

**Contract Documents**

**for**

**NEW OFFICES  
INTERIOR RENOVATIONS**

***Collingwood Agricultural Society***

2220 Fairgrounds Road North  
Clearview Township

Document Date:  
March 14, 2026

**Issue Date for Tender:  
Monday, March 16, 2026**

**Tender Closing:  
Wednesday, April 8, 2026  
at 3:30 pm**

**New Offices**

***Interior Renovations***

**Index to Contract Documents**

**Section**

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**Section A – Scope of Work**

**Schedule of Scope of Work in the Contract:**

*The Scope of Work is only a general list of the components of the project; the contractor is to refer to the contract documents when completing the tender, and project construction.*

Item No.	x	Description – Collingwood Agricultural Society – New Offices Interior Renovations	
1		Demolition, Disposal	In Contract
2		Concrete, cutting and repair	In Contract
3		Interior partitions, drywall, sound insulation, exterior insulation, Trusscore.	In Contract
4		Interior Doors, Interior Windows, & door hardware.	In Contract
5		Rough carpentry	In Contract
6		Electrical Work and Lighting	In Contract
7		HVAC	In Contract
8		All interior and exterior caulking and sealants	In Contract
9		All final painting.	In Contract
10		Building Permit	By Owner

**Section B – General Information to Tenderers**

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**B General Information to Tenderers**

**B.1 Definitions**

“Owner” shall mean the Collingwod Agricultural Society

“Contract Administrator” shall mean Lloyd Hunt, Architect, or any other Contract Administrator as may be authorized or appointed by the Owner to act on behalf of the Owner in any particular capacity.

“Contractor” shall mean in every case the General Contractor.

“Municipality” shall mean in every case the Clearview Township

“Provide” shall mean “supply and install”, “construct”, “supply and place”, etc. as applicable.

“The Work(s)” shall mean the total construction and related services required by the Contract Documents.

**B.2 Location of Work**

The proposed works consist of Interior Renovations, New Offices, Great Northern Exhibition.

**B.3 Key Dates, Delivering and Closing of Tenders**

**Key Dates:**

Issue Date	March 16, 2026
Deadline for Questions	March 31, 2026
Deadline for Issuing Addenda	April 3, 2026
Submission Deadline	April 8, 2026 @ 3:30 pm
Rectification Period	3 business days

**Bid Submission:**

Tenders consisting of Section 'C' inclusive of the Tender Form to be submitted until but not later than:

3:30 pm local time Wednesday, April 8, 2026

This time and date shall be deemed to be the Official Closing Time. Tenders received after the Official Closing Time will not be considered.

For a Bid Submission to be considered in the Proposal process, a Proponent's Proposal must be received by the Proposal Submission Deadline, as set out in the proposal document. Submissions MUST be made to the following: joannegregson57@gmail.com

**Details for Bid Submissions:**

Proposals cannot be submitted after the Submission Deadline.

**B.4 Tender Forms**

Tenderers shall submit the following complete in all respects:

- All of Sections C1 to C7 of the Tender Form, inclusive. Refer to General Information to Tenders, Section B.

The Tender must be fully legible, signed and witnessed in the spaces provided, with the signature of the Tenderer or a responsible official of the organization tendering.

All sections of the Tender submission shall be completed in ink and all blank spaces must be filled in. All items shall be tendered according to any instructions in the Tender documents, with entries made for unit prices, lump sums, extensions and totals as appropriate.

Should any uncertainty arise as to the proper manner of completing the forms, the Tenderer may obtain the requisite information by submitting their question through Bids and Tenders.

### **B.5 Disqualification, Withdrawal and Qualifying Tenders**

Tenders that may be rejected:

- i) Late Tender.
- ii) Incorrect Form of Tender
- iii) Tender not legible.
- iv) Restrictions, qualifications, omissions, or additions made to Tender.
- v) Tender not properly signed, sealed or witnessed.
- vi) Failure to complete received Addenda on the Form of Tender, when one or more Addenda has been issued.

A Tenderer who has submitted a tender may submit a further Tender at any time prior to the Official Closing Time. The last Tender received shall supercede and invalidate all Tenders previously submitted by the Tenderer for this Contract.

A Tenderer may withdraw or alter their tender at any time up to the Official Closing Time by submitting a letter bearing the Tenderer's signature to the point of tender delivery where the time and date of receipt will be recorded and the letter placed with the other Tenders. The Tenderer's name and contract number shall be shown on the envelope containing such letter.

### **B.6 Informal or Unbalanced Tenders**

Tenders which are incomplete, conditional, illegible or obscure, or that contain additions, reservations, erasures, qualifications, alterations incorrectly submitted or irregularities of any kind may result in an invalid tender and in the Owner's rejection of the Tender.

Alterations to the tenderers numerical entries may be made providing they are legible and initialled by the tenderer's signing officer.

Where the tender contains a requirement to identify a proposed construction duration and/or work period, tenders that are based upon an unreasonable duration or period of time to achieve the completion of the Work, and as consequence of such schedule, results in greater overall project costs to the Owner, or results in scheduling conflicts as may be specified elsewhere in the contract, such as, but not limited to, winter construction issues not anticipated, may be rejected.

Wherever in a Tender the contract total for an item does not agree with the extension of the contract quantity and the unit price, the unit price will be deemed to be correct and the total price

revised accordingly. Mathematical discrepancies will be corrected by the Owner by appropriate means. Where an error has been made in transferring an amount from one part of the tender to another, the amount shown before transfer shall, subject to any corrections made as above, be taken to be correct and the transferred amount and the total tender prices shall be corrected accordingly.

Tenders that contain prices which appear to be so unbalanced as likely to adversely affect the interests of the Owner may be rejected.

Tenderers who have submitted Tenders that have been rejected by the Contract Administrator and/or Owner because of informalities will be notified of the reasons for the rejection.

#### **B.7 Omissions & Discrepancies In and Interpretation of Tender Documents**

Should a Tenderer find discrepancies in, or omission from the drawings, specifications, or other tender documents, or should they be in doubt as to their meaning, they should notify the Contract Administrator immediately who may send a written instruction to all Tenderers in the form of addenda.

No oral explanation or interpretation shall modify any of the requirements or provisions of the Tender documents.

Where the Contract Administrator deems that an explanation or interpretation is necessary or desirable, an addendum shall be issued to all who have taken out Tender documents. Addenda shall be issued via Bids and Tenders. Corrections or changes made in any other manner are not binding and should not be relied upon.

***Note the Tenderer / Contractor shall not take advantage of any apparent error or omission in the document. Any work not specified which is necessary for the proper performance and completion of any part of the work contemplated, which may be implied as included in the document shall, at the sole discretion of the Owner, be done by the Tenderer / Contractor as if such work had been specified, shall not be construed as a variation in the work to be done, and shall not be subject to any claim by the Tenderer / Contractor for additional compensation.***

### **B.8 Acceptance or Rejection of Tenders**

The Tenderer agrees that, notwithstanding anything to the contrary in this Contract, that a maximum of thirty days shall be allowed between the date that tenders are opened and the date that a tender is awarded, cancelled, or recalled.

Following contract award, Collingwod Agricultural Society shall notify the successful Tenderer that his tender has been accepted. The formal contract agreement will also be sent to the successful Tenderer, with instructions on how to properly complete and sign the document.

The Tenderer acknowledges that the Owner shall have the right to reject any, or all, tenders for any reason, or to accept any tender which the Owner in its sole unfettered discretion deems most advantageous to itself.

**The lowest, or any tender will not necessarily be accepted and the Owner shall have the unfettered right to:**

- 1) accept a non-compliant tender;**
- 2) accept a tender which is not the lowest tender; and**
- 3) reject a tender that is the lowest tender even if it is the only tender received.**

**The Owner reserves the right to consider, during the evaluation of tenders:**

- 1) information provided in the tender document itself;**
- 2) information provided in response to enquiries of credit and industry references set out in the tender;**
- 3) information received in response to enquiries made by the Owner of third parties apart from those disclosed in the tender in relation to the reputation, reliability, experience and capabilities of the Tenderer;**
- 4) the manner in which the Tenderer provides services to others;**
- 5) the experience and qualification of the Tenderer's senior management, and project management;**
- 6) the compliance of the Tenderer with the Owner's requirements and specifications;**
- 7) innovative approaches proposed by the Tenderer to the tender; and**
- 8) the tender price as it relates to the Owner's budgetary provisions for the proposed works.**

The Tenderer acknowledges that the Owner may rely upon criteria which the Owner deems relevant, even though such criteria may not have been disclosed to the Tenderer. By submitting a tender, the Tenderer acknowledges the Owner's rights under this section and absolutely waives any right, or cause of action against the Owner and its consultants, by reason of the Owner's failure to accept the Tender submitted by the Tenderer, whether such right or cause of action arises in contract, negligence, or otherwise.

Collingwood Agricultural Society reserves the right to delete any portion or part of the work outlined and the bidder agrees to such cancellation without any claim whatsoever because of such cancellation.

#### **B.9 Insurance Requirements**

The successful tenderer will be required to provide a certificate of insurance for policies covering all insurances:

- General Liability Insurance
- Automobile Liability Insurance

Any property damage deductible, in accordance with the General Conditions, shall be the responsibility of the Contractor.

#### **B.10 Commencement and Completion**

Once the Contract Documents are fully executed, the Contract Administrator will issue the Order to Commence Work to the Contractor. The date of issuance of this Order will become the Date of Commencement of the Work.

#### **B.11 Harmonized Sales Tax (HST)**

The tendered unit and lump sum prices submitted by the Tenderer shall exclude Sales Tax. The 13% HST shall be shown separately on the tender form. Payment of the HST shall be added to the monthly payment certificates. Payment of the HST will be contingent upon the submission of the Contractor's HST Registration Number. If sales taxes are increased or decreased, or other amendments are made in the legislation, during the course of the Contract, that alter tax amounts carried in the Contract price, an adjustment will be made accordingly. The Contractor shall keep records and invoices of accounts subject to Federal and Provincial Sales Tax and for the purpose

of establishing taxes paid and for substantiation in the event of changes to the tax legislation during the course of the Contract.

**B.12 Tenderers Investigation/Examination**

Tenderers shall visit the site of the work and carefully investigate all conditions potentially affecting the work and how it is to be completed, with respect to site access, working area, storage areas, local features including private property and utilities as well as any other conditions that may influence the undertaking and/or pricing of the work. Further, the Tenderer shall examine all contract documents, specifications, drawings and reports to ensure that the scope of work and the conditions of the contract are clear. No claims for additional payment resulting from conditions that can be reasonably foreseen or determined by the investigation or examinations described above, will be considered.

**B.13 Clarification**

It will be the Contractor's responsibility to clarify any details in question or not mentioned in the Tender documents before submitting their tender. The prices as tendered, shall include the supply of all labour, equipment and materials, except as otherwise noted, required to do all of the work and complete this Contract to the satisfaction of the Owner.

**This Tender must remain valid for thirty (30) days, commencing from the Official Closing Time; refer to Section C.1, Tender Agreement.**

**B.14 Breakdown of Total Tender Price**

This is to be submitted at time of tender. Refer to Tender Form for details.

**B.15 Working Time Allotment**

A building permit has already be obtained for the project, construction to begin on May 15, 2026 and must be completed by August 31, 2026.

**B.16 Equivalentents or Approved Equals**

Where "Equivalentents" or "Approved Equals" are referenced in the contract documents, these are to be treated as substitutions, and subject to the requirements of GC 6.1.2.

**B.17 Occupational Health & Safety Act**

- a) The Contractor, for purposes of the Ontario Occupational Health and Safety Act, shall be designated as the Constructor for this project and shall assume all of the responsibilities of the Constructor as set out in the Act and its regulations. The foregoing shall apply notwithstanding that the successful Tenderer has been referred to as the "Contractor" in this and any other related document. A copy of the policy is to be provided with the tender.
  
- b)
  - i) The Contractor acknowledges that he has read and understood the Occupational Health and Safety Act (R.S.O. 1990, as amended).
  - ii) The Contractor agrees to observe strictly and faithfully the provisions of the said Occupational Health and Safety Act and all regulations and rules thereunder.
  - iii) The Contractor agrees to indemnify and save the Owner harmless for damages or fines arising from any breach or breaches of the said Occupational Health and Safety Act.
  - iv) The Contractor agrees to assume full responsibility for the enforcement of the said Occupational Health and Safety Act to ensure compliance therewith.
  - v) The Contractor further acknowledges and agrees that any breach or breaches of the Occupational Health and Safety Act whether by the Contractor or any of its Sub-Contractors may result in the immediate termination of this contract herein and the forfeiture of all sums owing to the Contractor by the Owner.
  - vi) The Contractor agrees that any damages or fines that may be assessed against the Owner by reason of a breach or breaches of the Occupational Health and Safety Act by the Contractor or any of its Sub-Contractors will entitle the Owner to set-off the damages so assessed against any monies that the Owner may, from time to time, owe the Contractor under this contract or under any other contract whatsoever.

- vii) The Contractor shall provide a list of all controlled hazardous materials or products containing hazardous materials, all physical agents or devices or equipment producing or emitting physical agents, and any substance, compound, product or physical agent that is deemed to be or contains a designated substance as defined under the Ontario Occupational Health & Safety Act, and shall provide appropriate Material Safety Data Sheets for these substances used for the performance of the required work, all prior to the performance of said work. Where hazardous materials, physical agents and/or designated substances are used in the performance of the required work, the Contractor shall ensure that the requirements of the Ontario Occupational Health & Safety Act and associated regulations are complied with.

#### **B.18 Alternatives**

Where more than one trade or supplier's name is given in the documents, the Contractor is advised that the design as shown on the drawings and/or described in the specifications has been based on the first name listed but that the Contractor may base this tender on any one of the other suppliers named. The material and equipment supplied must be equal in quality, material, and performance to the first named in the specifications. Any design and/or construction changes necessitated by the use of other trade or suppliers names given shall be at the expense of the Contractor.

**Section C – Tender Form**

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**Section**

**Page No.**

C.1 Tender Agreement  
C.2 Schedule of Prices

1  
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**C Tender Form**

**C.1 Tender Agreement**

**New Offices  
Collingwood Agricultural Society – Interior Renovations**

To: **Collingwood Agricultural Society**

This Tender is submitted by

\_\_\_\_\_

Firm Name

\_\_\_\_\_

Address

\_\_\_\_\_

Telephone Number

\_\_\_\_\_

Email Address

I, \_\_\_\_\_

of \_\_\_\_\_  
(hereinafter referred to as the "Tenderer")

having carefully examined the locality and site of the proposed works, and having examined and accepted the terms and conditions set out in Contract Documents relating thereto, including the General Information to Tenderers, Tender Form, Specifications, Permit Drawings, Addenda \_\_\_\_\_, inclusive, hereby tender and offer in accordance with the Contract Documents and all local specifications and such further detail drawings as may be supplied from time to time, to do all of the work, to furnish all materials, labour, tools, plant, matters and things necessary to complete and make ready for use within the time specified, the work as described in the Contract Documents.

The undersigned agrees to accept as full payment therefore, the sums calculated in accordance with the actual measured quantities at the unit prices set forth in the Schedule of Unit Prices herein.

**\* Contractor to fill in blanks or enter "NIL" as applicable.**

The Tenderer also agrees:

1. That, this Tender is made by the Tenderer without any connection, knowledge, comparison of figures, or arrangement with any other person or persons making a tender for the same work and is in all respects fair and without collusion or fraud.
2. That no person, firm or corporation other than the Tenderer has any interest in this tender or in the proposed contract from which this Tender is made.
3. That no officer of the Collingwood Agricultural Society is or will become interested, directly or indirectly, as a contracting party or otherwise, in the performance of the contract, or in the supply of materials, work, or business to which it relates, or in any portion of the profits thereof, of any such supplies to be used, or in any monies to be derived.

4. That, this offer shall be irrevocable until the Contract is executed by the successful bidder or for a period of thirty (30) days commencing from the Official Closing Time, whichever event first occurs and that the Owner may, at any time within that period accept this Tender whether any other Tender has been previously accepted or not.
5. That the Owner may reject any or all Tenders as per Section B.10.
6. That the Tenderer will carryout the administration of the project as per Section B.7.
7. That, the carrying out of any work referred to above or the issuance by the Contract Administrator of a Contract Change Order relating to such work or the acceptance by the Tenderer of such Contract Change Order shall not, except as expressly stated in such Contract Change Order, waive or impair any of the terms of the Contract or of any Contract Change Order previously issued by the Contract Administrator or any of the rights of the Owner or of the Contract Administrator under the Contract.
8. That, the Tenderer will carry out any additional or extra work (including the supplying of any additional materials or equipment pertaining thereto) or will delete any work as may be required by the Contract Administrator in accordance with the Contract.
9. The Tenderer acknowledges that it shall have no claim against, or entitlement to damages from the Owner or the Contract Administrator by reason of the Owner's rejection of its Tender or of all Tenders, or by reason of any delay in the acceptance of a Tender.
10. That, the awarding of the Contract by the Owner based on this Tender, shall constitute acceptance of this Tender.
11. That, if this tender is accepted, to furnish the agreements, bonds, issuance and clearance certificates, and works schedules, for the proper fulfilment of the Contract as required, in triplicate, within fourteen (14) days after being notified to do so.
12. This Tender Form comprises:

C.1	Tender Agreement
C.2	Schedule of Prices

That, this Tender is submitted by

\_\_\_\_\_  
Firm Name

\_\_\_\_\_  
Email Address

The Tenderer solemnly declares that the several matters stated in the foregoing tender are in all respects true.

Signature of Tenderer

\_\_\_\_\_  
Signature of Authorized Person  
Signing for Contractor

\_\_\_\_\_  
Date of Submission

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Company Seal

**C.2 Schedule of Prices**

This breakdown shall be an integral part of the executed contract and shall be used for the purposes of payment for works completed by the Contractor.

If in the opinion of the Architect, the breakdown contains prices, which are unbalanced, the tenderer will be required to submit data to substantiate his prices. In any event, the Architect reserves the right to adjust the breakdown to correct any unbalanced prices or correct discrepancies between the breakdown and the Total Contract Price submitted at the close of tenders.

**Schedule of Prices**

<b>Item No.</b>	<b>Description</b>	<b>Price per Item</b>
1	Mobilization and demobilization including general administration, site supervision.	\$
2	Excavation	\$
3	Demolition, Cutting and Disposal	\$
4	Concrete repair and under slab Insulation	\$
5	Insulation, sound proofing, and vapour barrier	\$
6	Rough Carpentry, drywall and Trusscore	\$
7	Interior Doors & Door frames & Hardware	\$
8	Rough Carpentry	
9	Electrical	\$
10	HVAC	\$
11	Painting, finishing.	\$
12	Miscellaneous items not identified under other descriptions.	\$
13	Overall Project Contingency Allowance	\$ 5,000.00

Subtotal \$ \_\_\_\_\_

H.S.T. \$ \_\_\_\_\_

Total Tender \$ \_\_\_\_\_

Repeat total Contract Price in writing: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Length of Time to Complete the Contract: \_\_\_\_\_ ( ) Weeks  
 Project to be completed by August 31, 2026

**Section D – Specifications**

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**PART 1 - GENERAL**

1.1 Tender/Contract Format

- .1 This is a Lump Sum Price Construction tender and contract made up of lump sum items, including contingency and provisional items.
- .2 Include the total cost of doing all the work shown on the drawings and specified herein. The total cost shall include a fully operational complete system(s).
- .3 Include incidental costs incurred in completing the work under the appropriate item.

1.2 Location of Work

- .1 The work included in the Contract is located at 2220 Fairgrounds Road, Clearview Township.

1.3 Workplace Safety & Insurance Board

- .1 *WSIB (Workplace Safety & Insurance Board)*: The Contactor shall provide the Owner with a copy of the Workplace Safety & Insurance Board Certificate indicating the Contractor's good standing with the Board immediately prior to commencing any work on site, prior to substantial performance of the work, prior to submitting an invoice for final payment and at any other time when requested by the Owner.

1.4 Schedule and Coordination of the Work

- .1 Upon being awarded the contract, the Contractor shall forthwith supply to the Contractor Administrator for approval a copy of a detailed planned Schedule of Work, showing clearly that the work will be completed within the stipulated time. No work shall commence on the contract until the Schedule of Work has been approved by the Contract Administrator.
- .2 The schedule of work shall indicate proposed progress in one-week periods.
- .3 The Contractor shall coordinate progress of the Work, submittals, use of site, temporary utilities, construction facilities and the work of all sub trades.

1.5 Sanitary Facilities

- .1 The Contractor is to provide temporary sanitary facilities for work force and Architect's staff for the duration of the project 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.

1.6 Temporary Water and Power

- .1 Electrical power and water is presently available on site.

1.7 Disposal of Materials

- .1 The Contractor shall dispose of all waste and/or surplus materials in an approved disposal site.
- .2 The Contractor shall be responsible for all work involved in disposing the waste or excess material including trucking, access roads, levelling, and all haulage and/or dumping fees as applicable.

1.8 Permits

- .1 A building permit has been received for this project.

- .2 The Contractor shall be responsible for the cost of all other permits, licenses or certificates necessary for the performance of the work which were in force at the date of bid closing. The Contractor shall give the required notices and comply with all restrictions, construction requirements and conditions contained or implied by permit(s) issued. Where the Contractor proposes methods or materials that deviate from those set out in the above permits or this contract, the Contractor shall be responsible for obtaining any additional or revised permits or approval amendments required. No additional compensation to the Contractor will be considered for this work.

1.9 Allowances

- .1 Contingency and Testing Allowance:
  - .1 The purpose of Allowance covers the cost associated with extras due to unforeseen circumstances and is to cover all work associated with the testing and inspection services required by the Architect to be undertaken by the Contractor.
  - .2 Extra work shall not commence until the Contract Administrator agrees to the price for payment and authorizes such work in writing. In the event that none of the Contingency Allowance is used, this amount will be deducted from the total contract price.
  - .3 Portions of this amount will only be paid for testing services when there is evidence that the Contractor has paid the identified inspection and testing service and that their services were required by the Architect.
  - .4 An Allowance to cover the costs has been preprinted within the Schedule of Prices and shall be included in the total Contract Amount.
- .2 Allowances cover the net cost to the contractor of services, products, construction machinery and equipment, freight, handling, unloading, storage and other authorized expenses incurred in performing the Work.
- .3 The Contract Price and not the Cash Allowances includes the Contractors overhead and profit in connection with such cash allowance.
- .4 All expenditures under Allowances will be authorized in accordance with the General Conditions of the Contract.

1.10 Quality Control

- .1 Owner and Consultant shall have access to the Work. Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Consultant instructions, or law of Place of the Work.
- .2 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.

1.11 Shop Drawings

- .1 Submit to Architect for review, shop drawings, product data and samples specified.
- .2 Until submission is reviewed, work involving relevant product may not proceed.
- .3 The review of the shop drawings by the Architect is for the sole purpose of ascertaining conformance with the general design concept. The Architect will not approve the detail design inherent in the shop drawings. The Contractor submitting the shop drawings shall be responsible for the detail design inherent in the shop drawings. The Architect's review shall not relieve the Contractor of responsibility for errors or omissions in the shop drawings or for meeting all requirements of the

Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all subtrades.

- .4 Notify the Architect, in writing at time of submission, of deviations from requirements of contract documents.
- .5 Issue submissions at least 14 days before dates reviewed submissions will be needed.
- .6 Architect will retain one (1) copy of reviewed shop drawings. One copy of reviewed shop drawings is to be retained by the Contractor and incorporated into a maintenance manual. Three copies of the aforementioned maintenance manual are to be turned over to the Owner at the end of the project. Provide sufficient copies of shop drawings for Architect's review to ensure adequate distribution.

#### 1.12 Construction Facilities and Temporary Controls

- .1 Provide construction facilities and temporary controls in order to execute work expeditiously. Remove from site all such work after use.
- .2 Where necessary to complete the work provide temporary lighting as required.
- .3 Maintain fire protection throughout the work as required by jurisdictional authorities.
- .4 Protect all trees, asphalt paving, plantings and sod from damage during work.
- .5 Ensure normal operations and maintenance or neighbouring properties may be carried out without disruption.
- .6 Take reasonable measures to control noise, dust, smoke, and odours during construction. Conform to Municipal By-Laws and requirements of Ministry of Labour and Ministry of Environment and Energy. Be responsible for workers' activities while on site.

#### 1.13 Site Storage/Loading

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

#### 1.14 Temporary Heating

- .1 Provide temporary heating required during construction period, including attendance, maintenance and fuel.
- .2 Construction heaters used inside building must be vented to outside or be non-flameless type. Solid fuel salamanders not permitted. Maintain temperatures of minimum 10 C in areas where construction is in progress, unless indicated otherwise in specifications. Ventilate heated areas and keep building free of exhaust or combustion gases.
- .3 Permanent heating system of building, or portions thereof, may be used when available. Be responsible for damage thereto.

#### 1.15 Equipment/Tool/Materials Storage

- .1 Store all materials and equipment in a secure and protected manner which will not overload the structure and shall prevent vandalism or unauthorized use.
- .2 Under no circumstances will flammable or explosive materials be stored or left unattended on site.

**1.16 Project Cleanliness**

- .1 Maintain the Work in tidy condition, free from accumulation of waste products and debris
- .2 Remove waste material and debris from site and deposit in waste container at end of each working day.
- .3 Clean interior areas prior to start of finish work, maintain areas free of dust and other contaminants during finishing operations.

**1.17 Product and Material Quality**

- .1 Products, materials, equipment and articles (referred to as Products throughout specifications) incorporated in Work shall be new, not damaged or defective, and of best quality (compatible with specifications) for purpose intended. If requested, furnish evidence as to type, source and quality of Products provided.
- .2 Defective products will be rejected, regardless of previous inspections. Inspection does not relieve responsibility, but is precaution against oversight or error. Remove and replace defective Products at own expense and be responsible for delays and expenses caused by rejection.
- .3 Should any dispute arise as to quality or fitness of Products, decision rests strictly with Consultant based upon requirements of Contract Documents.
- .4 Handle and store Products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions when applicable.
- .5 Store packaged or bundled Products in original and undamaged condition with manufacturer's seals and labels intact.
- .6 Store products subject to damage from weather in weatherproof enclosures.
- .7 Unless otherwise indicated in specifications, install or erect Products in accordance with manufacturer's instructions. Do not rely on labels or enclosures provided with Products. Obtain written instructions directly from manufacturers.
- .8 Notify Consultant in writing, of conflicts between specifications and manufacturer's instructions, so that Consultant may establish course of action.
- .9 Improper installation of erection of Products, due to failure in complying with these requirements, authorizes Consultant to require removal and reinstallation at no increase in Contract Price.
10. Workmanship shall be best quality, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify Consultant if required Work is such as to make it impractical to produce required results.
11. Do not employ any unfit person or anyone unskilled in their required duties.
12. Decisions as to quality or fitness of workmanship in cases of dispute rest solely with Consultant, whose decision is final.
13. Before installation, inform Consultant if there is a contradictory situation. Install as directed by Consultant.

**1.18 Final Cleaning**

- .1 When the Work is Substantially Performed, remove surplus products, tools construction machinery and equipment not required for performance of remaining Work.
- .2 Remove waste materials and debris from site at regularly scheduled times or dispose of as directed by Consultant. Do not burn waste materials on site.
- .3 Leave work broom clean before inspection process commences.
- .4 Clean and polish glass, hardware, mechanical and electrical fixtures. Replace broken, scratched or disfigured glass.

- .5 Remove stains, spots, marks and dirt from, electrical and mechanical fixtures, furniture fitments, walls, and ceilings.
  - .6 Vacuum clean and dust building interiors. Broom clean and wash exterior walks, steps and surfaces. Remove dirt and other disfigurations from exterior surfaces.
- 1.19 Inspection/Takeover Procedures
- .1 Prior to application for certificate of Substantial Performance, carefully inspect the Work and ensure it is complete, that major and minor construction deficiencies are complete, defects are corrected and building is clean and in condition for occupancy. Notify Consultant in writing, of satisfactory completion of the Work and request an inspection.

**END OF SECTION**

**PART 1 - GENERAL**

- 1.1 Work Included
  - .1 Remove designated partitions and components.
  - .2 Cap and identify utilities.
  - .3 Temporary partitions to allow building occupancy.
- 1.2 Related Work
  - .1 General Requirements - Construction Facilities and Temporary Controls: Temporary barriers, security, cleaning during construction.
- 1.3 Submittals
  - .1 Submit demolition and removal procedures, schedule and record drawings in accordance with General Requirements.
- 1.4 Existing Conditions
  - .1 Conduct demolition to minimise interference with adjacent building areas.
  - .2 Provide, erect, and maintain temporary barriers and security devices.

**PART 2 – PRODUCTS**

Not Used

**PART 3 – EXECUTION**

- 3.1 Preparation
  - .1 Erect and maintain temporary partitions to prevent spread of dust, fumes, noise, and smoke to provide Owner occupancy as specified in General Requirements.
  - .2 Protect existing items which are not to be altered. Make good any damage caused by alterations.
  - .3 Disconnect, remove, and cap designated utility services within demolition areas.
  - .4 Mark location of disconnected utilities. Identify and indicate locations on Project Record Documents. This includes access panels and ports for underfloor raceways.
- 3.2 Execution
  - .1 Demolish in an orderly and careful manner. Protect existing foundations, supporting structural members, and all piping electrical supply conduits and controls.
  - .2 Except where noted otherwise, immediately remove demolished materials from site.
  - .3 Remove and dispose of contaminated, vermin-infested, or dangerous materials encountered, in accordance with Provincial Health and Safety Regulations.
  - .4 Remove demolished materials from site as work progresses. Upon completion of work, leave areas of work in clean condition.
- 3.3 Preparation of Existing Surfaces to Receive New Floor Finish
  - .1 Clean sub-floors to remove deleterious matter which would impair adhesion of porcelain tile flooring or sub-floor filler. Remove sub-floor ridges and bumps. Fill low spots, cracks, joints, holes, and other defects with sub-floor filler.
  - .2 Apply, trowel, and float filler to leave smooth, flat, hard surface.
  - .3 Prohibit traffic until filler is cured.
  - .4 Vacuum clean substrate.
  - .5 Prime substrate as and where recommended to ensure proper adhesion of finished flooring.

**PART 1 - GENERAL**

## 1.1 General

- .1 Conform to Sections of Division 1 as applicable.

## 1.2 Methods of Excavation

- .1 Excavation shall be carried out by methods approved by the Consultant.

## 1.3 Slides &amp; Cave-Ins

- .1 Slides and cave-ins shall be rectified at the cost of the Contractor; he shall refill all such with suitable materials.

## 1.4 Surplus Excavation

- .1 Excess or material unsuitable for backfill as determined is to be stockpiled on site as directed by the Consultant or Owner.

## 1.5 Backfilling General

- .1 The Contractor shall dry out all materials of suitable gradation before backfilling to obtain specified Proctor Density. Granular fill materials as specified in this section to be supplied to the site by the Owner at no additional cost the contract.

## 1.6 Fill Materials

- .1 Materials shall be free from large or frozen lumps, wood or other extraneous materials.
- .2 Selected Fill will consist of well draining granular materials free from stones having a maximum dimension no greater than 75 mm.
- .3 Native Material will consist of approved suitable excavated materials.

## 1.7 Compacting

- .1 Backfill shall be compacted to achieve a density of not less than 98% Standard Proctor Density

## 1.8 Compaction Tests

- .1 The cost of compaction tests will be borne by the Owner, but where re-testing is required due to unsatisfactory results such re-testing shall be paid for by the Contractor.

**END OF SECTION**

**PART 1 - GENERAL**

1. Conform to the General Requirements and Special Conditions contained in Division 1 of the Contract Documents.
2. Include in the work of this section all concrete incorporated in the project. Refer also to plan notes, column, beam and slab schedules for additional concrete requirements.
3. Conform to CSA – A23-00 series of standards, (ACI 318, and ACI Report 350 where applicable) and the RSIC manual of standard practice (latest edition) for design, materials, construction, curing, testing, tolerances, and finishing of concrete.
4. Install, or supply and install, anchorage, fastenings and blocking as required, for work of other sections.
5. Materials shown on the drawings or in this specification are to establish the required degree of quality or performance. Substitution may be permitted upon proof of equivalence. Submit all proposals for substitution to the Consultant in writing in advance of shop drawings. Each item shall be clearly identified. Do not proceed with proposal unless it is accepted in writing by the Consultant.

**PART 2 - PRODUCTS**

1. Materials:
  1. Cement (Normal Type 10) (Sulphate Resistant - Type 50) Portland cement to CSA A8.
  2. Water, Fine Aggregates, Coarse Aggregates: to CSA-A23.1. Maximum coarse aggregate to be 20 mm diameter unless noted for formed concrete. Maximum coarse aggregate to be 40 mm diameter for caissons or other mass concrete.
  3. Air-entraining Admixture: to CSA Standard A266.1.
  4. Chemical Admixtures: to CSA Standard A266.2.
  5. Welded Wire Fabric: new material supplied in flat sheets, not rolls, to CSA G30.5. Size as indicated on plans.
  6. Saw-Cut Joint Filler: Sikaflex 1C SL polyurethane sealant.
  7. Premoulded Joint Filler: ceramar flexible foam by W.R. Meadows.
  8. Non-Metallic Floor Surface Hardener: use a dry shake product applied in two passes such as: Traprock by Sika Canada Inc. total application rate of 5-6 kg/ sq. m.
  9. Asphalt impregnated isolation joint material meeting ASTM D 994, FED. Spec. HH-F-341 F, Type III, AASHTO M 33, and FAA Spec. Item P-610-2.7, by W.R Meadows or equal.
2. Supply concrete as per CSA A23.1-00 Table 13, Alternative 3, **Performance Based Specification** clearly coordinating mix designations with structural and architectural criteria found within the contract documents. For all concrete mixes clearly identify and

confirm the understanding of the concrete requirements in writing prior to production for all mixes. Such a submission shall include, as a minimum; the location of each mix design to be used in the structure, the cement type, all supplementary materials, Class of exposure, compressive strengths, aggregate size, and concrete density. Use ready-mixed concrete to give minimum 28-day compressive strength of 25 MPa, (except minimums as noted below). Use a water-reducing chemical admixture for all concrete. Use an air-entraining admixture to give total air content conforming to table 10, 12 and 14 of A23.1-00. Water-cement ratio shall conform to table 14 of A23.1-00 unless noted otherwise. Coordinate with the general contractor with respect to workability issues, and confirm the criteria in the submission (slump, pump mix, design concrete temperature etc.).

Slabs-on-grade = 25 Mpa

### PART 3 - EXECUTION

1. Exposed concrete shall be free from honeycombing, voids, loss of fines, visible flow lines and cold joints, chips and spalls. Exposed concrete shall be rubbed smooth using water and carborundum brick.
2. Maximum distance between construction joints are:
  1. Slabs-On-Grade: control joint spacing shall be 4.5m on centre. Also see plans.
3. Surface finishing - provide final finish in accordance with proposed use.

Interior Exposed Slabs: Powered steel trowel to match existing.
4. Protect fresh concrete from cold temperatures below 5 degrees Celsius. Provide temporary heat for a minimum of 3 days to maintain a temperature of greater than 15 degrees Celsius.
5. Wet cure slabs for 7 days when temperatures are above freezing, otherwise apply curing-sealing compound. Provide floor surface hardener where specified as per manufacturer's instructions.

**END OF SECTION**

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**PART 1 - GENERAL**

- 1.1 Section Includes
  - .1 Labor, Products, equipment and services necessary for rough carpentry Work in accordance with the Contract Documents.
- 1.2 References
  - .1 ASTM A325, Specification for Bolts Quenched/Tempered Steel Nominal Thread Diameter M16 - M36 For Structural Steel Joints.
  - .2 CSA B111, Wire Nails, Spikes and Staples.
  - .3 CAN/CSA G164-M, Hot Dip Galvanizing of Irregularly Shaped Articles.
  - .4 CSA O121-M, Douglas Fir Plywood.
  - .5 CAN/CSA O141, Softwood Lumber.
  - .6 CAN/CGSB-51.32-M, Sheathing, Membrane, Breather Type.
  - .7 CWC, Canadian Wood Council, Wood Design Manual CSA - 086
  - .8 NLGA, Standard Grading Rules for Canadian Lumber, National Lumber Grades Authority
- 1.3 Quality Assurance
  - .1 Lumber identification: Grade stamp of an agency certified by the Canadian Lumber Standards Accreditation Board.
  - .2 Plywood identification: Grade mark in accordance with applicable CSA standards.
  - .3 Each board of fire-retardant treated material to bear ULC label indicating Flame Spread Classification (FSC), and smoke developed.
- 1.4 Delivery, Storage and Handling
  - .1 Protect materials from weather during shipment and site storage, securely wrapping with moisture resistant covers, or storing in dry and ventilated inside areas.

**PART 2 - PRODUCTS:**

- 2.1 **Materials**
  - .1 Lumber: Softwood, G4S, moisture content 19% or less at time of installation, in accordance with the following:
    - .1 CSA O141 and NLGA Standard Grading Rules for Canadian Lumber.
    - .2 Board quality: Standard or better.
    - .3 Dimension sizes: Standard or better.
  - .2 Lumber quality: Carefully select individual pieces so that knots and obvious defects will not interfere with placing bolts, proper nailing or making proper connections.
  - .3 Lumber defects: Discard wood with defects which will render a piece unable to serve its intended function. Lumber will be rejected by Architect for excessive warp, twist, bow, crook, mildew, fungus, or mould, as well as for improper cutting and fitting, whether or not it has been installed.

- .4 Furring, blocking, nailing strips, grounds, bucks, and backing: G2S kiln dried with moisture content 19% or less at time of installation, free from sap, shakes, splits, knots and other defects and in accordance with the following:
  - .1 CSA O141 and NLGA, Standard Grading Rules for Canadian Lumber.
  - .2 Board quality: Construction or better.
  - .3 Dimension sizes: Construction light framing or better.
- .5 Plywood: CSA O121-M, G1S standard construction, laminated with waterproof adhesive, exterior grade.
- .6 Nails, spikes and staples: CSA B111; spiral type.
- .7 Bolts: ASTM A325; 12.7 mm diameter minimum with nuts and washers unless noted otherwise.
- .8 Proprietary fasteners: Toggle bolts, expansion shields, lag bolts, screws, inorganic fibre plugs, recommended for purpose by manufacturer.
- .9 Wood screws: Countersunk head, full thread type.
- .10 Galvanizing: CAN/CSA G164-M.
- .11 Fire retardant treatment: To provide flamespread, fuel contributed and smoke developed ratings of 25 or less, Dricon fire retardant chemicals by Hickson Building Products Ltd., or other approved manufacture. Provide colour dye identification in chemical treatment for treated wood to be concealed in final Work.
- .12 Sheathing Paper: Perm-A-Barrier VPS by Grace or Equivalent by BlueSkin.

### PART 3 - EXECUTION

#### 3.1 Installation

- .1 Fit and install wood furring, strapping, grounds and blocking. Adequately size, correctly place and conceal members for finishes, fitments and for Work under other Sections. Anchor wood members securely in place.
- .2 Install rough bucks, nailing strips and linings to rough openings as required for backing for frames and other Work.
- .3 Bolt wood blocking or nailing strips to steel framing.
- .4 Align and plumb faces of furring and blocking to tolerance of 1:600.

#### 3.2 Fasteners

- .1 Frame, anchor, fasten, tie and brace members for required strength and rigidity.
- .2 Use hot dipped galvanized fasteners for exterior Work, Work below grade, and for pressure treated lumber.
- .3 Countersink bolts and bolt heads as required for clearance of other Work.
- .4 Size fasteners to penetrate base member by half of fastener length minimum. Minimize splitting of wood members by staggering nails in direction of grain.
- .5 For plywood use spiral, annular or resin coated nails and staples.

#### 3.3 Miscellaneous Carpentry Work

- .1 Supply and install all other carpentry indicated on Contract Drawings or as required for completion of work. Co-operate with other trades in installing items supplied by other Sections, cut openings in woodwork when so required and make good disturbed surfaces.

**END OF SECTION**

**PART 1 - GENERAL**

## 1.1 Section Includes

- .1 Labour, Products equipment and services necessary for the finish carpentry Work in accordance with the Contract Documents – specifically exterior decorative brackets.

## 1.2 References

- .1 Architectural Woodwork Manufacturers Association of Canada (AWMAC) - Quality Standards for Architectural Woodwork.
- .2 CAN/ULC-S102-M, Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering and Miscellaneous Materials and Assemblies.
- .3 CSA B111, Wire Nails, Spikes and Staples.
- .4 CSA O115-M, Hardwood and Decorative Plywood.
- .5 CSA O151-M, Canadian Softwood Plywood.
- .6 CAN3-O188.1M, Interior Mat-Formed Wood Particle board.
- .7 CAN/CSA-G164, Hot Dip Galvanizing of Irregularly Shaped Articles.

## 1.3 Delivery, Storage, and Handling

- .1 Deliver, store, and handle finish carpentry in accordance with the AWMAC Quality Standards. Control the temperature and humidity in accordance with the AWMAC recommendations, before, during, and after finish carpentry delivery, and also during storage and installation.
- .3 Do not permit delivery of millwork to Site until area sufficiently dry so woodwork not damaged by excessive changes in moisture control.

**PART 2 - PRODUCTS**

## 2.1 Materials

- .1 Concealed framing lumber: AWMAC Custom Grade, S4S, Eastern Spruce, Balsam Fir, or Jack Pine, average moisture content 7% +/-2% at installation.
- .2 Softwood plywood: CSA O151-M; 19 mm unless indicated otherwise, (G2S).
- .3 Particle board: CAN3-O188.1M. Thickness.
- .4 Nails and staples: CSA B111; Size and type to suit application; galvanized to CAN/CSA-G164 for exterior work, interior humid areas and for treated lumber.
- .5 Bolts, nuts, washers, blind fasteners, lags and screws: Size and type to suit application. Stapling is not acceptable.
- .6 Wood screws: to CSA B35.4 stainless steel, type and size to suit application.

## 2.3 Fabrication Finished Surfaces

- .1 Shop assemble finish carpentry to accommodate delivery and handling and to ensure passage through building openings.
- .2 Coordinate locations of concealed supports and blocking with other parts of Work.
- .3 Conceal joints and connections in casework, wherever possible.

## 2.4 Fabrication – Finishes

- .1 Fire retardant treatment: Material to have ULC Class A Fire Hazard Classification with Flame Spread Rating of 25 or less, Fuel Contributed Rating of 10 or less and Smoke Developed Ratings of 30 or less when tested in accordance with CAN4-S 102.2 or ASTM E 84, 'Dricon' fire retardant chemicals by Hickson Building Products Ltd., as available from John A. Biewer Canada Ltd., Cambridge, Ontario, or other

- approved manufacture, to suit species specified and indicated. Provide colour dye identification in chemical treatment for treated wood concealed in final Work. Provide clear, colourless treatment for work exposed in final Work.
- .2 Factory finish architectural woodwork as far as possible. Finishes for exposed and semi-exposed components applied in accordance with AWMAC.

**PART 3 - EXECUTION****3.1 Examination**

- .1 Verify condition and dimensions of previously installed Work upon which this Section depends. Report defects to Architect. Commencement of Work means acceptance of existing conditions.

**3.2 Installation**

- .1 Install Work in accordance with AWMAC Quality Standards and tolerances for Architectural Woodwork. Set and secure finish carpentry in place, rigid, plumb, square, and level.
- .2 Make joints flush, hairline butt joints.
- .3 Coordinate wall securement, anchorage, and blocking for finish carpentry items. Provide smoothly operating units free from binding. Clean and adjust hardware for proper operation.
- .4 Remove and replace damaged, marked, or stained finish carpentry.

**END OF SECTION**

**PART 1 – GENERAL**

## 1.1 References

- .1 American Society for Testing and Materials International, (ASTM).
  - .1 ASTM C553-02, Specification for Mineral Fibre Blanket Thermal Insulation for Commercial and Industrial Applications.
- .2 Underwriters Laboratories of Canada (ULC)
  - .1 CAN/ULC S701 –01, Thermal insulation, Polystyrene, Boards and Pipe Coverings.
- .3 Underwriters Laboratories of Canada (ULC).
  - .1 CAN/ULC-S702-1997, Standard for Mineral Fibre Insulation.

## 1.2 Submittals

- .1 Product Data:
  - .1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 1.
- .2 Manufacturer's Instructions:
  - .1 Submit manufacturer's installation instructions.

**PART 2 - PRODUCTS**

## 2.1 Insulation

- .1 Extruded polystyrene: to CAN/ULC S701.
  - .1 type 4,
  - .2 compressive strength 210 kPa,
  - .3 Minimum thickness 50 mm, size as indicated, edges square,
  - .4 Suitable for below grade application.
  - .5 Acceptable manufacturer: Dow Canada or Celfort.
- .2 Batt and blanket mineral or glass fibre,
  - .1 Type 1
  - .2 Thickness: As indicated on drawings and in accordance to SB-10.
  - .3 Acceptable manufacturer: Roxul.

## 2.2 Vapour Barrier

- .1 Membrain by Certainteed DO NOT SUBSTITUTE.

## 2.3 Accessories

- .1 Tape: as recommended by manufacturer.

**PART 3 - EXECUTION**

## 3.1 Manufacturer's Instructions

- .1 Compliance: Comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

## 3.2 Insulation Installation:

- .1 Install insulation to maintain continuity of thermal protection to building elements and spaces.

- .2 Install insulation with vapour barrier facing warm side of building spaces. Lap ends and side flanges of membrane over framing members. Tape seal butt ends and lapped side flanges. Do not tear or cut vapour barrier where applicable.
- .3 Fit insulation closely around electrical boxes, pipes, ducts, frames and other objects in or passing through insulation.
- .4 Do not compress insulation to fit into spaces.
- .5 Keep insulation minimum 75 mm from heat emitting devices such as recessed light fixtures, and minimum 50 mm from sidewalls of CAN/ULC-S604 Type A chimneys and CAN/CGA-B149.1 and CAN/CGA-B149.2 Type B and L vents.
- .6 Do not enclose insulation until it has been inspected and approved by Architect and the building department.

### 3.3 Cleaning

- .1 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

**END OF SECTION**

**PART 1 - GENERAL**

- 1.1 Section Includes
  - .1 Materials, preparation and application for caulking and sealants.
- 1.2 References
  - .1 American Society for Testing and Materials International, (ASTM)
    - .1 ASTM C919-02, Standard Practice for Use of Sealants in Acoustical Applications.
  - .2 Canadian General Standards Board (CGSB)
    - .1 CAN/CGSB-19.13-M87, Sealing Compound, One-component, Elastomeric, Chemical Curing.
    - .2 CAN/CGSB-19.24-M90, Multi-component, Chemical Curing Sealing Compound.
  - .3 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
    - .1 Material Safety Data Sheets (MSDS).
- 1.3 Delivery, Storage, and Handling
  - .1 Deliver and store materials in original wrappings and containers with manufacturer's seals and labels, intact. Protect from freezing, moisture, water and contact with ground or floor
- 1.4 Project Conditions
  - .1 Environmental Limitations:
    - .1 Do not proceed with installation of joint sealants under following conditions:
      - .1 When ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer or are below 4.4 degrees C.
      - .2 When joint substrates are wet.
  - .2 Joint-Width Conditions:
    - .1 Do not proceed with installation of joint sealants where joint widths are less than those allowed by joint sealant manufacturer for applications indicated.
  - .3 Joint-Substrate Conditions:
    - .1 Do not proceed with installation of joint sealants until contaminants capable of interfering with adhesion are removed from joint substrates.

**PART 2 - PRODUCTS**

- 2.1 Sealant Materials
  - .1 Do not use caulking that emits strong odours, contains toxic chemicals or is not certified as mould resistant in air handling units.
  - .2 When low toxicity caulks are not possible, confine usage to areas which offgas to exterior, are contained behind air barriers, or are applied several months before occupancy to maximize offgas time.
  - .3 Where sealants are qualified with primers use only these primers.
- 2.2 Sealant Material Designations
  - .1 Urethanes Multi-Component.
    - .1 Self-Leveling to CAN/CGSB-19.24, Type 1, Class A, colour grey.
    - .2 Acceptable material: 'THC – 900/901' by Tremco.
    - .3 For traffic bearing control joints in floor.

- .2 Silicone - One Part.
    - .1 to CAN/CGSB-19.13, Type 1, colour to match metal panels where exposed.
    - .2 Acceptable material: 'Spectrem 3' by Tremco
    - .3 For metal panel joints.
  - .3 Acoustical Sealant.
    - .1 To CAN/CGSB 19.21 M87 (QPL #60963-H).
    - .2 Acceptable material: Acoustical sealant by Tremco.
  - .4 Preformed Compressible and Non-Compressible back-up materials.
    - .1 Polyethylene, Urethane, Neoprene or Vinyl Foam.
      - .1 Extruded closed cell foam backer rod.
      - .2 Size: oversize 30 %.
    - .2 Neoprene or Butyl Rubber.
      - .1 Round solid rod, Shore A hardness 70.
    - .3 High Density Foam.
      - .1 Extruded closed cell polyvinyl chloride (PVC), extruded polyethylene, closed cell, Shore A hardness 20, tensile strength 140 to 200 kPa, extruded polyolefin foam, 32 kg/m<sup>3</sup> density, or neoprene foam backer, size as recommended by manufacturer.
    - .4 Bond Breaker Tape.
      - .1 Polyethylene bond breaker tape which will not bond to sealant.
- 2.3 Joint Cleaner
- .1 Non-corrosive and non-staining type, compatible with joint forming materials and sealant recommended by sealant manufacturer.
  - .2 Primer: as recommended by manufacturer.

### PART 3 - EXECUTION

- 3.1 Protection
- .1 Protect installed Work of other trades from staining or contamination.
- 3.2 Surface Preparation
- .1 Examine joint sizes and conditions to establish correct depth to width relationship for installation of backup materials and sealants.
  - .2 Clean bonding joint surfaces of harmful matter substances including dust, rust, oil grease, and other matter which may impair Work.
  - .3 Do not apply sealants to joint surfaces treated with sealer, curing compound, water repellent, or other coatings unless tests have been performed to ensure compatibility of materials. Remove coatings as required.
  - .4 Ensure joint surfaces are dry and frost free.
  - .5 Prepare surfaces in accordance with manufacturer's directions.
- 3.3 Priming
- .1 Where necessary to prevent staining, mask adjacent surfaces prior to priming and caulking.
  - .2 Prime sides of joints in accordance with sealant manufacturer's instructions immediately prior to caulking.
- 3.4 Backup Material
- .1 Apply bond breaker tape where required to manufacturer's instructions.

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- .2 Install joint filler to achieve correct joint depth and shape, with approximately 30% compression.
- 3.5 Mixing
- .1 Mix materials in strict accordance with sealant manufacturer's instructions.
- 3.6 Application
- .1 Sealant.
    - .1 Apply sealant in accordance with manufacturer's written instructions.
    - .2 Mask edges of joint where irregular surface or sensitive joint border exists to provide neat joint.
    - .3 Apply sealant in continuous beads.
    - .4 Apply sealant using gun with proper size nozzle.
    - .5 Use sufficient pressure to fill voids and joints solid.
    - .6 Form surface of sealant with full bead, smooth, free from ridges, wrinkles, sags, air pockets, embedded impurities.
    - .7 Tool exposed surfaces before skinning begins to give slightly concave shape.
    - .8 Remove excess compound promptly as work progresses and upon completion.
  - .2 Curing.
    - .1 Cure sealants in accordance with sealant manufacturer's instructions.
    - .2 Do not cover up sealants until proper curing has taken place.
  - .3 Cleanup.
    - .1 Clean adjacent surfaces immediately and leave Work neat and clean.
    - .2 Remove excess and droppings, using recommended cleaners as work progresses.
    - .3 Remove masking tape after initial set of sealant.

**END OF SECTION**

**PART 1 – GENERAL**

## 1.1 Related Sections

- .1 Metal Doors and Frames Section 08 11 14.

## 1.2 References

- .1 Canadian Steel Door and Frame Manufacturers' Association (CSDFMA).
  - .1 CSDFMA Canadian Metric Guide for Steel Doors and Frames (Modular Construction): standard hardware location dimensions.
- .2 Canadian General Standards Board (CGSB).
  - .1 CAN/CGSB-69.17-M86 (R1993), Bored and Preassembled Locks and Latches.
  - .2 CAN/CGSB-69.18-M90/ANSI/BHMA A156.1-1981, Butts and Hinges.
- .3 CAN/CGSB-69.19-93/ANSI/BHMA A156.3-1984, Exit Devices.
- .4 CAN/CGSB-69.20-M90/ANSI/BHMA A156.4-1986, Door Controls (Closers).
- .5 CAN/CGSB-69.24-M90/ANSI/BHMA A156.8-1982, Door Controls - Overhead Holders.
- .6 CAN/CGSB-69.31-M89/ANSI/BHMA A156.15-1981, Closer/Holder Release Device.
- .7 CAN/CGSB-69.34-93/ANSI/BHMA A156.18-1987, Materials and Finishes.

## 1.3 Submittals

- .1 Product Data:
  - .1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 1.
- .2 Hardware List:
  - .1 Submit contract hardware list in accordance with Section 1
  - .2 Indicate specified hardware, including make, model, material, function, size, finish and other pertinent information.
- .3 Closeout Submittals
  - .1 Provide operation and maintenance data for door closers, locksets, door holders and fire exit hardware for incorporation into manual specified in Section 1

## 1.4 Delivery, Storage, and Handling

- .1 Packing, Shipping, Handling and Unloading:
  - .1 Package each item of hardware including fastenings, separately or in like groups of hardware, label each package as to item definition and location.
- .2 Storage and Protection:
  - .1 Store finishing hardware in locked, clean and dry area.
  - .2 Contractor shall be responsible for the delivery and protection of all items.

## 1.5 Maintenance

- .1 Extra Materials:
  - .1 Provide maintenance data, parts lists and manufacturer's instructions for each type of closer, lockset and fire exit hardware.
  - .2 Supply two sets of wrenches for door closers and exit hardware.

**PART 2 - PRODUCTS**

- 2.1 Hardware Items
  - .1 Use one manufacturer's products only for similar items.
- 2.2 Door Hardware
  - .1 Acceptable Manufacturer's
    - .1 Hinges-Stanley/Hagar
    - .2 Locks/Latches – Sargent/Schlage
    - .3 Exit Devices Stanley/Von Duprin
    - .4 Door Stop Holders Ferrum
    - .5 Thresholds KN Crowder
    - .6 Closures Von Duprin
    - .7 LCN- High Traffic
    - .8 Taymor-Low-Med. Traffic
  - .2 Locks and latches:
    - .1 Bored and preassembled locks and latches: to CAN/CGSB-69.17, series 2000 preassembled lock, grade 1, designed for function and keyed alike to the Owners master keying system. Provide hardware from manufacturer of existing building hardware unless directed otherwise.
    - .2 Orb-style knobs.
    - .3 Normal strikes: Box type, lip projection not beyond jamb.
    - .4 Cylinders: Key into Owner's master keying system.
    - .5 Finishes: Brushed stainless steel.
  - .3 Butts and hinges:
    - .1 To CAN/CGSB-69.18
    - .2 Heavy duty type
    - .3 Ball bearing
    - .4 Stainless steel
    - .5 Non-removable pins for exterior outswinging doors.
  - .4 Exit devices: to CAN/CGSB-69.19, Heavy duty commercial quality, grade 1 conventional.
  - .5 Door Closers and Accessories:
    - .1 Heavy duty commercial type.
  - .6 Door bottom seal: heavy duty, door seal of extruded aluminum frame and solid closed cell neoprene weather seal, recessed in door bottom.
  - .7 Thresholds: 127 mm wide x full width of door opening, extruded aluminum with serrated surface, with thermal break of rigid PVC.
  - .8 Door Stops:
    - .1 Floor mounted
  - .9 Weatherstripping:
    - .1 Head and jamb seal:
      - .1 Extruded aluminum frame and solid closed cell neoprene insert.
- 2.3 Fastenings
  - .1 Use only fasteners provided by manufacturer. Failure to comply may void warranties and applicable licensed labels.
  - .2 Supply screws, bolts, expansion shields and other fastening devices required for satisfactory installation and operation of hardware.
  - .3 Exposed fastening devices to match finish of hardware.

- .4 Use fasteners compatible with material through which they pass.

#### 2.4 Keying

- .1 Doors to be keyed alike as directed. Prepare detailed keying schedule in conjunction with Owner.
- .2 Provide keys in duplicate for every lock in this Contract.
- .3 Provide two masterkeys for each group.
- .4 Stamp keying code numbers on keys and cylinders.
- .5 Provide construction cores.
- .6 Provide all permanent cores and keys to Owner.

### **PART 3 - EXECUTION**

#### 3.1 Manufacturer's Instructions

- .1 Compliance: comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.
- .2 Furnish metal door and frame manufacturers with complete instructions and templates for preparation of their work to receive hardware.
- .3 Furnish manufacturers' instructions for proper installation of each hardware component.

#### 3.2 Installation

- .1 Install hardware to standard hardware location dimensions in accordance with Canadian Metric Guide for Steel Doors and Frames (Modular Construction) prepared by Canadian Steel Door and Frame Manufacturers' Association.
- .2 Where doorstop contacts door pulls, mount stop to strike bottom of pull.
- .3 Use only manufacturer's supplied fasteners. Failure to comply may void manufacturer's warranties and applicable licensed labels. Use of "quick" type fasteners, unless specifically supplied by manufacturer, is unacceptable.
- .4 Remove construction cores when directed by Engineer; install permanent cores and check operation of locks.

#### 3.3 Adjusting

- .1 Adjust door hardware, operators, closures and controls for optimum, smooth operating condition, safety and for weather tight closure.
- .2 Lubricate hardware, operating equipment and other moving parts.
- .3 Adjust door hardware to provide tight fit at contact points with frames.

#### 3.4 Cleaning

- .1 Perform cleaning after installation to remove construction and accumulated environmental dirt.
- .2 Clean hardware with damp rag and approved non-abrasive cleaner, and polish hardware in accordance with manufacture's instructions.
- .3 Remove protective material from hardware items where present.
- .4 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

3.5 Demonstration

- .1 Demonstrate operation, operating components, adjustment features, and lubrication requirements.

**END OF SECTION**

**PART 1 - GENERAL**

## 1.1 Section Includes

- .1 Design, labour, Products, equipment and services necessary for gypsum and cement board Work in accordance with the Contract Documents.

## 1.2 References

- .1 ASTM A653/A653M, Specification for Steel Sheet, Zinc-coated (Galvanized) or Zinc Iron Alloy-Coated (Galvanealed) by the Hot-Dip Process.
- .2 ASTM C36, Specification for Gypsum Wallboard.
- .3 ASTM C475, Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.
- .4 ASTM C533 Standard Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications.
- .5 ASTM C630, Specification for Water-Resistant Gypsum Backing Board.
- .6 ASTM C645, Specification for Non-Load Bearing (Axial) Steel Studs, Runners (Tracks), and Rigid Furring Channels for Screw Application of Gypsum Board.
- .7 ASTM C754, Specification for Steel Framing Members to Receive Screw-Attached Gypsum Board.
- .8 ASTM C840, Specification for Application and Finishing of Gypsum Board.
- .9 ASTM C1002, Specification for Steel Drill Screws for the Application of Gypsum Board or Metal Plaster Bases.
- .10 ASTM C1325 Standard Specification for Non-Asbestos Fiber-Mat Reinforced Cement Interior Substrate Sheets.
- .11 ASTM C1326 Standard Specification Gypsum Board.
- .12 ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
- .13 CGSB 19-GP-21M, Sealing and Bedding Compound, Acoustical.
- .14 CAN/ULC S702, Standard for Mineral Fibre Thermal Insulation for Buildings.

## 1.3 Quality Assurance

- .1 Qualifications:
  - .1 Execute the Work of this Section by skilled, qualified, and experienced workers trained in the installation of the Work of this Section.

## 1.4 Delivery, Storage, and Handling

- .1 Do not begin Work of this Section until:
  - .1 Wet Work including concrete, masonry, plaster, stucco, and terrazzo finishes are complete.
  - .2 Mechanical and electrical Work above the ceiling is complete.
  - .3 Substrate and ambient temperature is above 150C.
  - .4 Relative humidity is below 80 %.
  - .5 Ventilation is adequate to remove excess moisture.
- .2 Install temporary protection and facilities to maintain Product manufacturer's, and above specification, environmental requirements 24 h before, during, and 24 h after installation.

**PART 2 - PRODUCTS**

## 2.1 Materials

- .1 Boards and accessories
  - .1 Manufacturers:
    - .1 BPB Canada Inc.
    - .2 CGC Inc.
    - .3 G-P Gypsum.
    - .4 Unifix Inc.
  - .2 Standard gypsum board: ASTM C36; 15.9 mm thick and of maximum practical lengths to minimize end joints, unless indicated otherwise.
    - .1 ProRoc by BPB Canada Inc.
    - .2 Sheetrock by CGC Inc.;
    - .3 Fire rated gypsum board: ASTM C36; ASTM C1396 Type C as indicated on Drawings.
      - .1 ProRoc Type C by BPB Canada Inc.
      - .2 Sheetrock Firecode Core Type C by CGC Inc.
      - .3 ToughRock Fireguard Type C by G-P Gypsum.
  - .4 Acoustical insulation to CAN/ULC-S702, Type 1 or ASTM C553:
    - .1 Thermafibre Sound Attenuation Blanket by CGC Inc.
    - .2 QuietZone by Owens Corning Inc.
    - .3 AFB by Roxul Inc.
    - .4 Sound Attenuation Fire Batt (SAFB) Insulation by Fibrex Inc.
    - .5 Thickness: As indicated on Contract Drawings.
  - .5 Acoustical sealant: CGSB 19-GP-21M.
  - .6 Joint reinforcing tape: ASTM C475.
  - .7 Joint compound: ASTM C475; Asbestos-free, supplied by manufacturer of gypsum board used.
  - .8 Corner bead and casing bead: Formed from 0.6 mm thick minimum, galvanized steel sheet.
  - .9 Control joint strip: Roll formed from galvanized steel sheet, with a tape protected recess, 6 mm wide x 11 mm deep.
  - .10 Access doors: Supplied by other Sections for installation as part of the Work of this Section.

**PART 3 - EXECUTION**

## 3.1 Examination

- .1 Verify condition and dimensions of previously installed Work upon which this Section depends. Report defects to Engineer. Commencement of Work means acceptance of existing conditions.

## 3.2 Acoustical Insulation

- .1 Install acoustic insulation into partitions as indicated and in accordance with the manufacturer's instructions. Fill stud cavities to full height of partitions and carefully cut and fit acoustic insulation around services and protrusions.

**3.3 Acoustical Sealant**

- .1 Install acoustical sealant in accordance with the manufacturer's instructions and Contract Drawings.
- .2 Install acoustical sealant to acoustically insulated partitions and to partitions with indicated STC ratings.
- .3 Install acoustical sealant under floor runner track, at partition perimeter both sides and at openings, cut-outs, and penetrations, concealed from view in the final installation.

**3.4 Gypsum Board**

- .1 Comply with ASTM C840. Install gypsum board in accordance with manufacturer's written instructions
- .2 Install gypsum board vertically or horizontally, whichever results in fewer end joints. Locate end joints over supporting members.
- .3 Install gypsum board in lightly butted contact at edges and ends and with 1.6 mm maximum open space between boards; do not force gypsum board into place. Do not install imperfect, damaged or damp boards.
- .4 Install gypsum board butting paired tapered edge joints, and mill-cut or field-cut end joints; do not place tapered edges against cut edges or ends.
- .5 Install vertical joints minimum 300 mm from the jamb lines of openings and stagger vertical joints over different studs on opposite sides of partitions.
- .6 Do not locate joints within 200 mm of corners or openings, except where control joints occur at jamb lines or where openings occur adjacent to corners. Where necessary, place a single vertical joint over the centre of wide openings.
- .7 Cut, drill and patch gypsum board as may be necessary to accommodate the Work of other trades.

**3.5 Joint Taping and Finishing**

- .1 Install reinforcing tape and multiple coats of joint compound over gypsum board joints, metal trim and accessories, and screw fasteners in accordance with the gypsum board manufacturer's instructions.
- .2 Fill gaps between, and any imperfections in, gypsum boards with joint compound, allow to dry, and sand smooth ready for painting.
- .3 Install finished gypsum board Work smooth, seamless, plumb, true, flush, and with square, plumb, and neat corners.

**3.6 Access Doors**

- .1 Install access doors supplied as part of other parts of the Work.

**END OF SECTION**

**PART 1 - GENERAL**

## 1.1 Work Included

- .1 Supply and install:
  - .1 painting to interior walls and ceiling (where applicable)
  - .2 painting of doors and frame

## 1.2 Additional Materials

- .1 Leave on the premises for touch up a sufficient quantity of all colours and paint types. In any case not less than 1 litre.
- .2 Containers shall be full, tightly sealed and clearly labelled for identification.

**PART 2 - PRODUCTS**

## 2.1 Interior Painted Drywall

- .1 First Coat – Drywall Primer (Benjamin Moore).
- .2 Two Coats – Eggshell Latex (Benjamin Moore).

## 2.2 Interior Painted Plain Steel

- .1 First Coat: Kormate Metal Primer (Benjamin Moore).
- .2 Finish Coats: Alkyd (Benjamin Moore) – 2 coats.

**PART 3 - EXECUTION**

## 3.1 General

- .1 Paint all building surfaces, as specified.
- .2 Touch up shop applied finishes damaged during installation.
- .3 Apply finish coats to shop primed equipment.

## 3.2 .1 Commencement of the work means acceptance of the condition of the surface is suitable for painting.

## 3.3 Protection of Surfaces

- .1 Protect surfaces not to be painted and if damaged, clean and restore such surfaces as directed.
- .2 Apply primer, paint, or pretreatment as soon possible after surface has been cleaned and before deterioration of surface occurs.
- .3 If rusting occurs after completion of surface preparation, clean surfaces again.
- .4 Prevent contamination of cleaned surfaces by salts, acids, alkalis, other corrosive chemicals, grease, oil and solvents before prime coat is applied and between applications of remaining coats of paint. Remove contaminants from surface and apply paint immediately.
- .5 Protect cleaned and freshly painted surfaces from excessive dust.

## 3.4 Mixing Paint

- .1 Do not dilute or thin paint for brush application; use as received from manufacturer.
- .2 Mix ingredients in container before use and ensure breaking up of lumps, complete dispersion of settled pigment, and a uniform composition.
- .3 Mix paint often enough during application to keep pigment in suspension and

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Painting

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- composition uniform.
- .4 Do not mix or keep paint in suspension by means of air bubbling through paint
- .5 Thin paint for spraying according to manufacturer's instructions. If directions are not on container, obtain instructions in writing from manufacturer and provide a copy of instructions to Architect.

3.5 Applying Paint

- .1 Apply paint by brushing, spraying or a combination of both. Use sheepskins or daubers only when no other method is practical in places of difficult access.
- .2 Use dipping or roller coating method of application only when specifically authorized by Architect in writing.
- .3 Caulk open seams at contact surfaces of built up members with red lead paste, or other approved material. Apply second coat of primer to caulked areas.
- .4 Where surface to be painted is not under cover, do not apply paint when:
  - .1 Air temperature is below 5°C or when temperature is expected to drop to 0°C before paint has dried.
  - .2 Temperature of surface is over 50°C unless paint is specifically formulated for application at high temperatures.
  - .3 Fog or mist occur at site; it is raining or snowing; there is a danger of rain or snow; relative humidity is above 85%.
  - .4 Surface to be painted is wet, damp or frosted.
  - .5 Previous coats are not dry.
- .5 Permit drying of applied paint which has been exposed to freezing, excess humidity, rain, snow or condensation. Remove paint from damaged areas, prepare surface again and repaint same as undamaged areas.
- .6 Apply each coat of paint as a continuous film of uniform thickness. Repaint thin spots or bare areas before next coat of paint is applied.
- .7 Brush application:
  - .1 Work paint into cracks, crevices and corners and paint surfaces not accessible to brushes by spray, daubers or sheepskins.
  - .2 Brush out runs and sags.
  - .3 Leave a minimum of brush marks in finished paint surfaces.
  - .4 Remove runs and sags from finished work and repaint.
- .8 Field Painting:
  - .1 Paint steel structures as soon as possible.
  - .2 Touch up metal which has been shop coated with same type of paint and to same thickness as shop coat. This touch-up to include cleaning and painting of field connections, welds, rivets, nuts, washers, bolts and damaged or defective paint and rusted areas.
  - .3 Field paint surfaces (other than joint contact surfaces) which are accessible before erection but which will not be accessible after erection.
  - .4 If possible do not apply final coat of paint until concrete work is completed. If concreting or other operations damage any paint, clean and repaint damaged area. Remove concrete spatter and droppings before paint is applied.

**1. GENERAL**

**1.1 Scope of Work**

- .1 The work of this Section applies to the Work areas within the boundaries of the New Offices as indicated in the Contract Documents.

**1.2 Intent**

- .1 Provide all Work specified or shown in the Contract Documents necessary for a complete operating installation. Provide all tools, instruments, equipment and services required to do the Work.
- .2 The Specification Sections are integral with the Drawings which accompany them. Neither is to be used alone. Any item or subject omitted from one, but included in the other shall be considered to be properly specified.

**1.3 Codes and Standards**

- .1 Comply with the latest requirements of all relevant standards and codes of authorities having jurisdiction including, but not limited to, the following:
- Ontario Building Code
  - Ontario Electrical Safety Code
  - Hydro One
  - Local Municipality By-Laws and Regulations
- .2 Install all equipment and systems plumb and level.

**1.4 Shop Drawings**

- .1 Provide digital copies of the shop drawings for review showing detail of the receptacles, light switches and lights.
- .2 The approval is general and not intended to relieve the Contractor of its responsibility for checking the quality of the drawings and performing all the work required.
- .3 Assume full responsibility for the submission of shop drawings.
- .4 Each shop drawing shall be checked and stamped as being correctly the Contractor before the drawing is submitted. If the above requirements are not complied with, the shop drawings will be rejected and returned to the Contractor forthwith.
- .5 Where applicable, provide wiring details, schematics, single line drawings, and wiring diagrams showing the interconnection with the work of other trades.
- .6 Verify and check the dimensions of the Site to ensure proper installation of the equipment in the available space without interfering with the work of other trades.

Ensure that electrical and all other coordination is complete prior to the submission of shop drawings.

- .7 Provide data sheets and samples for all equipment and devices prior to installation.

### **1.5 Permits, Fees and Certificates**

- .1 Rules and Regulations: Provide the material and labour required to produce work of the best quality conforming to the rules and regulations of the local Electrical Safety Authority, Canadian Electrical Code, Part 1, Hydro One and Canadian Standards Association.
- .2 Provide ESA Inspection Certificate.

### **1.6 Qualifications**

- .1 The individuals executing the electrical works must each hold valid contractors' licenses from the Electrical Contractor Registration Agency.
- .2 Use only qualified electrical workers holding valid Ontario Certificates of Qualifications.

### **1.7 Cutting and Patching**

- .1 Existing Services: The Contractor shall coordinate the location of existing services that may affect the Work. Approximate locations of existing services have been indicated on the Drawings; however, this does not relieve the Contractor of its responsibility to verify and coordinate the location of existing services with other trades, authorities and utility companies. Verify the exact location and elevation of all existing services prior to commencing any work of this section.
- .2 Perform all required cutting and patching to complete the Contract Work. Cuttings shall be kept to a minimum and shall be performed with clean straight edges. Patching shall be neat and clean and restored to original finish conditions using similar types of materials. Use only trades personnel skilled in the various types of work required.

## **2. PRODUCTS**

### **2.1 Wires and Cables**

- .1 Conductors: Copper 600 volt rated type RW90 x-link minimum size 14 AWG (American wire gage).

### **2.2. Raceways**

- .1 Electric metallic tube "EMT" and armored cable "BX" concealed in furred spaces and ceilings.
- .2 Pre-finished metal wire mold surface raceways where wiring cannot be concealed in finished areas..

**2.3**    Outlet Boxes

- .1        Shall be galvanized steel, KO Type.

**2.1**    Fixtures

- .1        Emergency lighting battery units, remote heads will be provided by the Division 16 Contractor. Cooper Lighting Atlite " A Light Duty" with "RFSurface Heads" .
- .2        Exit Light with emergency lighting Cooper Lighting Running Man" green.
- .3        Interior Lights: LED potlights

**1.5**    Devices

- .4        Light Switches: 15 amp, 120 volt switches to be Leviton Manufacturing Co. Model 5601-I, complete with cover plate. Use pre-finished matching fasteners. Alternate Manufactures: Hubbell Inc. or Eagle Electrical Manufacturing Company.

**3**        **EXECUTION**

**3.1**    General

- .1        Where connections are made to existing electrically operated equipment and devices, provide any new wiring necessary and connect to equipment which is to be reconnected and ensure devices are in satisfactory operational condition.
- .2        Provide proper Marr connectors and filler for connections made to aluminum wiring in accordance with the Ontario Electrical Safety Code.
- .3        Conceal all wiring, using armoured cable ("BX") wire way.

**3.2**    Testing

- .1        Test the entire electrical installation as required by the rules and regulations of the local Electrical Safety Authority, Canadian Electrical Code, Part 1, Hydro One and Canadian Standards Association.

**3.3**    Protection of Existing Finishes and Equipment

- .1        Protect all finished and unfinished work of this and other Divisions from damage arising out of the work of this Section.
- .2        Keep equipment dry and clean at all times.
- .3        Cover openings in equipment and materials.
- .4        Make good any damage caused directly or indirectly to walls, floors, ceilings, woodwork, finishes, etc.

3.4 Clean-up

- .1 Remove from Site all debris except for any specified as salvage and leave the finished Work clean and polished. Debris shall not be stored on Site.