



SPECIFICATIONS

FORMING PART ONE OF
THE CONSTRUCTION DOCUMENTS
RELATED TO THE PROJECT OF:

PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN

PROJECT SET NUMBER:

KREATE ARCHITECTURE AND DESIGN LTD.

FILE NUMBER: 13-12
DATE: 21 January 14

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

TABLE OF CONTENTS

SECTION 00003

Page 1 of 1

DIVISION	DIVISION TITLE	NUMBER OF PAGES
DIVISION 0	BIDDING/CONTRACT DOCUMENTS	
00003	Table of Contents	1
00004	List of Drawings	1
DIVISION 1	GENERAL REQUIREMENTS	
01000	General Requirements	6
01140	Work Restrictions	1
01350	Health and Safety Requirements	3
01410	Regulatory Requirements	1
01420	References	3
01450	Quality Control	2
01510	Temporary Utilities	3
01520	Construction Facilities	2
01530	Temporary Construction	2
01730	Cutting and Patching	2
01740	Cleaning	2
01780	Closeout Submittals	6
01790	Maintenance Requirements	2
DIVISION 6	WOOD AND PLASTICS	
06100	Rough Carpentry	5
DIVISION 7	THERMAL AND MOISTURE PROTECTION	
07216	Spray Foam Insulation	5
07521	Torch Grade Roofing Materials	5
07620	Prefinished Metal	4
07920	Sealants	2
DIVISION 10	SPECIALTIES	
10001	Construction Specialties	2

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

LIST OF DRAWINGS

SECTION 00004

Page 1 of 1

DISCIPLINE	ARCHITECTURAL
DRAWING NUMBER	DRAWING TITLE
A-1	Project Title List of Drawings Key Plan Scope of Work List of Abbreviations
A-2	MTC Site Plan MTC Attic Plan MTC Building Section POB Site Plan POB Attic Plan POB Building Section Legend Notes
A-3	Details

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

GENERAL REQUIREMENTS

SECTION 01000

Page 1 of 6

1.0 GENERAL

1.1 CODES AND STANDARDS

Perform Work in accordance with National Building Code of Canada (NBC), provincial and municipal codes and as specified within the text of these specifications. In any case of conflict or discrepancy, the more stringent requirements shall apply.

1.2 LAWS, NOTICES, PERMITS AND FEES

The Contractor shall give the required notices and comply with the laws, regulations, codes and orders of the authorities having jurisdiction which are or come into force during the performance of the Work, to the preservation of the public health, and to construction safety.

The Contractor shall obtain and pay for all permits, licenses, certificates, fees and governmental inspections or notices required for the performance of the Work.

1.3 ENVIRONMENTAL AND SAFETY REQUIREMENTS

Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials. Follow safety and health precautions recommended in manufacturer's Material Safety Data Sheet.

1.4 LAYOUT OF WORK

Prior to commencing the Work, check and examine site conditions; obtain and confirm site and building dimensions. Notify the Owner, in writing of any and all matters, which could prejudice the proper execution of Work.

1.5 SITE ADMINISTRATION

The Contractor shall employ a foreman fully experienced in projects of similar scope and complexity. The Contractor shall, upon request by the Owner, present the Foreman's credentials and experience for review by Owner prior to engaging specific personnel for the project. Personnel subject to review will require acceptance by the Owner prior to engaging with the project. The contractor should ensure a current set of all documentations is maintained on site for use during all site reviews.

1.6 WORKING LIMITS/TEMPORARY EASEMENTS

Confine all operations of Work within property limits of site. Separately arrange encroachment beyond property lines with adjacent property owners. Make good any damage to adjacent property.

1.7 USE OF SITE

The use of site areas for storage and construction purposes shall be confined to site boundaries of the property lines as identified on the drawings. The Contractor is responsible to install and maintain protection for work and materials and for safety of the public.

1.8 CO-ORDINATION OF WORK

Co-ordinate the Work through the Consultant and Owner. Provide 48 hours' notice prior to commencement of Work and to the interruption of services. Provide 48 hours' notice prior to entry into occupied premises.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

GENERAL REQUIREMENTS

SECTION 01000

Page 2 of 6

1.9 CONTROL OF THE WORK

The Contractor shall have complete control of the Work and shall effectively direct and supervise the Work so as to be solely responsible for construction means, methods, sequences and procedures and for coordinating the various parts of the Work.

1.10 LIABILITY

The Contractor shall be responsible for the safety of all tenants or other persons in the building and on the site, and for the protection of all property during the course of construction.

The Contractor shall be liable for all claims attributable to bodily injury, sickness, disease, or death, or injury to, or destruction of property caused by negligent acts or omissions of the Contractor or his Subcontractors in the performance of the Work.

The Contractor shall provide, maintain and pay for General Liability and Builder's All-Risk Insurance. Insurance shall be in the name of the Contractor with the additional rider of the Client, and Architect named as Additional Insured. All insurance shall be in conformance with Government of Canada requirements.

1.11 ASSIGNMENT

The Contractor shall not assign the Contract without the written consent of the Owner.

1.12 CORRECTIONS TO THE CONSTRUCTION DOCUMENTS

The Consultant shall be notified immediately should there be any discrepancies arising from use of the documents, errors or omissions discovered that are required for construction, or the presence of doubt exist related to the intent of the documents. Discovery during the bid period with failure to report the issue does not exclude the Contractor from performing the work as required to suit the intent of the documents. The Consultant will review and advise in writing of any corrective actions required to mitigate or eliminate the issue noted.

1.13 PRE-BID SITE REVIEW

The Contractor and all applicable subtrades shall be provided with the opportunity to inspect, review and document the existing site conditions prior to submission of bids. All bidders shall establish full knowledge of the site conditions such that they are able to accurately submit bids and carry out the necessary work. Absence from site reviews will not relieve the Contractor or any subtrade from responsibility for work required in order to suit existing site conditions which could have been reasonably discovered during site reviews.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

GENERAL REQUIREMENTS

SECTION 01000

Page 3 of 6

1.14 EXAMINATION OF SURFACES

All existing and prepared surfaces shall be examined by the Contractor and applicable subcontractors to ensure that they meet the standards identified within these documents.

Report all surfaces and installations determined to be unsuitable or those that do not meet the quality intent of these documents to the Consultant and await direction for correction.

Carrying out work on surfaces judged unsuitable will result in the Contractor assuming responsibility for all additional corrective action and repairs necessary to correct the deficiency and meet the intent and standards specified herein.

1.15 CUTTING AND PATCHING

The Contractor shall execute or coordinate the execution of all required preparatory work including removal of existing surfaces, cutting, patching and creating penetrations as necessary to fully complete the documented installations.

Contractor shall ensure that the work is completed by skilled tradespersons capable of achieving or meeting the standards of care, execution and construction as identified within these specifications.

All areas affected by the construction and installation of any products shall be made good to match existing finishes, texture and colour.

Where repainting of walls is required due to work completed or corrected, Contractor shall fully paint the wall facing to eliminate potential discoloration on the same wall plane.

1.16 DAMAGE

Any surfaces, installations or materials that are found to be damaged as a result of execution of the contract shall be corrected to the approval of the Owner. No additional charges will be accepted for remedial work. This clause applies to interior and exterior building elements, loose furnishings and equipment and all site elements.

1.17 DOCUMENTS ON SITE

Contractor shall ensure that a complete set of current documents including all supplemental issued documents are maintained in good order on site at all times.

2.0 PROTECTION

2.1 TRAFFIC AREAS

Keep traffic areas free of hazards and obstacles, including construction materials and equipment. Do not leave unfinished work unattended at any time during the day.

2.2 EQUIPMENT STORAGE

Store all equipment and materials in designated storage areas or remove from the site at the end of each day.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

GENERAL REQUIREMENTS

SECTION 01000

Page 4 of 6

2.3 SIGNAGE AND HOARDING

Place adequate warning signs, barriers and dust tight partitions as required around work in progress.

2.4 PROTECTION OF THE WORK

Adequately protect work completed, adjacent materials and furnishings from damage during performance of the work. Repair or replace damaged items as directed by the Owner.

3.0 SITE ADMINISTRATION

3.1 SITE CONDITIONS

Maintain work in a tidy condition and free from accumulation of waste products and debris at all times. Remove all waste materials and debris from site at the end of each workday, or provide bin for depositing waste material on site. Bin location to be confirmed on site prior to replacement.

4.0 MATERIAL AND EQUIPMENT

4.1 QUALITY OF PRODUCTS

All materials, equipment and articles incorporated in the Work shall be new, not damaged or defective, and of the best quality (compatible with specifications) for the purpose intended. If requested, furnish evidence as to type, source and quality of products provided.

4.2 DEFECTIVE OR DAMAGED MATERIALS

Defective or damaged materials, equipment and articles whenever found at any time prior to the completion of work, will be rejected, regardless of previous inspections. Inspection by the Owner does not relieve responsibility, but is merely a precaution against oversight or error. Remove and replace defective materials at own expense and be responsible for all unnecessary delays and expenses caused by rejection.

4.3 ALTERNATIVES

Bid submissions must be completed using the materials and methods contained within the construction documents. Any variation or alternative materials or methods must be submitted to the Consultant for approval prior to inclusion in bid submissions or application on site. Approval or acceptance of the proposed alternative must be received in writing prior to implementing the change. Work completed using non-approved materials or methods may be subject to rejection and must be corrected with all costs borne by the Contractor

The Owner reserves the right to consider alternative proposals in determination of contract award. The Owner reserves the right to accept or disregard any or all alternative proposals.

4.4 DISPUTE RESOLUTION

Should any dispute arise as to the quality or fitness of materials, equipment or articles, the decision rests strictly with the Owner based upon the requirements of the Contract Documents.

Unless otherwise indicated in the specifications, maintain uniformity of manufacture for any particular or like item throughout the building.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

GENERAL REQUIREMENTS

SECTION 01000

Page 5 of 6

4.5 PERMANENT MARKINGS AND NAMEPLATES

Permanent labels, trademarks and nameplates on materials, equipment and articles are not acceptable in prominent locations, except where required for operating instruction, and when located in mechanical or electrical rooms.

4.6 WORKMANSHIP

Workmanship is to be of the best quality, executed by workers fully experienced and skilled in their respective trades. Immediately notify the Owner if work is required in such a manner as to make it impracticable to produce required results.

Decisions as to the quality or fitness of workmanship in cases of dispute rest solely with the Owner, whose decision is final.

5.0 CHANGES IN THE WORK

Changes in the Work shall be approved by the Owner and the Contract Price and Time adjusted accordingly. The value of the change shall be agreed to by both parties.

When a change in the Work is proposed or required, the Owner will request a quotation of the value of the change. No changes in the Work shall proceed without the approval of the Owner.

The Contractor shall present to the Owner for approval a fully itemized quotation giving details of labour, materials, equipment and all other costs required for the change in the Work.

When the Owner has satisfied himself as to the value of the claim, notice of change shall be issued to the Contractor amending the Contract Price and Contract Time as appropriate.

6.0 CONTRACT ADMINISTRATION

6.1 PROJECT MEETINGS

Project meetings shall be held as prescribed stages of the work based on calendar days or critical components of the work. The Contractor shall ensure administrative and site personnel are present at the meetings. Meetings will be conducted for contract administration requirements between Owner, Consultant and Contractor.

The Contractor shall schedule separate meetings with major subtrades for the purposes of coordinating and scheduling the work. These meetings shall be held separate from the Project Meetings.

6.2 NOTICE FOR INSPECTION

Contractors must provide a minimum of forty-eight (48) hours notice over the span of two working days that completed work will be ready for scheduled inspections.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

GENERAL REQUIREMENTS

SECTION 01000

Page 6 of 6

6.3 CONTRACT COMPLETION DATE AND SCHEDULE

The Contractor shall engage in the work immediately on receipt of award and shall continuously operate for the duration of the contract in order to meet the proposed completion date as submitted on the Bid Form.

Contractor shall submit a **proposed schedule for work** on the project indicating milestones, major completion dates and total completion date in accordance with the date submitted on the Bid Form. Sequencing of the work shall be indicated on the bar chart as required by the project parameters.

7.0 SHOP DRAWINGS

1. Contractor shall arrange, coordinate and distribute all shop drawings as required by the specifications.
2. Contractor shall be responsible to review and make corrections to shop drawing submissions prior to forwarding to the Consultant for review. All copies of the shop drawings must be the Contractor's stamp or signature indicating that a review has been completed. Shop drawings received by the Consultant that do not be the Contractor's stamp or signature may be rejected with a resubmission required in accordance with the protocol listed above.
3. Shop drawings found to contain major discrepancies or requiring severe alteration will be rejected without review and a resubmission will be required in accordance with the protocol listed above.
4. Contractors shall allow a minimum of ten (10) working days for review of shop drawings by Consultants. This time period shall be reflected in the Contractor's schedule for the total project.
5. The review of shop drawings by the Consultant is provided as a service to the Contractor in order to assist in the minimizing of risk and avoidance of errors. This review in no way relieves the Contractor or subcontractors of their responsibility to comply with the construction documents.
6. Shop drawings will be submitted in a total package consisting of ten (10) full copies for review.
7. Electronic submissions of shop drawings will be received providing that they are of readable quality once printed on the Consultant's equipment. Electronic copies will be returned as a single copy for the purposes of the Contractor to copy and distribute as required.

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

WORK RESTRICTIONS

SECTION 01140

Page 1 of 1

PART 1.0- GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.
- .2 This section describes requirements applicable to all Sections within these specifications.

1.2 EXISTING SERVICES

- .1 Notify Consultant and utility companies of intended interruption of services and obtain required permission.
- .2 Where Work involves breaking into or connecting to existing services, give Consultant, 48 hours of notice for necessary interruption of mechanical or electrical service throughout course of work.
- .3 Keep duration of interruptions to the minimum number required.
- .4 Perform interruptions after normal working hours of occupants or on pre-arranged schedules for weekend work.
- .5 Provide safety barriers for personnel, pedestrian and vehicular traffic.

1.3 SITE ACCESS

- .1 ALL people who will be accessing the site will be required to have Owner's permission for access to construction areas.
- .2 All persons accessing the site for any purpose shall be required to comply with Occupational Health and Safety regulations regarding Personal Protection Equipment (PPE) including CSA approved footwear, eye protection and hard hats.
- .3 The Contractor maintains responsibility for the site and all persons engaged therein, thus the Contractor shall have the right to restrict access to the site to only those in Compliance with the regulations.
- .4 The Contractor shall have the right to request that persons not complying with the regulations exit the site immediately upon discovery.
- .5 The Contractor may at their discretion issue a stop work directive for the site personnel should any person not comply with the request to exit. This matter should be immediately brought to the attention of the Owner for immediate action.

1.4 SPECIAL REQUIREMENTS – NOISE GENERATING ACTIVITIES

- .1 Coordinate the schedule for scope of work with Consultants and Owners
- .2 All areas adjacent and located below the construction zone will remain in use by the Owner during the construction process.
- .3 Submit a schedule indicating periods of noise generating activities within the construction area. Schedule shall be reviewed with Owners for approval prior to initiating the work.
- .4 Schedule may require revisions due to owner activities related to the current operations within the building (general business activity, classroom/education requirements, testing requirements)
- .5 Owner and Contractor along with the architect shall coordinate a final approved schedule with necessary adjustments applied to suit both the construction progress and occupancy requirements of the buildings.

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

HEALTH AND SAFETY REQUIREMENTS

SECTION 01350

Page 1 of 3

PART 1.0- GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.
- .2 This section describes requirements applicable to all Sections within these specifications.

1.2 REFERENCES

- .1 Province of Saskatchewan: Occupational Health and Safety Act, Regulation and Code including requirements for a "Prime Contractor" as defined by the Act.

1.3 SAFETY PLAN

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

1.4 RESPONSIBILITY

- .1 The "General Contractor" according applicable local jurisdiction, is 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 Should any unforeseen or peculiar safety related factor, hazard, or condition become evident during performance of Work, and follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of Province or Territory having jurisdiction. Advise Consultant verbally and in writing.

1.5 SUBMITTALS

- .1 Submit site specific Health and Safety Plan within seven (7) days after date of Notice to Proceed and prior to commencement of Work.
- .2 Health and Safety Plan must include:
 - .1 Results of site specific safety hazard assessment.
 - .2 Results of safety and health risk or hazard analysis for site tasks and operation found in work plan.
- .3 Submit (2) copies of Contractor's authorized representative's work site health and safety inspection reports to Consultant and authority having jurisdiction, weekly.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

HEALTH AND SAFETY REQUIREMENTS

SECTION 01350

Page 2 of 3

- .4 Submit copies of reports or directions issued by Federal, Provincial and health and safety inspectors.
- .5 Submit copies of incident and accident reports.
- .6 Submit Material Safety Data Sheets (MSDS) to Consultant.
- .7 Consultant 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 Consultant within (10) days after receipt of comments from Consultant.
- .8 Consultant'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 On site Contingency and Emergency Response Plan: Address standard operating procedures to be implemented during emergency situations.

1.6 SAFETY ACTIVITIES

- .1 Perform site specific safety hazard assessment related to project.
- .2 Schedule and administer Health and Safety meeting with Consultant prior to commencement of Work.

1.7 HEALTH AND SAFETY COORDINATOR

- .1 Employ and assign to Work, competent and authorized representative as Health and Safety Coordinator. Health and Safety Coordinator must:
 - .1 Have minimum two (2) years' site related working experience specific to activities associated with the Work.
 - .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 site supervisor.

1.8 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 or Territory having jurisdiction, and in consultation with Consultant.

1.9 CORRECTION OF NON COMPLIANCE

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

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

HEALTH AND SAFETY REQUIREMENTS

SECTION 01350

Page 3 of 3

1.10 HAZARDOUS WORK

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

1.11 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.

1.12 FIRE PROTECTION

- .1 Provide and maintain temporary fire protection equipment during performance of Work required by insurance companies having jurisdiction and governing codes, regulations and bylaws.
- .2 Burning rubbish and construction waste materials is not permitted on site.
- .3 Maintain placed or installed fire resistive construction, fireproofing, firestopping, to protect the portions of the Work during construction.

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

REGULATORY REQUIREMENTS

SECTION 01410

Page 1 of 1

PART 1.0- GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.
- .2 This section describes requirements applicable to all Sections within these specifications.

1.2 LAWS, NOTICES, PERMITS AND FEES

- .1 The laws of the Place of the Work shall govern the Work.
- .2 The Owner shall obtain and pay for permanent easements and rights of servitude.
- .3 The Contractor shall be responsible for the building permits, licenses or certificates necessary for the performance of the Work which were in force at the date of executing the Agreement.
- .4 The Contractor shall pay construction damage deposits levied by municipality in connection with building permit
- .5 The Contractor shall give the required notices and comply with the laws, ordinances, rules, regulations or codes which are or become in force during the performance of the Work and which relate to the Work, to the preservation of the public health and to construction safety.
- .6 If the Contractor knowingly performs or allows work to be performed that is contrary to any laws, ordinances, rules, regulations or codes, the Contractor shall be responsible for and shall correct the violations thereof; and shall bear the costs, expenses and damages attributable to the failure to comply with the provisions of such laws, ordinances, rules, regulations or codes.

1.3 CODES AND STANDARDS

- .1 Execute work in accordance with National Building Code of Canada (NBC) 2010 edition, Supplements and all codes and standards specified within the text of this specification.
- .2 Conform to the latest issue of codes and standards specified, as amended and revised on date for receipt of tenders.
- .3 Comply with all Dominion and Provincial Fire Commissioner's codes and regulations.

1.4 WORKING LIMITS/TEMPORARY EASEMENT

- .1 Confine all operations of work within property limits of site.
- .2 Upon completion of Contract, make good any damage to adjacent property.

1.5 PERSONNEL SMOKING

- .1 Comply with regulatory and Owner imposed smoking restrictions during execution of the Work within or outside the premises.

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

REFERENCES

SECTION 01420
Page 1 of 3

PART 1.0- GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.
- .2 This section describes requirements applicable to all Sections within these specifications.

1.2 REFERENCES

- .1 For Products or quality specified by association, trade, or other references or consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- .2 Conform to reference standard by date of issue current on date of Contract Documents, except where a specific date is established or required by code.
- .3 Obtain copies of standards where required by product specification sections.
- .4 Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of the Consultant shall be altered from the Contract Documents by mention or inference otherwise, in any reference document.

1.3 STANDARDS PRODUCING INDUSTRY ORGANIZATIONS

- .1 The following associations and organizations are cited in specification sections. Acronym, name, address, and Internet URL addresses are as follows.
 - .1 Canadian Organizations:
 - a. AAMA: American Architectural Manufacturers Association
 - b. AWMAC Architectural Woodwork Manufacturers Association of Canada, 5164 Street, West, High River, Alberta T1V 1B6 URL <http://www.awmac.com>
 - c. Canada Green Building Council; 330 - 55 rue Murray Street, Ottawa, ON, K1N 5M3; Tel: 613-241-1184 Fax: 613-241-5750, URL: www.cagbc.org
 - d. CCA - Canadian Construction Association, 75 Albert St., Suite 400 Ottawa, Ontario, K1P 5E7 URL <http://www.cca.org>
 - e. CCDC - Canadian Construction Documents Committee, Refer to ACEC, CCA, CSC or RAIC; www.CCDC.org
 - f. CGA Canadian Gas Association, 20 Eglinton Avenue West, Suite 1305, Toronto, Ontario M4R 1K8 URL <http://www.cga.ca>
 - g. CGSB Canadian General Standards Board, Place du Portage, Phase III, 6B1, 11 Laurier Street, Hull, Quebec K1A 0S5 URL <http://www3.pwgsc.gc.ca/cgsb>
 - h. CISC Canadian Institute of Steel Construction, 201 Consumers Road, Suite 300, Willowdale, Ontario M2J 4G8 URL <http://www.cisc-icca.ca>
 - i. CLA Canadian Lumbermen's Association, 27 Goulburn Avenue, Ottawa, Ontario, K1N 8C7 URL <http://www.cla-ca.ca>
 - j. CNLA Canadian Nursery Landscape Association, RR #4, Stn. Main, 7856 Fifth Street, Milton, Ontario. L9T 2X8 URL <http://www.canadanursery.com>
 - k. CRCA Canadian Roofing Contractors Association, 155 Queen Street, Suite 1300, Ottawa, Ontario K1P 6L1 URL <http://www.roofingcanada.com>

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

REFERENCES

**SECTION 01420
Page 2 of 3**

-
- l. CSA Canadian Standards Association International, 178 Rexdale Blvd., Toronto, Ontario M9W 1R3 URL <http://www.csa international.org>
 - m. CSC Construction Specifications Canada, 120 Carlton Street, Suite 312, Toronto, Ontario M5A 4K2 URL <http://www.csc dcc.ca>
 - n. CSDMA Canadian Steel Door Manufacturers Association, One Yonge Street, Suite 1801, Toronto, Ontario M5E 1W7; <http://www.csdma.org/>
 - o. CWC Canadian Wood Council, 1400 Blair Place, Suite 210, Ottawa, Ontario K1J 9B8 URL <http://www.cwc.ca>
 - p. MPI The Master Painters Institute, 4090 Graveley Street, Burnaby, BC V5C 3T6 URL <http://www.paintinfo.com>
 - q. NABA National Air Barrier Association, PO Box 2747, Winnipeg, Manitoba R3C 4E7 URL <http://www.naba.ca>
 - r. NLGA National Lumber Grades Authority, 406-First Capital Place, 960 Quayside Drive, New Westminster, B.C. V3M 6G2; <http://www.nlga.org/>
 - s. NRC National Research Council, Building M-58, 1200 Montreal Road, Ottawa, Ontario K1A 0R6 URL <http://www.nrc.gc.ca>
 - t. RAIC - Royal Architectural Institute of Canada, 55 Murray Street, Suite 330, Ottawa, Ontario, K1N 5M3 URL <http://www.raic.org>
 - u. SCC Standards Council of Canada, 270 Albert Street, Suite 2000, Ottawa, Ontario K1P 6N7 URL <http://www.scc.ca>
 - v. TTMAC Terrazzo, Tile and Marble Association of Canada, 30 Capston Gate, Unit 5 Concord, Ontario L4K 3E8 URL <http://www.ttmac.com>
 - w. ULC Underwriters' Laboratories of Canada, 7 Crouse Road, Toronto, Ontario M1R 3A9 URL <http://www.ulc.ca>
- .2 USA Organizations:
- .a AA Aluminum Association, 900 19th Street N.W., Washington, D.C., U.S.A. 20006 URL <http://www.aluminum.org>
 - .b AHA American Hardboard Association, 1210W Northwest Hwy., Palatine, Illinois, U.S.A. 60067 URL : <http://www.hardboard.org>
 - .c AITC American Institute of Timber Construction, 7012 S. Revere Parkway, Suite 140, Englewood, Colorado, U.S.A. 80112 URL <http://www.aitc glulam.org>
 - .d ANSI American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, New York, U.S.A. 10036 URL <http://www.ansi.org>
 - .e APA The Engineered Wood Association, P.O. Box 11700, Tacoma, Washington, U.S.A. 98411 0700 URL <http://www.apawood.org>
 - .f API American Petroleum Institute, 1220 L St. Northwest, Washington, D.C., U.S.A. 20005 4070 URL <http://www.api.org>
 - .g ASHRAE American Society of Heating, Refrigeration and Air Conditioning Engineers, 1791 Tullie Circle NE, Atlanta, Georgia, U.S.A. 30329 URL <http://www.ashrae.org>
 - .h ASME American Society of Mechanical Engineers, ASME Headquarters, 3 Park Avenue, New York, New York, U.S.A. 10016 5990 URL <http://www.asme.org>
 - .i ASTM International, 100 Barr Harbor Drive West, Conshohocken, Pennsylvania 19428 2959 URL <http://www.astm.org>

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

REFERENCES

SECTION 01420
Page 3 of 3

-
- .j AWCI Association of the Wall and Ceiling Industries International, 803 West Broad Street, Suite 600, Falls Church, VA, U.S.A. 22046 URL <http://www.awci.org>
 - .k ISAP - International Society for Asphalt Paving, 400 Selby Avenue, Suite 1, St. Paul, MN 55102 U.S.A. URL <http://www.asphalt.org>
 - .l NAAMM National Association of Architectural Metal Manufacturers, 8 South Michigan Avenue, Suite 1000, Chicago, Illinois U.S.A. 60603 URL <http://www.naamm.org>
 - .m NEMA National Electrical Manufacturers Association, 1300 N. 17th Street, Suite 1847, Rosslyn, Virginia 22209 URL <http://www.nema.org>
 - .n NFPA National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101 Quincy, Massachusetts, U.S.A. 02269 9101 URL <http://www.nfpa.org>
 - .o NFSA National Fire Sprinkler Association, P.O. Box 1000, Patterson, New York, U.S.A. 12563 URL <http://www.nfsa.org>

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

QUALITY CONTROL

SECTION 01450
Page 1 of 2

PART 1.0 - GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.
- .2 This section describes requirements applicable to all Sections within these specifications.

1.2 REFERENCES

- .1 ISO/IEC 17025:2005 - General Requirements for the Competence of Testing and Calibration Laboratories.
- .2 SCC - Standards Council of Canada.

1.3 INSPECTION BY AUTHORITY

- .1 Allow Authorities Having Jurisdiction access to work. If part of work is in preparation at locations other than place of work, allow access to such Work whenever it is in progress.
- .2 Give timely notice requesting inspection whenever portions of the Work are designated for special tests, inspections or approvals, either when described in the Contract Documents or when required by law in the place of the work.
- .3 If Contractor covers or permits to be covered work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such work.

1.4 REVIEW BY CONSULTANT

- .1 Consultant may order any part of the work to be reviewed or inspected if work is suspected to be not in accordance with Contract Documents.
- .2 If, upon review such work is found not in accordance with Contract Documents, correct such work and pay cost of additional review and correction.
- .3 If such work is found in accordance with Contract Documents, Owner will pay cost of review and replacement.

1.5 INDEPENDENT INSPECTION AGENCIES

- .1 Independent Inspection and Testing Agencies shall be engaged by Contractor for purpose of inspecting and/or testing portions of Work as required by each Section of these Specifications. Cost of such services will be borne by Contractor as part of the construction cost amount.
- .2 Approved Testing Organizations: Listed by SCC.
- .3 Provide equipment required for executing inspection and testing by appointed agencies.
- .4 Employment of inspection and testing agencies does not relax responsibility to perform Work in accordance with Contract Documents.
- .5 If defects are revealed during inspection and/or testing, appointed agency will request additional inspection and testing to ascertain full degree of defect. Correct defect and irregularities as advised by Consultant at no cost to Owner. Contractor shall pay any and all additional costs for retesting and re-inspection at no cost to Owner.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

QUALITY CONTROL

**SECTION 01450
Page 2 of 2**

1.6 ACCESS TO WORK

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

1.7 PROCEDURES

- .1 Notify appropriate agency and Consultant in advance of requirement for tests, in order that attendance arrangements can be made.
- .2 Submit samples and materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in an orderly sequence so as not to cause delay in Work.
- .3 Provide labour and facilities to obtain and handle samples and materials on site.
- .4 Provide sufficient space to store and cure test samples.

1.8 REJECTED WORK

- .1 Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by Consultant as failing to conform to Contract Documents. Replace or re execute in accordance with Contract Documents.
- .2 Make good other Contractor's work damaged by such removals or replacements promptly.
- .3 If in opinion of Consultant it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, Owner may deduct from Contract Price the difference in value between Work performed and that called for by Contract Documents, amount of which shall be determined by Consultant.

1.9 REPORTS

- .1 Report submissions as required shall be in the format of:
 - One paper copy submitted to the Architect for review
 - One electronic (PDF) copy to be submitted via email to the Architect and Owner.
 - Paper copies to be contained within the submitted maintenance manuals as required by the maintenance manual submissions.

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

TEMPORARY UTILITIES

SECTION 01510

Page 1 of 3

PART 1.0- GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.
- .2 This section describes requirements applicable to all Sections within these specifications.
- .3 Section 01520 - Construction Facilities.
- .4 Section 01530 - Temporary Construction.

1.2 INSTALLATION AND REMOVAL

- .1 Provide temporary utilities controls in order to execute work expeditiously.
- .2 Salvage and assist in recycling products for potential reuse.
- .3 Remove from site all such work after use.
- .4 This section describes requirements applicable to all Sections within these Specifications.

1.3 EXISTING UTILITY CONNECTIONS

- .1 Contractor shall coordinate requirements for permits, access restrictions and scheduled shut-downs prior to breaking into any existing utility lines or connections on site.
- .2 Coordinate and carry out work at specific times as directed by Utility Corporations.
- .3 Provide a minimum of forty-eight (48) hours notice to all adjacent properties prior to carrying out any remedial works.
- .4 Conduct work in an expedient manner to minimize disruption to adjacent properties.
- .5 Provide temporary utility connections to service adjacent properties should the work be delayed in any fashion and not be completed within a reasonable time frame.
- .6 Costs for all work related to existing utility connections shall be borne by the Contractor.

1.4 TEMPORARY WATER SUPPLY

- .1 Contractor shall make all necessary provisions to provide site requirements for access to potable water systems. All costs associated with provision of this service shall be borne by the Contractor.
- .2 Arrange for connection with appropriate utility company and pay all costs for installation, maintenance and removal.
- .3 Costs for installation and disconnection of all temporary water service shall be borne by the Contractor.
- .4 Costs for consumption of temporary water used in the construction process shall be borne by the Owner.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

TEMPORARY UTILITIES

SECTION 01510

Page 2 of 3

1.5 TEMPORARY HEATING AND VENTILATION

- .1 Contractor shall be responsible to provide temporary heating for the construction area within attic locations required during construction period, including attendance, maintenance and fuel. Costs for temporary installation of services to provide for the use of portable devices shall be the responsibility of the Contractor.
- .2 Construction heaters used inside building must be vented to outside or be flameless type. Solid fuel salamander type heaters are not permitted.
- .3 Provide temporary heat and ventilation in enclosed areas as required to:
 - .1 Facilitate progress of work.
 - .2 Protect Work and products against dampness and cold.
 - .3 Prevent moisture condensation on surfaces.
 - .4 Provide ambient temperatures for storage, installation and curing of materials.
 - .5 Provide adequate ventilation to meet health regulations for safe working environment.
- .4 Maintain temperatures of minimum 10 degrees C (50 degrees F) in construction areas.
- .5 Ventilating:
 - .1 Prevent accumulations of dust, fumes, mists, vapours or gases in areas occupied during construction.
 - .2 Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas.
 - .3 Dispose of exhaust materials in manner that will not result in harmful exposure to persons.
 - .4 Ventilate storage spaces containing hazardous or volatile materials.
 - .5 Ventilate temporary sanitary facilities.
 - .6 Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful contaminants.
- .6 Maintain strict supervision of operation of temporary heating and ventilating equipment to:
 - .1 Conform with applicable codes and standards.
 - .2 Enforce safe practices.
 - .3 Prevent abuse of services.
 - .4 Prevent damage to finishes.
 - .5 Vent direct fired combustion units to outside.
- .7 Be responsible for damage to Work due to failure in providing adequate heat and protection during construction.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

TEMPORARY UTILITIES

SECTION 01510

Page 3 of 3

1.6 TEMPORARY POWER AND LIGHT

- .1 Contractor shall make all necessary provisions to provide site requirements for access to electrical distribution and lighting systems for the duration of construction. Arrange for connection with appropriate utility company. Pay all costs for installation, maintenance and removal.
- .2 Provide and maintain temporary lighting throughout project. Ensure level of illumination is not less than 162 lux (16 lumen per square foot). The Contractor shall bear the costs for any temporary wiring or light fixtures as required to suit the work.
- .3 Electrical power and lighting systems installed under this Contract may be used for construction requirements only with prior approval of Consultant provided that guarantees are not affected. Make good damage to electrical system caused by use under this Contract. Replace lamps which have been used for more than three (3) months.
- .4 Costs of electrical consumption for the duration of construction until the date of substantial completion shall be borne by the Owner.

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

CONSTRUCTION FACILITIES

SECTION 01520

Page 1 of 2

PART 1.0- GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.
- .2 This section describes requirements applicable to all Sections within these specifications.
- .3 Section 01510 - Temporary Utilities.

1.2 REFERENCES

- .1 CAN/CSA Z321-96: Signs and Symbols for the Occupational Environment.

1.3 INSTALLATION AND REMOVAL

- .1 Provide construction facilities in order to execute work expeditiously.
- .2 Remove all temporary construction facility structures from site work after use, prior to substantial completion.

1.4 SCAFFOLDING

- .1 Provide and maintain scaffolding, ramps, ladders, swing staging, platforms, and temporary stairs to most recent OHS standards and certifications.

1.5 HOISTING

- .1 Provide, operate and maintain hoists/cranes required for moving of workers, materials and equipment. Make financial arrangements with Subcontractors for use thereof.
- .2 Hoists/cranes shall be operated by qualified operator.

1.6 USE OF THE WORK

- .1 Confine work and operations of employees. Do not unreasonably encumber premises with Products.
- .2 Do not load or permit to load any part of Work with a weight or force that will endanger the Work.

1.7 CONSTRUCTION PARKING

- .1 Limited parking for service vehicles only may be permitted on site provided it does not disrupt performance of work and/or continuing operation of the facility. Parking for service vehicles only shall be confirmed with Government of Canada related to location and duration prior to start of construction.
- .2 Provide snow removal from the construction site area and access routes for the duration of the construction contract.
- .3 Maintain construction access routes to access points of the building sites. Make good any damage resulting from Contractors' use of roads.
- .4 Parking for personal vehicles to be confirmed with Government of Canada. Use of reserved lots will be assigned at the outset of the project. No personal vehicle parking will be allowed adjacent construction areas.

1.8 SECURITY

- .1 Provide and pay for responsible security personnel to guard site and contents of site after working hours and during holidays if so requested specifically by the Owner.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

CONSTRUCTION FACILITIES

SECTION 01520

Page 2 of 2

1.9 OFFICES

- .1 Provide office heated to 22 degrees C (71 degrees F), lighted 750 lux and ventilated, of sufficient size to accommodate site meetings and furnished with drawing layout table. Copies of all drawings, field memos, progress and price changes, specifications, etc. are to be located on site at all times.
- .2 Provide a clearly marked and fully stocked first aid case in a readily available location.

1.10 EQUIPMENT, TOOL AND MATERIALS STORAGE

- .1 Provide and maintain, in a clean and orderly condition, lockable unit for storage of tools, equipment and materials.
- .2 Locate materials in a manner to cause least interference with work activities where indicated on Contract Documents.

1.11 SANITARY FACILITIES

- .1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances.
- .2 Post notices and take such precautions as required by local health authorities. Keep area and premises in sanitary condition.
- .3 Keep sanitary facilities clean and fully stocked with the necessary supplies at all times.

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

TEMPORARY CONSTRUCTION

SECTION 01530

Page 1 of 2

PART 1.0- GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.
- .2 This section describes requirements applicable to all Sections within these specifications.
- .3 Section 01510 - Temporary Utilities.

1.2 INSTALLATION AND REMOVAL

- .1 Provide temporary controls in order to execute Work expeditiously.
- .2 Remove from site all such work after use.

1.3 SITE ENCLOSURE

- .1 Erect temporary site enclosure using new 1.2 m (4 ft) high snow fence wired to rolled steel "T" bar fence posts spaced at 2.4 metres (8 ft) OC.
 - .1 Provide one (1) lockable truck gate.
 - .2 Provide a minimum of two (2) lockable pedestrian gates, separated by a distance on minimum one-half (1/2) the diagonal distance of the site area.
 - .3 Maintain fence, gates and overall enclosure in good repair for the duration of the contract or until final site enclosure assemblies are in place.
- .2 Fencing as stated above shall be installed to enclose the specific work and access areas to the construction site..
- .3 Provide barriers around trees and plants designated to remain.
- .4 Protect from damage by equipment and construction procedures.

1.4 GUARD RAILS AND BARRIERS

- .1 Provide secure, rigid guard rails and barricades around open edges of floors and roofs.
- .2 Provide as required by governing authorities or as indicated by the drawings.

1.5 WEATHER ENCLOSURES

- .1 Provide weather tight closures to tops of shafts and other openings in floors and roofs.
- .2 Design enclosures to withstand wind pressure and snow loading.

1.6 DUST TIGHT BARRIERS

- .1 Provide dust tight barriers and screen partitions to localize dust generating activities, and for protection of workers, finished areas of Work and public.
- .2 Maintain and relocate protection until such work is complete.

1.7 PROTECTION FOR OFF-SITE AND PUBLIC PROPERTY

- .1 Protect surrounding private and public property from damage during performance of contract.
- .2 Be responsible for damage incurred.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

TEMPORARY CONSTRUCTION

SECTION 01530

Page 2 of 2

1.8 PROTECTION OF APPLIED FINISHES

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

1.9 PROTECTION OF SURROUNDING WORK

- .1 Provide protection for finished and partially finished Work from damage.
- .2 Provide necessary cover and protection.
- .3 Be responsible for damage incurred due to lack of or improper or inappropriate protection.

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

CUTTING AND PATCHING

SECTION 01730

Page 1 of 2

PART 1.0- GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.
- .2 This section describes requirements applicable to all Sections within these specifications.

1.2 SUBMITTALS

- .1 Submit written request in advance of cutting or alteration which affects:
 - .1 Structural integrity of any element of Project
 - .2 Integrity of weather exposed or moisture resistant element
 - .3 Efficiency, maintenance, or safety of any operational element
 - .4 Visual qualities of sight exposed elements
 - .5 Work of Owner or separate contractor
- .2 Include in request:
 - .1 Identification of Project
 - .2 Location and description of affected Work
 - .3 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.

PART 2.0 PRODUCTS

2.1 MATERIALS

- .1 Primary Products: Those required for original installation.
- .2 Product Substitution: For any proposed change in materials, submit request for substitution to Consultant and await approval prior to proceeding with the work.

PART 3.0 EXECUTION

3.1 EXAMINATION

- .1 Examine existing conditions prior to commencing Work, including elements subject to damage or movement during cutting and patching.
- .2 After uncovering existing Work, assess conditions affecting performance of work.
- .3 Beginning of cutting or patching means acceptance of existing conditions.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

CUTTING AND PATCHING

SECTION 01730

Page 2 of 2

3.2 PREPARATION

- .1 Provide temporary supports to ensure structural integrity of the Work.
- .2 Provide devices and methods to protect other portions of Project from damage.
- .3 Provide protection from elements for areas which may be exposed by uncovering work.

3.3 CUTTING

- .1 Execute cutting and fitting including excavation and fill to complete the Work.
- .2 Uncover work to install improperly sequenced work.
- .3 Remove and replace defective or non-conforming work.
- .4 Remove samples of installed work for testing when requested.
- .5 Provide openings in the work for penetration of mechanical and electrical work.
- .6 Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- .7 Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.

3.4 PATCHING

- .1 Execute patching to complement adjacent work.
- .2 Fit products together to integrate with other work.
- .3 Execute work by methods to avoid damage to other work, and which will provide appropriate surfaces to receive patching and finishing.
- .4 Employ original installer to perform patching for weather exposed and moisture resistant elements, and sight-exposed surfaces.
- .5 Restore work with new Products in accordance with requirements of Contract Documents.
- .6 Fit work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- .7 At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 06100, to full thickness of the penetrated element.
- .8 Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

CLEANING

SECTION 01740
Page 1 of 2

PART 1.0- GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.
- .2 This section describes requirements applicable to all Sections within these specifications.

PART 2.0 - PRODUCTS

2.1 CLEANING MATERIALS

- .1 Cleaning Agents and Materials: Low VOC content.
- .2 Applicable cleaning agents as provided or recommended by manufacturer's standards for specific surfaces and equipment.

PART 3.0 – EXECUTION

3.1 PROGRESSIVE CLEANING

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris, including that caused by other Contractors.
- .2 Clear snow and ice from area of construction, bank or pile snow in designated areas only, or upon confirmation from Consultant, remove from site.
- .3 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .4 Containers:
 - .1 Provide on-site steel framed, hinged lid containers for collection of waste materials and debris.
 - .2 Provide and use clearly marked, separate bins for recycling.
- .5 Remove waste material and debris from site and deposit in waste container at end of each working day.
- .6 Dispose of waste materials and debris off site.
- .7 Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .8 Provide adequate ventilation during use of volatile or noxious substances. Use of enclosure ventilation systems is not permitted for this purpose.
- .9 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- .10 Schedule cleaning operations so that resulting dust, debris and other contaminants will not contaminate building systems.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

CLEANING

SECTION 01740
Page 2 of 2

3.2 CLEANING PRIOR TO ACCEPTANCE

- .1 Prior to applying for Substantial Performance of the Work, remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
- .3 Prior to final review, remove surplus products, tools, construction machinery and equipment.
- .4 Remove waste materials from site at regularly scheduled times.
- .5 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .6 Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds.
- .7 Remove dirt and other disfiguration from exterior surfaces.
- .8 Clean and sweep roofs, gutters, areaways, and sunken wells.
- .9 Sweep and wash clean paved areas.
- .10 Clean down-spouts and drainage components.

3.3 FINAL PRODUCT CLEANING

- .1 Execute final cleaning prior to final project assessment.
- .2 Clean site; sweep paved areas, rake clean landscaped surfaces.
- .3 Remove waste and surplus materials, rubbish, and construction facilities from the site.

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

CLOSEOUT SUBMITTALS

SECTION 01780

Page 1 of 6

PART 1.0- GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.
- .2 This section describes requirements applicable to all equipment and operable systems identified within the Drawings and Specifications.

1.2 INSPECTIONS AND DECLARATIONS

- .1 Contractor's Inspection: Contractor and all Subcontractors shall conduct an inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.
 - .1 Notify Consultant in writing of satisfactory completion of Contractor's Inspection and that corrections have been made.
 - .2 Request Consultant's Inspection.
- .2 Consultant's Inspection: Consultant and Contractor will perform inspection of Work to identify defects or deficiencies. Correct defective and deficient Work accordingly.
- .3 Completion: submit written certificate that following have been performed:
 - .1 Work has been completed and inspected for compliance with Contract Documents.
 - .2 Defects have been corrected and deficiencies have been completed.
 - .3 Equipment and systems have been tested, adjusted and balanced and are fully operational.
 - .4 Certificates required by authorities having jurisdiction have been submitted.
 - .5 Operation of systems have been demonstrated to Owner's personnel.
 - .6 Work is complete and ready for Final Inspection.
- .4 Final Inspection: when items noted above are completed, request final inspection of Work by Consultant, and Contractor. If Work is deemed incomplete by Consultant, complete outstanding items and request re-inspection.
- .5 Declaration of Substantial Performance: when Consultant considers deficiencies and defects have been corrected and it appears requirements of Contract have been substantially performed, make application for Substantial Performance of the Work.
- .6 Commencement of Warranty Periods: the date of Substantial Performance of the Work shall be the date for commencement of the warranty period.
- .7 Commencement of Lien Periods: the date of publication of the certificate of Substantial Performance of the Work shall be the date for commencement of the lien period, unless required otherwise by the lien legislation applicable at the Place of the Work.
- .8 Final Payment: When Consultant considers final deficiencies and defects have been corrected and it appears requirements of Contract have been completed, make application for final payment.
- .9 Payment of Hold-back: After issuance of certificate of Substantial Performance of the Work, submit an application for payment of hold-back amount.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

CLOSEOUT SUBMITTALS

SECTION 01780

Page 2 of 6

1.3 INSPECTION FOR SUBSTANTIAL PERFORMANCE

- .1 Contractor, Consultant and Owner will determine when the project meets the requirements of Substantial Performance, and arrange for an inspection of the full scope of work regardless of work previously inspected during the course of construction.
- .2 The inspection team shall consist of the Owner, Contractor and Consultant along with such representatives as they deem necessary.
- .3 Upon completion of this inspection, the Contractor shall remedy all defects. All deficient Work, with the exception of seasonal deficiencies, shall be completed within the 40 day period related to payment of monies under the regulations of the Saskatchewan Builder's Lien Act.

1.4 APPLICATION FOR CERTIFICATE OF SUBSTANTIAL PERFORMANCE

When the steps in Clause 1.4 have been performed, the Contractor must make written application to the Owner through the Consultant for a Certificate of Substantial Performance.

This application shall include a statement to the Owner to the effect that: the Contract is substantially performed in accordance with the construction documents and all revision/amendment documents issued during the course of construction.

Where the balance of the Contract, or a part or parts thereof, cannot be performed forthwith, but must be deferred for reasons beyond the control of the Contractor, the statement shall contain a completion date for each phase of the balance of the Contract.

- .1 Contractor shall be required to submit the following documents to the Consultant for review prior to issuance of a Final Certificate for Payment:
 1. Statutory Declaration stating that liabilities incurred in carrying out the work have been paid, and that there are no claims, liens, garnishees or attachments relating to the Work.
 2. Clearance from Workers' Compensation Board that the Contractor is in compliance with the requirements of *The Workers' Compensation Act* in respect to workers' compensation assessments due thereunder.
 3. Clearance from Saskatchewan Ministry of Finance that the Contractor is in compliance and current with all financial obligations applicable to provincial government agencies.
 4. All written guarantees and warranties as required by the Specifications
 5. Updated construction documents that provide as-built information relative to the work completed on site.
 6. Maintenance Manuals as specified within this document.
- .2 On approving an application, the Owner shall instruct the Consultant to issue a Certificate of Substantial Performance (Form C-1) to the Contractor. The certificate shall establish the date of Substantial Performance of the Contract. This date shall be the commencement of the forty (40) clear day period prior to release of holdback monies.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

CLOSEOUT SUBMITTALS

SECTION 01780

Page 3 of 6

1.5 CLOSEOUT SUBMITTALS

- .1 Prepare instructions and data using personnel experienced in maintenance and operation of described products.
- .2 Copy will be returned after final inspection, with Consultant's comments.
- .3 Revise content of documents as required prior to final submittal.
- .4 Two weeks prior to Substantial Performance of the Work, submit to the Consultant, four final copies of operating and maintenance manuals in Canadian English.
- .5 Ensure spare parts, maintenance materials and special tools provided are new, undamaged or defective, and of same quality and manufacture as products provided in Work.
- .6 If requested, furnish evidence as to type, source and quality of products provided.
- .7 Defective products will be rejected, regardless of previous inspections. Replace products at own expense.
- .8 Pay costs of transportation.

1.6 OPERATION AND MAINTENANCE MANUAL FORMAT

- .1 Organize data in the form of an instructional manual. Contractor shall compile and submit two (2) copies of the maintenance manuals required for all product materials and installations. Contractor shall compile and submit one (1) electronic copy of all documents contained within the hard copy of the maintenance manuals. Where possible, original electronic files shall be used; scanned files are acceptable where original documents are unavailable in electronic format. All electronic files shall be formatted in the current PDF file format.
- .2 Binder: new, vinyl, hard covered, 3 ring, loose leaf 219 x 279 mm (8.5x11inch) with face pockets.
- .3 Correlate data into related consistent groupings. Identify general contents on spine.
- .4 Cover: Identify binder with type or printed title 'Project Record Documents'; list title of project and identify subject matter of contents.
- .5 Arrange content using Section numbers and sequence of Table of Contents.
- .6 Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- .7 Text: Manufacturer's printed data, or typewritten data.
- .8 Drawings: provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- .9 Separate manuals shall be provided for each building as required herein.

1.7 CONTENTS- EACH VOLUME

- .1 Table of Contents: provide title of project;
 - .1 title of project;
 - .2 date of submission;
 - .3 Names, addresses, and telephone numbers of Consultant and Contractor with name of responsible parties
 - .4 List of all subcontractors, including addresses, phone numbers, main contact names, and the related scope of their work.
 - .5 schedule of products and systems, indexed to content of volume.
- .2 For each product or system, list names, addresses and telephone numbers of suppliers, including local source of supplies and replacement parts.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

CLOSEOUT SUBMITTALS

SECTION 01780

Page 4 of 6

- .3 Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation; delete inapplicable information. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions. Equipment or materials information, maintenance instructions, service and parts sources, parts diagrams, and all pertinent data necessary for ongoing care and maintenance of materials and equipment related to the project.
- .4 Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Copy of all shop drawings, including corrected shop drawings.
- .5 Copy of paint and material colour finishes including manufacturers' name & maintenance data.
- .6 Certificate of Acceptance: Relevant certificates issued by authorities having jurisdiction, including code compliance certificate, life safety systems performance certificate, and any other applicable certificate documentation.
- .7 Training: Comply with requirements for training as identified within Mechanical and Electrical sections of Specifications.
- .8 Manuals shall be submitted to the Consultant for review. Any items found deficient or requiring correction shall be completed with five (5) working days of identification.

1.8 RECORDING ACTUAL SITE CONDITIONS

- .1 Record information on set of black line drawings provided by the Owner, and within the Project Manual.
- .2 Annotate with coloured felt tip marking pens, maintaining separate colours for each major system, for recording changed information.
- .3 Record information concurrently with construction progress. Do not conceal Work of the Project until required information is accurately recorded.
- .4 Contract drawings and shop drawings: legibly mark each item to record actual construction, including:
 - .1 Measured depths of elements of foundation in relation to finish first floor datum.
 - .2 Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - .3 Measured locations of internal utilities and appurtenances, referenced to visible and accessible features of construction.
 - .4 Field changes of dimension and detail.
 - .5 Changes made by change orders.
 - .6 Details not on original Contract Drawings.
 - .7 References to related shop drawings and modifications.
- .5 Specifications: legibly mark each item to record actual construction, including:
 - .1 Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.
 - .2 Changes made by Addenda and change orders.
- .6 Other Documents: maintain manufacturer's certifications, inspection certifications, and field test records required by individual specification sections.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

CLOSEOUT SUBMITTALS

SECTION 01780

Page 5 of 6

1.9 RECORD (AS BUILT) DOCUMENTS AND SAMPLES

- .1 In addition to requirements in General Conditions, maintain at the site for Consultant one record copy of:
 - .1 Contract Drawings- clearly marked in red felt pen.
 - .2 Specifications- clearly marked and inserted.
 - .3 Addenda
 - .4 Change Orders and other modifications to the Contract
 - .5 Reviewed shop drawings, product data, and samples
 - .6 Field test records
 - .7 Inspection certificates
 - .8 Manufacturer's certificates
- .2 Store as-built documents and samples in field office apart from documents used for construction. Provide files, racks, and secure storage.
- .3 Label as-built documents and file in accordance with section number listings in List of Contents of the Project Manual. Label each document "AS-BUILT DOCUMENTS" in neat, large, printed letters.
- .4 Maintain as-built documents in clean, dry and legible condition. Do not use as-built documents for construction purposes.
- .5 Keep as-built documents and samples available for inspection by Consultant.

1.10 RECORD DOCUMENTS

- .1 Prior to Substantial Performance of the Work, provide all mark-up information from the as-built documents to a master set of drawing and specification files provided by the Owner.
- .2 Mark revised documents as "RECORD DOCUMENTS". Include all revisions, with special emphasis on mechanical, electrical, structural steel, and reinforced concrete.
- .3 Submit completed record documents to Owner on hard copy sets.

1.11 WARRANTIES

- .1 The Contractor shall furnish a written warranty issued in the name of the Owner guaranteeing workmanship for a period of one year from the date of acceptance of the completed Work. The Contractor shall promptly replace any and all improper Work, material or products within the period of this guarantee.
- .2 Separate each warranty with index tab sheets keyed to Table of Contents listing.
- .3 List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
- .4 Obtain warranties, executed in duplicate by subcontractors, suppliers, and manufacturers, within ten (10) days after completion of the applicable item of work.
- .5 Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial Performance is determined.
- .6 Verify that documents are in proper form and contain full information. Retain warranties until time specified for submittals.
- .7 Co execute submittals when required.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

CLOSEOUT SUBMITTALS

SECTION 01780

Page 6 of 6

1.12 WARRANTY PERIOD AND EXTENSIONS

- .1 The Owner, Consultant and the Contractor shall conduct an inspection of the project one (1) month prior to the expiration of the warranty period.
- .2 The contractor shall be provided with a written record produced from the inspection for use in correction of any defects discovered on that date.
- .3 The Contractor shall promptly remedy any defects due to faulty materials or workmanship.
- .4 Warranty period of one (1) full year beyond the initial warranty period shall commence for remedied items upon completion of corrections and acceptance by Owner and Consultant.
- .5 Contractor shall furnish written extended warranties issued in the name of the Owner as required within individual sections of these specifications.

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

ROUGH CARPENTRY

SECTION 06100

Page 1 of 5

PART 1.0 - GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.

1.2 DESCRIPTION

- .1 This Contractor shall be responsible for all carpentry materials supply and installation as specified or illustrated on drawings.
- .2 Work to include all temporary structures, enclosures and hoarding necessary for the safe and effective execution of the contract.
- .3 Work to include anchorage, blocking, curbing, miscellaneous framing and bracing.

1.3 REFERENCE STANDARDS

- .1 The latest edition of all applicable 'Reference Standards' noted within these specifications shall govern all work:
 - a. National Building Code of Canada (NBC)
 - b. Workers' Compensation Board (WCB) Industrial Health and Safety Regulations
 - c. Province of Saskatchewan Occupational Health and Safety Regulations
 - d. Canadian Wood Council – Wood Design Manual
 - e. Canadian Standards Association B111-1974, Wire Nails, Spikes and Staples

PART 2.0 - PRODUCTS

2.1 DIMENSION LUMBER

- .1 Regulations: CSA 041 and NLGA Standard Grading Rules.
- .2 Framing, blocking, strapping: construction-grade spruce.
- .3 Pressure treated (PT) lumber: borate preservative treated materials, sizes and locations in accordance with drawings. All lumber used above the roof sheathing shall be pressure treated.

2.2 PLYWOOD

- .1 Regulations: CSA 0121-m1978 (R2003)
- .2 Sheathing Exterior grade fir plywood to be used unless noted otherwise. Thicknesses and locations in accordance with drawings. Install sheathing as noted with H-clips in accordance with spacing as required by manufacturer, or indicated on drawings.
- .3 Pressure treated (P.T.) plywood: Borate preservative treated materials, CSA 080-08 series; thicknesses and locations in accordance with drawings. All plywood used above the roof sheathing for interior of parapet walls, curbs and supports shall be pressure treated.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

ROUGH CARPENTRY

SECTION 06100

Page 2 of 5

2.3 FASTENERS

- .1 Regulations: CSA B111.
- .2 Exterior fasteners: hot dipped galvanized finish.
- .3 Spiral barrel nails: Standard use throughout project except in finishing applications. Sizing to be minimum 2" (50mm) unless noted otherwise.
- .4 Galvanized finish: Applies to all threaded fasteners and accessories.

2.4 MISCELLANEOUS MATERIALS

- .1 General sealants: Tremco Dymonic, translucent or white, confirm application on site.
- .2 Foam rod filler: Closed cell polyethelene foam rod, sized as per details; non-absorbent rod.
- .3 General Purpose Utility Tape: Tuck Tape (red).
- .4 Sheathing paper: Hal Industries Inc. Hal-Tex "60 minute" Asphalt / Kraft.
- .5 Fascia Vent: EH Price LBP-27C aluminium grille, size 8" x 16", Finish B-12 White, ¾" flange, concealed fasteners, mitred corners. Grille to be backwrapped with bug screen. Total of sixteen (16) units to be supplied and installed.
- .6 Fascia Vent Duct: 26 gauge galvanized T-discharge duct, duct dimensions of 16" wide x 4" high, total length of 12" with 6" T-extensions each way. Total of sixteen (16) units to be fabricated and installed.
- .7 Gable end drain hoppers: 24 gauge galvanized sheet metal.

2.5 AIR / VAPOUR BARRIER MATERIALS

- .1 Polyethylene film: CIL Milrol, 6mil thickness; in accordance with CAN/CGSB-51-34.
- .2 Peel & Stick barrier: Grace Ice & Water Barrier; polyethelene membrane with asphaltic backing, self-adhering, sizing to suit detail applications.
- .3 Caulking compound: Single component application in accordance with CGSB 19-GP-6.

2.6 INSULATIONS

- .1 Batt insulation: Fibreglas friction-fit, Type 1, in accordance with CSA A-101.
- .2 Rigid insulation: Fiberglas AF545 RFFRK, in accordance with CGSB 51-GP-10.
- .3 Low Expansion Foam Insulation: UL classified product; minimal expansion polyurethane insulating foam sealant; airtight, water resistant, rigid curing status with flexibility to accommodate minor movement in installation systems.
- .4 Insulation Stops (Perimeter wall installation): Waxed corrugated cardboard stops complete with adhered spacers and fastening tabs. Materials to be purpose made to suit truss installation spacing.

2.7 FIRE STOP MATERIALS

- .1 Fire stop materials: AD Firebarrier Firestopping Materials. Confirm application requirements with Saskatchewan Fire and Safety Unit.
- .2 Provide all necessary systems to achieve rating for penetrations equal to specified wall / ceiling systems installations.
- .3 Refer to drawings for required ratings at specific locations.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

ROUGH CARPENTRY

SECTION 06100

Page 3 of 5

PART 3.0 - EXECUTION

3.1 FRAMING

- .1 Regulations: Current edition of CSA-086 and all applicable requirements of National Building Code, Section 9.0.
- .2 Space member in accordance with direction provided by drawings. Do not increase spacing in any situation. Add additional members as required to suit lengths and spacing layout.
- .3 Level set all members for alignment and plumbed installations.
- .4 Confirm and adhere to required elevation levels for framing members.
- .5 All load bearing framing members to be fully secured for full bearing as indicated on drawings.

3.2 WOOD STUD INSTALLATION

- .1 Refer to drawings for stud sizes, spacing and special details.
- .2 All horizontal plate members to be lapped at intersections and corner connections.
- .3 Frame corner connections in accordance with details; minimum double stud connections with triple studs are all exterior corners.
- .4 Frame all openings with double stud assembly; interior stud cripple to lintel support, secondary stud full height.
- .5 Install horizontal blocking in full height stud assembly at midpoint of full height members. Stagger blocking in adjacent spacings. Maximum vertical spacing not to exceed 6'-0" (1800mm).
- .6 Install all nailers and blocking required for installation of equipment and fitments. Confirm locations and spacing with materials suppliers prior to installation of blocking. Secure all nailers and blocking to framing members.

3.3 PLYWOOD SHEATHING

- .1 Refer to drawings for sheathing thickness and locations.
- .2 Sheathing installation to be fully inspected prior to application of sheathing paper. Confirm inspection requirements with Consultant prior to proceeding with subsequent works.
- .3 Sheathing to be applied perpendicular to framing stud members unless noted otherwise.
- .4 Full panels to be used on all situations; multiple pieces will not be accepted for wall areas.
- .5 Sheathing to be staggered minimum one-third length dimension in adjacent layers.
- .6 Secure end joints on solid bearing to framing members.
- .7 Secure sheathing with specified fasteners spaced at maximum dimensions of 6" (150mm) for panel perimeter lines and 8" (200mm) within panel field area.
- .8 Butt panels snugly on all sides, ensuring no gaps present along the joints.
- .9 Seal all checks and splits in plywood facing prior to application of sheathing paper.
- .10 Damaged or deficient pieces replaced with full sized panels prior to sheathing paper.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

ROUGH CARPENTRY

SECTION 06100

Page 4 of 5

3.4 SHEATHING PAPER

- .1 Refer to drawings for locations. General premise is for all exterior sheathed walls to be covered with sheathing paper.
- .2 Install paper starting at base of wall with subsequent vertical layers lapped over lower layer.
- .3 Install paper horizontally with subsequent joints lapped minimum 6" (150mm) between layers. End joints to lap minimum 6" (150mm) at all conditions.
- .4 Extend paper around interior and exterior corners minimum 8" (200mm)
- .5 Overcut paper into openings minimum 6" (150mm) and secure to opening framing members.
- .6 Fasten paper with construction staples, minimum 1/4:" (6mm) length spaced at maximum distance of 16" (400mm) each way.

3.5 SEALANTS

- .1 Refer to drawings for details and specific locations.
- .2 Caulk and seal all exterior joints complete with joint backing for gaps in excess of 1/4" (6mm).
- .3 Caulk and seal all joints of dissimilar materials and finishes on interior and exterior of building systems.
- .4 Caulking to be tooled concave for full length immediately after initial application.
- .5 All excess or overage sealant to be removed prior to curing.

3.6 FIRESTOP PACKING

- .1 Refer to drawings for locations of fire rated assemblies.
- .2 Install fire stop materials at all mechanical and electrical penetrations through fire rated assemblies.

3.7 SUPPLIED MATERIALS

- .1 Coordinate delivery and installation of all supplied materials.
- .2 Install materials using manufacturer supplied template and recommended fasteners.

3.8 ROOF AND FASCIA ITEMS

- .1 Refer to drawings for location and installation of roof and fascia items.
- .2 Supply and install all roof and fascia blocking and plywood finishes as detailed.
- .3 Supply and install all required blocking and supports for mechanical and electrical items located on roof and fascia levels.

3.9 ATTIC ACCESS HATCH

- .1 Refer to drawings for locations of attic access hatches.
- .2 Install hatch (specified Section 10001) in accordance with manufacturer's requirements.
- .3 Provide 2x6 perimeter framing members on all sides of hatch framing.
- .4 Install 3/4" (19mm) plywood box frame within attic area for full depth of insulating materials.
- .5 Secure box frame to truss members with 2x4 framing on all sides.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

ROUGH CARPENTRY

SECTION 06100

Page 5 of 5

3.10 INSULATION STOPS

- .1 Refer to details for installation and location of insulation stops along all eave lines..
- .2 Installation to proceed prior to installation or modification to attic area insulating materials.
- .3 Supply and install insulation stops at all eave conditions as noted on drawing plans and details..
- .4 Insulation stops to be securely fastened in place with long leg vertical and secured to truss members.
- .5 Insulation stops to maintain minimum air gap at top, spaced open to underside of sheathing for passage of ambient air ventilation through attic area.

3.11 SOFFIT VENT INSTALLATION

- .1 Coordinate fabrication, supply and installation of sixteen (16) vents and ducting.
- .2 Grilles to be installed in horizontal pre-finished metal fascia. Locate grilles to suit spacing between truss members.
- .3 Exact location and positioning to be confirmed on site prior to mounting.
- .4 Install grilles in accordance with manufacturer's recommendations.
- .5 Install purpose made galvanized T-discharge from back of grille to supply free ventilation to soffit/attic area.
- .6 T-discharge to slope up at 30 degrees from back of grille within soffit plenum.

3.12 GABLE END LOUVER DRAIN HOPPERS

- .1 Refer to drawings for locations and sizes of gable end louver drain hoppers. (Total of two (2) units required)
- .2 Fabricate hoppers in accordance with details and connection requirements.
- .3 Connect to aluminum louver frame with approved fasteners; seal all connections and joints to be moisture resistant.
- .4 Installation to facilitate moisture drainage through drain holes within aluminum louvres.

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

SPRAY FOAM INSULATION

SECTION 07216

Page 1 of 6

PART 1.0 -GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.

1.2 WORK INCLUDED

- .1 Spray application of polyurethane foam to provide insulation, air barrier and vapour barrier.

1.3 REFERENCES

1. CAN/ULC S705.1-05 TYPE 2 (Including amendment 1 & 2) Standard for Thermal Insulation Spray Applied Rigid Polyurethane Foam, Medium Density, Material Specification.
2. CAN/ULC-S705.2- Standard for Thermal Insulation Spray Applied Rigid Polyurethane Foam, Medium Density, - Application.
3. Canadian Urethane Foam Contractors Association, (CUFCA)"Manual for Installers of Spray Polyurethane Foam Thermal Insulation".
4. CUFCA Quality Assurance Program
5. CCMC 13244-L Spray Polyurethane Foam Insulation
6. AIR INS inc. Report AS-00201-A Water Vapour Transmission
7. AIR INS inc. Report A1-02627-A Air Barrier
8. GREENGUARD certification for children and school

1.4 SUBMITTALS AND SAMPLES

1. Before starting the work, submit MSDS and materials data sheets; include results of independent laboratory test reports, data sheets, physical properties, meeting or exceed requirements of the standard in reference and this specification.
2. Submit a laboratory report of the adhesion compatibility with: flashing membranes, coatings and substrates.
3. License under CUFCA and certification applicators under CUFCA to be submitted to the consultant upon request and prior to the beginning of the work.
4. Submit by the manufacturer a conformity certification to NBC of the polyurethane foam system.
5. Submit tests results graph vapour permeance properties of each composition walls assemblies from independent laboratory recognize by SCC for ASTM E96 test method.
6. Submit test results by independent laboratory on air barrier material performance, conducted in order to prove that the air barrier material rating meets National Building Code requirements and this specifications art: 2.3.11
7. Submit manufacturer certification letter that the product meet article 2.1 of this specification.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

SPRAY FOAM INSULATION

SECTION 07216

Page 2 of 6

1.5 QUALITY ASSURANCES

1. Contractor and performing work under this section must be licensed under CUFCA (Canadian Urethane Foam Contractors Association)
2. Applicators (sprayer) performing work under this section must be trained and certified by CUFCA
3. Upon request of consultant, submit a copy of the contractor quality control report as requested in CAN/ULC-S705.2.
4. Conduct site tests of sprayed work as required by the CUFCA Quality Assurance Program.
5. Upon request of consultant, submit manufacturer/supplier field applied product quality control report.

1.6 MOCK UP

1. Provide mock up of insulation / air barrier in approved area of the work site.
2. Acceptance of mock up sample may form part of the completed work.
3. Do not commence work until sample installation has been accepted.
4. Acceptance of sample preparation will be a reference for minimum acceptance of the work. Any need for deviation of the mock up acceptance shall be report in writing.
5. Upon consultant request, provide in writing manufacturer acceptance of the mock up quality.

1.7 DELIVERY, STORAGE AND HANDLING

1. Materials shall be delivered in manufacturers original sealed containers clearly labelled with manufacturer's name, product identification, safety, information, net weight of contents, and expiration date.
2. Material is to be stored in a safe manner and where the temperatures are in the limits specified by the material manufacturer.
3. Empty containers have to be removed from site on a daily basis in accordance with CAN/ULC-S705.2.

1.8 APPLICATION CONDITIONS

- .1 At the beginning and during the work allow access on the job site to manufacturer/supplier representative for technical support and assistance.
- .2 Execute the work of this section when the temperature of the air and substrate are within the limits of the data sheet supplied by the manufacturer.
- .3 Apply the spray foam only when the relative humidity is lower than 80%.
- .4 Prepare all surfaces in accordance to manufacturer's recommendations and CAN/ULC S705.2 standard.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

SPRAY FOAM INSULATION

SECTION 07216

Page 3 of 6

1.9 PROTECTION

1. Ventilate area to receive insulation to maintain non-toxic unpolluted, safe working conditions.
2. Protect workers as recommended by local regulations, standards and manufacturer's recommendations.
3. Spray Application in occupied building
 1. Define and isolate (seal) the working area. Use temporary enclosures (polyethylene film) to prevent spray and noxious vapours from contaminating air beyond application area.
 2. Seal all air duct system grid, diffuser and return in the working area.
 3. Install air exfiltration equipment to the exterior of the building using portable duct and exhaust fan.
 4. The working area shall be in negative pressure at a minimum rate of 0.3 ACH (Air Change per Hour)
 5. The working area shall be kept in negative pressure for a minimum period of 24 hrs after the spray application.
 6. All person inside the working area shall wear adequate respiratory protection and full personal protective equipment in accordance to provincial regulations and CAN/ULC-S705.2 standard
4. Protect adjacent surfaces, windows, equipment, and site areas from damage of over spray.

1.10 WARRANTY.

1. Warrant work of this section against defects and deficiencies for a period of two years from date work completion.
2. Provide a CWC warranty certificate in conformity to CUFCA Quality Assurance Program.
3. Provide manufacturer warranty for the field-applied product.

PART 2.0- PRODUCTS

2.1 ENVIRONMENTALS REQUIREMENTS

- .1 The product shall not have any CFC or HCFC or any depletion substances affecting the Ozone layer. ZERO ODS (Ozone Depletion Substance)
- .2 The Spray Polyurethane Foam Insulation shall have a total minimum of 18% recycled content from post-consumption and post-industrial source. The % shall be calculated by weight basis ratio of the recycled source in the rigid Spray Polyurethane Foam System applied.
- .3 The SPF shall contain in the formula some renewable vegetable oil content.
- .4 Product shall conform to GREENGUARD certification for children and school.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

SPRAY FOAM INSULATION

SECTION 07216

Page 4 of 6

2.2 MATERIALS

- .1 Spray Applied Polyurethane Foam Insulation system in accordance with CAN/ULC S705.1-05 TYPE 2 (Including amendment 1 & 2) “ Standard for Thermal Insulation”
Spray Applied Rigid Polyurethane Foam, Medium Density, Material Specification and those specific objectives performances.
- .2 Product: **HEATLOK SOYA / POLARFOAM SOYA**
- .3 Insulation Stops (Perimeter wall installation): Waxed corrugated cardboard stops complete with adhered spacers and fastening tabs. Materials to be purpose made to suit truss installation spacing.

2.3 MATERIAL SPECIFICATIONS

1. Density: ASTM D1622
2. Thermal Resistance: ASTM C518 180 days/23⁰C
3. Long Term Thermal Resistance (LTTR) - CAN/ULC S 770
4. Dimensional stability - ASTM D 2126 (% of change in volume at 28 days)
5. Flames spread Index - CAN/ULC S 102-03
6. Smoke Develop Index - CAN/ULC S 102-03
7. Compressive strength - ASTM D1621
8. Tensile strength- ASTM D1623
9. Open cells - ASTM D2856
10. Water absorption - ASTM D2842 (96 hrs)
11. Air barrier Material - at 75 Pa CCMC 07273 (25mm core only)
12. Fungi Resistance - ASTM C 1338 Min..No Fungal Growth
13. VOC. - CAN/ULC S 774
14. Fire test resistance Wall Panels - CAN/ULC S101-4
15. Water vapour permeance material - ASTM E96 (50mm core only)

2.4 PRIMERS

1. Follow manufacturers’ recommendations and CAN/ULC S705.2 for surfaces conditions.

2.5 EQUIPMENT

1. Equipment shall be maintain in good conditions and conform to CAN/ULC-S705.2 and approved by foam manufacturer for type of application.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

SPRAY FOAM INSULATION

SECTION 07216

Page 5 of 6

PART 3.0- EXECUTION

3.1 EXAMINATION

1. Verify that surfaces and conditions are suitable to accept work as outlined in this section.
2. According to the prescriptions of the standard CAN / ULC S705.2 verify the conditions of surfaces.
 - .1 Surfaces to be covered with spray foam shall be free of an excess of moisture, frost, oil, rust, and any other foreign material able to have a negative affect on the adhesion of the product.
 - .2 Make sure of the complete cure of the substrates: concrete, mortar, fillers, membranes, primers, coatings or other surfaces, before pulverizing, taking into account climatic conditions.
3. Respect the moisture content of the different building materials.
4. In the case of particular conditions follow the recommendations of the manufacturer
5. Report in writing, any defects in surfaces or conditions that may adversely affect the performance of products installed under this section to the consultant before commencement of work. For occupied building application confirm that all requirements in 1.11 article are in place.
6. Confirm that all others work and components are in place before the beginning of the application. The element included but not limited as follows:
 1. Fire-stop
 2. Flashing
 3. Electricity
 4. Duct work
 5. Primer
7. Commencement of work outlined in this section shall be deemed as acceptance of existing work and conditions.

3.2 INSULATION STOPS

- .1 Refer to details for installation and location of insulation stops along all eave lines..
- .2 Installation to proceed prior to installation or modification to attic area insulating materials.
- .3 Supply and install insulation stops at all eave conditions as noted on drawing plans and details..
- .4 Insulation stops to be securely fastened in place with long leg vertical and secured to truss members.
- .5 Insulation stops to maintain minimum air gap at top, spaced open to underside of sheathing for passage of ambient air ventilation through attic area.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

SPRAY FOAM INSULATION

SECTION 07216

Page 6 of 6

3.3 APPLICATION

- .1 Spray application of polyurethane foam shall be performed in accordance with CAN/ULC-S705.2. Standard for Thermal Insulation Spray Applied Rigid Polyurethane Foam, Medium Density, Installer's Responsibilities.
- .2 Apply only when surfaces and environmental conditions are within limits prescribed by the material manufacturer. Refers to technical data sheets.
- .3 Apply in consecutive passes (min. 16 mm(5/8''), max. 50 mm (2'')) to obtain the thickness as indicated on drawings 150mm) for attic areas.
- .4 Do not spray closer than (3'') 75 mm of chimneys, recess spotlight or other heat source.

3.4 TOLERANCE

- .1 .Applied product to have an average thickness of $\pm 6\text{mm}$ (1/4'') as per thickness requirements in the drawings at a minimum of 9 readings in 1 m^2 for each 150 m² surface sprayed.
- .2 .Apply the insulation uniform in accordance to NBC article 9.25.2.3. 1).

3.5 FIRE PROTECTION

- .1 Any open flame or welding shall not be in contact with the Spray Polyurethane Foam in place as required in CAN / ULC S705.2.
- .2 All plastic insulation must be protected from interior occupancy space by an approved thermal barrier to meet the requirements of local Building Codes.

3.6 APPLICATION TIMING AND SEQUENCE

- .1 Refer to drawings for extent of overall applications.
- .2 Application timing and sequence to be coordinated with General Contractor and Government of Canada to ensure occupancy of the buildings are maintained on a daily basis (weekends included).
- .3 Application of spray foam shall follow a controlled process to coincide with removal of existing loose fill insulation.
- .4 Apply only as much spray foam as available for controlled removal of existing loose fill insulation.
- .5 Removal of existing insulation and application of controlled sections for spray foam are to occur within the same working day period..

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

TORCH GRADE ROOFING MATERIALS

SECTION 07521

Page 1 of 5

PART 1.0 -GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.
- .2 Roofing and sheet metal work will be performed in conformance with the roofing manufacturer's written recommendations as well as the requirements of the Canadian Roofing Contractors Association and/or the local roofing association.
- .3 CAN CSA A82.27-M1977, Gypsum Board Products.
- .4 CGSB 37-GP-56M-80 Membrane Modified, Bituminous, Prefabricated, and Reinforced for Roofing.
- .5 Section 06100 – Rough Carpentry
- .6 Section 07620 – Prefinished Metal
- .7 Section 07920 - Sealants

1.2 QUALITY ASSURANCE AND ENVIRONMENTAL MANAGEMENT

- .1 The manufacturer of elastomeric bitumen products will provide proof of ISO 9001 and ISO 14001 Certifications.
- .2 Only applicators certified by manufacturer for work of the specified scope shall be engaged in such work.
- .3 The applicator shall have a minimum of five (5) years proven experience in work similar to that required by this section and shall show proof before commencement of work that a qualified crew of applicators will be maintained on site for the duration of the work.
- .4 Conform to manufacturer's specification and detail requirements for roofing system products including preparation, detailing and application of materials.

1.3 ULC CLASSIFICATION

- .1 Submit certified documentation classifying that the roofing system meets the requirements of CAN/ULC-S107-03 "Standard Methods of Fire Tests of Roof Coverings" CLASS C.

1.4 MANUFACTURER'S REPRESENTATION

- .1 The roofing product manufacturer can delegate a representative to visit the work site at the start of roofing installation.
- .2 The contractor must at all times enable and facilitate access to the work site by said representative.

1.5 FIRE PROTECTION

- .1 Abide by all safety regulations as laid out by the authority having jurisdiction in the location where the work is taking place.
- .2 Respect all safety measures described in the Soprema Specifications Manual and Roofer's Guide handbook (Section 6-Safety Measures) as well as local roofing association recommendation

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

TORCH GRADE ROOFING MATERIALS

SECTION 07521

Page 2 of 5

1.6 DELIVERY AND RETENTION OF MATERIALS ON SITE

- .1 All materials to be delivered to site in original containers.
- .2 Protect prefinished steel during fabrication, transportation, site storage and erection, in accordance with CRCA Standards.
- .3 Store all materials in clean, dry area; isolated from public traffic or access.
- .4 Store rolls on edge on a smooth level surface.
- .5 Protect materials from excessive temperature differentials prior to and during use.
- .6 Conform to WCB safety regulations and precautions for storage, application and disposal of all roofing related materials and those of local authorities having jurisdiction.

1.7 WARRANTY AND GUARANTEES

- .1 The product manufacturer shall supply a written and signed document issued in the name of the owner. The warranty will call for the removal and replacement of the defective membrane including labour, for a non-prorated fifteen (15) year period starting from the date of substantial completion. The membrane warranty cannot be limited by other system components that are only available or manufactured by the membrane manufacturer. Letters modifying the manufacturers' standard warranty will not be accepted.
- .2 The contractor will provide a CRCA format workmanship warranty for this project, valid for a period of 2 years.

PART 2.0 - PRODUCTS

2.1 PRIMER

- .1 **Description: ELASTOCOL 500:** A blend of elastomeric bitumen, volatile solvents and adhesive enhancing additives used to prime concrete or metal substrates to enhance the adhesion of torch-applied waterproofing membranes.
- .2 **Description: ELASTOCOL STICK:** A blend of elastomeric bitumen, volatile solvents, adhesive enhancing additives and resins used to prime concrete, metal or wood substrates to enhance the adhesion of self-adhesive membranes at temperatures above - 10°C

2.2 ADHESIVES

- .1 Description: highly elastomeric, two-component (one step), foamable adhesive that contains no solvents. The product is applied using a two-component static mixing tip adhesive applicator to ensure proper mixing and application of adhesive ribbons to the surface.
- .2 Specified product: **DUOTACK ADHESIVE** by SOPREMA

2.3 ROOFING MEMBRANES

- .1 Base sheet: SOPRABASE FR 180 by SOPREMA.
- .2 Base sheet flashing: SOPRAFLASH FLAM STICK by SOPREMA
- .3 Cap sheet: SOPRALENE FLAM 250 GR by SOPREMA
- .4 Cap sheet flashing: SOPRALENE FLAM 250 GR by SOPREMA
- .5 End lap tape: SOPRALAP TAPE by SOPREMA

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

TORCH GRADE ROOFING MATERIALS

SECTION 07521

Page 3 of 5

2.4 WATERPROOFING MASTICS

- .1 Waterproofing products: Mastic made of synthetic rubbers, plasticized with bitumen and solvents.
- .2 Specified product: **SOPRAMASTIC AND SOPRAMASTIC ALU** by SOPREMA.

PART 3.0 – EXECUTION

3.1 SURFACE EXAMINATION AND PREPARATION

- .1 Surface examination and preparation must be completed in conformance with recommendations in the SOPREMA Manual, particularly for fire safety precautions

3.2 APPLICATION OF PRIMER

- .1 Roofing substrates of wood, metal, concrete, masonry or gypsum board surfaces will receive a coat of asphalt primer at a rate of 0.15 to 0.25 l/m² (none required for factory-painted metals). All surfaces to be primed must be free of rust, dust or any residue that may hinder adherence. Cover primed surfaces with roofing membrane as soon as possible (ideally same day coverage for self-adhesive membranes).

3.3 BASE-SHEET INSTALLATION- SELF ADHESIVE

- .1 Apply base sheet only once primer coat is dry.
- .2 Install base sheet in one (1) metre widths to cover the base a minimum of 100 mm or a minimum of 40 mm beyond roof base sheet fasteners. Remove the plastic film in this area with a torch before application of the self adhesive membrane. Overlap side laps by 75 mm. Stagger side laps by at least 100 mm from base sheet overlaps on roof to avoid excessive layering.
- .3 Install the base sheet directly onto substrate by removing silicone paper cover sheet. Proceed from top to bottom and apply pressure to the membrane using an aluminium block tool. Ensure membrane is tight to angles and corners. Once in place, roll the membrane surface with a steel or rubber roller to ensure positive adherence over entire surface. Avoid forming wrinkles, air pockets or fishmouths.
- .4 Once all areas have been covered and laps sealed, complete the installation by heating the laps with a torch and buttering smooth.

3.4 ROOFING CAP SHEET INSTALLATION – TORCH APPLIED

- .1 Unroll cap sheet at drain. Carefully align first side lap (parallel to roof edge). If starter roll is not used, side laps covered in granules must be degranulated by embedding granules in torch-heated bitumen over a 75-mm width.
- .2 Weld cap sheet onto base sheet with torch equipment recommended by membrane manufacturer. During application, simultaneously melt both contact surfaces so a bead of bitumen is apparent as cap sheet unrolls. Avoid overheating.
- .3 Overlap cap sheet side laps by 75 mm and end laps by 150 mm. Cut off corners at end laps to be covered by next roll. All granule overlap surfaces must first have the granules embedded before sealing the overlap with a torch.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

TORCH GRADE ROOFING MATERIALS

SECTION 07521

Page 4 of 5

- .4 Ensure side and end joints between the Soprabase FR 180 panels and cap sheet are staggered by at least 300 mm. Stagger end laps between the rows of cap sheet a minimum of 300mm.
- .5 Once cap sheet is installed, carefully check all overlapped joints. Ensure the installation is free of wrinkles, air pockets or fishmouths. Verify compatibility of flashing materials with roofing system materials.

3.5 CAP SHEET FLASHING INSTALLATION – TORCH APPLIED

- .1 On the field cap sheet membrane, draw a parallel chalk line 150 mm (or 50 mm beyond the base sheet flashing) from all vertical junctions at parapets, curbs, or other roof projections. Degranulate this area by sinking the surface granules into bed of hot bitumen with torch and round-nosed trowel. Also degranulate any granulated vertical areas to be overlapped.
- .2 Install cap sheet flashings in one (1) -metre widths. Overlap side laps by 75 mm. Stagger base and cap sheet overlaps on roof by at least 100 mm to avoid excessive layering.
- .3 Torch weld cap sheet directly onto base sheet from top to bottom. Ensure adequate and even heat is applied to simultaneously melt both surfaces. Using a sponge, gently press the cap sheet membrane into place to obtain a positive contact and homogenous seal between the surfaces.
- .4 Once cap sheet is installed, carefully check all overlapped joints. Ensure the installation is free of wrinkles, air pockets or fishmouths. Care should be taken to avoid excessive bitumen bleed-out at joints

3.6 WATERPROOFING FOR VARIOUS DETAILS

- .1 Install waterproofing membranes in conformance with various roofing details illustrated in the SOPREMA Manual.

3.7 SHEET METAL FLASHING AND TRIM

- .1 Complete flashing work using specified materials described on plans and details.
- .2 Provide all metal flashings as shown and required, minimum 24 gauge pre-finished steel, galvanized finish for hidden areas, prefinished metal (Stelcolour 8000 series) for exposed areas.
- .3 Secure flashings with sheet metal screws. Daub heads with roofing gum.
- .4 All joints to be S-locked joints.
- .5 All exposed edges shall be hemmed minimum 6mm (1/4) on inside fold. No outside hemmed edges are to occur.
- .6 All outside corners shall be bent with straight, sharp edge. Minimum length of return leg 305mm (12")
- .7 All fasteners are to be concealed to maximum extent possible. Where exposed fasteners are occur, they shall be neatly aligned, evenly spaced, and finished to match adjacent surface.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

TORCH GRADE ROOFING MATERIALS

SECTION 07521

Page 5 of 5

3.8 DAILY PROTECTION OF WORK

- .1 Roofing materials shall not be applied in section larger than that which can be protected at night or in the event of rain.
- .2 At the end of each day's operation, edge of insulation and exposed materials shall be protected with a strip of membrane sealed to the substrate.
- .3 If it appears likely that the weather conditions may last for an extended length of time, exposed vapour barriers or membrane are to be complete with water tight weather seal.

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

PREFINISHED METAL

SECTION 07620

Page 1 of 4

PART 1.0 -GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.

1.2 DESCRIPTION

- .1 All labour, materials, tools and other equipment, services and supervision required to complete all cladding work as indicated on drawings and as specified herein.
- .2 Work under this Contract shall also include, but not necessarily be limited to the supply and/or installation of the following:
 - a. Sealants related to cladding installations
 - b. Flashings, trims and accessories
 - c. Control and expansion joints
- .3 Unless otherwise noted, the following work or conditions are not included under this section of work and are supplied and/or installed by others:
 - a. Substrates and correction of defects and deficiencies in substrates which may adversely affect siding work, including small crack repair and patching, except for minimal work performed by this trade
 - b. Surface preparation of substrates as required for acceptance of siding, including cleaning

1.3 DELIVERY AND RETENTION OF MATERIALS ON SITE

- .1 All materials to be delivered to site in original containers.
- .2 Protect prefinished steel during fabrication, transportation, site storage and erection, in accordance with CSSBI Standards.
- .3 Store all materials in clean, dry area; isolated from public traffic or access.
- .4 Store siding on edge or lay flat on a smooth level surface.
- .5 Protect materials from excessive temperature differentials prior to and during use.
- .6 Conform to WCB safety regulations and precautions for storage, application and disposal of all siding related materials and those of local authorities having jurisdiction.

1.4 QUALITY ASSURANCE

- .1 Only applicators certified by manufacturer for work of the specified scope shall be engaged in such siding work.
- .2 The applicator shall have a minimum of five (5) years proven experience in work similar to that required by this section and shall show proof before commencement of work that a qualified crew of applicators will be maintained on site for the duration of the work.
- .3 Conform to manufacturer's specification and detail requirements for siding system products including preparation, detailing and application of materials.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

PREFINISHED METAL

SECTION 07620

Page 2 of 4

1.5 DESIGN REQUIREMENTS

- .1 Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, overstressing of components, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime sky heat loss.
 - .1 Temperature Change (Range): 20 deg C, ambient; 40 deg C, material surfaces
- .2 Design expansion joints to accommodate movement in cladding and between cladding and structure to prevent permanent distortion or damage to the cladding.
- .3 Design wall system to maintain the following erection tolerances:
 - .1 Maximum variation from plane or location shown on shop drawings: 20 mm/10 m (3/4 inch/30 feet).
 - .2 Maximum offset from true alignment between two adjacent members abutting end to end in line: 1.5 mm (1/16 inches).

1.6 WARRANTY

- .1 Provide a written warranty to the Owners which guarantees workmanship related to the installation of the product for a period of not less than two (2) years.

PART 2.0 - PRODUCTS

2.1 PRODUCTS

- .1 Prefinished metal flashings and trim: 24 gauge (.6070mm) prefinished metal conforming to ASTM A 525M and CAN/CGSB 93.3-M91,
- .2 Colours to be selected from manufacturers full range by Architect prior to ordering.
- .3 Sealants and Caulking: Sealing compounds shall be compatible with the coating and base metal. Visible sealants shall be pigmented to match adjacent cladding. All exterior sealants to be one component polyurethane as per Section 07920.
- .4 Fasteners: Nails, screws, staples and other devices used to secure cladding shall be hot dipped galvanized or stainless steel. Visible fasteners shall be colour matched to material.

2.2 ROOFING FLASHINGS, TRIMS AND SOFFITS

- .1 Refer to drawings for details and assemblies.
- .2 Metal Fascia: 24 gauge prefinished steel; all joints s-locked, all exposed edges hemmed.
- .3 Fasteners: Concealed fasteners at all locations, coloured heads to match fascia and trims.
- .4 Soffit: Fully vented aluminum soffit, 26 gauge, 305mm (12") exposure per panel. Approved type: Gentek Hi-Tensile Aluminum Soffit, T-4 c/w Lomar polyester finish, fully vented.
- .5 Continuous Ridge Vent: AirVent MultiPitch Filter vent FV-101, Metal-Era engineered roof vents; aluminium vent systems complete with filter system; prefinished color to be selected from manufacturer's full range.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

PREFINISHED METAL

SECTION 07620
Page 3 of 4

2.3 FASTENERS

- .1 Fasteners shall be affixed in concealed positions using clips or angles as required to suit concealed installation.
- .2 Exposed fasteners to be factory finished to match the selected metal cladding colour.

2.4 SEALANTS

- .1 Concealed joints shall be sealant filled to prevent infiltration of moisture. All sealants to conform to manufacturer's requirements using either low temperature compression tape or polybutene sealant.
- .2 All exposed sealant at joints and connections to be as specified within Section 07920, finish to match adjacent cladding colour; install minimal bead size as required to ensure coverage.

PART 3.0 - EXECUTION

3.1 FABRICATION AND ERECTION

- .1 Refer to drawings for locations and installation details. All components, trims and closure pieces to be constructed in accordance with manufacturer's requirements. Install brake shape metal flashings to all openings in wall areas as detailed.
- .2 Allow for expansion of all metal components using slip joints or compression seals. Installation shall allow a minimum of 3mm joint width at all end section. Expansion coefficients to be in accordance with manufacturer's standards.
- .3 Erection of all trims and cladding shall be completed by forces trained in the installation of similar materials. All installations shall maintain strict conformance with manufacturer's requirements for work of this nature.
- .4 Final installation and appearance shall present materials that a free of all blemishes, crimps, cut marks or fabrication marks. All exposed edges shall be hemmed and trimmed smooth to eliminate any abrasive points.
- .5 All joints to be S-locked joints.
- .6 All exposed edges shall be hemmed minimum 6mm (1/4) on inside fold. No outside hemmed edges are to occur..
- .7 All outside corners shall be bent with straight, sharp edge. Minimum length of return leg 305mm (12")
- .8 All fasteners are to be concealed to maximum extent possible. Where exposed fasteners are occur, they shall be neatly aligned, evenly spaced, and finished to match adjacent surface.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

PREFINISHED METAL

**SECTION 07620
Page 4 of 4**

3.2 FASCIA, TRIMS AND SOFFITS INSTALLATION

- .1 Refer to drawings for installation details, trims and connected assemblies.
- .2 Install fascia edges in single pieces; all fasteners coloured to match exterior finish; all fasteners concealed.
- .3 Install soffit as per manufacturer's recommendations. Provide j-trim around all sides, secure to eave and wall framing. All trims and accessories prefinished to match soffit colour.
- .4 Install continuous ridge vent as per manufacturer's recommendations. Provide filter vents and bug screens continuous along length. Provide all necessary end caps, closures and seals to complete the full installation.

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

SEALANTS

SECTION 07920

Page 1 of 2

PART 1.0 - GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.

1.2 REFERENCES

- .1 CAN/CGSB-19.24-M90 Multi-component. Chemical Curing Sealing Compound

1.3 SAMPLES/PRODUCT DATA

- .1 Submit samples and schedule of each type of material and colour to be used for approval prior to application.
- .2 Samples shall be site cured under conditions anticipated at job site during application.

1.4 ENVIRONMENTAL AND SAFETY REQUIREMENTS

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and provision of material safety data sheets acceptable to Labour Canada.
- .2 Conform to manufacturer's recommended temperatures, relative humidity, and substrate moisture content for curing of sealants including special conditions governing use.
- .3 Products must be used with adequate ventilation and personal protection, and vapours must be prevented from entering occupied building.

1.5 WARRANTY

- .1 Contractor hereby warrants that caulking work of this section is guaranteed against leakage, cracking, crumbling, melting, shrinkage, running, loss or adhesion, or staining adjacent surfaces, for a period of **three years from the date of Final Certificate of Completion.**

PART 2.0 - PRODUCTS

2.1 SEALANT MATERIALS

- .1 Primers: Non-staining types recommended by sealant manufacturer to suit applications
- .2 Joint fillers: compatible with primers and sealants outsized 30 to 50%
- .3 Polyethylene, urethane, neoprene or vinyl: extruded closed cell foam, Shore A hardness 20, tensile strength 140 to 200 kPa.
- .4 Neoprene or butyl rubber: round solid rod, Shore A hardness 70.
- .5 Polyvinyl chloride or neoprene: extruded tubing with 1\4" (6 mm) minimum thick walls.
- .6 Bond breaker: pressure sensitive plastic tape, which will not bond to sealants.
- .7 Sealant – Non-Sag to CAN/CGSB-19.13. Type 2 as required by application. Class A, high performance, low modulus, one component, moisture curing, modified polyurethane joint sealant, movement range to +25%. To meet TT-S-00230C, ASTM C920, Type S, Grade NS, Class 25: colours to match adjacent materials.
- .8 Joint cleaner: Xybol, Methyleneleketon a non-corrosive type recommended by sealant manufacturer and compatible with joint forming material.
- .9 Sheathing Tape – VENTURE TAPE – Product 1585CW Tape – 2-1/2" (65mm) wide rolls.

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

SEALANTS

SECTION 07920

Page 2 of 2

PART 3.0 - EXECUTION

3.1 EXAMINATION

- .1 Examine work upon which work of this section depends and surfaces prepared by others.
- .2 Report, to the Contractor and Owner in writing, defects of work prepared by other trades and unsatisfactory site conditions.
- .3 Start of work shall imply acceptance of surfaces and conditions, and shall waive ground for later claims by this section.

3.2 PREPARATION

- .1 Remove dust, paint, loose mortar and other foreign matter. Dry joint surfaces.
- .2 Remove rust, mill scale and coatings from ferrous metals by wire brush, grinding or sandblasting.
- .3 Remove oil, grease and other coatings from non-ferrous metals with joint cleaner.
- .4 Prepare concrete, masonry, glazed and vitreous surfaces to sealant manufacturer's instructions.
- .5 Examine joint sizes and correct to achieve depth ration ½ of joint width with minimum width and depth of ¼" (6 mm) maximum width 1" (25 mm).
- .6 Install joint filler to achieve correct joint depth.
- .7 Where necessary to prevent staining, mask adjacent surfaces with tape prior to priming and caulking.
- .8 Apply bond breakage breaker tape where required to manufacturer's instructions.
- .9 Prime sides of joints in accordance with sealant manufacturer's instruction immediately prior to caulking.

3.3 APPLICATION

- .1 Apply sealants primers, joint fillers, bond breakers to manufacturer's instructions. Apply sealant using a gun with a proper size nozzle. Use sufficient pressure to fill voids and joints solid. Superficially pointing with skin bead is not acceptable.
- .2 Form surface of sealant with full bead, smooth, free from ridges, wrinkles, sags, air pockets, embedded impurities. Neatly tool surface to a slight concave joint.
- .3 Clean adjacent surface immediately and leave work neat and clean. Remove excess and droppings, using recommended cleaners as work progresses. Remove masking tape after tooling of joints.
- .4 Exterior: Caulk all junctions as detailed and including joints occurring between dissimilar materials

[END OF SECTION]

**PROPOSED ROOF REPAIRS
MTC/POB BUILDINGS
GOVERNMENT OF CANADA
REGINA, SASKATCHEWAN**

CONSTRUCTION SPECIALTIES

SECTION 10001

Page 1 of 1

PART 1.0 - GENERAL

1.1 RELATED SECTIONS

- .1 The General Conditions Section, Supplementary General Conditions Section and each Section of Division 1 constitute integral parts of this specific Section and must be utilized in accordance with the full set of contract documents.

1.2 SHOP DRAWINGS

- .1 It shall be a requirement of this section to prepare and submit shop drawings for all items specified within this section.
- .2 Shop drawing submission shall adhere to requirements noted within General Conditions and Supplementary General Conditions.

1.3 DRAWING DIMENSIONS

- .1 Dimensions indicated on drawings and details are in Metric units.
- .2 Nominal dimensions in accordance with industry standards are referenced for purposes of identifying specific materials.

PART 2.0 - PRODUCTS

2.1 ATTIC CEILING ACCESS HATCHES

- .1 Refer to drawings for locations at attic access points. (Total of four (4) units required)
- .2 Material: MIFAB MPFR Series, 20 gauge satincoat steel door with 16 gauge satincoat steel frame.
- .3 Finish - Primed white finish.
- .4 Door System: Flush frame, Self-closing, opening operators both sides
- .5 Frame System: Four (4) piece welded frame
- .6 Hinges: Concealed pivot pins.
- .7 Spring Closure: Heavy duty springs; sized in accordance with manufacturer's requirements.
- .8 Latching Mechanism: Standard, Flush mounted, interchangeable turn ring operator and latch.
- .9 Fire Rating - Underwriters Laboratories "B" label.
- .10 Insulation: Roxul #1280. 2" (51) thick and fire retardant
- .11 Full installation to be completed as per manufacturer's requirements for installation in wood system framing.

2.2 GABLE END LOUVERS

- .1 Refer to drawings for locations and sizes of gable end louvers. (Total of two (2) units required)
- .2 Material: Construction Specialties, 4" 4097 Aluminum, drainable fixed extruded louvers.
- .3 Finish - Powder coated C/S Powder Coat, minimum 1.5 mil thick.
- .4 Louvers to be complete with bird screens, 16mm mesh with .050 (1.27mm) thick expanded aluminum bird screen; secure screen within frame.
- .5 Installation to be in accordance with manufacturer requirements. Refer to details for specific installation requirements.

[END OF SECTION]