

1 GENERAL

1.01 RELATED REQUIREMENTS

- .1 Section 01 11 00 - Summary of Work

1.02 PROJECT WORK COVERED BY CONTRACT DOCUMENTS

- .1 Work of two separate contracts comprises the Project: The Paulatuk Staff House Renovation.

1.03 CONTRACTS

- .1 Perform Work of each Contract under a separate LUMP SUM contracts with Owner.
- .2 Work of each separate Contract is identified in following Articles.

1.04 TEMPORARY UTILITIES, FACILITIES AND SERVICES APPLICABLE TO ALL CONTRACTS

- .2 Provide electrical extension cords from distribution boxes, work lights, and any special power required for Contract Work.
- .3 Provide separate telephone service required for Contract Work.
- .4 Provide water hoses required for Contract Work.
- .5 Provide field offices and trailers required for Contract Work.
- .6 Ensure cleaning of Contract Work; delivery of debris to collection.

1.05 CONTRACT: SACHS HARBOUR Staff House General Contracting

- .1 Division 01 - General Requirements:
- .2 Scope of Work - Paulatuk Staff House General Contracting:
- .3 Division 02 - Existing Conditions:
 - .1 Section 02 85 00.01 - Mould Remediation - Minimum Precautions.
- .8 Division 09 - Finishes:
 - .1 Section [09 91 13 - Exterior Painting].

1.07 CONTRACT: SACHS HARBOUR Staff House Technical

- .1 Division 01 - General Requirements:
- .2 Scope of Work - Paulatuk Staff House Technical

- .2 Division 22 - Plumbing:
 - .1 Section [22 05 00 - COMMON WORK RESULTS FOR PLUMBING]
- .3 Division 22 - Electrical:
 - .1 Section 26 05 00 - COMMON WORK RESULTS FOR ELECTRICAL

1.08 WORK BY OTHERS

- .1 Co-operate with other Contractors in carrying out their respective works and carry out instructions from Departmental Representative.
- .2 Co-ordinate work with that of other Contractors. If any part of work under this Contract depends for its proper execution or result upon work of another Contractor, report promptly to [Departmental Representative], in writing, any defects which may interfere with proper execution of Work.
- .3 The Contractor for "Paulatuk Staff House Technical" will assume the role of General Contractor for the Site and responsibility for all Health and Safety requirements required under the local jurisdiction.

1.10 WORK SEQUENCE

- .1 Construct Work in stages to accommodate Owner's [continued] use of premises during construction.
- .2 Co-ordinate Progress Schedule [and co-ordinate with Owner Occupancy during construction].
- .6 Maintain fire access/control.

1.11 CONTRACTOR USE OF PREMISES

- .1 Contractor has unrestricted use of site until Substantial Performance.
- .2 Contractor shall limit use of premises for Work and to allow:
 - .1 Work by other contractors.
- .3 Assume full responsibility for protection and safekeeping of products under this Contract.
- .4 Obtain and pay for use of additional storage or work areas needed for operations under this Contract.
- .5 Remove or alter existing work to prevent injury or damage to portions of existing work which remain.
- .6 Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as directed by the Owner
- .7 At completion of operations, existing work: be in condition equal to or better than that which existed before new work started.

1.12 OWNER OCCUPANCY

- .1 Owner will not occupy premises during entire construction period.

1.13 ALTERATIONS, ADDITIONS OR REPAIRS TO EXISTING BUILDING

- .1 Execute work with least possible interference or disturbance normal use of premises. Arrange with Department Representative to facilitate execution of work.

1.14 EXISTING SERVICES

- .1 Notify, Departmental Representative and utility companies of intended interruption of services and obtain required permission.
- .2 Where Work involves breaking into or connecting to existing services, give Departmental Representative [48] hours' notice for necessary interruption of mechanical or electrical service throughout course of work. Minimize duration of interruptions.
- .4 Establish location and extent of service lines in area of work before starting Work. Notify Departmental Representative of findings.

1.15 DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy each document as follows:
 - .1 Reference Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Reviewed Shop Drawings.
 - .5 List of Outstanding Shop Drawings.
 - .6 Change Orders.
 - .7 Other Modifications to Contract.
 - .9 Copy of Approved Work Schedule.
 - .10 Health and Safety Plan and Other Safety Related Documents.
 - .11 Other Documents as Specified.

2 PRODUCTS

2.01 NOT USED

- .1 Not Used.

3 EXECUTION

3.01 NOT USED

- .1 Not Used.

END OF SECTION

1 GENERAL

1.1 PRECEDENCE .1 For Federal Government projects, Division 1

Sections take precedence over technical specification sections in other Divisions of this Project Manual.

1.01 RELATED REQUIREMENTS

- .1 Section 01 32 16.06 - Construction Progress Schedules - Critical Path Method.

1.02 EXISTING SERVICES

- .1 Provide Parks Canada Staff access to the work site for the duration of the Work.

1.03 USE OF SITE AND FACILITIES

- .1 The Work Site shall be specified by Parks Canada and shall only be used for the purposes of the Work. The Work Site will be made available by Parks Canada to the Contractor for its non-exclusive use for the duration of the Work, unless otherwise provided in the Contract Documents
- .2 The Contractor must make Private Accommodation Arrangements. Non exclusive access to the garage space and compound will be provided for tool storage and work coordination.
- .3 The Contractor shall keep the Work Site clean and free from accumulation or waste materials and rubbish regardless of the source. Snow shall be removed by the Contractor as necessary for the performance and inspection of the Work.
- .4 The Contractor shall provide sanitary facilities for work force in accordance with governing regulations and the Environmental Procedures for this project. The Contractor shall post notices and take precautions as required by local health authorities and keep area and premises in a sanitary condition.
- .5 Any damage to the Work Site caused by the Contractor shall be repaired by the Contractor at its expense.
- .6 The Contractor may work 12 hours per day, seven days per week with the following restrictions:
 - .1 Work shall not commence earlier than 7:30am and not go later than 8:30pm.

1.04 EXISTING SERVICES

- .1 Notify, Departmental Representative and utility companies of intended interruption of services and obtain required permission.
- .2 The locations of structural, electrical and mechanical elements and systems shown on the drawings are not necessarily exact nor is there any guarantee that all elements or systems have been shown on the drawings.

- .3 The Contractor shall establish and maintain direct and continuous contact with the owners or operators of any Utilities which may interfere with the Work. The Contractor shall cooperate with them at all times and in all places of Work. The Contractor shall keep the Departmental Representative informed of all communications with the Utility companies and authorities.
- .4 The Contractor shall notify the Departmental Representative and the Utility companies at least seven days in advance of any activities which may interfere with the operation of such Utilities.
- .5 The Contractor shall Immediately report any damage to Utilities to the Departmental Representative and to the Utility company authority affected, and shall promptly undertake such remedial measures as are necessary at no additional cost to the Owner.

1.05 SURVEY OF EXISTING PROPERTY CONDITIONS

- .1 The Contractor shall regularly monitor the condition of the Work Site throughout the construction period, and shall immediately notify the Owner if any deterioration in condition is detected. Such monitoring shall cover all pertinent features and property including, but not limited to, buildings, structures, roads, walls, fences, slopes, sewers, culverts, and landscaped areas.

1.06 PROTECTION OF PERSONS AND PROPERTY

- .1 The Contractor shall comply with all applicable safety regulations of the Workers' Safety and Compensation Commission of the Northwest Territories (WSSC) including, but limited to, WSSC's Occupational Health and Safety regulations, the Safety Act, and Workplace Hazardous Materials Information System Regulations.
- .2 The Contractor shall comply with the Canada Labour Code - Part 2 regulations as it applies to working within a Federal Government Workplace.
- .3 The Contractor shall take all necessary precautions and measures to prevent injury or damage to persons and property on or near the Work Site.
- .4 The Contractor shall promptly take such measures as are required to repair, replace, or compensate for any loss or damage caused by the Contractor to any property, or, if Parks Canada so directs, shall promptly reimburse Parks Canada the costs resulting from such loss or damage.

1.07 SUPERVISORY PERSONNEL

- .1 Within five days after award notification, the Contractor shall submit to the Departmental Representative confirmation of the names of the supervisory personnel and other key staff designated for assignment on the Contract. The following personnel shall be included in the list:
 - .1 Project Superintendent
 - .2 Safety representative
- .2 The above personnel shall be perform the following duties:
 - .1 The Project Superintendent shall be employed full time and shall be present on the Work Site each and every workday that Work is being performed, from the commencement of Work to Total Performance of the

- Work.
- .2 The Project Superintendent shall nominate a Deputy Project Superintendent who shall have the authority of the Project Superintendent during the latter's absence.
 - .3 The Safety Representative shall possess safety experience in general construction. Duties shall encompass all matters of safety activities from commencement of Work until Total Performance of the Work.

1.08 MEETINGS

- .1 The Work includes attending meetings between the Contractor and the Departmental Representative. The meetings will be called and chaired by the Departmental Representative as required. The Contractor shall be represented at such meetings to the satisfaction of the Departmental Representative.
- .2 The Departmental Representative will schedule an initial meeting held by teleconference after award notification. Senior representatives of the Owner, Departmental Representative, Contractor, major Subcontractors, field inspectors, and supervisors are to be in attendance.
- .3 The Departmental Representative may schedule other meetings as required to coordinate the review of shop drawings and construction scheduling.

1.09 WASTE DISPOSAL

- .1 All surplus, unsuitable and waste materials shall be removed from the job site and disposed of in accordance with local regulations.
- .2 Deposits of any construction debris into any waterway are strictly forbidden.
- .3 Cost for Waste Disposal described above shall be considered incidental and no additional payment will be made.

1.10 WORK STOPPAGE

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

2 PRODUCTS

1.01 PRODUCTS

- .1 Not Used.

3 EXECUTION

3.01 NOT USED

- .1 Not Used.

SACHS HARBOUR Staff
House Renovation
PROJ NO: PRO-1267

WORK RESTRICTIONS

SECTION 01 14 00
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END OF SECTION

1 GENERAL

1.01 TENDER BID ITEMS

.1 Construction

- .1 The Contractor is required to have completed work inspected by the Departmental Representative or designate. The work will not be deemed acceptable until a Final Inspection Report by Departmental Representative has been prepared and provided to Parks Canada stating the completed work has been constructed as per the contract requirements. Once this process is completed the Contractor will be compensated.

2 PRODUCTS

2.01 NOT USED

- .1 Not Used.

3 EXECUTION

3.01 NOT USED

- .1 Not Used.

END OF SECTION

END OF SECTION

1 GENERAL

1.01 RELATED REQUIREMENTS

- .1 Section 01 12 00 - Summary of Work.
- .2 Section 01 14 00 - Work Restrictions
- .3 Section 01 33 00 - Submittal Procedures

1.02 ADMINISTRATIVE

- .1 Representative of Contractor, Subcontractor and suppliers attending meetings will be qualified and authorized to act on behalf of party each represents.

1.03 PRECONSTRUCTION MEETING

- .1 Within 7 days after award of Contract, request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.
- .2 Departmental Representative, and Senior representatives of Contractor, major Subcontractors, field inspectors and supervisors will be in attendance.
- .3 Establish time and location of meeting and notify parties concerned minimum 5 days before meeting.
- .4 Agenda to include:
 - .1 Appointment of official representative of participants in the Work.
 - .2 Schedule of Work: in accordance with Section 01 32 16.07 - Construction Progress Schedules - Bar (GANTT) Chart.
 - .3 Schedule of submission of shop drawings. Submit submittals in accordance with Section 01 33 00 - Submittal Procedures.
 - .4 Requirements for temporary facilities, site sign, offices, storage sheds, utilities, fences.
 - .5 Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, overtime, administrative requirements.
 - .6 Owner provided products.
 - .7 Record drawings in accordance with Section 01 33 00 - Submittal Procedures.
 - .8 Payment claims, administrative procedures, photographs, hold backs.
 - .9 Insurances, transcript of policies.

1.04 PROGRESS MEETINGS

- .1 During course of Work, schedule progress meetings weekly.
- .2 Contractor, major Subcontractors involved in Work and Departmental Representative are to be in attendance.
- .3 Record minutes of meetings and circulate to attending parties and affected

parties not in attendance within 3 days after meeting.

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

2 PRODUCTS

2.01 NOT USED

- .1 Not Used.

3 EXECUTION

3.01 NOT USED

- .1 Not Used.

END OF SECTION

1 GENERAL

1.01 RELATED REQUIREMENTS

- .1 Section 01 12 00 - Summary of Work.
- .2 Section 01 14 00 - Work Restrictions

1.02 REFERENCES

- .1 Definitions:
 - .1 Activity: element of Work performed during course of Project. Activity normally has expected duration, and expected cost and expected resource requirements. Activities can be subdivided into tasks.
 - .2 Bar Chart (Gantt chart): graphic display of schedule-related information. In typical bar chart, activities or other Project elements are listed down left side of chart, dates are shown across top, and activity durations are shown as date-placed horizontal bars.
 - .3 Baseline: original approved plan (for Project, work package, or activity), plus or minus approved scope changes.
 - .4 Duration: total number of work periods (not including holidays or other non-working periods) required to complete activity or other Project element.
 - .1 Usually expressed as workdays or work weeks.
 - .5 Master Plan: summary-level schedule that identifies major deliverable; work breakdowns structure and key milestones.
 - .6 Milestone: significant point or event in Project, usually completion of major deliverable.
 - .7 Project Planning, Monitoring and Control System: overall system operated to enable monitoring of Project Work in relation to established milestones.
 - .8 Project Schedule: planned dates for performing activities and planned dates for meeting milestones.
 - .9 Work Breakdown Structure (WBS): deliverable-oriented hierarchical decomposition of Work to be executed by contractor to accomplish project objectives and create required deliverables. It organizes and defines total scope of Project. Each descending level represents an increasingly detailed definition of Project Work. WBS is decomposed into Work packages.

1.03 ADMINISTRATIVE REQUIREMENTS

- .1 Ensure the Project Schedule is practical and remain within specified Contract Duration.
- .2 Ensure all the Work required for the Contract is identified in the Project Schedule. Refer to Section 01 12 00 Summary of Work for a potential list of activities.
- .3 Plan to complete Work in accordance with prescribed Project Schedule.

- .4 Ensure that it is understood that Award of Contract or time of beginning, rate of progress, Interim Certificate and Final Certificate as defined times of completion are of essence of this contract.
- .5 Include the requirements of Section 01 14 00 - Work Restrictions

1.04 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit to Departmental Representative within 10 working days of Award of Contract a Bar (Gantt) Chart as Master Plan for planning, monitoring and reporting of project progress.
- .3 Submit Project Schedule to Departmental Representative within 10 working days of receipt of acceptance of Master Plan.

1.05 PROJECT MILESTONES

- .1 Project milestones form interim targets for Project Schedule
 - .1 Completion of each Stage of Construction within each work area.
- .2 Interim Certificate (Substantial Completion): October 30, 2017
- .3 Contract Completion: December 30, 2017

1.06 MASTER PLAN

- .1 Structure schedule to allow orderly planning, organizing and execution of Work as a Bar Chart (GANTT).
- .2 Departmental Representative will review and return revised schedules within 5 working days.
- .3 Revise impractical schedule and resubmit within 5 working days.
- .4 Accepted revised schedule will become MasterPlan and be used as baseline for updates.

1.07 DETAIL SCHEDULE

- .1 Relate Detail Schedule activities to basic activities and milestones developed and approved in Master Plan.
- .2 Provide level of detail for project activities such that sequence and interdependency of Contract tasks are demonstrated and allow co-ordination and control of project activities. Show continuous flow from left to right.
- .3 Ensure detailed Project Schedule includes as minimum milestones and activity types as follows:
 - .1 Award
 - .2 Permits
 - .3 Submittals
 - .1 Project Schedule
 - .2 Shop drawings

- .3 Site Specific Health and Safety Plan
- .4 Mobilization
- .5 Work Activities by work area
- .6 Interface points with other contractor
- .7 Interim Inspections
- .8 Demonstration and Training for Departmental Representative's Staff
- .9 Site Clean-up / Demobilization
- .10 Operations and Maintenance Manual
- .11 Record Documents

1.08 REVIEW OF THE CONSTRUCTION DETAIL SCHEDULE

- .1 Allow 5 work days for review by Departmental Representative of proposed construction Detail Schedule.
- .2 Upon receipt of reviewed Detail Schedule make necessary revisions and resubmit to Departmental Representative for review within 5 work days.
- .3 Promptly provide additional information to validate practicability of Detail Schedule as required by Departmental Representative.
- .4 Submittal of Detail Schedule indicates that it meets Contract requirements and will be executed generally in sequence.

1.09 PROGRESS MONITORING AND REPORTING

- .1 On ongoing basis, monitor schedule and coordinate with other contractor(s) and the Departmental Representative to ensure both contracts are complete on schedule.
- .2 Report to Departmental Representative monthly leading up to mobilization and weekly while on site.
- .3 Report must summarize progress, defining problem areas and anticipated delays with respect to Work schedule, and critical paths. Explain alternatives for possible schedule recovery to mitigate any potential delay. Include in report:
 - .1 Description of progress made.
 - .2 Pending items and status of: shop drawings, change orders, possible time extensions.
 - .3 Status of Contract completion date and milestones.
 - .4 Current and anticipated problem areas, potential delays and corrective measures.

1.10 PROJECT MEETINGS

- .1 Discuss Project Schedule at regular site meetings, identify activities that are behind schedule and provide measures to regain slippage. Activities considered behind schedule are those with projected start or completion dates later than current approved dates shown on the baseline schedule.

Sachs Harbour Staff
House Renovation

CONSTRUCTION PROGRESS
SCHEDULE - CRITICAL PATH
METHOD (CPM)

SECT 01 32 16.06
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2 PRODUCTS

2.01 NOT USED

.1 Not used.

3 EXECUTION

3.01 NOT USED

.1 Not used.

END OF SECTION

1 GENERAL

1.01 RELATED SECTIONS

- .1 Section 01 14 00 - Work Restrictions.
- .2 Section 01 32 18 - Construction Progress Schedules - Bar (Gantt) Chart
- .3 Section 01 35 30 - Health and Safety Requirements
- .4 Section 01 78 00 - Closeout Submittals

1.02 ADMINISTRATIVE

- .1 Submit to Departmental Representative submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Do not proceed with Work affected by submittal until review is complete.
- .3 Present shop drawings, product data, samples and mock-ups in SI Metric units.
- .4 Where items or information is not produced in SI Metric units converted values are acceptable.
- .5 Review submittals prior to submission to Departmental Representative. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.
- .6 Notify Departmental Representative in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .7 Verify field measurements and affected adjacent Work are co-ordinated.
- .8 Contractor's responsibility for errors and omissions in submission is not relieved by Departmental Representative's review of submittals.
- .9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Departmental Representative review.
- .10 Keep one reviewed copy of each submission on site.

1.03 SHOP DRAWINGS AND PRODUCT DATA

- .1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.
- .2 Submit drawings stamped and signed by professional engineer registered or

- licensed in the Northwest Territories.
- .3 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been co-ordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
 - .4 Allow 14 days for Departmental Representative's review of each submission.
 - .5 Adjustments made on shop drawings by Departmental Representative are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Departmental Representative prior to proceeding with Work.
 - .6 Make changes in shop drawings as Departmental Representative may require, consistent with Contract Documents. When resubmitting, notify Departmental Representative in writing of revisions other than those requested.
 - .7 Accompany submissions with transmittal letter, containing:
 - .1 Date.
 - .2 Project title and number.
 - .3 Contractor's name and address.
 - .4 Identification and quantity of each shop drawing, product data and sample.
 - .5 Other pertinent data.
 - .8 Submissions include:
 - .1 Date and revision dates.
 - .2 Project title and number.
 - .3 Name and address of:
 - .1 Subcontractor.
 - .2 Supplier.
 - .3 Manufacturer.
 - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
 - .5 Details of appropriate portions of Work as applicable:
 - .1 Fabrication.
 - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
 - .3 Setting or erection details.
 - .4 Capacities.
 - .5 Performance characteristics.
 - .6 Standards.
 - .7 Relationship to adjacent work.
 - .9 After Departmental Representative's review, distribute copies.
 - .10 Submit electronic copy of shop drawings for each requirement requested in specification Sections and as Departmental Representative may reasonably request.
 - .11 Submit electronic copies of product data sheets or brochures for requirements requested in specification Sections and as requested by

Departmental Representative where shop drawings will not be prepared due to standardized manufacture of product.

- .12 Delete information not applicable to project.
- .13 Supplement standard information to provide details applicable to project.
- .14 If upon review by Departmental Representative no errors or omissions are discovered or if only minor corrections are made, copies will be returned and fabrication and installation of Work may proceed. If shop drawings are rejected, noted copy will be returned and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.
- .15 The review of shop drawings by the Departmental Representative is for sole purpose of ascertaining conformance with general concept.
 - .1 This review shall not mean that Departmental Representative approves detail design inherent in shop drawings, responsibility for which shall remain with Contractor submitting same, and such review shall not relieve Contractor of responsibility for errors or omissions in shop drawings or of responsibility for meeting requirements of construction and Contract Documents.
 - .2 Without restricting generality of foregoing, Contractor is responsible for dimensions to be confirmed and correlated at job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of Work of sub-trades.

1.04 OPERATION AND MAINTENANCE MANUALS

- .1 Prior to Substantial Completion of the Work, Subcontractor shall deliver to the Contractor copies of a manual presenting the operation and maintenance of the building and its equipment as specified in the Contract Documents.

1.05 RECORD DOCUMENTS

- .1 Contractor shall submit Record Documents at Substantial Completion of the Work in accordance with the Contract Documents..

1.06 CERTIFICATES AND TRANSCRIPTS

- .1 Immediately after award of Contract, submit Workers' Compensation Board status.
- .2 Submit transcription of insurance immediately after award of Contract.

1.07 REQUIRED CONTRACTOR SUBMITTALS

- .1 This Clause identifies the plans, programs, and documentation required prior to mobilization on site and during the construction phase.
- .2 **Pre-Mobilization Submittals**
 - .1 Submit the following pans and programs to the Departmental Representative for review a minimum of twenty (20) days prior to mobilization to the project site. The Contractor shall not begin any site work until the Departmental Representative has authorized

- acceptance of the submittals in writing.
- .2 The Contractor shall not construe the Departmental Representative's authorization of submittals to imply approval of any particular method or sequence for conducting the Work, or for addressing health and safety concerns. Authorization of the programs shall not relieve the Contractor from the responsibility to conduct the Work in strict accordance with the requirements of Federal or Provincial regulations, this specification, or to adequately protect the health and safety of all workers involved in the project and any members of the public who may be affected by the project. The Contractor shall remain solely responsible for the adequacy and completeness of the programs and work practices, and adherence to them.
- .1 Project schedule, detailing the schedule of the workdays required from the Contractor, subcontractors, supplier and consultants to complete each activity of the project location in order to meet stages specified in Section 01 11 00. In addition for each activity, critical elements that could impact on the schedule to be identified. Submission shall include both a paper copy of the schedule and an electronic copy in Microsoft Projects format.
- .2 Quality Control Plan in accordance with Section 01 45 00 - Quality Control.
- .3 Health and Safety Plan - The Contractor shall have a Certificate of Recognition (COR) or Registered Safety Plan (RSP) including a site specific Health and Safety Plan acceptable to the Departmental Representative. The Contractor shall implement and maintain the Health and Safety Plan during the Work.
- .4 Health and Safety Plan must include:
- .1 Contractor's safety policy
- .2 Identification of applicable compliance obligations.
- .3 Definition of responsibilities for project safety/organization chart for project
- .4 Site specific hazard assessment
- .5 General safety rules for project
- .6 Job specific work procedures.
- .7 Inspection policy and procedures.
- .8 Incident reporting and investigation policy and procedures.
- .9 Occupational Health and Safety meetings.
- .10 Occupational Health and Safety communications and record keeping procedures.
- .11 Results of safety and health risk or hazard analysis for site tasks and operation.
- .5 Submit copies of Material Safety Data Sheets (MSDS)
- .6 Medical Surveillance: where prescribed by legislation, regulation or safety program, submit certification of medical surveillance for site personnel prior to commencement of Work, and submit additional certifications for any new site personnel to Departmental Representative.
- .7 On-site Contingency and Emergency Response Plan: address standard operating procedures to be implemented during emergency situations.
- .3 The Contractor shall not begin any site Work until the Departmental Representative has authorized acceptance of the submittals in writing.

- .3 Construction Phase Submittals.
 - .1 Submit copies of incident and accident reports.

2 PRODUCTS

2.01 NOT USED

- .1 Not Used.

3 EXECUTION

3.01 NOT USED

- .1 Not Used.

END OF SECTION

1 GENERAL

1.01 RELATED REQUIREMENTS

- .1 Section 01 14 00 - Work Restrictions.
- .2 Section 01 33 00 - Submittal Procedures
- .3 Section 01 35 43 - Environmental Procedures

1.02 REFERENCES

- .1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS) Material Safety Data Sheets (MSDS)
- .3 Northwest Territories
 - .1 Workers' Safety & Compensation Commission (WSSC) - Occupational Health and Safety Regulations.
- .4 National Building Code of Canada (NBC) 2010:
 - .1 Part 8, Safety Measures at Construction and Demolition Sites.
- .5 Fire Protection Engineering Services, HRSDC:
 - .1 FCC No. 301, Standard for Construction Operations.
 - .2 FCC No. 302, Standard for Welding and Cutting.

1.03 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 Submittal Procedures.
- .2 Submit site-specific Health and Safety Plan: Within 7 days after date of Notice to Proceed and prior to commencement of Work. Health and Safety Plan must include:
 - .1 A preliminary site specific safety hazard assessment, to be updated and resubmitted to the Departmental Representative on first day contractor reaches site.
 - .2 Results of safety and health risk or hazard analysis for site tasks and operation found in work plan.
- .3 Submit copies of Contractor's authorized representative's work site health and safety inspection reports to Departmental Representative weekly.
- .4 Submit copies of reports or directions issued by Federal, Provincial and Territorial health and safety inspectors.
- .5 Submit copies of incident and accident reports.
- .6 Submit WHMIS MSDS - Material Safety Data Sheets to Departmental Representative.
- .7 Departmental Representative will review Contractor's site-specific Health and Safety Plan and provide comments to Contractor within 10 days after receipt of plan. Revise plan as appropriate and resubmit plan to Departmental

Representative within 5 days after receipt of comments from Departmental Representative.

.8 Departmental Representative's review of Contractor's final Health and Safety plan should not be construed as approval and does not reduce the Contractor's overall responsibility for construction Health and Safety.

.9 Medical Surveillance: where prescribed by legislation, regulation or safety program, submit certification of medical surveillance for site personnel prior to commencement of Work, and submit additional certifications for any new site personnel to Departmental Representative.

.10 On-site Contingency and Emergency Response Plan: address standard operating procedures to be implemented during emergency situations.

1.04 FILING ATTESTATION AND PROOF OF COMPLIANCE WITH OHS

.1 Complete and submit an Attestation and Proof of Compliance with Occupational Health and Safety as required by Parks Canada Agency.

.2 Provide copies of all notices to the Departmental Representative.

1.05 MEETINGS

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

1.06 REGULATORY REQUIREMENTS

.1 Comply with specified codes, acts, bylaws, standards and regulations to ensure safe operations at site.

.2 In event of conflict between any provision of the above authorities, the most stringent provision will apply. Should a dispute arise in determining the most stringent requirement, the Departmental Representative will advise on the course of action to be followed.

1.07 GENERAL REQUIREMENTS

.1 Develop written site-specific Health and Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.

.2 Departmental Representative may respond in writing, where deficiencies or concerns are noted and may request re-submission with correction of deficiencies or concerns.

1.08 RESPONSIBILITY

.1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.

.2 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial,

territorial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

- .3 As described in section 01 12 00 - Multiple Contract Summary there is other work happening on site which may overlap in schedule. The contractor responsible for the Paulatuk Staff House Technical work is designated as the "Prime Contractor". The "Prime Contractor" will be responsible for ensuring all people entering the work site understand and follow the Prime Contractor's Health and Safety Plan.

1.09 COMPLIANCE REQUIREMENTS

- .1 Comply with the Workers' Safety & Compensation Commission (WSSC) Occupational Health and Safety Regulations and the Safety Act.
- .2 Comply with Canada Labour Code, Canada Occupational Safety and Health Regulations.

1.10 UNFORSEEN HAZARDS

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

1.11 HEALTH AND SAFETY CO-ORDINATOR

- .1 Employ and assign to Work, competent and authorized representative as Health and Safety Co-ordinator. Health and Safety Co-ordinator must:
 - .1 Have site-related working experience specific to activities associated with roadway and bridge construction.
 - .2 Have working knowledge of occupational safety and health regulations.
 - .3 Be responsible for completing Contractor's Health and Safety Training Sessions and ensuring that personnel not successfully completing required training are not permitted to enter site to perform Work.
 - .4 Be responsible for implementing, enforcing daily and monitoring site-specific Contractor's Health and Safety Plan.
 - .5 Be on site during execution of Work and report directly to and be under direction of the site supervisor.

1.12 POSTING OF DOCUMENTS

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

1.13 CORRECTION OF NON-COMPLIANCE

- .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Departmental Representative.
- .2 Provide Departmental Representative with written report of action taken to correct non-compliance of health and safety issues identified.

- .3 Departmental Representative may stop Work if non-compliance of health and safety regulations is not corrected.

1.14 HAZARDOUS PRODUCTS

.1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage and disposal of hazardous materials, and regarding labeling and provision of Material Safety Data Sheets (MSDS) acceptable to the Departmental Representative and in accordance with the Canada Labour Code.

- .2 Where use of hazardous and toxic products cannot be avoided:

- .3 Advise Departmental Representative beforehand of the product(s) intended for use. Submit applicable MSDS and WHMIS documents as per Section 01 33 00.
- .4 Provide disposal plan or Departmental Representative's review and approval indicating intended means and methods of disposal, and removal of hazardous materials from site. Disposal plan to be in strict accordance with jurisdictional legislative and regulatory requirements.
- .5 Provide adequate means of ventilation.

1.15 ELECTRICAL SAFETY REQUIREMENTS

- .1 Comply with authorities and ensure that, when installing new facilities, all electrical personnel are completely familiar with electrical circuits and equipment and their operation.
- .2 Before undertaking any work, coordinate required energizing and de-energizing of new and existing circuits with Departmental Representative, the occupant and other contractors.
- .3 Maintain electrical safety procedures and take necessary precautions to ensure safety of all personnel working under this Contract, as well as safety of other personnel on site.

1.16 OVERLOADING

- .1 Ensure no part of work is subjected to a load which will endanger its safety or will cause permanent deformation.

1.17 FIRE SAFETY AND HOT WORK

- .1 Store oily/paint-soaked rags, waste products, empty containers and materials subject to spontaneous combustion in ULC approved, sealed containers and remove from site on a daily basis.
- .2 Handle, store, use and dispose of flammable and combustible materials in accordance with the National Fire Code of Canada.

1.18 POWDER ACTUATED DEVICES

- .1 Use powder actuated devices only after receipt of written permission from Departmental Representative.

1.19 WORK STOPPAGE

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

2 PRODUCTS

2.01 NOT USED

.1 Not used.

3 EXECUTION

3.01 NOT USED

.1 Not used.

END OF SECTION

Part 1 General

1.1 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Prior to commencing construction activities or delivery of materials to site, provide Environmental Protection Plan for review and approval by Departmental Representative.
- .3 Environmental Protection Plan must include comprehensive overview of known or potential environmental issues to be addressed during construction.
- .4 Address topics at level of detail commensurate with environmental issue and required construction tasks.
- .5 Include in Environmental Protection Plan:
 - .1 Names of persons responsible for ensuring adherence to Environmental Protection Plan.
 - .2 Names and qualifications of persons responsible for manifesting hazardous waste to be removed from site.
 - .3 Names and qualifications of persons responsible for training site personnel.
 - .4 Descriptions of environmental protection personnel training program.
 - .5 Work area plan showing proposed activity on site, identifying areas of limited use or non-use.
 - .6 Spill Control Plan to include procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.
 - .7 Non-Hazardous solid waste disposal plan identifying means and methods of disposal and removal of all solid waste materials and debris from site
 - .8 Air pollution control plan detailing provisions to assure that dust, debris, materials, and trash, are contained on project site.
 - .9 Disposal Plan identifying intended means and methods of disposal and removal of hazardous materials from site. Disposal plan to be in strict accordance with jurisdictional legislative and regulatory requirements.
 - .10 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 Federal laws and regulations for storage and handling of these materials.
 - .11 Waste Water Management Plan identifying methods and

procedures for management for discharge of waste waters which are directly derived from construction activities including, but not limited to, concrete curing water, clean-up water, dewatering of ground water, disinfection water, and hydrostatic test water.

- .12 Historical, archaeological, cultural resources biological resources and wetlands plan that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands.
- .13 Wildlife plan indentifying work procedures to ensuring local wildlife is not harassed or disturbed during the construction period.

1.2 FIRES

- .1 Fires and burning of rubbish on site is not permitted.

1.3 POLLUTION CONTROL

- .1 Maintain temporary erosion and pollution control features installed under this Contract.
- .2 Control emissions from equipment in accordance with jurisdictional authorities' emission requirements.
- .3 Cover or wet down dry materials and rubbish to prevent blowing dust and debris.

1.4 HISTORICAL/ARCHAEOLOGICAL CONTROL

- .1 Provide historical, archaeological, cultural resources, biological resources, and wetlands plan that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands known to be on project site: and identifies procedures to be followed if historical archaeological, cultural resources, biological resources and wetlands not previously known to be onsite or in area are discovered during construction.
- .2 Excavations to be carried out to minimum requirements. Departmental Representative to be present during excavation work.
- .3 Plan: include methods to assure protection of known or discovered resources and identify lines of communication between Contractor personnel and Departmental Representative.
- .4 If a historical artifact is uncovered as part of this work, the Contractor shall:
 - .1 Stop Work immediately
 - .2 Notify the Departmental Representative's Representative
 - .3 Resume the Work upon the approval of the Departmental Representative's Representative

1.5 NOTIFICATION

- .1 Owner will notify Contractor in writing of observed noncompliance with Federal environmental laws or regulations, permits, and other elements of Contractor's Environmental Protection plan.
- .2 Contractor: after receipt of such notice, inform Owner of proposed corrective action and take such action for approval by Owner.
- .3 Owner will issue stop order of work until satisfactory corrective action has been taken.

Part 2 Product

2.1 NOT USED

Part 3 Execution

3.1 CLEANING

- .1 Progress Cleaning:
 - .1 Clean site in accordance with Section 01 74 11- Cleaning
 - .2 Leave Work area clean at end of each day.
 - .3 Ensure waterways remain free of waste and volatile materials disposal.
- .2 Final Cleaning:
 - .1 Upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 21 - Construction and Demolition Waste Management and Disposal.

END OF SECTION

1 GENERAL

1.01 RELATED REQUIREMENTS

- .1 Section 01 73 00 - Execution.

1.02 REFERENCES AND CODES

- .1 Perform Work in accordance with National Building Code of Canada (NBC) including amendments up to tender closing date and other codes of provincial or local application provided that in case of conflict or discrepancy, more stringent requirements apply.
- .2 Meet or exceed requirements of:
 - .1 Contract documents.
 - .2 Specified standards, codes and referenced documents.

1.03 HAZARDOUS MATERIAL DISCOVERY

- .1 Asbestos: demolition of spray or trowel-applied asbestos is hazardous to health. Stop work immediately when material resembling spray or trowel-applied asbestos is encountered during demolition work. Notify [Departmental Representative]. Refer to Section [02 82 00.01 - Asbestos Abatement - Minimum Precautions].
- .2 PCB: Polychlorinated Biphenyl: stop work immediately when material resembling Polychlorinated Biphenyl is encountered during demolition work. Notify [Departmental Representative]. Refer to Section [02 84 00 - Polychlorinate Biphenyl Remediation].
- .3 Mould: stop work immediately when material resembling mould is encountered during demolition work. Notify [Departmental Representative]. Refer to Section [02 85 00.01 - Mould Remediation - Minimum Precautions].

2 PRODUCTS

2.01 NOT USED

- .1 Not Used.

3 EXECUTION

3.01 NOT USED

- .1 Not Used.

END OF SECTION

1 GENERAL

1.01 REFERENCES

- .1 Within text of each specifications section, reference may be made to reference standards.
- .2 Conform to these reference standards, in whole or in part as specifically requested in specifications.
- .3 If there is question as to whether products or systems are in conformance with applicable standards, Departmental Representative reserves right to have such products or systems tested to prove or disprove conformance.
- .4 Cost for such testing will be born by Departmental Representative in event of conformance with Contract Documents or by Contractor in event of non-conformance.
- .5 Conform to latest date of issue of referenced standards in effect on date of submission of Tenders, except where specific date or issue is specifically noted.

1.02 QUALITY

- .1 Products, materials, equipment and articles incorporated in Work shall be new, not damaged or defective, and of best quality for purpose intended. If requested, furnish evidence as to type, source and quality of products provided.
- .2 Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility, but is precaution against oversight or error. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
- .3 Should disputes arise as to quality or fitness of products, decision rests strictly with Departmental Representative based upon requirements of Contract Documents.

1.03 AVAILABILITY

- .1 Immediately upon signing Contract, review product delivery requirements and anticipate foreseeable supply delays for items. If delays in supply of products are foreseeable, notify Departmental Representative of such, in order that substitutions or other remedial action may be authorized in ample time to prevent delay in performance of Work.
- .2 In event of failure to notify Departmental Representative at commencement of Work and should it subsequently appear that Work may be delayed for such reason, Departmental Representative reserves right to substitute more readily available products of similar character, at no increase in Contract Price or Contract Time.

1.04 STORAGE, HANDLING AND PROTECTION

- .1 Handle and store products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions when applicable.
- .2 Store packaged or bundled products in original and undamaged condition with manufacturer's seal and labels intact. Do not remove from packaging or bundling until required in Work.
- .3 Store products subject to damage from weather in weatherproof enclosures.
- .4 Store cementitious products clear of earth or concrete floors, and away from walls.
- .5 Keep sand, when used for grout or mortar materials, clean and dry. Store sand on wooden platforms and cover with waterproof tarpaulins during inclement weather.
- .6 Store sheet materials, lumber and miscellaneous metals on flat, solid supports and keep clear of ground. Slope to shed moisture.
- .7 Store and mix paints in heated and ventilated room. Remove oily rags and other combustible debris from site daily. Take every precaution necessary to prevent spontaneous combustion.
- .8 Remove and replace damaged products at own expense and to satisfaction of Departmental Representative.
- .9 Touch-up damaged factory finished surfaces to Departmental Representative's satisfaction. Use touch-up materials to match original. Do not paint over name plates.

1.05 TRANSPORTATION

- .1 Pay costs of transportation of products required in performance of Work.

1.06 MANUFACTURER'S INSTRUCTIONS

- .1 Unless otherwise indicated in specifications, install or erect products in accordance with manufacturer's instructions. Do not rely on labels or enclosures provided with products. Obtain written instructions directly from manufacturers.
- .2 Notify Departmental Representative in writing, of conflicts between specifications and manufacturer's instructions, so that Departmental Representative will establish course of action.
- .3 Improper installation or erection of products, due to failure in complying with these requirements, authorizes Departmental Representative to require removal and re-installation at no increase in Contract Price or Contract Time.

1.07 QUALITY OF WORK

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

1.08 CO-ORDINATION

- .1 Ensure co-operation of workers in laying out Work. Maintain efficient and continuous supervision.
- .2 Be responsible for coordination and placement of openings, sleeves and accessories.

1.09 CONCEALMENT

- .1 In finished areas conceal pipes, ducts and wiring in floors, walls and ceilings, except where indicated otherwise.
- .2 The Departmental Representative will inspect all work prior to concealment. The Contractor shall notify the Departmental Representative 24 hours before any closing up work for inspection.

1.10 REMEDIAL WORK

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

1.11 FASTENINGS

- .1 Provide metal fastenings and accessories in same texture, colour and finish as adjacent materials, unless indicated otherwise.
- .2 Prevent electrolytic action between dissimilar metals and materials.
- .3 Use non-corrosive hot dip galvanized steel fasteners and anchors for securing exterior work, unless stainless steel or other material is specifically requested in affected specification Section.
- .4 Space anchors within individual load limit or shear capacity and ensure they provide positive permanent anchorage. Wood, or any other organic material plugs are not acceptable.
- .5 Keep exposed fastenings to a minimum, space evenly and install neatly.

.6 Fastenings which cause spalling or cracking of material to which anchorage is made are not acceptable.

1.12 PROTECTION OF WORK IN PROGRESS

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

1.13 FASTENINGS - EQUIPMENT

.1 Use fastenings of standard commercial sizes and patterns with material and finish suitable for service.

.2 Use heavy hexagon heads, semi-finished unless otherwise specified. Use No. 304 stainless steel for exterior areas.

.3 Bolts may not project more than one diameter beyond nuts.

.4 Use plain type washers on equipment, sheet metal and soft gasket lock type washers where vibrations occur. Use resilient washers with stainless steel.

1.14 PROTECTION OF WORK IN PROGRESS

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

1.15 EXISTING UTILITIES

.1 When breaking into or connecting to existing services or utilities, execute Work at times directed by local governing authorities, with minimum of disturbance to Work, and/or building occupants.

.2 Protect, relocate or maintain existing active services. When services are encountered, cap off in manner approved by authority having jurisdiction. Stake and record location of capped service.

2 PRODUCTS

2.01 NOT USED

.1 Not Used.

3 EXECUTION

3.01 NOT USED

.1 Not Used.

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END OF SECTION

1 GENERAL

1.01 RELATED REQUIREMENTS

- .1 Section 01 12 00 - Summary of work.
- .1 Section 01 33 00 - Submittal Procedures
- .2 Section 01 41 00 - Regulatory Requirements

1.02 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submittals: in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit written request in advance of cutting or alteration which affects:
 - .1 Structural integrity of elements of project.
 - .2 Integrity of weather-exposed or moisture-resistant elements.
 - .3 Efficiency, maintenance, or safety of operational elements.
 - .4 Visual qualities of sight-exposed elements.
 - .5 Work of Owner or separate contractor.
- .3 Include in request:
 - .1 Identification of project.
 - .2 Location and description of affected Work.
 - .3 Statement on necessity for cutting or alteration.
 - .4 Description of proposed Work, and products to be used.
 - .5 Alternatives to cutting and patching.
 - .6 Effect on Work of Owner or separate contractor.
 - .7 Written permission of affected separate contractor.
 - .8 Date and time work will be executed.

1.03 MATERIALS

- .1 Required for original installation.
- .2 Change in Materials: Submit request for substitution in accordance with Section 01 33 00 - Submittal Procedures.

1.04 PREPARATION

- .1 Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
- .2 After uncovering, inspect conditions affecting performance of Work.
- .3 Beginning of cutting or patching means acceptance of existing conditions.
- .4 Provide supports to assure structural integrity of surroundings; provide devices and methods to protect other portions of project from damage.
- .5 Provide protection from elements for areas which are to be exposed by uncovering work; maintain excavations free of water.

1.05 EXECUTION

- .1 Execute cutting, fitting, and patching to complete Work.
- .2 Fit several parts together, to integrate with other Work.
- .3 Uncover Work to install ill-timed Work.
- .4 Remove and replace defective and non-conforming Work.
- .5 Provide openings in non-structural elements of Work for penetrations of mechanical and electrical Work.
- .6 Execute Work by methods to avoid damage to other Work, and which will provide proper surfaces to receive patching and finishing.
- .7 Employ original installer to perform cutting and patching for weather-exposed and moisture-resistant elements, and sight-exposed surfaces.
- .8 Cut rigid materials using masonry saw or core drill. Pneumatic or impact tools not allowed on masonry work without prior approval.
- .9 Restore work with new products in accordance with requirements of Contract Documents.
- .10 Fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- .11 Refinish surfaces to match adjacent finishes: Refinish continuous surfaces to nearest intersection. Refinish assemblies by refinishing entire unit.
- .12 Conceal pipes, ducts and wiring in floor, wall and ceiling construction of finished areas except where indicated otherwise.

1.06 WASTE MANAGEMENT AND DISPOSAL

- .1 Disposal of all non-hazardous construction materials in accordance with local regulations.
- .2 Dispose of hazardous waste materials in accordance with applicable federal and provincial acts, regulations, and guidelines.

2 PRODUCTS

2.01 NOT USED

- .1 Not Used.

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EXECUTION

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3 EXECUTION

3.01 NOT USED

.1 Not Used.

END OF SECTION

1 GENERAL

1.01 RELATED REQUIREMENTS

- .1 Section 01 11 00 - Summary of work.

1.02 PROJECT CLEANLINESS

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris, other than that caused by Owner or other Contractors.
- .2 Remove waste materials from site at daily regularly scheduled times or dispose of as directed by Departmental Representative. Do not burn waste materials on site, unless approved by Departmental Representative.
- .3 Clear snow and ice from access to building, bank/pile snow in designated areas only.
- .4 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .5 Provide on-site containers for collection of waste materials and debris.
- .5 Clean interior areas prior to start of finishing work, and maintain areas free of dust and other contaminants during finishing operations.
- .6 Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .7 Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.
- .8 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- .9 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

1.03 FINAL CLEANING

- 2 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .1 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
- .2 Prior to final review remove surplus products, tools, construction machinery and equipment.
- .3 Remove waste products and debris including that caused by Owner or other Contractors.
- .4 Make arrangements with and obtain permits from authorities having

jurisdiction for disposal of waste and debris.

- .5 Clean and polish glass, mirrors, hardware, wall tile, stainless steel, chrome, porcelain enamel, baked enamel, plastic laminate, and mechanical and electrical fixtures. Replace broken, scratched or disfigured glass.
- .6 Remove stains, spots, marks and dirt from decorative work, electrical and mechanical fixtures, furniture fitments, walls, and floors.
- .7 Clean lighting reflectors, lenses, and other lighting surfaces.
- .8 Vacuum clean and dust building interiors, behind grilles, louvres and screens.
- .9 Wax, seal, shampoo or prepare floor finishes, as recommended by manufacturer.
- .10 Inspect finishes, fitments and equipment and ensure specified workmanship and operation.
- .11 Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds.
- .12 Remove dirt and other disfiguration from exterior surfaces.
- .13 Clean equipment and fixtures to sanitary condition; clean or replace filters of mechanical equipment.
- .14 Remove debris and surplus materials from crawl areas and other accessible concealed spaces.
- .15 Remove snow and ice from access to building.

2 PRODUCTS

2.01 NOT USED

- .1 Not Used.

3 EXECUTION

3.01 NOT USED

- .1 Not Used.

END OF SECTION

1 GENERAL

1.01 RELATED REQUIREMENTS

- .1 Section 01 74 11 - Cleaning.
- .2 Section 01 78 00 - Closeout Submittals.

1.03 ADMINISTRATIVE REQUIREMENTS

- .1 Acceptance of Work Procedures:
 - .1 Contractor's Inspection: Contractor: conduct inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.
 - .1 Notify Departmental Representative in writing of satisfactory completion of Contractor's inspection and submit verification that corrections have been made.
 - .2 Request Departmental Representative inspection.
 - .2 Departmental Representative Inspection:
 - .1 Departmental Representative and Contractor to inspect Work and identify defects and deficiencies.
 - .2 Contractor to correct Work as directed.
 - .3 Final Inspection:
 - .1 When completion tasks are done, request final inspection of Work by Departmental Representative, and Contractor.
 - .2 When Work incomplete according to Departmental Representative, complete outstanding items and request re-inspection.

1.04 FINAL CLEANING

- .1 Clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Remove surplus materials, excess materials, rubbish, tools and equipment.

2 PRODUCTS

2.01 NOT USED

- .1 Not Used.

3 EXECUTION

3.01 NOT USED

- .1 Not Used.

END OF SECTION

1 GENERAL

1.01 RELATED REQUIREMENTS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 77 00 - Closeout Procedures

1.02 AS -BUILT DOCUMENTS AND SAMPLES

- .1 Maintain, in addition to requirements in General Conditions, at site for Departmental Representative one record copy of:
 - .1 Reference drawings
 - .2 Specifications.
 - .3 Addenda.
 - .4 Change Orders and other modifications to Contract.
 - .5 Reviewed shop drawings, product data, and samples.
 - .6 Manufacturer's certificates.
- .2 Store record documents and samples in field office apart from documents used for construction.
- .3 Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual.
 - .1 Label each document "PROJECT RECORD" in neat, large, printed letters.
- .4 Maintain record documents in clean, dry and legible condition.
 - .1 Do not use record documents for construction purposes.
- .5 Keep record documents and samples available for inspection by Departmental Representative.

1.03 RECORDING INFORMATION ON PROJECT RECORD DOCUMENTS

- .1 Record information on set of black line opaque reference drawings, and in copy of Project Manual.
- .2 Record information concurrently with construction progress.
 - .1 Do not conceal Work until required information is recorded.
- .3 Reference Drawings and shop drawings: mark each item to record actual construction, including:
 - .1 Field changes of dimension and detail.
 - .2 Changes made by change orders.
 - .3 Details not on original Reference Drawings.
 - .4 References to related shop drawings and modifications.
- .4 Specifications: mark each item to record actual construction, including:
 - .1 Changes made by Addenda and change orders.
- .5 Provide digital photos, if requested, for site records.

1.04 WARRANTIES AND BONDS

- .1 Submit, warranty information made available during construction phase, to Departmental Representative for approval prior to each monthly pay estimate.
- .2 Assemble approved information in binder, submit upon acceptance of work and organize binder as follows:
 - .1 Separate each warranty or bond with index tab sheets keyed to Table of Contents listing.
 - .2 List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
 - .3 Obtain warranties and bonds, executed in duplicate by subcontractors, suppliers, and manufacturers.
 - .4 Verify that documents are in proper form, contain full information, and are notarized.
 - .5 Co-execute submittals when required.
 - .6 Retain warranties and bonds until time specified for submittal.
- .3 Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial Performance is determined.

1.05 EQUIPMENT AND SYSTEMS

- .1 For each item of equipment and each system include description of unit or system, and component parts.
 - .1 Give function, normal operation characteristics and limiting conditions.
 - .2 Include performance curves, with engineering data and tests, and complete nomenclature and commercial number of replaceable parts.
- .2 Panel board circuit directories: provide electrical service characteristics, controls, and communications.
- .3 Include installed colour coded wiring diagrams.
- .4 Operating Procedures: include start-up, break-in, and routine normal operating instructions and sequences.
 - .1 Include regulation, control, stopping, shut-down, and emergency instructions.
 - .2 Include summer, winter, and any special operating instructions.
- .5 Maintenance Requirements: include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- .6 Provide servicing and lubrication schedule, and list of lubricants required.
- .7 Include manufacturer's printed operation and maintenance instructions.
- .8 Include sequence of operation by controls manufacturer.
- .9 Provide original manufacturer's parts list, illustrations, assembly

drawings, and diagrams required for maintenance.

- .10 Provide installed control diagrams by controls manufacturer.
- .11 Provide Contractor's co-ordination drawings, with installed colour coded piping diagrams.
- .12 Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- .13 Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- .14 Aboveground storage tank inspection documentation, registration, forms, decommissioning and removal in accordance with CEPA SOR/2008-197.
- .15 Additional requirements: as specified in individual specification sections.

2 PRODUCTS

2.01 NOT USED

- .1 Not Used.

3 EXECUTION

3.01 NOT USED

- .1 Not Used.

END OF SECTION

1 GENERAL

1.01 RELATED REQUIREMENTS

- .1 Section 01 33 00 - Submittal Procedures
- .2 Section 01 41 00 - Regulatory Requirements

1.02 REFERENCES

- .1 American Conference of Governmental Industrial Hygienists (ACGIH),
Bioaerosols Assessment and Control 1999.
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .3 New York City Department of Health - Bureau of Environmental and Occupational
Disease Epidemiology's Guidelines on the Assessment and Remediation of Fungi
in Indoor Environment 2000
- .4 United States Department of Labor Occupational Safety and Health
Administration (OSHA)
 - .1 29 CFR 1910.134 - Respiratory Protection.
 - .2 29 CFR 1910.1200 - Hazard Communication.
- .5 United States Environmental Protection Agency (EPA), Mould Remediation in
Schools and Commercial Buildings, 2001.

1.03 DEFINITIONS

- .1 Cleaning solution: detergent solution.
- .2 Competent person: individuals Departmental Representative who can
demonstrate that mould remediation training has been obtained, is capable
of identifying existing microbial hazards in workplace and selecting
appropriate control strategy for microbial exposure.
- .3 Contractor: remediation contractor providing demolition and removal
services as defined in specification.
- .4 Fibre reinforced polyethylene sheet (FRPS): rip-proof fibre reinforced
polyethylene sheet sheeting with added fibre reinforced adhesive tape along
edges.
- .5 HEPA vacuum: High Efficiency Particulate Air filtered vacuum equipment with
filter system capable of collecting and retaining particles greater than
0.3 microns in any direction at 99.97% efficiency.
- .6 HVAC: heating ventilating and air-conditioning systems which serve occupied
areas. Includes but is not limited to air handling units, duct work, terminal
boxes and vents.
- .7 Mould Contaminated Work Area: specific area or location where actual work
is being performed or such other areas of a facility where it has been

determined that it may be hazardous to public health as result of mould remediation.

- .8 Occupied Area: areas of building or work site that is outside of Mould Contaminated Work Area.
- .9 PPE: Personnel Protection Equipment.
- .10 Sprayer: garden reservoir type sprayer or airless spray equipment capable of producing mist or fine spray. Must have a minimum of six litres capacity for work.

1.04 REGULATORY REQUIREMENTS

- .1 Comply with regulations in effect at time work is performed. In case of conflict among these requirements or with these specifications the more stringent requirement applies. If no regulations exist, follow guidelines most widely accepted by recognized professional organizations such as occupational hygienists, health professionals or environmental engineers as listed in paragraph 1.2 References.

1.05 CLOSEOUT SUBMITTALS

- .1 Maintain general log to provide permanent record of project. Maintain logs and other required documentation as part of permanent project file.

1.06 INSTRUCTION AND TRAINING

- .1 Before commencing work, provide to Departmental Representative satisfactory proof that every worker has had instruction and training in potential health hazards of mould exposure, handling of hazardous materials, and in use of disposable respirators and protective clothing. This training can be performed as part of program to comply with requirements of OSHA Hazard Communication Standard 29 CFR 1910.1200 or equivalent.
- .2 Instruction and training must be provided by designated construction safety advisor.

1.07 WORKER PROTECTION

- .1 Non-powered disposable filter-type respirator of type N95 OSHA 29 CFR 1910.134 or equivalent, suitable for protection against mould and acceptable to Territorial Authority having jurisdiction.
- .2 Gloves and eye protection.
- .3 Disposable paper coveralls are recommended.
- .4 No person required to enter Mould Contaminated Work Area to have facial hair that affects seal between respirator and face.
- .5 Eating, drinking and chewing are not permitted in Mould Contaminated Work Area.

- .6 Before leaving Mould Contaminated Work Area, dispose of protective clothing as waste as specified.
- .7 Ensure workers wash hands and face after leaving Mould Contaminated Work Area.

2 PRODUCTS

2.01 MATERIALS

- .1 Drop Sheets: 0.15 mm thick woven fibre reinforced fabric bonded both sides with fibre reinforced polyethylene sheet.
- .2 Disposal bags: dust-tight 0.15 mm clear polyethylene waste bags.
- .3 Wetting Agent: water to mist mould-containing material.
- .4 Cleaning solution: detergent solution for damp wipe and/or mop.
- .5 Fibre reinforced adhesive tape: used in sealing joints of fibre reinforced polyethylene sheets and for attachment of fibre reinforced polyethylene sheet to finished and unfinished surfaces. Fibre reinforced adhesive tape must be capable of adhering under both dry and wet conditions.
- .6 Materials: provide materials such as fibre reinforced polyethylene sheeting, lumber, nails, and hardware necessary to construct and dismantle barriers that isolate Mould Contaminated Work Area.

2.02 TOOLS AND EQUIPMENT

- .1 Tools and equipment: suitable for use with microbial contamination and must be able to withstand de-contamination.
- .2 Personnel protective equipment (protective clothing, disposable respirators): provided in sufficient quantities for duration of project.
- .3 Vacuum cleaners: equipped with HEPA filters.

3 EXECUTION

3.01 PREPARATION OF MOULD WORK AREA (<1 TO 3 SQUARE METRES IN OCCUPIED SPACE)

- .1 Mould Contaminated Work Area and areas adjacent and around area: to be unoccupied. Vacating people from spaces adjacent to Mould Work Area is not necessary but is recommended in case of infants (less than 12 months old), elderly people, persons having undergone recent surgery, immune suppressed people or people with chronic inflammatory lung diseases.
- .1 Clean movable objects within proposed Mould Contaminated Work Area using HEPA filtered vacuum equipment, damp wipe surfaces and remove such objects from Mould Contaminated Work Area to secure and clean area.
- .2 Remove visible dust from surfaces in Mould Contaminated Work Area where

dust is likely to be disturbed during course of work. Use HEPA vacuum and damp wipe area.

- .3 Do not use compressed air to clean up or remove dust from surfaces.
- .4 Seal off return air grills in Mould Contaminated Work Area with fibre reinforced polyethylene sheeting and fibre reinforced adhesive tape to minimize migration of contaminants to other parts of building.
- .5 Use 0.15 mm fibre reinforced polyethylene drop sheets tightly sealed with fibre reinforced adhesive tape over flooring in Mould Contaminated Work Areas.

3.02 PREPARATION OF MOULD WORK AREA (< 1 SQUARE METRE IN HVAC SYSTEM)

- .1 HVAC systems: to be shut down prior to remedial activities.
- .2 Take necessary precautions to ensure that components of HVAC systems are not contaminated during remediation. Remove and bag filters.
- .3 Barriers: to be erected around Mould Contaminated Work Area before remediation using a single layer of 0.15 mm fibre reinforced polyethylene sheeting affixed to floor and ceiling with fibre reinforced adhesive tape, with slit entry and covering flap, to contain dust and debris.
- .4 Use 0.15 mm fibre reinforced polyethylene drop sheets tightly sealed to floor with fibre reinforced adhesive tape to minimize dust and contamination.

3.03 MICROBIAL REMEDIATION MOULD WORK AREA (<1 TO 3 SQUARE METRES IN OCCUPIED SPACE)

- .1 Use sprayer (low-velocity, fine-mist) to mist (not wet) materials containing mould to be cut. Perform work in a manner to reduce dust creation to lowest levels practicable.
- .2 Non-porous and semi-porous materials can be cleaned using detergent solution and reused depending on depth to which microbial growth has penetrated substrate. Wood to be discarded if fungal growth has affected its soundness.
- .3 Porous materials insulation or wallboards with more than small area of mould contamination and/or dampness to be removed, discarded and replaced.
- .4 Porous materials identified as lightly contaminated that can be cleaned by washing can be reused, but to be discarded and replaced if possible.
- .5 Dispose of contaminated building materials as specified.
- .6 During remediation, should Departmental Representative suspect contamination of areas outside Mould Contaminated Work Area, contractor to stop remediation work and immediately decontaminate these affected areas. Eliminate causes of such contamination. Unprotected individuals are prohibited from entering contaminated

areas until a visual inspection determines areas are free from contamination.

- .7 Notify Departmental Representative of mould contaminated material discovered during work and not apparent from drawings, specifications or report pertaining to work. Do not disturb such material pending instructions from Departmental Representative.

3.04 MICROBIAL REMEDIATION MOULD WORK AREA (< 1 SQUARE METRE IN HVAC SYSTEM)

- .1 Use sprayer (low-velocity, fine-mist) to mist (not wet) materials containing mould to be cut scraped. Perform work in a manner to reduce dust creation to lowest levels practicable.
- .2 Porous materials in HVAC systems such as insulation of interior lined ducts and filters must be removed to bare (underlying) metal and materials properly discarded.
- .3 Dispose of contaminated building materials as specified.
- .4 During remediation, should Departmental Representative suspect contamination of areas outside Mould Work Area, contractor to stop remediation work and immediately decontaminate these affected areas. Eliminate causes of such contamination. Unprotected individuals shall be prohibited from entering contaminated areas until visual inspection determines the areas are free from contamination.
- .5 Notify Departmental Representative of mould contaminated material discovered during work and not apparent from drawings, specifications, or report pertaining to work. Do not disturb such material pending instructions from Departmental Representative DCC Representative Consultant.
- .6 Submit Material Safety Data Sheet for biocides and use as recommended by HVAC manufacturer with HVAC components.

3.05 REPAIR AND CLEAN-UP

- .1 Clean, frequently during work and immediately after completion of work, Mould Contaminated Work Area using a HEPA vacuum and/or by damp mopping with cleaning solution.
- .2 Perform restoration of designated Mould Contaminated Work Area as specifies.
- .3 Leave areas dry and visibly free from contamination, debris and dust.
- .4 Perform final thorough clean-up of work areas and adjacent areas affected by work using HEPA vacuum and/or damp mopping with detergent solution.

3.06 WASTE DISPOSAL

- .1 Place dust and mould-containing waste in doubled-bagged dust-tight 0.15 mm clear polyethylene waste bags. Treat drop sheets and disposable protective clothing as waste; fold these items to contain dust, and place in plastic bags. Securely seal bags.

- .2 Clean exterior of each waste-filled bag using damp cloths and cleaning solution or HEPA vacuum prior to removal from Mould Contaminated Work Area.
- .3 Remove waste bags from site and dispose. There is no special requirements for disposal of mouldy materials, as such they can be disposed of in landfill.

3.07 RE-ESTABLISHMENT OF OBJECTS AND SYSTEMS

- .1 Relocate objects moved to temporary locations to their proper positions. Ensure objects are cleaned before been moved into cleaned areas.
- .2 Remount objects removed to former positions.
- .3 Reinstall filters in HVAC systems.
- .4 Re-establish mechanical and electrical systems to proper working order.

3.08 FINAL CLEARANCE

- .1 Departmental Representative to conduct thorough visual inspection to detect visible accumulations of dust or bulk materials remaining in work area. Should dust, debris, microbial contamination, or residue be detected repeat cleaning until area meets approval.

END OF SECTION

1 GENERAL

1.01 RELATED REQUIREMENTS

- .1 SOW Paulatuk Staff House - Technical.

1.02 REFERENCES

- .1 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .2 The Master Painters Institute (MPI)
 - .1 Maintenance Repainting Manual 2004, Master Painters Institute (MPI), including Identifiers, Evaluation, Systems, Preparation and Approved Product List.

1.03 QUALITY ASSURANCE

- .1 Conform to latest MPI requirements for exterior repainting work including cleaning, preparation and priming.
- .2 Materials (primers, paints, coatings, varnishes, stains, lacquers, fillers, thinners, and solvents) to be in accordance with the latest edition of the MPI Approved Product List and to be from a single manufacturer for each system used.
- .3 Paint materials such as linseed oil, shellac, and turpentine, to be the highest quality product of an approved manufacturer listed in MPI Maintenance Repainting Manual and shall be compatible with other coating materials as required.
- .4 Retain purchase orders, invoices and other documents to prove conformance with noted MPI requirements when requested by Departmental Representative.

1.04 SCHEDULING

- .1 Schedule repainting operations to prevent disruption by other trades if applicable and by occupants in and about building.

1.05 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Provide product data and manufacturer's installation/application instructions for paints and coating products to be used.

1.06 DELIVERY, STORAGE AND HANDLING

- .1 Packing, shipping, handling and unloading:
- .2 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements, supplemented as follows:
 - .1 Deliver and store materials in original containers, sealed,

- with labels intact.
- .2 Labels to indicate:
 - .1 Manufacturer's name and address.
 - .2 Type of paint or coating.
 - .3 Compliance with applicable standard.
 - .4 Colour number in accordance with established colour schedule.
- .3 Remove damaged, opened and rejected materials from site.
- .4 Store and handle in accordance with manufacturer's recommendations.
- .5 Store materials and equipment in secure, dry, well-ventilated area with temperature range between 7 degrees C to 30 degrees C. Store materials and supplies away from heat generating devices and sensitive products above minimum temperature as recommended by manufacturer.
- .6 Remove paint materials from storage in quantities required for same day use.
- .7 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling storage, and disposal of hazardous materials.
- .8 Fire Safety Requirements:
 - .1 Provide one 9 kg Type ABC fire extinguisher adjacent to storage area.
 - .2 Store oily rags, waste products, empty containers and materials subject to spontaneous combustion in ULC approved, sealed containers and remove from site daily.
 - .3 Handle, store, use and dispose of flammable and combustible materials in accordance with National Fire Code of Canada.
- .1 Waste Management and Disposal:
 - .1 Paint, stain and wood preservative finishes and related materials are hazardous products and are subject to regulations for disposal. Information on these controls can be obtained from Provincial Ministries of Environment and Regional levels of Government.
 - .2 Materials that cannot be reused must be treated as hazardous waste and disposed of in an appropriate manner.
 - .3 Place materials defined as hazardous or toxic waste, including used sealant and adhesive tubes and containers, in containers or areas designated for hazardous waste.
 - .4 To reduce the amount of contaminants entering waterways, sanitary/storm drain systems or into the ground the following procedures shall be strictly adhered to:
 - .1 Retain cleaning water for water-based materials to allow sediments to be filtered out. In no case shall equipment be cleaned using free draining water.
 - .2 Retain cleaners, thinners, solvents and excess paint and place in designated containers and ensure proper disposal.
 - .3 Return solvent and oil soaked rags used during painting operations for contaminant recovery, proper disposal, or appropriate cleaning and laundering.
 - .4 Dispose of contaminants in an approved legal manner in accordance with hazardous waste regulations.
 - .5 Empty paint cans are to be dry prior to disposal or recycling (where available).

- .6 Close and seal tightly partly used cans of materials including sealant and adhesive containers and store protected in well ventilated fire-safe area at moderate temperature.
- .5 Where paint recycling is available, collect waste paint by type and provide for delivery to recycling or collection facility.

1.07 AMBIENT CONDITIONS

- .1 Temperature, Humidity and Substrate Moisture Content Levels:
 - .1 Unless specifically pre-approved by specifying body, Paint Inspection Agency and, applied product manufacturer.
 - .2 Do not perform repainting work when:
 - .1 Ambient air and substrate temperatures are below 10 degreesC.
 - .2 Substrate temperature is over 32 degrees C unless paint is specifically formulated for application at high temperatures.
 - .3 Substrate and ambient air temperatures are expected to fall outside paint manufacturer's prescribed limits.
 - .4 Relative humidity is above 85% or when dew point is less than 3degrees C variance between air/surface temperature.
 - .5 Rain or snow is forecast to occur before paint has thoroughly cured.
 - .6 It is foggy, misty, raining or snowing at site.
- .2 Application Requirements:
 - .5 Apply paint finish in areas where dust is no longer being generated by related construction operations or when wind conditions are such that airborne particles will affect quality of finished surface.
 - .6 Apply paint to adequately prepared surfaces and to surfaces within moisture limits noted.
 - .7 Apply paint when previous coat of paint is dry or adequately cured, unless otherwise pre-approved by specific coating manufacturer.
 - .8
 - .9 Do not apply paint when:
 - .1 Temperature is expected to drop below 5 degrees C before paint has thoroughly cured.
 - .2 Substrate and ambient air temperatures are expected to fall outside MPI or paint manufacturer's limits.
 - .3 Surface to be painted is wet, damp or frosted.
 - .10 Provide and maintain cover when paint must be applied in damp or cold weather. Heat substrates and surrounding air to comply with temperature and humidity conditions specified by manufacturer. Protect until paint is dry or until weather conditions are suitable.
 - .11 Schedule repainting operations such that surfaces exposed to direct, intense sunlight are scheduled for completion when not exposed to direct sun.
 - .12 Remove paint from areas which have been exposed to freezing, excess humidity, rain, snow or condensation. Prepare surface again and repaint.

2 PRODUCTS

2.01 MATERIALS

- .1 Paint and coatings listed in latest edition of MPI Approved Product List (APL) are acceptable for use on this project.
- .2 Paints, coatings, thinners, solvents, cleaners and other fluids used in repainting to be as follows:
 - .1 Not contain methylene chloride, chlorinated hydrocarbons, toxic metal pigments.
 - .2 Be manufactured without compounds which contribute to ozone depletion in upper atmosphere.
 - .3 Be manufactured without compounds which contribute to smog in lower atmosphere.
 - .4 Be manufactured where matter generating 'Biochemical Oxygen Demand' (BOD) in undiluted production plant effluent discharged to natural watercourse or sewage treatment facility lacking secondary treatment does not exceed 15 mg/L.
 - .5 Be manufactured where total suspended solids (TSS) content in undiluted production plant effluent discharged to natural watercourse or sewage treatment facility lacking secondary treatment does not exceed 15 mg/L.
- .3 Paints and coatings must be manufactured and transported in a manner that steps of processes, including disposal of waste products, will meet requirements of applicable governmental acts, by-laws and regulations including, for facilities located in Canada, Fisheries Act and Canadian Environmental Protection Act (CEPA).
- .4 Paints and coatings must not be formulated or manufactured with formaldehyde, halogenated solvents, mercury, lead, cadmium, hexavalent chromium or their compounds.

2.02 COLOURS

- .1 Semi transparent brown.

2.03 MIXING AND TINTING

- .1 Perform colour tinting operations prior to delivery of paint to site.
- .2 Where thinner is used, addition not to exceed paint manufacturer's recommendations. Do not use kerosene or such organic solvents to thin water-based paints.
- .3 Thin paint for spraying in accordance with paint manufacturer's instructions. If directions are not on container, obtain instructions in writing from manufacturer and provide copy of instructions to Departmental Representative DCC Representative Consultant Project Manager.
- .4 Re-mix paint in containers prior to and during application to ensure break-up of lumps, complete dispersion of settled pigment, and colour

and gloss uniformity.

2.04 EXTERIOR PAINTING SYSTEMS

- .1 REX 6.2 - Dimension Lumber: (columns, beams, exposed joists, underside of decking, siding, and fencing).
 - .1 REX 6.2E - Semi-Transparent Stain.
- .1 REX 6.3 - Dressed Lumber: (doors, door and window frames, casings, battens, and smooth fascias).
 - .1 REX 6.3D - Semi-Transparent Stain.
- .
- .2 REX 6.5 - Wood Decks and Stairs/Steps: (using spaced lumber).
 - .1 REX 6.5C - Deck Stain.

3 EXECUTION

3.01 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.02 PREPARATION

- .1 Perform preparation and operations for exterior painting in accordance with MPI Maintenance Repainting requirements except where specified otherwise.
- .2 Apply paint materials in accordance with paint manufacturer's written application instructions.
- .3 Clean and prepare exterior surfaces to be repainted in accordance with MPI Maintenance Repainting Manual requirements. Refer to MPI Manual in regard to specific requirements and as follows:
 - .1 Remove dust, dirt, and surface debris by brushing, wiping with dry, clean cloths or compressed air.
 - .2 Wash surfaces with a biodegradable detergent (and bleach where applicable) and clean warm water using a stiff bristle brush to remove dirt, oil and surface contaminants.
 - .3 Rinse scrubbed surfaces with clean water until foreign matter is flushed from surface.
 - .4 Use trigger operated spray nozzles for water hoses.
 - .5 Allow surfaces to drain completely and to dry thoroughly.
 - .6 Use water-based cleaners in place of organic solvents where surfaces will be repainted using water based paints.
 - .7 Many water-based paints cannot be removed with water once dried. However, minimize the use of kerosene or such organic solvents to clean up water-based paints.
- .4 Where required, pressure wash exterior surfaces prior to repainting in accordance with MPI standards for type of surfaces and recommended

pressures to ensure complete removal of loose paint, stains, dirt, and foreign matter. This work to be carried out by qualified workers experienced in pressure water cleaning. Use of spray equipment such as water hose cleaning will not be considered satisfactory unless specified. Allow sufficient drying time and test surfaces using an electronic moisture meter before commencing work.

- .5 Prevent contamination of cleaned surfaces by salts, acids, alkalis, corrosive chemicals, grease, oil and solvents before priming and between applications of remaining coats. Touch-up, spot prime, and apply primer, paint, or pre-treatment as soon as possible after cleaning and before deterioration occurs.
- .6 Sand and dust between coats as required to provide adequate adhesion for next coat and to remove defects from previously painting (e.g. runs, and sags) that are visible from distance up to 1000 mm.

3.03 EXISTING CONDITIONS

- .1 Prior to commencing work, examine site conditions and existing exterior substrates to be repainted and report in writing to Departmental Representative damages, defects, unsatisfactory or unfavourable conditions of surfaces that will adversely affect this work.
- .2 No repainting work to commence until such adverse conditions and defects have been corrected and surfaces and conditions are acceptable to Painting Subcontractor and Inspection Agency.
- .3 Degree of surface deterioration (DSD) to be assessed using MPI Identifiers and Assessment criteria indicated in the MPI Maintenance Repainting Manual. MPI DSD ratings and descriptions are as follows:

Condition	Description
DSD-0	Sound Surface (includes visual (aesthetic) defects that do not affect film's protective properties).
DSD-1	Slightly Deteriorated Surface (indicating fading; gloss reduction, slight surface contamination, minor pin holes and scratches).
DSD-2	Moderately Deteriorated Surface (small areas of peeling, flaking, slight cracking, and staining).
DSD-3	Severely Deteriorated Surface (heavy peeling, flaking, cracking, checking, scratches, scuffs, abrasion, small holes and gouges).
DSD-4	Substrate Damage (repair or replacement of surface required).

3.04 PROTECTION

- .1 Protect existing building surfaces and adjacent structures from paint spatters, markings and other damage by suitable non-staining covers or masking. If damaged, clean and restore such surfaces as directed by Departmental Representative.
- .2 Protect items that are permanently attached such as Fire Labels on doors and frames.
- .3 Protect factory finished products and equipment.
- .4 Protect general public and building occupants in and about the building.
- .5 Removal of light fixtures, surface hardware on doors, and surface mounted equipment, fittings and fastenings to be done prior to undertaking painting operations. Store items and re-install after painting is completed.
- .6 Move and cover exterior furniture and portable equipment as necessary to carry out painting operations. Replace as painting operations progress.
- .6 As painting operations progress, place "WET PAINT" signs in pedestrian and vehicle traffic areas to approval of Departmental Representative.

3.05 APPLICATION

- .1 Apply paint by method that is best suited for substrate being repainted using brush roller air sprayer and/or airless sprayer. Conform to manufacturer's application instructions unless specified otherwise. In each case method of application to be as pre-approved by Departmental Representative before commencing work.
- .2 Brush and Roller Application:
 - .1 Apply paint in a uniform layer using brush and/or roller of types suitable for application.
 - .2 Work paint into cracks, crevices and corners.
 - .3 Paint surfaces and corners not accessible to brush using spray, daubers and/or sheepskins. Paint surfaces and corners not accessible to roller using brush, daubers or sheepskins.
 - .4 Brush and/or roll out runs and sags, and over-lap marks. Rolled surfaces to be free of roller tracking and heavy stipple unless approved by Departmental Representative.
 - .5 Remove runs, sags and brush marks from finished work and repaint.
- .2 Spray Application:
 - .1 Provide and maintain equipment that is suitable for intended purpose, capable of properly atomizing paint to be applied, and equipped with suitable pressure regulators and gauges.
 - .2 Keep paint ingredients properly mixed in containers during paint application either by continuous mechanical agitation by intermittent agitation as frequently necessary.
 - .3 Apply paint in uniform layer, with overlapping at edges of spray pattern.
 - .4 Back roll spray applications and brush out runs and sags immediately.
 - .5 Use brushes to work paint into cracks, crevices and places that

are not adequately painted by spray.

- .3 Use dipping, sheepskins or daubers when no other method is practical in places of difficult access and when specifically authorized by Departmental Representative .
- .4 Apply paint coats in a continuous manner and allow surfaces to dry and cure between coats for minimum time period as recommended by manufacturer. Minimum dry film thickness of coats not less than that recommended by manufacturer. Repaint thin spots or bare areas before next coat of paint is applied.
- .5 Sand and dust between coats to remove visible defects.
- .6 Finish surfaces both above and below sight lines as specified for surrounding surfaces, including such surfaces as projecting ledges.
- .7 Finish to doors include all edges including top and bottom edges. Surfaces concealed by door hardware be repainted unless otherwise pre-approved.

3.06 CLEANING

- .1 Proceed in accordance with Section 01 74 11 - Cleaning.
- .2 Remove paint where spilled, splashed, splattered or sprayed as work progresses using means and materials that are not detrimental to affected surfaces.
- .3 Keep work area free from unnecessary accumulation of tools, equipment, surplus materials and debris.
- .4 Remove combustible rubbish materials and empty paint cans each day and safely dispose of same in accordance with requirements of authorities having jurisdiction.
- .5 Clean equipment and dispose of wash water used for water borne materials, solvents used for oil based materials as well as cleaning and protective materials (e.g. rags, drop cloths, and masking papers), paints, thinners, paint removers/strippers in accordance with the safety requirements of authorities having jurisdiction and as specified.
- .6 Clean painting equipment in leak-proof containers that will permit particulate matter to settle out and be collected. Sediment remaining from cleaning operations to be disposed of in manner acceptable to authorities having jurisdiction.

3.07 RESTORATION

- .1 Clean and re-install hardware items removed before undertaken painting operations.
- .2 Remove protective coverings and warning signs as soon as practical after operations cease.

- .3 Remove paint splashings on affected exposed surfaces. Remove smears and spatter immediately as operations progress, using compatible solvent.
- .4 Protect freshly completed surfaces from paint droppings and dust. Avoid scuffing newly applied paint.
- .5 Restore areas used for storage, cleaning, mixing and handling of paint to clean condition as approved by Departmental Representative.

END OF SECTION

1 GENERAL

1.01 RELATED REQUIREMENTS

- .1 SOW Sachs Harbour Staff House - Technical.

1.02 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for low flow toilet and include product characteristics, performance criteria, physical size, finish and limitations.

1.03 CLOSEOUT SUBMITTALS

- .1 Submit in accordance with Section [01 78 00 - Closeout Submittals].
- .2 Operation and Maintenance Data: submit operation and maintenance data for the toilet and for the water distribution system for incorporation into manual.
 - .1 Operation and maintenance manual approved by, and final copies deposited with, [Departmental Representative] before final inspection.
 - .2 For the water distribution system provide recommended operation checks and regular maintenance activities.

1.04 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.

2 PRODUCTS

2.05 NOT USED

- .1 Not used.

3 EXECUTION

3.01 EXAMINATION

.1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for the toilet and caulking installation in accordance with manufacturer's written instructions.

- .1 Visually inspect substrate.
- .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery and provide photos.
- .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

3.02 PAINTING REPAIRS AND RESTORATION

- .2 Prime and touch up marred finished paintwork to match original.
- .1 Restore to new condition, finishes which have been damaged.

3.03 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

3.04 PROTECTION

- .1 Protect equipment and systems openings from dirt, dust, and other foreign materials with materials appropriate to system.

END OF SECTION

1 GENERAL

1.01 RELATED REQUIREMENTS

- .1 SOW Sachs Harbour Staff House - Technical.

1.02 REFERENCES

- .1 Definitions:
 - .1 Electrical and electronic terms: unless otherwise specified or indicated, terms used in these specifications, and on drawings, are those defined by IEEE SP1122.
- .2 Reference Standards:
 - .2 CSA Group
 - .1 CSA C22.1-12, Canadian Electrical Code, Part 1 (22nd Edition), Safety Standard for Electrical Installations.
 - 3 Institute of Electrical and Electronics (IEEE)/National Electrical Safety Code Product Line (NESC)
 - .2 IEEE SP1122-2000, The Authoritative Dictionary of IEEE Standards Terms, 7th Edition.

1.03 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for all light fixtures, whole house surge protector, smoke and carbon monoxide detectors and include product characteristics, performance criteria, physical size, finish and limitations.

1.04 CLOSEOUT SUBMITTALS

- .1 Submit in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Operation and Maintenance Data: submit operation and maintenance data for whole house surge protector for incorporation into manual.

1.05 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials indoors and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Replace defective or damaged materials with new.
- 4 Develop Construction Waste Management Plan Waste Reduction Workplan related to Work of this Section and in accordance with Section 01 35 21 - LEED

Requirements.

2 PRODUCTS

2.01 DESIGN REQUIREMENTS

- .1 Operating voltages: to CAN3-C235.

2.02 MATERIALS AND EQUIPMENT

- .1 Provide material and equipment in accordance with Section 01 61 00 Common Product Requirements.
- .2 Material and equipment to be CSA certified. Where CSA certified material and equipment are not available, obtain special approval from authority having jurisdiction before delivery to site and submit such approval as described in PART 1 - ACTION AND INFORMATIONAL SUBMITTALS.

2.03 WIRING TERMINATIONS

- .1 Ensure lugs, terminals, screws used for termination of wiring are suitable for either copper or aluminum conductors.

3 EXECUTION

3.01 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for installation in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate in presence of Departmental Representative.
 - .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative .

3.02 INSTALLATION

- .1 Do complete installation in accordance with CSA C22.1 except where specified otherwise.
- .2 Do overhead and underground systems in accordance with CAN/CSA-C22.3 No.1 except where specified otherwise.

3.03 NAMEPLATES AND LABELS

- .1 Ensure manufacturer's nameplates, CSA labels and identification nameplates

are visible and legible after equipment is installed.

3.04 CONDUIT AND CABLE INSTALLATION

- .2 If plastic sleeves are used in fire rated walls or floors, remove before conduit installation.
- .1 Install cables, conduits and fittings embedded or plastered over, close to building structure so furring can be kept to minimum.

3.05 LOCATION OF OUTLETS

- .1 Do not install outlets back-to-back in wall; allow minimum 150 mm horizontal clearance between boxes.
- .2 Change location of outlets at no extra cost or credit, providing distance does not exceed 3000 mm, and information is given before installation.
- .3 Locate light switches on latch side of doors.
 - .1 Locate disconnect devices in mechanical and elevator machine rooms on latch side of floor.

3.06 MOUNTING HEIGHTS

- .1 Mounting height of equipment is from finished floor to centreline of equipment unless specified or indicated otherwise.
- .2 If mounting height of equipment is not specified or indicated, verify before proceeding with installation.
- .3 Install electrical equipment at following heights unless indicated otherwise.
 - .1 Local switches: 1400 mm.
 - .2 Wall receptacles:
 - .1 General: 300 mm.
 - .2 Above top of continuous baseboard heater: 200 mm.
 - .3 Above top of counters or counter splash backs: 175 mm.
 - .4 In mechanical rooms: 1400 mm.
 - .3 Panelboards: as required by Code or as indicated.
 - .4 Telephone and interphone outlets: 300 mm.
 - .5 Wall mounted telephone and interphone outlets: 1500 mm.
 - .6 Fire alarm stations: 1500 mm.
 - .7 Fire alarm bells: 2100 mm.
 - .8 Television outlets: 300 mm.
 - .9 Wall mounted speakers: 2100 mm.
 - .10 Clocks: 2100 mm.
 - .11 Door bell pushbuttons: 1500 mm.

3.07 CO-ORDINATION OF PROTECTIVE DEVICES

- .1 Ensure circuit protective devices such as overcurrent trips, relays and fuses are installed to required values and settings.

3.08 SYSTEM STARTUP

- .1 Instruct Departmental Representative in operation, care and maintenance of systems, system equipment and components.

3.10 CLEANING

- .2 Progress Cleaning: clean in accordance with Section 01 74 11 -
Cleaning.
 - .1 Leave Work area clean at end of each day.

- .3 Final Cleaning: upon completion remove surplus materials, rubbish,
tools and equipment in accordance with Section 01 74 11 - Cleaning.

END OF SECTION

Scope of Work

Sachs Harbour Staff House Technical

1. BACKGROUND: The Sachs Harbour staff house is in need of extensive mechanical and carpentry related repairs. The approximately 1450 ft² single story house was purchased locally in 1994 and has been vacant since 2012.

2. OBJECTIVE

2.1. To fix and repair the identified mechanical issues, noted below, at the Sachs Harbour staff house by **October 30th, 2017**.

3. REFERENCES:

3.1. Sachs Harbour Staff House Drawings

3.2. Sachs Harbour Garage Drawings

4. SCOPE OF WORK:

The contractor will be responsible for addressing the following:

4.1. All work to comply with applicable buildings codes for the Northwest Territories.

4.2. Supply all materials associated with the work outlined below and coordinate transportation and logistics for materials, equipment and supplies.

4.3. Heating System:

4.3.1. Service the furnace and turn on heat. The furnace was turned off in 2012 and has not run since. Coordinate with Parks Canada staff to get the oil tank filled when ready. Supply 1 years supply of furnace filters.

Furnace: Olson Duomatic
Model # HTL/WTL100H,
Serial # 10075WTJL
Filter size: 15x20 (Two required)
Burner Assembly (upper nameplate): Emerson
Model # SD55GYJTK-5871
HP: 1/7, RPM: 3450
Burner Assembly (lower nameplate): Model E AFN65FN
Firing Rate: 0.65 -1.00 gpm
Chamber size 9.5 in (24 cm)

4.3.2. Supply and install grill (white) on return air ductwork.



Figure 1 Supply and install missing grill on return air duct.

4.4. Plumbing:

- 4.4.1. Thaw, drain, and clean water tank, check for leaks and damage (assume none)



Figure 2 Water tank in mechanical room.



Figure 3 Replace pump and reconnect all piping.

4.4.2. Replace water pump and pressure tank with new equivalent, Repair broken water pipe connection between tank and pump.

Existing Pump:

Model # S48B42B67, Serial # 8A02, Size: 1/3 HP

Existing Pressure Tank Model # JR25

Capacity: 8.6 gallons



Figure 4 Pump and pressure tank

4.4.3. Replace oil fired domestic hot water tank with new equivalent

Existing: John Wood Model # JWF307,

Serial # R0924F702744

Capacity: 121 L

Existing Oil Burner:
Manufacturer: Beckett,
Model: AFG
Serial # 080306-10952



Figure 5 Domestic hot water tank.

- 4.4.4. Replace burst water supply piping. The entire system is exposed (installed outside of drywall) copper pipe, replacement system to remain exposed. The total run from mechanical room to furthest fixture is 35 ft. See the drawings for location of kitchen, bathroom and laundry fixtures (See attached House Floor plan). Install a drain port with a shut off valve at the lowest point of the new water supply piping, install the piping in such a way that the entire system can be fully drained from the drain port. Provide clear written instructions on how to drain the water system and post them on a durable waterproof sign by the drain valve.
- 4.4.5. Bathroom fixtures
 - 4.4.5.1. Replace toilet with dual flush low flow toilet
Crane 6LPF Model S-437.3-742 or equivalent
In rough measurement: 12.5 "
 - 4.4.5.2. Replace Bath tub and surround and fixtures (shower head and faucet/handles). Fixtures to be high quality; Moen Bayhill Chrome Pressure Balance Tub and Shower Faucet Model # 82244 or equivalent.
Existing Bath dimensions; 28 $\frac{3}{4}$ x 58 $\frac{3}{4}$ x 15" High. Dimensions are to the outside for the tub surround.
 - 4.4.5.3. Replace vanity counter top (top only) with one piece cultured marble sink and counter top. Dimensions: 24 $\frac{1}{4}$ Wide by 19" deep. Replace faucet with new high quality single handle faucet.
- 4.4.6. Commission water system, ensure no leaks in supply system, fixtures, and drainage piping.

- 4.4.7. Inspect sewage tank and all drainage piping for freeze damage and leaks, repair as required. Assume no damage for bidding but provide hourly rates for additional repair work if it is required.
- 4.4.8. Supply and Install new replacement front loading washer, Energy star rated, low water consumption.

4.5. Electrical:

- 4.5.1. Supply and install Type II whole house surge protection meeting UL 1449 (current edition) and CSA certified.
- 4.5.2. Coordinate with mechanical to confirm water tank low level shutoff is working, repair/replace if required.
- 4.5.3. Replace seven wall mounted light fixtures; one in the entrance vestibule, two in the hallway and four in the bedrooms with suitable light fixtures that use standard LED light bulbs (minimum 1600 lumens). Coordinate with Carpentry trades to ensure painting is complete around new fixtures.



Figure 6 Replace current wall mounted entrance vestibule light fixture (left photo) and 6 other light fixtures typical of the one shown in the right photo

- 4.5.4. Replace missing electrical outlet and light switch covers (5 each),



4.5.5. Remount and recover loose and improperly covered electrical boxes in the mechanical room.



4.5.6. Replace Globe for ceiling fan (neck size 3 1/4")



4.5.7. Replace Bathroom fan, (existing wall mounted fan outside dimensions are 9" x 10")

4.5.8. Replace Bathroom light fixture with equivalent new LED fixture. (min 3,200 lumens)



- 4.5.9. Replace all smoke detectors, 3 total (1 smoke detector is currently installed)
(Mechanical room to be carbon monoxide/smoke combination)
- 4.5.10. Confirm all electrical outlets, fixtures and systems are working properly. Assume no damage for bidding but provide hourly rates for additional repair work if it is required.

5. PARKS CANADA AGENCY'S RESPONSIBILITIES

- 5.1. Upon request, will provide access to Parks Canada's 1 bedroom apartment for accommodation
- 5.2. Upon request, will provide transportation to and from the airport as well as some transportation in town if required.
- 5.3. Upon request, will send more pictures to answer a specific inquiry or provide more information on existing systems.
- 5.4. Host a project kick off meeting and a preconstruction meeting to review schedule and planned interaction of contractors. Other meetings maybe required to coordinate the review of shop drawings.
- 5.5. Will review shop drawings and respond within 10 working days.

6. CONTRACTOR RESPONSIBILITIES

- 6.1. Dispose of all construction waste as per local regulations.
- 6.2. Provide a detailed project schedule within 4 weeks of contract award for review and coordination with other contractors.
- 6.3. Prior to procuring all new appliances, materials and fixtures provide shop drawings for review and obtain Parks Canada's approval.
- 6.4. Confirm all critical dimensions including by contacting Park Canada's site manager and coaching him through measurement required.
- 6.5. Attend project meetings as required.

6.6. Provide operations and maintenance manuals in paper and electronic format for all equipment prior to request for final payment.

6.7. Health and Safety

6.7.1. The contractor is responsible for complying with the Canada Labour Code, Part 2. and all applicable safety acts and regulations. Within the Site, the Contractor has all the responsibilities of an “employer” under the Northwest Territories Safety Act and the Occupational Health and Safety Regulations and is designated as the “Prime Contractor”.

6.7.2. The contractor is accountable and responsible for developing and complying with a safety plan that identifies and mitigates local hazards and risks.

6.7.3. Other work happening on site which may overlap, is a contract for general carpentry work in the house. As stated in 6.7.1 above, the contractor is designated as the "Prime Contractor" and will be responsible for ensuring all people entering the work site understand and follow the Prime Contractor’s Safety Plan.

6.7.4. Complete and submit an Attestation and Proof of Compliance with Occupational Health and Safety as required by Parks Canada Agency.

7. CONSTRAINTS AND CONSIDERATIONS

The remote location of Sachs Harbour provides logistical challenges for acquiring and transporting the needed material including:

7.1. Limited supplies within town

7.2. Limited transportation opportunities in and out of community

7.3. Unpredictable weather that could create delays in scheduling

7.4. Tight deadlines based on the shipping schedule of the barge that brings supplies to the community once a year

8. SCHEDULE OF WORK:

Considering the barge comes into supply the region at the beginning of September each year the final completion date for this project would be **October 30, 2017.**

9. PRICE QUOTE:

Provide firm quote for the work outlined above; provide hourly rate for each trade and general labour for additional work that may be discovered while on site.

10. PARKS CANADA REPRESENTATIVES

The Parks Canada representative responsible for this project will be identified at the time of award. All questions should be directed to the Contracting Officer during the tender period.