Owner's property limits.
- 5.2 Arrange for encroachment on areas beyond property lines separately with the property owners.
- 5.3 Obtain consent of adjoining property owners regarding need for any temporary easements or any other encroachments. Upon completion of Contract, make good any damage to adjacent property.

#### 6.0 EXISTING UTILITIES

- 7.1 Notify appropriate utility companies and municipal departments minimum one week in advance of commencing such work:
- For water and sewage work, **Public Works and Services, Government of Nunavut., Rankin Inlet., Hamlet Office and the Fire Department.**
  - For telephone, **Northwestel.**
  - For electrical power **Nunavut Power Corporation.**
- 7.3 Make arrangements with utility companies, Public Works and Services, GNU and the Owner for protection of pipelines, conduits, drainlines, wiring and other structures, whether underground, on the surface or overhead, and satisfy the company or department that the methods or operations are effective.
- 7.4 Indemnify and save harmless the Owners of these existing utilities from any loss or damage which may be suffered by reason of the operations of the Contractor in the performance of this Contract.

<b>END OF SECTION</b>
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## **1.0 PRECONSTRUCTION MEETING**

- 1.1 Within fifteen (15) days after award of Contract, the Engineer will request a pre-construction meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.
- 1.2 Representatives of the Owner, Engineer, Contractor, Major Subcontractors and Field Inspectors must be in attendance.
- 1.3 After time and location of this meeting has been established, the Engineer shall notify all parties concerned minimum seven (7) days before the meeting.
- 1.4 The Engineer will chair and record discussions and decisions, and circulate the minutes to all parties concerned.
- 1.5 Agenda to include the following:
  - Appointment of official representatives of participants in the Work.
  - Schedule of the Work, progress scheduling (Section 01310).
  - Schedule of submission of shop drawings, samples (Section 01300).
  - Requirements for temporary facilities, site sign, offices, storage sheds, utilities, fences (Section 01500).
  - Delivery schedule of specified equipment (Section 01310).
  - Site security (Section 01500).
  - Contemplated Change Notices and Change Order procedures, approvals required, mark-up percentages permitted, time extensions, overtime, administrative requirements (GC).
  - Record drawings (Section 01300).
  - Operation and Maintenance manuals (Section 01300).
  - Take-over procedures, acceptance, warranties (Section 01700).
  - Monthly progress claims, administrative procedures, photographs, holdbacks (GC).
  - Appointment of inspection and testing agencies or firms (Section 01400).
  - Insurances, transcript of policies (GC).
  - Record mutually agreed variations to Contract documents (Bid Revisions, refer to Section 01035).

## **2.0 PROGRESS MEETINGS**

- 2.1 The Engineer will schedule and administer progress meetings throughout the progress of the Work, every four (4) weeks.
- 2.2 The Engineer will prepare Agenda for meeting.
- 2.3 Agenda for progress meetings to include the following:
  - Review and approval of minutes of previous meeting.
  - Review of Work progress since previous meeting.
  - Field observations, problems, conflicts.
  - Problems which impede construction schedule.
  - Review of off-site fabrication delivery schedule.
  - Corrective measures and procedures to regain projected schedule.
  - Revisions to construction schedule.
  - Progress, schedule, during succeeding work period.

- Review submittal schedules: expedite as required.
  - Maintenance of quality standards.
  - Pending changes and substitutions.
  - Review proposed changes for effect on construction schedule and on completion date.
  - Outstanding action items
  - Date and location of next meeting
  - Note: Should any discrepancies or inconsistencies be noted, please notify the writer as soon as possible and have it recorded in the next meeting. If no notifications are recorded, the minutes will be deemed correct and acceptable to all.
  - Other business.
  - Distribution list.
- 2.4 The Engineer will distribute written notice of the first meeting seven (7) days in advance of the meeting date to Engineers, Owner and Major Subcontractors.
- 2.5 The Engineer will preside at meetings.
- 2.6 The Engineer will record the minutes of progress meetings, including significant proceedings and decisions as well as identifying "action by" parties and date for completion of duty.
- 2.7 The Engineer will reproduce and distribute copies of minutes five days after each meeting and transmit to meeting participants and affected parties not in attendance.
- 2.9 Representatives of Contractor, Subcontractor and Suppliers attending meetings must be qualified and authorized to act on behalf of the party each represents.

END OF SECTION
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## **1.0 SHOP DRAWINGS AND PRODUCT DATA**

- 1.1 "Shop Drawings" mean custom drawings, product data, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by the Contractor to illustrate details of a portion of the Work.
- 1.2 Arrange for the preparation of clearly identified shop drawings as specified or as the Engineer may reasonably request. Shop drawings are to clearly indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of the Work. Where articles or equipment attach or connect to other articles or equipment, clearly indicate that all such attachments and connections have been properly coordinated, regardless of the trade under which the adjacent articles or equipment will be supplied and installed. Shop drawings are to indicate their relationship to design drawings and specifications. Notify the Engineer in writing of any deviations in shop drawings from the requirements of the Contract Documents.
- 1.3 Examine all shop drawings prior to submission to the Engineer to ensure that all necessary requirements have been determined and verified and that each shop drawing has been checked and coordinated with the requirements of the Work and the Contract Documents. Examination of each shop drawing shall be indicated by stamp, date and signature of a responsible person of the Subcontractor for supplied items and of the General Contractor for fabricated items. Shop drawings not stamped, signed and dated will be returned without being reviewed and stamped Re-submit".
- 1.4 Submit shop drawings with reasonable promptness and in an orderly sequence so as to cause no delay in the Work. Failure to submit shop drawings in ample time is not to be considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed. Jointly prepare a schedule fixing the dates for submission and return of shop drawings (refer to Section 01310 - Schedules).
- 1.5 The Engineer will review and return shop drawings in accordance with the schedule agreed upon or otherwise with reasonable promptness so as to cause no delay in the Work.
- 1.6 Submit five (5) copies of white prints for each review.
- 1.7 Shop drawing review by the Engineer is solely to ascertain conformance with the general design concept. Responsibility for approval of detail design inherent in shop drawings rests with the Contractor and review by the Engineer shall not imply such approval.
- 1.8 Review by the Engineer shall not relieve the Contractor of his responsibility for errors or omissions in shop drawings or for proper completion of the Work in accordance with the Contract Documents.
- 1.9 Responsibility for verification and correlation of field dimensions, fabrication processes, techniques of construction, installation and coordination of all parts of the Work rests with the Contractor.
- 1.10 Shop drawings will be returned to the Contractor with one of the following notations:

- When stamped "REVIEWED", distribute additional copies as required for execution of the Work.
  - When stamped "REVIEWED AS MODIFIED", ensure that all copies for use are modified and distributed, same as specified for "REVIEWED".
  - When stamped "REVISE & RESUBMIT", make the necessary revisions, as indicated, consistent with the Contract Documents and submit again for review.
  - When stamped "NOT REVIEWED", submit other drawings, brochures, etc. for review consistent with the Contract Documents.
  - Only shop drawings bearing "REVIEWED" or "REVIEWED AS MODIFIED" shall be used on the Work unless otherwise authorized by the Engineer.
- 1.11 After submittals are stamped "REVIEWED" or "REVIEWED AS MODIFIED", no further revisions are permitted unless re-submitted to the Engineer for further review.
- 1.12 Any adjustments made on shop drawings by the Engineer are not intended to change the Contract Price. If it is deemed that such adjustments affect the Contract Price, clearly state as such in writing prior to proceeding with fabrication and installation of work.
- 1.13 Make changes in shop drawings which the Engineer may require consistent with Contract Documents. When re-submitting, notify the Engineer in writing of any revisions other than those requested by the Engineer.
- 1.14 Shop drawings indicating design requirements not included in the Contract Documents require the seal of a qualified Professional Engineer, registered in the province of the place of the Project. Engineering calculations shall be submitted for review, if requested, and sealed by a qualified Professional Engineer.
- 2.0 SAMPLES**
- 2.1 Submit samples for the Engineer's review as specified or as the Engineer may reasonably request. Clearly label samples as to origin and intended use in the Work. Reference samples to drawings and specifications.
- 2.2 Submit samples with reasonable promptness and in orderly sequence so as to cause no delay in the Work. Failure to submit samples in ample time is not to be considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed. Jointly prepare a schedule fixing the dates for submission and return of samples (refer to Section 01310 – Schedules and Progress Reports).
- 2.3 Notify the Engineer in writing, at the time of submission, of any deviations in samples from requirements of Contract Documents.
- 2.4 The Engineer's review will be for conformity of design concept and general arrangement only. Such review is not to be considered relief of responsibility for errors or omissions in samples or of responsibility for meeting all requirements of the Contract Documents.
- 2.5 Any adjustments made on samples by the Engineer are not intended to change the Contract Price. If it is deemed that such adjustments affect the Contract Price, clearly state as such in writing prior to proceeding with fabrication and installation of the Work.
- 2.6 Make the required changes in samples, made by the Engineer, consistent with Contract Documents.

### 3.0 OPERATIONS AND MAINTENANCE MANUAL DATA

- 3.1 Not less than two (2) weeks prior to Substantial Completion of the Work, submit to the Engineer seven (7) copies of O&M information which shall contain information required by the specifications as well as operational information on equipment, cleaning and lubrication schedules, filters, overhaul and adjustment schedules. All information shall be in simple language to guide the Owner in the preparation of the operation and maintenance manuals for the installation. The information shall be supplied and organized as per the GNU specifications for Operations and Maintenance Manuals.
- 3.2 Organize contents into applicable sections of work, parallel to specifications break-down.
- 3.3 In addition to information called for in the specifications, include the following:
- .1 Title sheet, labelled "Operation and Maintenance Instructions", and containing project name and date.
  - .2 List of contents.
  - .3 Reviewed shop drawings of all equipment.
  - .4 Names, addresses and telephone numbers of all major Subcontractors and Suppliers.
  - .5 Manufacturer's data sheets (operating and maintenance brochure) on all equipment with exploded views of equipment, performance data.
  - .6 Inspection reports, certificates and all test results.
  - .7 Warranty certificates.
- 3.4 Binders
- .1 Supply seven (7) binders for the Operation and Maintenance manuals.
  - .2 Expandable hard covered three post binders, of extra heavy weight capable of standing several decades of reasonable use.
  - .3 Binders must take standard 216 mm x 279 mm size inserts prepared by a standard three hole punch.
  - .4 The expansion slide should be proportional to the binder size, e.g., a 50 mm slide for a 75 mm binder. The purpose of the expansion slide is to allow the pages to lie flat for reading. It must not be used to stuff the binder with more than 75 mm of material. Use more than one binder where necessary.
  - .5 Full identification titles must appear on the outer spine and front of binders to permit easy identification. These titles are to be in a permanent form. Plastic lettered tape, gummed labels and similar methods that can become detached are not to be used.
  - .6 Covers in a set should be a matching colour. The choice of colour is open.



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**4.0 RECORD DRAWINGS**

- 4.1 Engineer's inspector will maintain project Record Drawings. Assist inspector by providing information on any deviations from the Contract documents. for the purpose of maintaining Project record drawings.

**5.0 PHOTOGRAPHS AND PUBLICITY**

- 5.1 No photographs of the site or of any portion of the Work will be permitted without prior approval of the Engineer. The Engineer will take photographs of the work for record purposes as the work progresses.
- 5.2 No press or publicity releases will be permitted without prior approval of the Engineer.

<b>END OF SECTION</b>
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## **1.0 SCHEDULE**

- 1.1 Within ten (10) days after acceptance of Tender, prepare and submit a bar chart schedule for review to the Engineer.
- 1.2 Schedule shall show dates of commencement and completion of various parts of the Work, ordering and delivery dates of Products, phasing and timing for various subcontracts and all other detailed information to the satisfaction of the Engineer.
- 1.3 **Time is of the essence in this contract.** Ensure order for materials are made in ample time to ensure necessary shipping dates are met. Additional costs incurred for expediting materials or supplies because of missed shipping dates will be paid for by the Contractor and will not be reimbursed by the Owner.
- 1.4 All orders for materials shall be placed in ample time for adherence to the schedule.
- 1.5 Make special note of those times when extra work shifts are required to complete the Work.
- 1.5 Prepare definitive schedules for the following specific items:
  - Product Delivery
  - Schedule of all shop drawings required
  - Schedule of material deliveries
  - Schedule of construction phases
  - Requirements for special site instructions, etc.

## **2.0 PROGRESS REPORTS**

- 2.1 Maintain an accurate record of the progress of the Work. Submit weekly to the Engineer.
- 2.2 The reports shall state dates of commencement and percentage of work completed by trades for the different parts of the Work and include particulars regarding daily weather conditions, number of workers for each trade, percentage of work completed weekly by trades and shall relate to the Schedule. The report shall outline the progress of the work, as well as areas of current and anticipated problems and proposed corrective action.

## **3.0 MANPOWER/OVERTIME**

- 3.1 Cease work at any particular point and transfer workers to other designated points, when so directed, should the Engineer judge it necessary to expedite the Work.
- 3.2 Should the Work fail to progress according to the approved progress schedule, work such additional time (including weekends and holidays), employ additional workers, or both, as may be required to bring the Work back on schedule, at no additional cost to the Owner.

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#### 4.0 CHANGES IN SCHEDULE

- 4.1 Whenever proposing a change in construction program, submit proposed revised Schedule to the Engineer, together with such analyses thereof as are required to clearly indicate the purpose and anticipated results of such changes.
- 4.2 If, in the opinion of the Engineer, any proposed change in construction program is inadequate, to secure completion of the Work within the specified time, or is otherwise not in accordance with the specifications, or if the Work is not being adequately or properly prosecuted in any respect, the Engineer reserves the right to require a revised Schedule together with such analyses thereof as are required to indicate the anticipated results of such revision.

END OF SECTION
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## **1.0 REQUIREMENTS INCLUDED**

- 1.1 Inspection and testing, administrative and enforcement requirements.
- 1.2 Testing.
- 1.3 Equipment/system adjust and balance

## **2.0 INSPECTION SERVICES**

- 2.1 The Owner and the Engineer shall have access to the Work. If parts of the Work are in preparation at locations other than the Place of the Work, access shall be given to such work whenever it is in progress.
- 2.2 Give timely notice requesting inspection if Work is designated for special tests, inspections or review by Engineer's instructions, or the law of the Place of the Work.
- 2.3 If the Contractor covers or permits to be covered Work that has been designated for special tests, inspections or reviews before such is made, uncover such Work, have the inspections or tests satisfactorily completed and make good such Work.
- 2.4 The Engineer may order any part of the Work to be examined if such work is suspected to be not in accordance with the Contract Documents. If, upon examination, such work is found not in accordance with the Contract Documents, correct such work and pay the cost of examination and correction. If such Work is found in accordance with the Contract Documents, the Owner shall pay the cost of examination and replacement.

## **3.0 INDEPENDENT INSPECTION AGENCIES**

- 3.1 Independent Inspection/Testing Agencies may be engaged by the Owner for the purpose of inspecting and/or testing portions of Work. Cost of such services will be borne by the Owner.
- 3.2 Provide equipment required for executing inspection and testing by the appointed agencies.
- 3.3 Employment of inspection/testing agencies does not relax the responsibility to perform Work in accordance with the Contract Documents.
- 3.4 If defects are revealed during inspection and/or testing, the appointed agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by Engineer at no cost to the Owner. Pay costs for retesting and reinspection.
- 3.5 Allow inspection/testing agencies access to the Work, off site manufacturing and fabrication plants.
- 3.6 Cooperate to provide reasonable facilities for such access.

- 3.7 Notify the Engineer in advance of the requirement for tests, in order that attendance arrangements can be made.
- 3.8 Submit samples and/or materials required for testing, as specifically requested in specifications. Submit with responsible promptness and in an orderly sequence so as not to cause delay in the Work.
- 3.9 Provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples.

#### **4.0 REJECTED WORK**

- 4.1 Remove defective Work, whether the result of poor workmanship, use of defective products or damage and whether incorporated in the 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.
- 4.2 Make good other Contractor's work damaged by such removals or replace promptly.
- 4.3 If in the opinion of the Engineer it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, the Owner may 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 shall be determined by the Engineer.

#### **5.0 TESTS**

- 5.1 Furnish tests results as may be requested.

<b>END OF SECTION</b>
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## **1.0 TEMPORARY UTILITIES**

### **1.1 Temporary Power and Light**

- .1 The Contractor will provide and pay for temporary power required during construction, for temporary operating of power tools, etc.
- .2 Arrange for connection with appropriate utility company, if required. Pay all costs for installation, maintenance and removal.
- .3 Temporary power for other equipment requiring a power supply is the responsibility of the respective user.

### **1.2 Temporary Telephone**

- .1 Provide and pay for temporary telephones necessary for own use and use of the Engineer.
- .2 Long distance calls made by the Engineer will be paid by the Engineer.

### **1.3 Temporary Sanitary Facilities**

- .1 Provide and pay for sufficient temporary sanitary facilities for all in accordance with local health authorities.
- .2 Maintain facilities in a clean condition.

### **1.4 Water Supply**

- .1 The Owner will provide potable water for use in flushing and testing watermains under the supervision of the Engineer.

### **1.5 Temporary Fire Protection**

- .1 Provide and maintain temporary fire protection equipment during performance of Work required by insurance companies having jurisdiction and governing codes, regulations and bylaws.
- .2 Open fires and burning of rubbish are not permitted on the site.

### **1.6 Dewatering**

- .1 Provide temporary drainage and pumping facilities to keep excavations and site free from standing water.
- .2 Do not discharge drainage water into Municipal sewers without written approval or across adjacent properties.
- .3 Do not discharge drainage water containing silt in suspension into sewage lines.

## **2.0 MOBILIZATION AND DEMOBILIZATION**

- .1 Mobilization means the delivery to the site of all materials, equipment, tools, workers, etc., required to carry out the work of this contract and supply of maintenance and operational literature.
- .2 Refer to Section 01300 for details of operations and maintenance literature submission requirements.
- .3 Demobilization means the disassembly and removal from site of all temporary facilities, equipment and workers, and general site clean-up.
- .4 Payment for Mobilization/Demobilization will be at the Contract Lump Sum price and will be full compensation for delivery to, and removal from, the site of all materials, equipment, tools and workers including all other costs necessary and incidental to completion of the work of this contract. Payment for Mobilization/Demobilization will be made as follows:
  - .1 Upon completion of Mobilization, the Contractor will be entitled to claim for an amount not exceeding 50% of the Lump Sum amount stated in the Tender Form for this item.
  - .2 Upon approval of O & M data submission, the Contractor will be entitled to claim an amount not exceeding 20% of the lump sum amount stated in the Tender Form for this item.
  - .2 Upon completion of Demobilization, including the supply of maintenance and operational literature, and after the Final Completion Certificate has been issued, the Contractor will be entitled to claim for the remaining portion of the amount stated.

## **3.0 CONSTRUCTION AIDS**

### **3.1 Ladders**

- .1 Provide and maintain adequate temporary ladders required for construction.
- .2 Secure to structure.
- 3 Ladders are to comply with all requirements of safety authority.

### **3.2 Scaffolding**

- .1 Provide and maintain scaffolding, ladders and platforms as required to access work.
- .2 Scaffolding is to be rigid, secure and constructed to ensure adequate safety for workers. Erect and remove without damage to the building or finishes.

### **3.3 Temporary Retaining Walls**

- .1 Provide temporary sheeting, piling or shoring as required to protect excavations, and trenches from damage caused by rain water, ground water and other soil and weather conditions. Erect in a manner which will not encumber the performance of the Work.

### **3.4 Explosives**

- .1 Provide for the use of explosives when required. Advise Engineer if explosives are required. When using, conform to the requirements of local governing authorities.
- .2 Explosives are to be handled and used only by licensed personnel.
- .3 Protect adjacent properties, work in progress and workers from damage or injury when using explosives. Place sufficient and adequate signs around site to warn the public that explosives are being used.
- .4 Instruct workers as to the procedures to be taken prior to and during each detonation. Provide ample warning prior to each detonation and ensure all workers fully recognize these warnings.

### **3.5 Explosive Actuated Fastening Tools**

- .1 Provide for the use of explosive actuated fastening tools when required. When using, conform to the requirements of CAN 3 Z166.1-M85 - "Power Actuated Tools" and local governing authorities.

### **3.6 Welding Machines and Air Compressors**

- .1 If required for performance of the work these are the responsibility of the respective users. Locate outside of building.

## **4.0 BARRIERS AND ENCLOSURES**

### **4.1 Guard Rails and Barricades**

- .1 Provide secure, rigid guard rails and barricades around deep excavations
- .2 Provide as required by governing authorities.

## **5.0 SECURITY AND PROTECTION**

### **5.1 Protection for Off-Site & Public Property**

- .1 Protect surrounding private and public property from damage during performance of Work.



- .2 Be responsible for damage incurred.

## **5.2 Site Storage/Loading**

- .1 Confine the Work and the operations of employees to limits indicated by the Contract Documents. Do not unreasonably encumber the premises with products.
- .2 Do not load or permit to be loaded any part of the Work with a weight or force that will endanger the Work.

## **5.3 Protection of Equipment**

- .1 Provide protection for finished and partially finished building finishes and equipment during performance of Work.
- .2 Provide necessary screens, covers, hoardings as required.
- .3 Be responsible for damage incurred due to lack of or improper protection.

## **5.4 Existing Services**

- .1 Maintain existing services in operation at all times during construction.
- .2 Protect all existing services from damage. Repair services damaged by construction at no additional cost to the Owner.
- .3 If service interruptions are necessary, such interruptions shall be made only at times approved by the Engineer, Public Works and Services and the Fire Department. The Contractor shall provide 48 hours notice to the Engineer, Department of Public Works and Services and the Fire Department prior to any service interruptions.
- .4 When breaking into or connecting to existing services or utilities, carry out work at times directed by local governing authorities, with a minimum of disturbance to the Work.
- .5 Protect, relocate or maintain existing active services as required. When inactive services are encountered, cap off in a manner approved by local governing authorities having jurisdiction.

## **5.5 Warning and Traffic Signs**

- .1 When Work is performed within public areas, provide and erect adequate warning and traffic signs as necessary to give the public proper warning. Place signs significantly in advance to enable the public to respond to directions.
- .2 Warning and traffic signs shall be illuminating type, visible to the public and traffic during all hours of the day.

- .3 Contractor is to maintain signs. Poorly maintained, defaced, damaged or dirty signs shall be repaired, replaced or cleaned without delay.

## **6.0 ACCESS ROADS AND PARKING**

### **6.1 Access to Site**

- .1 Maintain access as required to and from site. Conform to requirements of local governing authorities when required and when necessary make arrangements with adjacent property owners. Locate these traffic facilities where they are least disruptive to normal street traffic.

### **6.2 Public Traffic Flow**

- .1 Provide and maintain flagpersons, barricades and flares/lights/lanterns if required to perform the Work and protect the public. Make arrangements with local governing authorities when these facilities will disrupt the normal flow of public traffic.

### **6.3 Construction Parking**

- .1 Parking will be permitted on site provided it does not disrupt the performance of Work.
- .2 Do not allow parking on streets if disruptive to public traffic flow or access to site.

## **7.0 TEMPORARY CONTROLS**

### **7.1 Project Cleanliness**

- .1 Maintain the Work in tidy condition, free from accumulation of waste products and debris, other than that caused by the Owner or other Contractors.
- .2 Remove waste material and debris from the site at the end of each working day.

### **7.2 Snow Removal**

- .1 Remove snow and ice from access roads, parking areas, offices and storage areas, if necessary.
- .2 Remove snow and ice from building surfaces as necessary for construction.

## **8.0 PROJECT IDENTIFICATION AND SIGNS**

### **8.1 Construction Signs**

- .1 Erect signs supplied by the Owner within three (3) weeks of signing Contract, in a location designated by the Engineer at no additional cost to the Owner.

- .2 Maintain sign in good condition for the duration of Work. Clean periodically.
- .3 No other signs or advertisements, other than warning signs, are permitted on site.
- .4 The Contractor will be responsible for packing, freight and insurance from Iqaluit to the site.
- .5 The Contractor will erect the sign within 48 hours of first materials arriving on site.

#### 9.0 STORAGE

##### .1 Equipment/Tools/Materials Storage

- .1 Provide and maintain, in a clean and orderly condition, lockable weatherproof sheds for storage of tools, equipment and materials.
- .2 Locate materials not required to be stored in weatherproof sheds on site, in a manner to cause the least interference with work activities.

#### 10.0 INSTALLATION/REMOVAL

- .1 Provide construction facilities, temporary facilities, controls and signs in order to execute the Work expeditiously.
- .2 Remove from site after use.
- .3 Dismantle Owner provided construction sign and deliver to the Owner upon Final Completion of the project.

END OF SECTION
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## **1.0 PRODUCTS**

### **1.1 Quality of Products**

- .1 Provide new materials, equipment and articles incorporated in the Work, not damaged or defective and of the best quality (compatible with specifications) for the purpose intended. If requested furnish evidence as to type, source and quality of products provided.
- .2 Defective materials, equipment and articles whenever found may be rejected regardless of previous inspection. Inspection by the Engineer or an inspector does not relieve the Contractor of his responsibility but is merely a precaution against oversight or error. Remove and replace defective materials at own expense and be responsible for all delays and expenses caused by rejection.
- .3 Should any dispute arise as to the quality or fitness of materials, equipment or articles, the decision rests strictly with the Engineer based upon the requirements of the Contract Documents.
- .4 Unless otherwise indicated in the specifications, maintain uniformity of manufacturer for any particular or like item throughout the project.

### **1.2 Availability of Products**

- .1 Immediately upon signing the Contract, review Product requirements and anticipate foreseeable delivery delays in any items. If delays in deliveries of materials, equipment or articles are foreseeable, propose substitutions or other remedial action in ample time to prevent delay in performance of the Work.
- .2 If such proposal is not given to the Engineer, the Engineer reserves the right to substitute more readily available Products later in order to prevent delays at no additional cost to the Owner.
- .3 No substitution of any item will be permitted unless the item cannot be delivered to the job site in time to comply with the Schedule.
- .4 To receive approval, proposed substitutes must equal or exceed the quality, finish and performance of those specified and/or shown, and must not exceed the space requirements allotted on the drawings.
- .5 Provide documentary proof of equality, difference in price (if any) and delivery dates in the form of certified quotations from suppliers of both specified items and proposed substitutions.

### **1.3 Storage, Handling and Protection of Products**

- .1 Handle and store products in a manner to prevent damage, contamination, deterioration and soiling and in accordance with manufacturer's recommendations when applicable.

- .2 Store packaged or bundled products in original and undamaged condition with manufacturers' seals and labels intact. Do not remove packaging or bundling until required in the Work.
- .3 Products subject to damage from weather are to be stored in weatherproof enclosures.
- .4 Store cementitious materials clear of earth on concrete floors and away from walls.
- .5 When sand is used for grout or mortar materials, keep clean and dry. Store on polyethylene and cover with waterproof tarpaulins during inclement weather.
- .6 Store pipe on level ground with ends covered or capped to prevent entry of debris. Ensure that ends are not damaged upon removal of plugs or caps. Do not stack pipe higher than four (4) rows.
- .7 Remove defective materials from site immediately.

#### **1.4 Manufacturers' Directions**

- .1 Unless otherwise specified, install or erect all products in accordance with manufacturers' recommendations. Do not rely on labels or enclosures provided with products. Obtain instructions directly from manufacturers.
- .2 Notify the Engineer, in writing, of any conflicts between the specifications and manufacturers' instructions so that the Engineer may establish the course of action.
- .3 Improper installation or erection of products due to failure in complying with these requirements authorizes the Engineer to require any removal and re-installation that may be considered necessary, at no increase in Contract Price.

#### **1.5 Transportation Costs of Products**

- .1 Pay all costs for transportation of products required for the Work.
- .2 Transportation costs for products supplied by the Owner, if any, will be paid by the Owner. Be responsible for unloading, handling and storage of such products unless specified otherwise.

### **2.0 WORKMANSHIP**

#### **2.1 General Requirements**

- .1 Workmanship is to be of the best quality executed by workers fully experienced and skilled in their respective trades.
- .2 At all times enforce discipline and good order among workers. Do not employ any unfit person or anyone unskilled in the duties assigned to him. The Engineer

reserves the right to require the removal from site of workers deemed incompetent, careless, insubordinate or otherwise objectionable.

- .3 Decisions as to the quality of or fitness of workmanship in cases of any dispute rests solely with the Engineer whose decision is final.

## **2.2 Co-ordination**

- .1 Co-ordinate the work of all Subcontractors.
- .2 Ensure that all Subcontractors examine the drawings and specifications for other parts of the Work which may affect the performance of their work.
- .3 Ensure that items to be built in are supplied when required with all necessary templates, measurements and shop drawings.

## **2.3 Protection of Work in Progress**

- .1 Adequately protect all work completed and in progress. Repair or replace all damaged work.
- .2 Prevent overloading of any part of the Work.

## **2.4 Cleaning**

- .1 Remove waste materials and debris from the site at regular intervals. Burning of waste materials and debris on site is prohibited.

## **3.0 MEASUREMENT**

### **3.1 Metric Project**

- .1 Unless otherwise noted, this Project has been designed and is to be constructed in the S.I. metric system of measurements.
- .2 Where specified metric elements will not be available when required, submit with Tender proposals for alternative products in accordance with the "Alternatives/Equals" clause of the Instructions to Bidders.
- .3 During construction, when specified metric elements are unattainable at the time they are required to meet the Construction Schedule, the contractor shall notify the Engineer in writing and suggest alternative substitutions. Costs due to these substitutions shall be borne by the Contractor.

<b>END OF SECTION</b>
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