



S P E C I F I C A T I O N S

For

ROYAL BOTANICAL GARDENS HALL

INTERIOR RENOVATION

+VG PROJECT NUMBER: 22459

+VG ARCHITECTS

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END OF SECTION

TENDERS

1. TENDER TIME-TABLE

Tender Issue	March 10, 2025
Mandatory Site Visit	March 12, 2025 5:30:00 p.m..
Deadline for Questions	March 19, 2025, 4:00:00 p.m.
Tender Closing	March 21, 2025, 1:00:00 p.m.

2. BID CLOSING DATE AND TIME:

- .1 **ELECTRONIC BID SUBMISSIONS ONLY, tender forms** shall be received **via email** by the **Owner, before 2:00:00 p.m. Eastern local time, on March 21st, 2025.**

Bid submissions to be email to:
Joe Tavares jtavares@rbg.ca

- .2 **Note that hard copy bid submissions will not be accepted.**
- .3 All Bids shall be irrevocable and shall remain open for acceptance, at the prices quoted, for up to sixty (45) business days from the Bid Submission Deadline. In submitting a Bid, each Proponent agrees that, notwithstanding anything to the contrary, the Owner may notify the Successful Proponent at any time within the Bid validity period that their Bid has been awarded.
- .4 Late Proposals shall not be accepted.

3. BID SUBMISSIONS

- .1 Complete electronic bid submissions shall include:
- .1 Complete Tender Form and Supplementary Tender Form, signed, sealed and dated; and
 - .2 Bid Bond; and
 - .3 Consent of Surety/Agreement to Bond; and
 - .4 Proof of Insurance as noted in this Section; and
 - .5 WSIB Certificate of good standing.
- .2 Tenders must be submitted on the Tender Form and Supplementary Tender Form issued with Tender Documents.
- .3 All blanks on Tender Form and Supplementary Tender Form must be filled in. Failure of a Bidder to insert a value for any Value or Unit Price shall be deemed to be a "zero dollar" (\$0) value.
- .4 Tenders shall not be qualified by any condition without express written consent of the Consultant clarified by an Addendum only prior to submission of Tender.
- .5 All requirements of the Tender Form and Supplementary Tender Form must be completed.
- .6 Bidders shall be solely responsible for delivery of Tender in the manner and time prescribed.
- .7 Bidders shall be solely responsible for verifying they have received all of the Addenda issued.

4. WITHDRAWAL/AMENDMENT OF SUBMISSION

- .1 Bidders may amend or withdraw their submission prior to the closing time and date. However, it is the Bidders responsibility to:
 - .1 Withdrawal - Ensure the submission is **withdrawn** before the time of closing, on the bid closing date;
 - .2 Amendment – Ensure the re-submitted bid is **received** before the time of closing, on the bid closing date.

5. INFORMAL OR UNBALANCED TENDERS

- 1. Tenders which are incomplete, conditional, illegible or obscure, or that contain reservations, erasures, alterations, or irregularities of any kind may be rejected as informal.

6. QUESTIONS, OMISSIONS, DISCREPANCIES AND INTERPRETATIONS

- .1 All tender documents are complimentary and must be read together to ascertain a complete description of the Work.
- .2 Examine Tender Documents for completeness, discrepancies or omissions. Should a Bidder find omissions or discrepancies in any part of this Tender or should the Bidder be in doubt as to the meaning of any part of such documents, notify the Owner's designee of discrepancies or omissions as noted in .3 below.
- .3 All Inquiries concerning this Tender are to be directed in writing via email and addressed to:
Priyanka Shukla
pshukla@plusvg.com
- .4 Inquiries shall not be directed to any other of the Owner's employees or Consultants. No inquiries will be accepted by telephone. Inquiries made by telephone, fax, or verbally will not be accepted or answered and will not form a part of the tender documents.
- .5 The Owner and Architect shall not be held liable for any errors or omissions in any part of this Tender. While the Owner and Architect have used considerable efforts to ensure an accurate representation of information in this document, the information contained herein is supplied solely as a guideline for Bidders. The information is not guaranteed or warranted to be accurate by the Owner and Architect, nor is it necessarily comprehensive or exhaustive. Nothing in the documents is intended to relieve the Bidder from forming their own opinions and conclusions with respect to the matters addressed in this Call for Bid document.
- .6 The Owner and Consultants shall not be bound by any verbal instruction, amendment, clarification, informative advice or suggestion from any of the Owner's personnel, Trustees or agents or consultants to the Owner.

- .7 Provide notification at once of discrepancies found in, or omissions from the drawings, specifications or other documents or if in doubt as to their meaning; A written instruction through an Addendum will be sent to all Bidders. If a discrepancy exists, an addendum will be issued to all Bidders to clarify or correct such discrepancies.
- .8 Neither Owner, Consultants nor Architect will be responsible for any verbal instructions.
- .9 Should any discrepancies or omissions go unreported during tendering period, the proper interpretation of the bid documents shall be at the discretion of the Architect.

7. ADDENDA

- .1 Addenda may be issued during the Tender period. All addenda will be issued by the Architect via email in PDF format.
- .2 All addenda become part of the Tender Documents. Include costs arising from addenda. Confirm the completeness of all addenda.
- .4 Proponents shall acknowledge receipt of any addenda when submitting their bid.
- .5 Addendum/Addenda will be issued, typically no less than forty-eight (48) Hours prior to Bid Closing Time and Date.
- .6 It is the responsibility of the Proponent to have received all Addenda that have been issued. Proponents should check they have received/included all addenda prior to submitting their Bid and up until Bid closing time and date in the event additional addenda are issued.
- .7 The Owner encourages Bidders to not submit their Bid forty-eight (48) hours prior to the Bid Closing Time and Date, in the event that an addendum is issued.

8. TENDERING COSTS

- .1 All costs associated with the preparation and delivery of a tender shall be paid by the Bidder.
- .2 The Owner is not responsible for compensation of tendering costs under any circumstances.

9. AWARD OF CONTRACT

1. FACTORS AFFECTING CONTRACT AWARD

A Bidder's experience in this type of work, past performance, organization, proposed subcontractors, equipment, ability to perform and complete this Contract in the manner and within the time specified, together with the amount of

the Tender, will be vital elements considered in the award of the Contract.

1. The Owner reserves the sole discretionary right to accept or reject any or all bids received.

2. The Owner will evaluate the bids received and identify the offer which represents "best value", as interpreted in its own best interest by the Owner in its sole and absolute discretion; this may not be the lowest priced tender.

3. The Owner reserves the right to award the contract based on the base bid price only or any combination of base bid, alternate prices, separate prices, and relevant experience which are deemed to be to the advantage of the Owner at the time of award at their sole discretion.

2. AWARD OR REJECTION OF TENDER

The Owner reserves the right to reject any or all tenders and to waive any irregularity therein the lowest tender may not necessarily be accepted.

3. ACCEPTANCE OF TENDER

No Bidder shall be considered under Contract after the opening and reading of Tenders until the AGREEMENT is signed and compliance therewith has been made.

4. DISPOSITION OF BONDS

Within seven days of opening of the tender, all bid bonds other than the securities from the two proponents deemed to offer "Best Value" shall be returned to the applicable bidders.

10. DELETION OF WORK UNDER THE CONTRACT

1. WORK DELETED FROM THE CONTRACT

The Owner reserves the right to delete any or all work from the contract.

The contract amount will be the tender amount plus or minus the amounts of separate and alternate prices accepted to as determined by the owner and Architect.

11. BID BOND

1. Every tender shall be accompanied by a Bid Bond (with a recognized Guarantee or Insuring company - approved by the Canadian Construction Association) in the amount of **10% of the Tender Sum** being quoted which may be forfeited. The tenderer agrees that, if they withdraw this tender within 60 days after the closing date, the deposit made with this tender shall be forfeited to the Owner.

12. BONDS

1. PERFORMANCE BOND

An Agreement to Bond for **50%** of the Tender amount must accompany each tender and the tenderers shall include for the cost to provide a **50%** Performance Bond in their Tender Amount. Refer to CCDC Document 2 (Revised 2020). The format must conform to CCDC Document 2 (Revised 2020) General Conditions and as amended in the Supplementary General Conditions. The issuing company of the Bond must be approved by the Canadian Construction Association.

NOTE: At Substantial Performance of the contract, this bond shall be converted to cover the warranty period and shall remain in force for a period of **24 months** after the date of substantial performance.

2. LABOUR AND MATERIAL BOND

An Agreement to Bond for **50%** of the Tender amount must accompany each Tender and the Tenderers shall include for the cost to provide a **50%** Labour and Material Bond in their Tender Amount. Refer to CCDC Document 2 (Revised 2020). The format must conform to CCDC Document 2 (Revised 2020) General Conditions and as amended in the Supplementary General Conditions. The issuing company of the Bond must be acceptable to the Owner and approved by the Canadian Construction Association.

3. Both Performance Bonds and Labour and Materials Bonds are to be provided within seven (7) days of award of tender, after receiving notification of acceptance of their quotation from the Owner or forfeit the amount of the Bid Bond enclosed with the tender.

13. CONTRACT

1. The successful tenderer shall execute the said formal contract as called for, within 7 days after notification of the acceptance of their tender or forfeit the amount of the Bid Bond enclosed with the tender.
2. The successful tenderer will be required to execute a "Canadian Standard Form of Construction Contract to a Stipulated Sum" (Revised 2020) CCDC Document No. 2, including Amendments thereto as set out in the Supplementary General Conditions.

14. CLIENT / OWNER

1. The Client is Royal Botanical Gardens, 680 Plains Road West, Burlington, Ontario L7T 4H4.

15. CONSULTANTS

1. The Architect is: +VG - The Ventin Group Ltd., Architects
50 Dalhousie Street
Brantford, Ontario N3T 2H8

2. The Structural Engineer is: Structures +VG
50 Dalhousie Street
Brantford, Ontario N3T 2H8
3. The Mechanical/
Electrical Engineer is: Jain Sustainability Consultants Inc.
7405 East Dnabro Crescent
Mississauga, ON Canada, L5N 6P8

16. DOCUMENTS

1. The Documents shall consist of all drawings, specifications and addenda.
2. Drawings and specifications are the property of the Owner.
3. Contractor to pay for all their own printing of documents for Tender and Bidding.

17. EXAMINATION

1. There is a **Mandatory site visit** on March 11th, 2025 at 10:00 am at Royal Botanical Gardens, 680 Plains Road West, Burlington Ont. Bidders who elect not to attend shall not be eligible to submit tender for this project. Note that this applies to General Contractors and NOT to sub-trades although they are welcome to attend.
2. The site shall be accepted by the Contractor in its present condition. The Contractor will be held to have visited the site and to have carefully examined all conditions affecting the work to be done there on, including the location of all services which may have to be protected, removed or relocated. The Contractor shall accept sole responsibility for any error or neglect on their part in this respect. Submission of Tender shall be deemed confirmation that tenderer has inspected site and is thoroughly conversant with existing conditions. No claims for extra payment will be considered for extra work, expense or difficulties encountered due to conditions on each site which were visible upon or reasonably inferable from an examination of the said site prior to the closing of tenders.
3. Examine the specifications and drawings thoroughly. Report in writing to Architect all ambiguities, discrepancies, omissions, errors, departures from Building Code, By-Laws, or from good practice, discovered during examination as early in the tender period as possible to allow clarification by addenda to be issued to all bidders. No claims for extra payment will be considered for work, expense or difficulties which are reasonably inferable from an examination of the documents prior to the closing of tenders.
4. The drawings and specifications complement each other and neither is to be considered alone. Hence, any item omitted in one, but mentioned or implied in the other, must be provided.

5. All changes to the contract documents which result in an extra or a credit to the contract amount are not to be executed until written instructions have been received and the extra or credit agreed to in writing by all parties to the contract.
6. The Contractor shall execute variations, alterations and substitutions which do not affect the contract amount as instructed by the Architect or the Owner.
7. Bidders finding discrepancies or omissions in the drawings or specifications shall at once notify the Architect in writing who shall send written instructions through an Addendum to all bidders. Bidders may, during the tender period, be advised by addenda of any additions, alterations or deletions to the specifications and drawings. All such changes shall be covered by the tender and become part of the contract documents.
8. If any person submitting a bid on this project is in doubt as to the true meaning and intent of any part of the specifications or other documents, they must submit a question in writing to the Architect requesting an interpretation by the Architect. If such a question is not submitted and an interpretation is not requested, the bids will be presumed to be based on the interpretation or directions that may be subsequently given by the Architect after award of the Contract, in accordance with the provisions of the Contract.
9. Prior to the closing date of tenders, any and all necessary clarifications of the specifications or other Tender documents will be in the form of written Addenda. The Architect, Consultants and Owner will **NOT** be responsible for verbal instructions or explanations or interpretation of Drawings and Specifications.
10. No questions concerning this project will be accepted during the day of the tender closing date. The final date for questions to be submitted is noted above.

18. UNIT PRICES

- 1 At time of submission include in the tender form all the unit prices in accordance with the Supplementary Tender Form. These unit prices will be included in the agreement.
- 2 Unit prices shall include labour, material and applicable taxes , overhead and profit, and other relative charges, but shall be exclusive of HST. Any work done on the basis of unit prices shall be carried out generally in accordance with the specifications for similar work and shall be to the Architect's approval.
- 3 The Owner reserves the right to accept or reject any or all of the Unit Prices prior to entering in the construction contract. The owner reserves the right to negotiate these unit prices rejected or proposed and to renegotiate prices for any proposed changes.

21. BASE BID TENDERS

1. Materials and equipment are specifically described and named in this specification to establish a standard of materials and workmanship to which the

tenderers shall strictly adhere. Where manufacturer's trade names are used, the first named or specified by catalogue numbers meets specifications in all respects regarding performance, quality of material and workmanship, and is acceptable to the Architect.

2. Where the contractor uses equivalent products (either identified in the specifications or added after review by addendum) other than the first named, on which the design is based, they shall be responsible for all details of installation including product size, arrangement, fit, colour, etc. and maintenance of all required clearances. Contractor shall prepare and submit revised layouts to indicate arrangement of all affected surrounding equipment, etc. Failure by Contractor to provide such drawings may be considered indication that original arrangements, and space allocations are adequate. All additional costs associated with equivalent products such as revisions to surrounding architectural finishes, structural components, or the need for larger motor starters, larger power feeders, space revisions to associated product, equipment, controls, etc. shall be provided by the General Contractor and be included in Bid price.
3. Tenders may include with their lump sum tenders, alternative proposals based on the use of alternative material equivalent to the materials or equipment specified, in quality and performance, provided clearances and dimensions shown on the drawings are maintained. For all such alternative proposals, the tenderer shall include such proposals and the following information, in a letter accompanying their tender, for consideration by the Owner and Architect at the time of opening tenders. Under no circumstances shall the bid for an alternative material or equipment be included in the tender amount.
 1. Manufacturer's name and supplier's name.
 2. Change in price, if any.
 3. Reason for proposing alternative.
 4. Detailed description of alternative.
 5. Statement assuming full responsibility that any equipment shall not exceed the space requirement allocated on the drawings. This contractor shall be responsible for any additional installation cost resulting from the acceptance of a substitute piece of equipment or product.
4. Under no circumstances will alternatives submitted after the closing of tenders, be considered.
5. The Architect reserves the right to accept or reject proposed alternatives as the Architect sees fit, and also to claim for the Owner, the financial benefit of a substitution, if a substitute is accepted. A rejection by the Architect does not become obligated to give any reason for their action.

22. PROCEDURES AND SUPPLY OF CRITICAL MATERIALS

1. Submission of a tender shall constitute the Tenderer's agreement that they will commence work immediately upon award of the Contract, and that they will execute the same without interruption until completion, including the furnishing of all necessary supplies and equipment for winter operations. Contractor shall assure themselves before submitting a tender that they are in a position to furnish adequate supplies of all materials, critical or otherwise, at such times necessary to

ensure immediate commencement of the work and continuous operation without delays on the project. The Contractor shall include in their tender amount, sufficient sums for the purchase of critical materials from any source available. The contractor shall include in their bid any costs related to storage of materials delivered to the site prior to the work being ready for their installation. After award of the contract, the Owner will not grant increases to the tender amount to obtain critical materials at premium prices, nor will delays or interruption of the work be tolerated.

23. LAWS, CODES AND REGULATIONS

The tenderer is assumed to have made themselves familiar with and abide by the Federal National Authorities, Provincial, Municipal and local laws, rules and regulations which in any manner affect those engaged or employed in the work, or in any way affect the work, and no plea of misunderstanding will be considered on account of ignorance thereof. If the Bidder shall discover any provisions in the drawings, specifications or contract which are contrary to or inconsistent with any law, rule of regulation, Contractor shall at once report it in writing through Bids and Tenders.

24. PERMITS

1. The Owner will be applying and paying for Building Permit and the Contractor shall expedite receiving and picking it up from the Building Department. The Contractor shall be responsible for expediting, obtaining, paying for and picking up all other necessary permits, relative inspection fees, licences, notices, certificates of inspection, approval required to carry out work and provide the Owner with proof of same.
2. It is the responsibility of this Contractor to expedite and obtain the required building permit prior to commencing the work. Contractor must allow for time to obtain all required permits within the project completion schedule.
3. Proof of issue of Building Permit must be submitted before any progress payments can be released for the project.

25. STATUTORY HOLDBACK

1. A holdback of 10% of the contract price shall be held by the Owner for a period of 60 days after substantial performance and approval of the work as per specifications. Pursuant to the requirements of the Construction Act, the holdback will be released after the expiration of 60-day lien waiting period, provided no liens are then registered. The date of advertisement in a construction trade newspaper shall commence the lien period.
2. At the end of 60 days waiting period, the Contractor will submit to the Owner and Architect, an invoice for the amount of the 10% holdback, at which time affidavits will be submitted to the Owner ensuring there are no liens against the job at that time.

26. INSURANCE

1. All Risk Property Insurance, including fire insurance, to be provided by the General Contractor and shall be in joint names of the Owner, Architect and Consultants.
2. The Contractor shall provide a minimum of \$10,000,000.00 Public Liability Insurance.

The Contractor shall indemnify and save harmless the Owner, The Ventin Group Ltd., Architects, their Consultants, and their officers and agents from all claims relating to labour, materials and equipment furnished for the work and to inventions, patents or patent rights used in doing the work. The Contractor shall be responsible for any and all damages or claims for damages or injuries or accidents done to or caused by them or their employees or relating to the prosecution of the works, or any of their operations or caused by reason of the existence or location or condition of any materials, plant or machinery used there on, or which may happen by reason thereof, or arising from any failure, neglect or omissions on their part, or on the part of any of their employees to do or perform any or all of the several acts or things required to be done by them under and by these conditions and covenants and agrees to hold the Owner, The Ventin Group Ltd., Architects and Consultants, harmless and indemnified for all such damages and claims for damages.

3. Automobile Liability Insurance and Contractor's Equipment Insurance and all other insurances shall be provided by the General Contractor and shall be in joint names of the Contractor, the Owner, the Architect, and Consultants.
4. Proof of Insurances and the named insured showing the Owner as an additional named insured for the project shall be submitted to the Owner upon execution of the Contract. Insurance Certificate shall provide that the insuring company will give 60 days' notice to the Owner of an intention to cancel.

27. WORKPLACE SAFETY AND INSURANCE

1. Submit proof of Workplace Safety and Insurance coverage. The contractor shall provide the owner with written documentation that all Workplace Safety and Insurance and Employment Insurance payments are up to date and in order.

28. IMPERIAL/METRIC DIMENSIONS

1. Where both imperial and metric dimensions are given in this specification, the metric dimensions apply for this project.

29. SITE ACCESS

1. Contractor to remove all debris from site daily.
2. Location of all trailers, storage container units, and construction fences by

contractor shall be reviewed and approved by the Owner and Architect at a preliminary site meeting prior to contractor moving on to site.

3. Parking for construction workers shall be on site.
4. Site access for construction to be confirmed at first site meeting.
5. Construction Site must be closed and locked after hours.

30. TAXES AND DUTIES

The Base Bid Price shall be exclusive of any value added taxes, i.e., HST.

1. The successful General Contractor will indicate on each application for payment **as a separate amount** the appropriate HST the Owner is legally obliged to pay.

31. GENERAL NOTES TO CONTRACTOR

1. The contractor will be required to keep and maintain a set of as-built drawings for each project. These drawings will be used for no other purpose than recording the exact location of buried or covered services and all changes to the contract documents. The as-built drawings will be submitted to the Architect along with guarantees, maintenance data, extra supplies, etc. at the substantial performance of the contract.
2. The contractor will turn over to the Architect at the completion of the contract all project close out documents, material, etc. These documents, material, etc. including occupancy permit, will be accepted only with a transmittal and at no other time than when submitting a written request for substantial performance of the contract. For purposes of determining a value of this work it will be considered as **\$5,000**. Note this amount is in addition to any values identified in the mechanical and electrical divisions.
2. Conform to the Ontario Building Code, CEC CSA C22, (latest Edition as currently amended) CAN3-B44, and CSA W59.1, where applicable, to the Canadian Code for Construction Safety, as currently amended, and to the Construction Safety Act, Ont. as currently amended, and to all other applicable codes and Building By-Laws hereinafter referred to as Codes; and to the requirements of the authorities having jurisdiction, including public utilities, referred to in the Contract Documents as the authorities.

32. ACCESS TO INFORMATION

1. All tenders, quotes and proposals are subject to the Municipal Freedom of Information and Protection of Privacy Act and will be disclosed where the Owner is required to do so for the purposes of complying with an Order of the Information and Privacy Commissioner.

33. WHMIS REQUIREMENTS

1. Contractors shall comply with WHMIS requirements in accordance with the Occupational Health and Safety Act (Ontario). Before commencement of work and during the full term of the Contract, the Contractor shall provide a list with current MSDS for all hazardous materials proposed for use on the Project. The Contractor shall label hazardous materials used and/or supplied on the Project in accordance with WHMIS requirements. The Contractor shall conform to the Environmental Protection Act for disposal and clean-up requirements. The Contractor shall obtain from the Owner, where applicable, a list and MSDS of hazardous materials that may be handled, stored or used by the Owner's employees and/or other contractors retained by the Owner at the location where work of this Contract will be performed. The Contractor shall ensure that those who handle and/or are exposed to, or are likely to handle or to be exposed to hazardous materials, are fully instructed and trained in accordance with WHMIS requirements.
2. Also refer to Section 01545 - Safety Requirements.

END OF SECTION

TENDER FORM

FOR THE

**ROYAL BOTANICAL GARDENS HALL
INTERIOR RENOVATION**

**680 PLAINS ROAD WEST
BURLINGTON, ONTARIO**

SUBMITTED BY: _____

DATE: _____

1. Having carefully examined the Drawings and Specifications, including all Addendum thereto, issued prior to this date and numbered ____ to ____ inclusive, and the General Conditions of the Contract as amended by the Supplementary General Conditions, and having examined and complied with the Instructions to Bidders as prepared by The Ventin Group Ltd., Architects for the Royal Botanical Gardens Hall Interior Renovation, Ontario, we hereby offer to furnish all the materials, plant and labour necessary for the proper completion of the work set forth in the aforesaid Drawings, Specifications, General Conditions, and Addenda, including all prime costs, Allowances, Goods and Services, and all applicable Taxes in force at this date **but not including Harmonized Sales Tax** and any additional or deductible Allowances or taxes that have not been announced and that may be imposed subsequent to this date, which shall be payable by or to the Owner in accordance with the aforesaid documents for the sum of:

TOTAL BASE BID SUM AMOUNT:

\$ _____ **(not incl. HST)**
in lawful money of Canada

2. The above stipulated tender sum includes all necessary overtime or premium work that will be required to complete this project on schedule.
3. Provide the name of the construction publication which will be used to publish the Certificate of Substantial Performance:

The General Contractor shall notify their subtrades and suppliers of this publication.

4. We propose to use the following Mechanical and Electrical Subcontractors, included in the above Base Bid Stipulated Tender Sum:

1. Mechanical Contractor

Sub-Contractor's Base Tender Sum \$_____ (+ HST)

Mechanical Contractor's Name _____

2. Electrical Contractor

Sub-Contractor's Base Tender Sum \$_____ (+ HST)

Electrical Contractor's Name _____

5. BID BOND

We enclose herewith, in the amount of 10% of the Tender Price, a Bid Bond in the form approved by the Canadian Construction Association. In the event of this tender being accepted within the time stated herein, and our failure to enter into a contract in the form hereinafter mentioned, for the amount of our tender, the said security, limited to the lesser of the face value or the security or the difference between this tender and the tender for which the contract is signed, may be forfeited in lieu of damages to which the Owner may be entitled by reason of our failure or refusal to enter into a contract.

6. AGREEMENT TO BOND

We enclose herewith an Agreement to Bond for a 50% Performance Bond and a 50% Labour and Material Payment Bond, all in the form approved by the Canadian Construction Association issued by same surety who has issued the Bid Bond.

We the undersigned agree that if I/we default in executing a Contract or providing the required performance security in accordance with the terms of the bid documents, the Owner shall have sustained liquidated damages in the amount equal to the difference between the amount of this bid and the amount for which the Owner legally contracts with another party to perform the Work. If the latter amount be in excess of the former up to the amount of the bid bond and such amount shall become the property of the Owner.

7. **ALL WORK MUST PROCEED IN A CONTINUOUS MANNER. THE SITE WILL BE AVAILABLE TO START WORK APRIL 1, 2025. ALL WORK SHALL BE COMPLETED & READY FOR THE OWNER'S OCCUPANCY NO LATER THAN MAY 31, 2025 FOLLOWING ISSUANCE OF A LETTER OF INTENT FROM THE OWNER.**

8. In submitting this tender, it is understood that revised tenders shall not be called if minor changes only are contemplated.

9. MARK-UP

1. The following mark-up shall apply to work added to the Contract.

1. General Contractor's and Subcontractor's overhead and profit.
Note: Overhead and profit mark-up shall include increased bonding, site supervision, additional permit fees and all office overhead, and travel expenses. The cost for these items shall not be added onto any cost for changes prior to mark-up. Refer to Supplementary General Conditions SGC 16.

General Contractors may charge mark-up of **10%** on their own work and only **5%** on their subcontractors work and are not allowed to treat their own forces as Subcontractors.

Subcontractors may charge a maximum of **5%** fee for their own work.

Subcontractors shall charge only **5%** on extras for their subcontractors work who can only charge a maximum of **5%**, for a total max. combined subcontractor mark up of 10%.

For deleted work, the credit for mark-up shall be zero (0) per cent.

10. SUBSTITUTIONS

The Tender amount must be based on materials as specified but Bidders may list any substitutions on the following lines for the Owner's consideration. (See General Conditions and Supplementary General Conditions.)

	ADD TO TENDER	DEDUCT FROM TENDER
1.		
2.		
3.		
4.		

11. IF WE ARE NOTIFIED OF THE ACCEPTANCE OF THIS TENDER WITHIN **45 DAYS** FROM THIS DATE, WE WILL:

1. Execute a Contract on the Canadian Standard Construction Document, Stipulated Price Contract (CCDC Document 2, Revised 2020), as amended by the Supplementary General Conditions.
2. Furnish a General Analysis of the Contract Sum, the total aggregating the amount of our Tender.
3. Furnish a Performance Bond and Labour and Material Bond both in the amount of 50% of the Contract Sum, all in accordance with GC.11.2 of the General Conditions and Supplementary General Conditions of the Contract and in the form approved by the Canadian Construction Association.
4. Furnish proof of Workplace Safety and Insurance Board coverage.
5. Certificate of Insurances: Minimum insurance requirements are set out in the Instructions to Bidders and Supplementary General Conditions.

12. CONFLICT DECLARATIONS

1. We declare that this Tender is made without any connection, knowledge, comparison of figures, or arrangements with any other company, firm or person making a Tender for the same work and is in respects fair and without collusion or fraud.

13. SUPPLEMENTARY TENDER FORM

1. The submission of the Supplementary Tender Form is a mandatory requirement of this tender. The failure to submit may result in rejection of your tender.

14. SIGNING OF TENDER

- a. We are submitting this stipulated sum tender under Corporate Seal as a limited company or witnessed as an individual or partnership.

NAME _____

TITLE _____

SIGNATURE OF AUTHORIZED OFFICER OF COMPANY

NAME OF COMPANY _____

ADDRESS _____

PHONE NUMBER _____

CONTACT PERSON _____
COMPANY SEAL:

WITNESS NAME & TITLE _____

WITNESS SIGNATURE _____

DATED AT _____

ON THE _____ 2023.

**ROYAL BOTANICAL GARDENS HALL
INTERIOR RENOVATION**

**680 PLAINS ROAD WEST
BURLINGTON, ONTARIO**

SUBMITTED BY: _____

DATE: _____

1. We hereby submit our Separate Prices, Alternate Prices, Unit Prices and List of Subcontractors, including all taxes, excluding HST, in accordance with the Drawings and Specifications prepared by +VG, The Ventin Group Ltd., Architects, 50 Dalhousie Street, Brantford, Ontario.

2. ITEMIZED PRICES

1. Indicate the extra cost for the following Itemized Price items which **are included** in the base bid amount. All prices shall include all applicable taxes, overhead and profit, bonding, insurances and permit and inspection fees, but **EXCLUDE** H.S.T.

<u>Itemized Price 1</u>	
Drywall – <u>not including</u> Auditorium A & B feature bulkhead	\$ _____
<u>Itemized Price 2</u>	
Drywall - Auditorium A & B feature bulkhead <u>only</u>	\$ _____
<u>Itemized Price 3</u>	
Auditorium A & B flooring replacement including removal of existing floor and prep for new.	\$ _____
<u>Itemized Price 4</u>	
Accent Wall Light Feature, detail 1/A7.2	\$ _____
<u>Itemized Price 5</u>	
Alcove surround indicated on Details 2,4,5/A2.1.	\$ _____

4. SUBSTITUTIONS

The Tender amount must be based on materials as specified but Bidders may suggest and list below any substitutions on the following lines for the Owner's consideration. The Owner is under no obligation to accept any or all of these proposed substitutions. (See General Conditions and Supplementary General Conditions.)

Proposed voluntary substitutions	ADD TO TENDER	DEDUCT FROM TENDER
1.		
2.		
3.		
4.		

7. LIST OF SUBCONTRACTORS

1. We submit herewith a list of the subcontractors for all Work we propose to use on this Contract, together with the sections of the work to be done by each of them, reserving to use however, the right to substitute other subcontractors for any of them in the event of any subcontractor withdrawing their tender or becoming bankrupt after the date hereof.
2. Any substitution shall be subject to the approval of the Owner and contingent upon evidence of withdrawal or bankruptcy, satisfactory to the Architect. Fill in the appropriate names for each trade.

<u>TITLE</u>	<u>NAME OF SUBCONTRACTOR</u>
1 Concrete work	
2 Finish Carpentry	
3 Architectural Woodwork	
19 Hollow Metal Doors, Frames	

20	Wood Doors	
23	Gypsum Drywall	
24	Acoustical Tile	
25	Floor & Wall Tile	
26	LVT Flooring	
29	Painting	
36	MECHANICAL	
37	ELECTRICAL	

8. SIGNING OF SUPPLEMENTARY TENDER FORM

We are submitting this Supplementary Tender Form under Corporate Seal as a Limited Company or witnessed as an individual or partnership.

NAME _____

TITLE _____

SIGNATURE OF AUTHORIZED OFFICER OF COMPANY _____

NAME OF COMPANY _____

ADDRESS _____

PHONE NUMBER _____

CONTACT PERSON _____

ADDRESS: _____

EMAIL ADDRESS: _____

COMPANY SEAL:

WITNESS NAME _____

WITNESS TITLE _____

WITNESS SIGNATURE _____

DATED AT _____ ON THE _____, 2023.

These Supplementary Conditions modify, delete and/or add to the Agreement between Owner and Contractor, the Definitions, and the General Conditions of the Stipulated Price Contract, Standard Construction Document CCDC 2 – 2020.

SC 1. AGREEMENT BETWEEN OWNER AND CONTRACTOR

SC 1.1 ARTICLE A-5 PAYMENT

1.1.1 Delete paragraph 5.2 and replace it with the following:

“5.2 Should either party fail to make payments as they become due under this *Contract* or in an award by arbitration, adjudication or court, interest will begin to accrue on the amount that is not paid from the date when it is due until the date it is paid at the prejudgment interest rate prescribed by the Courts of Justice Act (Ontario).”

SC 1.2 ARTICLE A-6 RECEIPT AND ADDRESSES FOR NOTICES IN WRITING

1.2.1 Amend paragraph 6.2 by deleting the words “other form of electronic” and replacing them with “e-mail”.

1.2.2 Amend paragraph 6.4 by deleting the words “any form of electronic” and replacing them with “e-mail”.

SC 1.3 ARTICLE A-9 TIME IS OF THE ESSENCE

1.3.1 Add a new Article A-9 as follows:

“ARTICLE A-9 TIME IS OF THE ESSENCE

9.1 The *Contractor* represents and warrants that it will attain *Ready-for-Takeover* by the date stipulated in paragraph 1.3 of Article A-1 of the Agreement – THE WORK, as such date may be adjusted in accordance with this *Contract*, and agrees that time shall be of the essence in the performance of the *Contractor's* obligations under this *Contract*.”

SC 1.4 ARTICLE A-10 EXECUTION OF THE CONTRACT

1.4.1 Add a new Article A-10 as follows:

“ARTICLE A-10 EXECUTION OF THE CONTRACT

10.1 This *Contract* may be executed in counterparts, each of which shall be deemed an original and both of which, taken together, shall constitute one and the same instrument. Delivery by e-mail of a PDF copy of any executed counterpart shall be deemed to be an original and of full force and effect and equally as effective as delivery of a manually executed original counterpart thereof.”

SC 2. DEFINITIONS

2.1.1 Add the following new Definitions:

(a) **Act**

“*Act* means the Construction Act (Ontario), as amended.”

(b) **As-Built Drawings**

“*As-Built Drawings* means the drawings prepared by the *Contractor* by marking on a copy of the *Drawings* the changes from the *Drawings* which occur during the course of the *Work* including, but not limited to, the exact location of major building components and structures that were shown generally on the *Drawings*. For certainty, *As-Built Drawings* shall be prepared using the most current

version of Autodesk AutoCad as well as in paper and PDF formats.”

(c) **Environmental Programs**

“*Environmental Programs* means the environmental plans, programs, procedures and requirements of the *Owner*, known as the ‘Main Legislative Building Environmental Management Program’.”

(d) **OHSA**

“*OHSA* means the Occupational Health and Safety Act (Ontario), as amended, and all rules and regulations passed under it.”

(e) **Proper Invoice**

“*Proper Invoice* means an application for payment given by the *Contractor* to the *Owner* that fully complies with the requirements of GC 5.1A – PROPER INVOICE.”

(f) **WSIB**

“*WSIB* means the Ontario Workplace Safety & Insurance Board.”

SC 3. GENERAL CONDITIONS

SC 3.1 GC 1.1 CONTRACT DOCUMENTS

3.1.1 Amend paragraph 1.1.2 by adding the following to the end:

“The intent of the *Contract Documents* is to include all labour, *Products*, materials, *Construction Equipment* and services necessary or normally considered necessary for the performance of the *Work* in accordance with the *Contract Documents*. Any item of *Work* mentioned in the *Contract Documents* or reasonably inferable from the *Contract Documents* but not otherwise shown or described, shall be provided by the *Contractor* as if shown or otherwise described or inferable. Any items omitted from the *Contract Documents* which are reasonably necessary or inferable for the completion of the *Work* shall be considered a portion of the *Work* and included in the scope of *Work* to be performed under this *Contract*.”

3.1.2 Amend paragraph 1.1.5.1 by changing the order of the first four bullet points so that, as reordered, the bullet points read as follows:

- “1.1.5.1 the order of priority of documents, from highest to lowest, shall be
- Supplementary Conditions,
 - the Agreement between *Owner* and *Contractor*,
 - the Definitions,
 - the General Conditions”

3.1.3 Amend paragraph 1.1.9 by adding new paragraphs 1.1.9.1 and 1.1.9.2 as follows:

“1.1.9.1 The *Specifications* shall be read as a whole and are the minimum construction requirements. Neither the organization nor the division of the *Specifications* nor anything else contained in the *Contract Documents* will be construed to place responsibility on the *Consultant* to settle disputes among the *Subcontractors* and *Suppliers* in respect to such organization or division.

1.1.9.2 The *Drawings* are intended to convey the scope of the *Work* and indicate elevations and general and approximate locations, arrangement and sizes of fixtures, equipment, outlets, utilities and underground services. The *Contractor* shall obtain more accurate information and shall satisfy itself as to the conditions of the pre-grade elevations and the locations, arrangement and sizes of fixtures, equipment, outlets, utilities and underground services from study and coordination of the *Drawings*, including *Shop Drawings*, and shall satisfy itself and become familiar with conditions and spaces affecting these matters before proceeding with the *Work*. Where site conditions require reasonable minor changes to indicated locations and arrangements, the *Contractor* shall make such changes at no additional cost to the *Owner*.”

3.1.4 Amend paragraph 1.1.11 by deleting the words “at the *Owner*’s expense”.

3.1.5 Add new paragraphs 1.1.12 to 1.1.15 as follows

- “1.1.12 The *Contractor* shall review the *Contract Documents* and shall report promptly to the *Consultant* any error, inconsistency or omission the *Contractor* may discover. Except for the obligation to make such review and report the result, the *Contractor* does not assume any responsibility to the *Owner* or the *Consultant* for the accuracy of the *Contract Documents*. Provided it has exercised the degree of care and skill described in paragraph 3.11.1 of GC 3.11 – STANDARD OF CARE, the *Contractor* will not be liable for damages or costs resulting from such errors, inconsistencies or omissions in the *Contract Documents* which the *Contractor* did not discover.
- 1.1.13 If the *Contractor* finds any error, inconsistency or omission in the *Contract Documents* or has any doubt as to the meaning or intent of any part thereof, the *Contractor* shall immediately notify the *Consultant*, who will provide written instructions or explanations. Neither the *Owner* nor the *Consultant* will be responsible for oral instructions.
- 1.1.14 Notwithstanding paragraphs 1.1.12 and 1.1.13, errors, inconsistencies and/or omissions shall not include lack of reference on the *Drawings* or in the *Specifications* to labour and/or *Products* that are normally required or normally recognized within respective trade practices as being necessary for the complete execution of the *Work*.
- 1.1.15 The *Contractor* shall keep one copy of the current *Contract Documents*, *Supplemental Instructions*, proposed or contemplated change notices, *Change Orders*, *Change Directives* record drawings marked up with any changes to be included in *As-Built Drawings*, cash allowance disbursement authorizations, reviewed *Shop Drawings*, reports and records of meetings at the *Place of the Work*, in good order and available to the *Owner* and *Consultant*.”

SC 3.2 GC 2.2 ROLE OF THE CONSULTANT

3.2.1 Amend paragraph 2.2.12 by adding the following to the end:

“If, in the opinion of the *Contractor*, a *Supplemental Instruction* involves an adjustment in the *Contract Price* or the *Contract Time*, the *Contractor* shall, within ten (10) *Working Days* of receipt of a *Supplemental Instruction*, provide the *Consultant* with a *Notice in Writing* to that effect and shall await further instructions. The *Contractor's* failure to provide such *Notice in Writing* within the time stipulated in this paragraph 2.2.12 shall be deemed an acceptance of the *Supplemental Instruction* by the *Contractor* without adjustment to the *Contract Price* or *Contract Time*.”

SC 3.3 GC 2.3 REVIEW AND INSPECTION OF THE WORK

3.3.1 Amend paragraph 2.3.5 by adding the following to the end of the second sentence:

“and there shall be no extension of the *Contract Time* resulting from any delay caused by such examination and correction.”

SC 3.4 GC 2.4 DEFECTIVE WORK

3.4.1 Amend paragraph 2.4.1 by adding new paragraphs 2.4.1.1 and 2.4.1.2 as follows:

- “2.4.1.1 The *Contractor* shall rectify, in a manner acceptable to the *Owner* and the *Consultant*, all defective *Work* and deficiencies throughout the *Work*, whether or not they are specifically identified by the *Consultant*.
- 2.4.1.2 The *Contractor* shall prioritize the correction of defective work or deficiencies identified as priorities by the *Owner* or the *Consultant*.”

SC 3.5 GC 3.0 PRECONSTRUCTION SUBMITTALS

3.5.1 Add a new GC 3.0 as follows:

“GC 3.0 PRECONSTRUCTION SUBMITTALS

- 3.0.1 Within 10 *Working Days* of signing this *Contract* and, in any event, before commencing any *Work* the *Contractor* shall submit to the *Owner* all of the following:
- .1 a current *WSIB* clearance certificate;
 - .2 true copies of certificates of insurance evidencing the *Contractor* has secured the insurance policies required by the *Contract Documents*;
 - .3 where applicable, the bonds described in GC 14.7 – CONTRACT SECURITY;
 - .4 documentation of the *Contractor’s* safety program to be implemented for the *Project*;
 - .5 a copy of the “Notice of Project” filed with the appropriate government agency or ministry naming the *Contractor* as the “constructor” under *OHSA*; and
 - .6 the construction schedule referred to in paragraph 3.4.1.1 of GC 3.4 – CONSTRUCTION SCHEDULE.”

SC 3.6 GC 3.1 CONTROL OF THE WORK

- 3.6.1 Add new paragraphs 3.1.3 to 3.1.6 as follows:

“3.1.3 The *Contractor* is solely responsible for the quality of the *Work* and shall undertake any quality control activities specified in the *Contract Documents* or, if none are specified, as may be reasonably required to ensure such quality. The *Contractor* shall perform the *Work* in accordance with modern practice and in accordance with applicable laws, ordinances, rules, regulations or codes relating to the performance of the *Work*. Without limiting the generality of the foregoing, the *Contractor* is responsible for coordinating the *Work* so that no part shall be left in an unfinished or incomplete condition.

3.1.4 The *Contractor* shall abide by and shall enforce directives and policies regarding signs, advertisements, fires, smoking and vaping at the *Place of the Work* as directed by the *Owner*.

3.1.5 The *Contractor*, without in any way limiting its responsibilities under this *Contract*, shall:

- .1 perform the *Work* so as to avoid disturbing the occupants of the *Place of the Work* or the occupants of adjacent premises or the public in general,
- .2 respect and comply with local regulations and all *Owner’s* requirements regarding permitted work hours, noise levels and work conditions,
- .3 take all reasonable steps to avoid interference with fire exits, building access and egress, continuity of electric power and all other utilities, to suppress dust and noise, to avoid conditions likely to propagate mould or fungus of any kind, and shall take all other steps reasonably necessary to promote and maintain the safety and comfort of the occupants of the *Place of the Work* or the occupants of adjacent premises and the public in general, and to maintain access to and the operation of any existing facilities at the *Place of the Work*,
- .4 take precautions not to allow any unauthorized visitors entry to the *Place of the Work*.

The *Contractor* shall not permit any workers, *Subcontractors* or *Suppliers* to use any existing facilities including, without limitation, elevators, lavatories, toilets, entrances, and parking areas other than those designated by the *Owner*.

3.1.6 Before commencing the *Work* the *Contractor* shall verify, at the *Place of the Work*, all relevant measurements and levels necessary for proper and complete fabrication, assembly and installation of the *Work* and shall further carefully compare such field measurements and conditions with the requirements of the *Contract Documents*. Where dimensions are not included or exact locations are not apparent in the *Contract Documents*, the *Contractor* shall immediately notify the *Consultant* in writing and shall obtain written instructions before proceeding with any part of the affected *Work*. Failure to do so shall be at the sole risk and cost of the *Contractor*.”

SC 3.7 GC 3.2 CONSTRUCTION BY OWNER OR OTHER CONTRACTORS

- 3.7.1 Amend paragraph 3.2.2 by deleting the word “*Owner*” in the second line and replacing it with

the word “*Contractor*”.

3.7.2 Delete paragraphs 3.2.2.2 and 3.2.2.3.

3.7.3 Amend paragraph 3.2.3.4 by adding the following to the end:

“Failure by the *Contractor* to so report shall invalidate any claims against the *Owner* by reason of the deficiencies in the work of *Other Contractors* or *Owner’s* own forces except for those deficiencies not then reasonably discoverable; and”

3.7.4 Add a new paragraph 3.2.3.5 as follows:

“3.2.3.5 assume overall responsibility for the *Owner’s* own forces and *Other Contractors* for compliance with all aspects of the applicable health and construction safety legislation at the *Place of the Work*, including all of the responsibilities of the “constructor” under the *OHSA*.”

3.7.5 Add a new paragraph 3.2.7 as follows:

“3.2.7 The placement, installation, application and connection of work by the *Owner’s* own forces or by *Other Contractors* on and to the *Work* shall not relieve the *Contractor* of its responsibility to provide and maintain the warranties specified in this *Contract*. If the *Contractor* is of the view that the work of *Other Contractors* or the work of the *Owner’s* own forces will compromise, void or nullify any of the warranties to be provided pursuant to this *Contract*, the *Contractor* shall immediately give *Notice in Writing* to the *Owner* and shall include in such notice the reasons why, in the *Contractor’s* view, a warranty or warranties will be compromised, voided or nullified, together with the *Contractor’s* recommendations for avoiding such result.”

SC 3.8 GC 3.4 CONSTRUCTION SCHEDULE

3.8.1 Delete paragraph 3.4.1 and replace it with the following:

“3.4.1 The *Contractor* shall:

- .1 within ten (10) *Working Days* of entering into this *Contract*, or within such further time agreed to by the *Owner*, submit to the *Owner* and the *Consultant*, for the *Owner’s* approval, a construction schedule that indicates the timing of major activities and critical milestone dates for the *Work*, demonstrating that the *Work* will be performed in conformity with the *Contract Time*. Such schedule:
 - (a) shall be prepared using the scheduling program specified by the *Owner*,
 - (b) shall be provided in native editable electronic format that includes and shows all logic links between activities, as well as in PDF and in paper copy, and
 - (c) shall be prepared in collaboration with *Subcontractors* and *Suppliers* whose activities affect the critical path of the *Work*, and
 - (d) shall include and make provision for statutory holidays, weather conditions that are normally experienced at the *Place of the Work*, and the rectification of defects and deficiencies; and
 - (e) shall provide sufficient detail of the critical events and their inter-relationship and shall include a baseline schedule indicating the critical path for the *Project*; and
- .2 provide the expertise and resources, including labour and *Construction Equipment*, as are necessary to maintain progress under the construction schedule; and
- .3 monitor the adequacy of *Subcontractor* and *Supplier* personnel and equipment and the availability of *Products* to meet the construction schedule and take appropriate action when requirements of a contract with a *Subcontractor* or *Supplier* are not being met; and
- .4 monitor the progress of the *Work* on a weekly basis relative to the construction schedule, update the schedule on a monthly basis, and advise the *Owner* and the *Consultant* in writing of any variation from the baseline or slippage in the schedule; and

- .5 at each site meeting provide to the *Owner* and the *Consultant* a written report on the activities completed since the last meeting and indicating the activities planned to be undertaken in the next two (2) weeks.
- 3.4.2 If at any time it should appear that the actual progress of the *Work* is behind schedule or is likely to fall behind schedule, or if the *Contractor* has so advised the *Owner* and the *Consultant*, the *Contractor* shall take appropriate steps, at the *Contractor's* own expense, to cause the actual progress of the *Work* to conform to the schedule and shall produce and present to the *Owner* and the *Consultant*, for review and approval, a recovery plan demonstrating how the *Contractor* will achieve the recovery of the schedule.
- 3.4.3 If after applying the expertise and resources required under paragraphs 3.4.1.2 and 3.4.2 the *Contractor* forms the opinion that the slippage in the construction schedule cannot be recovered, the *Contractor* shall give *Notice in Writing* to the *Owner* and the *Consultant* of any revisions required to the schedule.
- 3.4.4 The *Contractor* shall not change the scheduled *Ready-for-Takeover* date.”

SC 3.9 GC 3.5 SUPERVISION

- 3.9.1 Delete paragraph 3.5.1 and replace it with the following:

“3.5.1 The *Contractor* shall provide all necessary supervision and shall appoint a full-time superintendent who shall be in full time attendance at the *Place of the Work* while the *Work* is being performed. The superintendent shall not be changed by the *Contractor* without valid reason, and upon the *Contractor* obtaining the *Owner's* prior written consent, which consent will not be unreasonably withheld.”

SC 3.10 GC 3.6 SUBCONTRACTORS AND SUPPLIERS

- 3.10.1 Add a new paragraph 3.6.1.4 as follows:

“3.6.1.4 ensure that all *Subcontractors* and *Suppliers* and anyone employed or engaged by them directly or indirectly have the qualifications, technical skills, levels of experience and knowledge required (including with respect to all applicable construction safety rules and regulations), and all applicable permits, licenses and approvals necessary to perform the work assigned to them in accordance with the terms of this *Contract*.”

- 3.10.2 Amend paragraph 3.6.2 as follows:

- (a) delete the words “before signing the *Contract*” in the third line of that paragraph; and
- (b) add the following to the end:

“The *Contractor* agrees not to change *Subcontractors* or *Suppliers* without the prior written approval of the *Owner*, which approval will not be unreasonably withheld.”

- 3.10.3 Amend paragraph 3.6.3 by deleting the words “before the *Owner* has signed the *Contract*” in the first line.

- 3.10.4 Add new paragraphs 3.6.7 and 3.6.8 as follows:

“3.6.7 If the *Contractor* intends to change any *Subcontractors* or *Suppliers*, the *Contractor* shall advise the *Owner* in writing, giving the *Contractor's* reasons for the proposed change. No change of *Subcontractors* or *Suppliers* may be made without the prior written approval of the *Owner*.

3.6.8 Notwithstanding paragraph 3.6.5, the *Owner* may assign to the *Contractor*, and the *Contractor* shall accept the assignment of, any contract procured by the *Owner* for *Work* or *Products* required on the *Project* that has been pre-tendered or pre-negotiated by or on behalf of the *Owner*. In such event the *Contract Price* shall be increased by the balance of the contract price remaining under such assigned contract by way of *Change Order*.”

SC 3.11 GC 3.7 LABOUR AND PRODUCTS

3.11.1 Amend paragraph 3.7.1 as follows:

- (a) insert the words “agents, *Subcontractors* and *Suppliers*” after the word “employees” in the first line; and

- (b) add the following to the end:

“Without in any way limiting the generality of the foregoing, the *Contractor* shall prepare and implement the job site rules more particularly described in the *Contract Documents*. If no job site rules are described in the *Contract Documents*, the *Contractor* shall draft job site rules for the review and approval of the *Owner*. Any such job site rules prepared by the *Contractor* shall be consistent with the *Contractor’s* duties and obligations under *OHSA* and shall also include provisions making smoking, vaping and the consumption of alcohol or non-prescription drugs on the *Project* site the subject of discipline proceedings and/or termination of employment.”

3.11.2 Amend paragraph 3.7.3 by adding the following to the end:

“The *Contractor* represents and warrants that the *Products* supplied are not subject to any conditional sales contracts and are not subject to any security rights claimed or obtained by any third party which may subject any of the *Products* to seizure and/or removal from the *Place of the Work*.”

3.11.3 Add new paragraphs 3.7.4 to 3.7.8 as follows:

“3.7.4 *Products* provided shall be new and shall conform to all current applicable specifications of the Canadian Standards Association, Canadian Standards Board or General Standards Board, ASTM, National Building Code, Ontario Building Code and all governmental authorities having jurisdiction at the *Place of the Work*, unless otherwise specified. *Products* which are not specified shall be of a quality consistent with those specified and their use acceptable to the *Consultant*. *Products* brought on to the *Place of the Work* by the *Contractor* shall be deemed to be the property of the *Owner*, but the *Owner* shall be under no liability for loss thereof or damage thereto arising from any cause whatsoever, and such *Products* shall be at the sole risk of the *Contractor*.

3.7.5 The *Contractor* shall ensure that all materials and *Products* are delivered to the *Project* site in original containers and packages with labels and seals intact and that they are protected from the elements and visible for inspection by the *Owner* and/or the *Consultant*.

3.7.6 The *Contractor* is responsible for the safe on-site storage of *Products* and their protection (including *Products* supplied by the *Owner* and *Other Contractors*) so as to avoid dangerous conditions, deterioration, damage or contamination to the *Products*, persons or property and in locations at the *Place of the Work* to the satisfaction of the *Owner* and the *Consultant*.

3.7.7 The *Owner* or the *Consultant*, acting reasonably, shall have the right to order the *Contractor* to remove from the *Project*, without cost to the *Owner*, any representative or employee of the *Contractor*, *Subcontractor* or *Supplier* whose conduct, in the opinion of the *Owner* or the *Consultant*, jeopardizes the safety or security of the *Project*, any person, the *Owner’s* operations, is a detriment to the *Project*, or whose conduct may be considered as harassment in the workplace. Immediately upon receipt of such order the *Contractor* shall make arrangements for the appointment of a replacement representative or employee acceptable to the *Owner*.

3.7.8 The *Contractor* shall not, and shall ensure that its *Subcontractors* and *Suppliers* do not, employ any person on the *Project* whose labour affiliation, or lack thereof, is incompatible with other labour employed on the *Project*. All costs arising from labour disputes arising from the *Contractor’s* failure to comply with this paragraph shall be at the sole expense of the *Contractor*.”

SC 3.12 GC 3.8 SHOP DRAWINGS

3.12.1 Amend paragraph 3.8.2 by adding the following to the end:

“Prior to the first application for payment, the *Contractor* and the *Consultant* shall jointly prepare a schedule of the dates for submission and return of *Shop Drawings*.”

3.12.2 Delete paragraph 3.8.3.1 and replace with the following

“3.8.3.1 the *Contractor* has determined and correlated the field measurements with the *Shop Drawings* and field construction conditions, *Product* requirements, catalogue numbers and similar data, or will do so if not possible at that time, and”

3.12.3 Add new paragraphs 3.8.8 to 3.8.11 as follows:

3.8.8 Reviewed *Shop Drawings* shall not authorize a change in the *Contract Price* or the *Contract Time*, unless there is a scope of work or design change initiated by the *Owner*.

3.8.9 The *Contractor* shall not use the term “by others” on *Shop Drawings* but shall identify the responsible *Subcontractor* or *Supplier* where such work is within the scope of the *Work*.

3.8.10 Where *Specifications* require the *Shop Drawings* to bear the seal and signature of a professional, such professional shall be registered in the jurisdiction of the *Place of the Work* and shall have expertise in the area of practice reflected in the *Shop Drawings*.

3.8.11 The *Consultant’s* review of the *Shop Drawings* shall not relieve the *Contractor* from responsibility for defective *Work* resulting from errors or omissions of any kind on the reviewed *Shop Drawings* and shall not constitute authorization to the *Contractor* to perform additional *Work* or changed *Work*. The *Contractor* is solely responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes, and for techniques of construction and installation.”

SC 3.13 GC 3.9 USE OF THE WORK

3.13.1 Add a new GC 3.9 as follows:

“GC 3.9 USE OF THE WORK

3.9.1 The *Contractor* shall confine *Construction Equipment*, *Temporary Work*, storage of *Products*, waste products and debris, and operations of employees and *Subcontractors* to limits indicated by laws, ordinances, permits, or the *Contract Documents* and shall not unreasonably encumber the *Place of the Work*.

3.9.2 The *Contractor* shall not load or permit to be loaded any part of the *Work* with a weight or force that will endanger the safety of the *Work*.

3.9.3 The *Owner* shall have the right to enter, occupy, take possession of or use for any intended purpose any portion or all of the undelivered portion of the *Project*, even though *Ready-for-Takeover* may not have been attained, provided that such entry, occupation, taking of possession or use will not interfere, in any material way, with the progress of the *Work*. The entry, occupation, taking of possession or use of any such portion of the *Project* shall not be deemed to be the *Owner’s* acknowledgement or acceptance of the *Work* or *Project*, nor shall it be deemed to be an acknowledgment or acceptance by the *Owner* that such *Work*, or portions of the *Work*, have met the *Ready-for-Takeover* requirements described in the *Contract Documents*, nor shall it entitle the *Contractor* to an adjustment in the *Contract Time* or *Contract Price*, nor shall it relieve the *Contractor* of any of its obligations under the *Contract*, including the *Contractor’s* designation and obligations as “constructor” under *OHSA* and the *Contractor’s* obligations respecting construction health and safety, and all of the *Contractor’s* obligations, rules, regulations and practices shall continue to apply notwithstanding such entry, occupation, taking of possession or use.”

SC 3.14 GC 3.10 CLEANUP

3.14.1 Add a new GC 3.10 as follows:

“GC 3.10 CLEANUP

3.10.1 The *Contractor* shall maintain the *Work* and the *Place of the Work* in a safe and tidy condition

and free from the accumulation of waste products and debris. The *Contractor* shall ensure the *Place of the Work* is cleaned and left in a tidy condition on a daily basis. In the event of any dispute regarding the removal of waste products and debris, the *Owner* may remove the said waste products and debris and charge the cost to the *Contractor*.

- 3.10.2 Before delivering the application for *Ready-for-Takeover* the *Contractor* shall remove any and all surplus *Products*, tools, *Construction Equipment*, *Temporary Work*, waste products and debris and shall ensure the *Place of the Work* is clean and tidy and suitable for occupancy by the *Owner*.”

SC 3.15 GC 3.11 STANDARD OF CARE

- 3.15.1 Add a new GC 3.11 as follows:

“GC 3.11 STANDARD OF CARE

- 3.11.1 In performing this *Contract* the *Contractor* shall exercise a standard of care, skill, judgment and diligence that would normally be exercised by an experienced, skilled and prudent contractor supplying similar services for similar projects. The *Contractor* acknowledges and agrees that, throughout this *Contract*, the *Contractor's* obligations, duties and responsibilities shall be interpreted in accordance with this standard. The *Contractor* shall exercise the same standard of care, skill, judgment and diligence in respect of any *Products*, *Subcontractors*, *Suppliers*, personnel or procedures which it may employ on the *Project*.
- 3.11.2 The *Contractor* represents, covenants and warrants to the *Owner* that:
- .1 The personnel assigned to the *Project* are appropriately experienced and trained;
 - .2 It has sufficient qualified and competent personnel to replace its designated supervisor, superintendent and project manager, subject to the *Owner's* approval, in the event of incapacity, removal or resignation; and
 - .3 There are no pending, threatened or anticipated claims that would have a material effect on the financial ability of the *Contractor* to perform this *Contract*.”

SC 3.16 GC 3.12 CONTRACTOR'S USE OF PERMANENT EQUIPMENT OR SYSTEMS

- 3.16.1 Add a new GC 3.12 as follows:

“GC 3.12 CONTRACTOR'S USE OF PERMANENT EQUIPMENT OR SYSTEMS

- 3.12.1 The *Contractor* shall not make use of elements of the mechanical and electrical systems or equipment comprising a permanent part of the *Work*, including the HVAC system and elevators, without the *Owner's* prior express written consent obtained in accordance with this GC 3.12.
- 3.12.2 If the *Contractor* wishes to make use of such mechanical and electrical systems or equipment the *Contractor* shall:
- .1 obtain the manufacturer's instructions regarding any preventative maintenance services to be performed on such systems and equipment; and
 - .2 submit a written request to the *Owner* for consent to use such systems or equipment, which request shall include all of the information received from the manufacturer of such systems or equipment.
- 3.12.3 If the *Owner* consents to the *Contractor's* use of elements of the mechanical and electrical systems or equipment comprising a permanent part of the *Work*, the *Contractor* shall:
- .1 operate and maintain such systems and equipment in strict compliance with the requirements set out in the *Specifications* and any instructions received from the manufacturers of such systems and equipment; and
 - .2 perform all preventative maintenance services on such systems and equipment in accordance with the *Specifications* and any instructions received from the manufacturers of such systems and equipment; and
 - .3 before applying for *Ready-for-Takeover*, clean and make good, to the satisfaction of the

- Owner*, all such systems and equipment as it had been permitted to use; and
- .4 pay any and all costs associated with such use, operation, preventative maintenance services, cleaning and making good, at no cost or charge to the *Owner*.”

SC 3.17 GC 4.1 CASH ALLOWANCES

3.17.1 Add a new paragraph 4.1.8 as follows:

- “4.1.8 The *Owner* reserves the right to call, or to have the *Contractor* call, for competitive bids for portions of the *Work* to be paid for from cash allowances.”

SC 3.18 GC 5.1 FINANCING INFORMATION REQUIRED OF THE OWNER

3.18.1 Delete GC 5.1.

SC 3.19 GC 5.1A PROPER INVOICE

3.19.1 Add a new GC 5.1A as follows:

“GC 5.1A PROPER INVOICE

5.1A.1 In this *Contract* a *Proper Invoice* shall mean an application for payment made by the *Contractor* that:

- .1 is given to the *Owner* by e-mail to the person / e-mail address designated by the *Owner*; and
- .2 includes all of the following:
 - .1 the *Contractor's* name and address and HST registration number;
 - .2 the date of the application for payment and the period during which the *Work* was performed;
 - .3 information identifying the authority, whether in the *Contract* or otherwise, under which the *Work* was performed;
 - .4 a description, including quantities where appropriate, of the services and materials that were supplied;
 - .5 the amount payable for the services or materials that were supplied, and the payment terms;
 - .6 the name, title, telephone number and mailing address of the person to whom payment is to be sent;
 - .7 a statement based on the schedule of values for the *Work*;
 - .8 where the application includes amounts charged on the basis of hourly rates, documentation in support of the amount claimed, including dates that services were performed, identity of the person(s) involved, the hours spent, and a description of the services performed;
 - .9 where the application includes amounts expended under a cash allowance, documentation in support of the amount claimed, including copies of all invoices and charges incurred;
 - .10 copies of any *Change Orders* and *Change Directives* for which the *Contractor* is claiming payment;
 - .11 for all applications for payment except the final payment, an updated construction schedule that complies with the requirements of paragraph 3.4.1.1 of GC 3.4 – CONSTRUCTION SCHEDULE;
 - .12 a current valid clearance certificate issued by the *WSIB*;
 - .13 for the second and all subsequent applications for payment, a CCDC 9A Statutory Declaration stating that all accounts for services and materials and other indebtedness incurred by the *Contractor* for which the *Owner* may in any way be held responsible have been paid in full, except for amounts properly retained as a holdback or as an identified matter in dispute.”

SC 3.20 GC 5.2 APPLICATIONS FOR PAYMENT

3.20.1 Delete paragraphs 5.2.1 and 5.2.2 and replace them with the following:

“5.2.1 Subject to paragraph 5.2.2, *Proper Invoices* for progress payment shall be given monthly to the *Owner* and the *Consultant* simultaneously as the *Work* progresses on a day of the month agreed to by the parties.

5.2.2 The *Contractor* shall not give a *Proper Invoice* for progress payment between the date certified as the date of *Substantial Performance of the Work* and the date that the *Contract* is completed.”

3.20.2 Amend paragraph 5.2.3 by adding the following to the end:

“No amount claimed shall include *Products* delivered to the *Place of the Work* unless the *Products* are free and clear of all security interests, liens, and other claims of third parties.”

3.20.3 Amend paragraph 5.2.4 by adding the following to the end:

“Such schedule of values shall include line items which assign an appropriate portion of the *Contract Price* for the preparation and delivery of *As-Built Drawings*, quality control, and closeout of the *Work*.”

3.20.4 Amend paragraph 5.2.5 by inserting the words “, or as directed by the *Consultant*” after the words “as specified in the *Contract*”.

3.20.5 Amend paragraph 5.2.6 by adding the following to the end:

“, as modified by paragraph 5.1A.1.2 of GC 5.1A – PROPER INVOICE.”

3.20.6 Amend paragraph 5.2.8 by adding the following to the end:

“Any *Products* delivered to the *Place of the Work* but not yet incorporated into the *Work* shall remain at the risk of the *Contractor* notwithstanding that title has passed to the *Owner* pursuant to GC 14.1 – OWNERSHIP OF MATERIALS.”

SC 3.21 GC 5.3 PAYMENT

3.21.1 Delete paragraph 5.3.1 and replace it with the following:

“5.3.1 After the receipt by the *Consultant* and the *Owner* of an application for payment submitted by the *Contractor* in accordance with GC 5.2 – APPLICATIONS FOR PAYMENT, the *Consultant* will issue to the *Owner* and copy to the *Contractor*, no later than 10 calendar days after the date of receipt of the *Proper Invoice*, a certificate for payment in the amount applied for, or in such other amount as the *Consultant* determines to be properly due.

5.3.2 Subject to the *Owner's* right to give notice of non-payment in accordance with the *Act*, and subject to the holdback provisions of the *Act*, the *Owner* will pay the amount payable under a *Proper Invoice* for progress payment no later than 28 days after the date the *Owner* receives the *Proper Invoice*. Provided that the *Owner's* obligation to make payment shall not arise unless and until the *Contractor's* application for payment constitutes a complete *Proper Invoice* as provided in GC 5.1A – PROPER INVOICE. For certainty, and without limitation, the *Owner* may refuse to pay all or any portion of an application for progress payment where:

- .1 the application does not comply with all of the requirements of a *Proper Invoice* in GC 5.1A – PROPER INVOICE; and/or
- .2 the *Owner* is entitled to deduct and retain amounts in accordance with the *Contract Documents*; and/or
- .3 the amount applied for exceeds the amount stated in the certificate for payment issued by the *Consultant* pursuant to paragraph 5.3.1.”

SC 3.22 GC 5.4 SUBSTANTIAL PERFORMANCE OF THE WORK AND PAYMENT

OF HOLDBACK

3.22.1 Delete paragraphs 5.4.2 through 5.4.5 and replace them with the following:

- “5.4.2 Immediately after the issuance of the certificate of *Substantial Performance of the Work*, the *Contractor*:
- .1 shall, in consultation with the *Owner* and the *Consultant*, establish reasonable dates for finishing the *Work* and correcting deficient *Work*; and
 - .2 shall cause the certificate to be published in the manner prescribed by the *Act* and shall immediately thereafter deliver a copy of the published certificate to the *Owner*.
- 5.4.3 The *Contractor* shall submit an application for payment of the lien holdback amount which shall include all of the following.
- .1 a written request for the release of the holdback amount;
 - .2 a declaration that no written notices of lien have been received by the *Contractor*;
 - .3 a copy of the published certificate of *Substantial Performance of the Work*;
 - .4 a current valid clearance certificate issued by the *WSIB*; and
 - .5 a CCDC 9A Statutory Declaration stating that all accounts for services and materials and other indebtedness incurred by the *Contractor* for which the *Owner* may in any way be held responsible have been paid in full, except for amounts properly retained as a holdback or as an identified matter in dispute.
- 5.4.4 Subject to the *Owner's* right to give notice of non-payment of holdback in accordance with the *Act*, the *Owner* will pay the amount authorized by the certificate for payment of the holdback in accordance with the provisions of the *Act*. For certainty, and without limitation, the *Owner* may refuse to pay a portion of the holdback where the *Owner* is entitled to deduct and retain amounts in accordance with the *Contract Documents*.
- 5.4.5 Where the *Consultant* has certified or verified that a portion of the *Work* is 100% complete prior to *Substantial Performance of the Work* the *Owner* may, in its sole and absolute discretion, and subject to the *Contractor's* compliance with the requirements set out below, agree to release to the *Contractor* a portion of the holdback related to the completed portion of the *Work*:
- .1 description of the completed scope of *Work*;
 - .2 completed Declaration of Last Supply as prescribed in section 31(5) of the *Act* (Form 7);
 - .3 completed Certificate of Completion of Subcontract as prescribed in section 33(1) of the *Act* (Form 10);
 - .4 *WSIB* Clearance Certificate for the *Contractor*, the *Subcontractor* concerned, and any other subcontractors and *Suppliers* who have provided any services to the *Subcontractor*;
 - .5 statutory declaration by an officer of the *Subcontractor* in the form CCDC Document 9B-2001;
 - .6 *Contractor's* written acknowledgement to the *Owner* that the requirements of the *Contract Documents* will not be altered by early release of the holdback of the completed subcontract;
 - .7 where applicable, written confirmation by the surety company that issued the surety bonds specified in this *Contract* that it has been notified of the *Contractor's* intent to claim early release of holdback and does not object.”

SC 3.23 GC 5.5 FINAL PAYMENT

3.23.1 Delete paragraph 5.5.1 and replace it with the following:

- “5.5.1 When the *Contractor* considers that the *Contract* is completed, the *Contractor* shall deliver to the *Owner* and the *Consultant* a *Proper Invoice* for final payment.”

3.23.2 Delete paragraphs 5.5.3 and 5.5.4 and replace them with the following:

- “5.5.3 Subject to the *Owner's* right to give notice of non-payment in accordance with the *Act*, the *Owner*

will pay the amount payable under a *Proper Invoice* for final payment no later than 28 days after the date the *Owner* receives the *Proper Invoice*. Provided that the *Owner's* obligation to make payment shall not arise unless and until the *Contractor's* application for payment constitutes a complete *Proper Invoice* as provided in GC 5.1A – PROPER INVOICE. For certainty, and without limitation, the *Owner* may refuse to pay all or any portion of an application for final payment where:

- .1 the application does not comply with all of the requirements of a *Proper Invoice* in GC 5.1A – PROPER INVOICE; and/or
- .2 the *Owner* is entitled to deduct and retain amounts in accordance with the *Contract Documents*; and/or
- .3 the amount applied for exceeds the amount stated in the certificate for payment issued by the *Consultant* pursuant to paragraph 5.5.2.”

SC 3.24 GC 5.8 WITHHOLDING OF PAYMENT

3.24.1 Add a new GC 5.8 as follows:

“GC 5.8 WITHHOLDING OF PAYMENT

5.8.1 Notwithstanding any provision in the *Contract Documents* to the contrary, the *Owner* may withhold payment of any amount claimed in an application for payment, in a *Proper Invoice*, or in any certificate for payment to the extent required to offset any claims the *Owner* may have against the *Contractor*, or to offset previous over-payment made to the *Contractor*, or for damages or costs incurred by the *Owner*, or to the extent as may be necessary to protect and/or indemnify the *Owner* from loss, claims, and/or damage, including as a result of:

- .1 the *Contractor's* failure to perform any of its material obligations, or where the *Contractor* is otherwise in default under the *Contract Documents*;
- .2 defective portions of the *Work* not remedied;
- .3 damage done to work performed by *Other Contractors* or by the *Owner's* own forces;
- .4 the *Contractor's* failure to make prompt payments to its *Subcontractors* and *Suppliers* respecting *Work* for which the *Owner* has made payment to the *Contractor*;
- .5 claims or reasonable evidence indicating possible commencement of claims for which the *Contractor* may be responsible to indemnify the *Owner*;
- .6 the *Contractor's* failure to remove liens arising from the *Work* or to otherwise satisfy its obligations under GC 14.2 – LIENS AND ACTIONS;
- .7 reasonable evidence the *Contractor* will not achieve *Ready-for-Takeover* in accordance with the construction schedule and/or within the *Contract Time*.

5.8.2 Where the *Owner* has withheld payment to the *Contractor* pursuant to the provisions of this *Contract*, the *Owner* shall be entitled to apply the funds withheld toward the costs of any required remedial work, completion costs, or toward damages or losses suffered and for which the *Owner* is entitled to compensation under this *Contract*, including legal costs and expenses.”

SC 3.25 GC 6.1 OWNER'S RIGHT TO MAKE CHANGES

3.25.1 Amend paragraph 6.1.2 by adding the following to the end:

“This requirement is of the essence and it is the express intention of the parties that any claims by the *Contractor* for a change in the *Contract Price* and/or *Contract Time* shall be barred unless there is strict compliance with PART 6 – CHANGES IN THE WORK. No course of conduct or dealings between the parties, no express or implied acceptance of alterations or additions to the *Contract* or the *Work*, and no claims that the *Owner* has been unjustly enriched by any alteration or addition to the *Work*, whether or not there is any such unjust enrichment, shall be the basis of a claim for damages or additional payment or for a change in the *Contract Price* or *Contract Time*. Without limiting the generality of the foregoing, under circumstances of expediency the *Contractor* shall proceed with a change in the *Work* without first obtaining a *Change Order* or a *Change Directive* where it has received from the *Owner* or the *Owner's* authorized representative some form of written or e-mail direction agreeing to the change, in which case such change, and the value of such change, if any, will be determined pursuant to GC 6.2 or GC 6.3, at the option of the *Owner*.”

3.25.2 Add a new paragraph 6.1.3 as follows:

“6.1.3 The *Contractor* agrees that changes resulting from construction or *Subcontractor* or *Supplier* coordination are included in the *Contract Price* and shall not entitle the *Contractor* to claim any increase to the *Contract Price*.”

SC 3.26 GC 6.2 CHANGE ORDER

3.26.1 Add new paragraphs 6.2.3 to 6.2.5 as follows:

“6.2.3 The value of a change shall be determined in one or more of the following methods as directed by the *Owner*:

- .1 by estimate and acceptance of a lump sum. The lump sum shall include overhead, profit and other reasonable charges of the *Contractor* and shall be the total cost to the *Owner*; or
- .2 by unit prices established in the *Contract* or subsequently agreed upon. Unit prices shall include all costs related to *Products*, labour, equipment, delivery and handling, statutory charges, overhead and profit, other related charges, and shall include all applicable duties (excluding *Value Added Taxes*), measured in place prior to excavation, or compacted/complete in place, and shall be the total cost to the *Owner*. Adjustment to the *Contract Price* shall be based on a net quantity difference from the original quantity; or
- .3 by actual credits and cost to the *Owner*. The cost to the *Owner* shall be the actual cost of labour charged at the prevailing rates at the *Place of the Work* plus statutory charges on labour including workers' compensation, employment insurance, Canada Pension, vacation pay, medical and health benefits, together with the actual costs, without mark-up, of materials and *Products* utilized in the change, plus the percentage fees set out in the tables below for overhead and profit after all credits included in the change have been deducted. For certainty, no mark-up or other charges shall be permitted for overhead and profit where the change results in a net decrease (credit) to the *Contract Price*.
 - (a) On *Work* performed by the *Contractor's* own forces, the *Contractor* may charge the following maximum mark-ups as a combined percentage fee for overhead and profit:

Increase in <i>Contract Price</i>	<i>Contractor</i> Mark-Up
\$0 to less than \$25,000	10%
\$25,000 to \$49,999.99	7.5%
\$50,000 or more	5%

Interpretive Note: The mark-ups in the above table are flat not graduated. For example, a change valued at \$60,000 attracts a mark-up of 5%.

- (b) On *Work* performed by *Subcontractors*, the *Subcontractors* may charge the following maximum mark-ups as a combined percentage fee for overhead and profit, and the *Contractor* may charge the following maximum mark-ups as a combined percentage fee for overhead and profit on *Work* performed by *Subcontractors*:

Increase in <i>Contract Price</i>	<i>Subcontractor</i> Mark-Up	<i>Contractor</i> Mark-Up
\$0 to less than \$25,000	10%	5%
\$25,000 to \$49,999.99	10%	5%
\$50,000 or more	5%	5%

Interpretive Note: The mark-ups in the above table are flat not graduated. For example, a *Subcontractor* performed change valued at \$60,000 attracts a mark-up of 5% for the *Subcontractor* and 5% for the *Contractor*.

The mark-ups set out in the above tables shall constitute the only compensation the *Contractor* shall be entitled to for any and all overhead, profit, general expenses, incidental and administrative costs whatsoever related to the change including, but not limited to, costs relating to superintendence and supervision, general cleanup, *Shop Drawing* production, estimating, site office and head office expenses and personnel, administration costs, workers' tools, temporary facilities and controls, record drawings, *As-Built Drawings*, warranty, insurance, bonding, job safety costs, and coordination of any and all *Work*-related activities.

- 6.2.4 No claim whatsoever for a change in the *Contract Time*, delay, prolongation charges, remobilization or otherwise shall be permitted with respect to a change, unless first authorized by the *Consultant* and approved by the *Owner* and set out in a *Change Order*. For certainty, an adjustment to the *Contract Time* will be considered only when the *Contractor* demonstrates to the *Owner* that a change in the *Work* affects the critical path of the *Work*. Any costs associated with an adjustment to the *Contract Time* shall be identified by the *Contractor* and shall be limited to the reasonable direct costs directly attributable to the adjustment to the *Contract Time*.
- 6.2.5 The *Contractor* shall not be entitled to any additional compensation or an adjustment to the *Contract Time* arising out of changes to the *Work* aside from the amounts stated in a *Change Order*. In no event shall the *Owner* be liable to the *Contractor* for any costs, including indirect, impact or consequential costs, arising out of changes to the *Work* beyond the agreed upon amount of the *Change Order*."

SC 3.27 GC 6.3 CHANGE DIRECTIVE

- 3.27.1 Delete paragraph 6.3.6.3 and replace it with the following:

"6.3.6.3 The *Contractor's* fee shall be equal to the applicable percentage mark-up rates set out in paragraph 6.2.3.3 of GC 6.2 – CHANGE ORDER or as otherwise agreed by the parties."

- 3.27.2 Amend paragraph 6.3.7 as follows:

- (a) insert the words "Subject to paragraph 6.3.14," at the beginning; and
- (b) delete paragraphs 6.3.7.1(1), (2), (3) and (4) and replace them with the following:
- "(1) performing the *Work*, including necessary supervisory services;
- (2) engaged in the preparation of *Shop Drawings*, fabrication drawings, coordination drawings and *As-Built Drawings*; or
- (3) including clerical staff engaged in processing changes in the *Work*."

- 3.27.3 Amend paragraph 6.3.12 by adding the following to the beginning:

"An adjustment to the *Contract Time* will be considered only where the change affects the critical path of the *Work*."

- 3.27.4 Add a new paragraph 6.3.14 as follows:

"6.3.14 Without limitation, the following shall not form part of the cost of performing the work attributable to a *Change Directive*, and shall not be recoverable by the *Contractor*:

.1 head office salaries and benefits and all other overhead or general expenses, except only for the amounts described in paragraph 6.3.7.1;

.2 capital expenses and interest on capital;

.3 general clean-up, except where the performance of the work attributed to the *Change Directive* causes specific additional clean-up requirements;

.4 wages paid for project managers, superintendents, assistants, watch persons and administrative personnel;

.5 wages, salaries, rentals, or other expenses that exceed the rates that are standard in the locality of the *Place of the Work* or that are otherwise deemed unreasonable by the *Consultant*;

- .6 costs or expenses attributable to the negligence, improper work, deficiencies, or breaches of contract by the *Contractor*;
- .7 costs of quality assurance, such as inspection and testing services, charges levied by authorities having jurisdiction, and any legal fees unless any such costs or fees are pre-approved in writing by the *Owner*;
- .8 amounts for small tools;
- .9 insurance and bonding premiums, unless such costs or fees are approved in writing by the *Owner*; and
- .10 preparation of *As-Built Drawings*."

SC 3.28 GC 6.4 CONCEALED OR UNKNOWN CONDITIONS

3.28.1 Add a new paragraph 6.4.0 as follows:

"6.4.0 The *Contractor* confirms that, before entering into this *Contract*, it carefully investigated and examined the *Place of the Work*, the *Contract Documents* and any other documents made available by the *Owner*, and applied to such investigation and examinations the degree of care, skill, judgment and diligence described in paragraph 3.11.1 of GC 3.11 – STANDARD OF CARE. If the *Contractor* has not conducted the investigations and examinations described in this paragraph, it is deemed to assume all risk of conditions or circumstances now existing or arising in the course of the *Work* which could make the *Work* more expensive or more difficult to perform than was contemplated at the time the *Contract* was entered into. No allowances will be made for additional costs and no claims by the *Contractor* will be considered for an adjustment in the *Contract Price* or *Contract Time* in connection with conditions which were reasonably apparent or which could reasonably have been discovered by such investigations or examinations made before entering into this *Contract*."

3.28.2 Amend paragraphs 6.4.1.1 and 6.4.1.2 by adding the following to the end of each paragraph:

"and which were concealed from discovery notwithstanding the conduct of the investigations and examinations described in paragraph 6.4.0."

3.28.3 Amend paragraph 6.4.2 as follows:

(a) add a new first sentence as follows:

"Having regard to paragraph 6.4.0, if the *Contractor* believes that the conditions of the *Place of the Work* differ materially from those reasonably anticipated, or differ materially from those indicated in the *Contract Documents*, or were concealed from discovery notwithstanding the conduct of the investigation described in paragraph 6.4.0, it shall notify the *Owner* and *Consultant* in writing no later than five (5) *Working Days* after first observing such conditions."

(b) insert the words "and were concealed from discovery notwithstanding the conduct of the investigations and examinations described in paragraph 6.4.0" after the word "materially" in the second line.

SC 3.29 GC 6.5 DELAYS

3.29.1 Amend paragraph 6.5.1 by deleting the last sentence and replacing it with the following:

"The *Contractor* shall be reimbursed by the *Owner* for reasonable direct costs directly flowing from the delay, but excluding the costs of the *Contractor's* head office personnel and overhead costs, any consequential, indirect or special damages, and any loss of profit or loss of opportunity costs and damages arising from or caused by such delay, regardless of whether any such excluded costs, damages or claims are made or incurred by the *Contractor* or any *Subcontractor* or *Supplier*."

3.29.2 Amend paragraph 6.5.2 by deleting the last sentence and replacing it with the following:

"The *Contractor* shall be reimbursed by the *Owner* for reasonable direct costs directly flowing from the delay, but excluding the costs of the *Contractor's* head office personnel and overhead costs, any

consequential, indirect or special damages, and any loss of profit or loss of opportunity costs and damages arising from or caused by such delay, regardless of whether any such excluded costs, damages or claims are made or incurred by the *Contractor* or any *Subcontractor* or *Supplier*. Provided that this paragraph 6.5.2 shall not apply where the stop work order is issued as a result of a declaration of a state of emergency or the occurrence of an epidemic or pandemic, in which case any resulting delay shall be governed by paragraph 6.5.3.”

3.29.3 Amend paragraph 6.5.3 as follows:

(a) add a new subparagraph 6.5.3.0 as follows:

“6.5.3.0 acts, orders, legislation, regulations or directives of any court, government or other public authority, including stop work orders or *Project* closures or suspensions, made or issued as a result of a declaration of a state of emergency or the occurrence of an epidemic or pandemic,”

(b) delete the last sentence of paragraph 6.5.3 and replace it with the following:

“The *Contractor* shall not be entitled to payment for costs incurred by such delays.”

3.29.4 Amend paragraph 6.5.4 by adding the following to the end:

“For greater certainty, it is the intention of the parties that an extension for delay will be considered only when the *Contractor* demonstrates that the delay affects the critical path of the *Work* and any adjustment to the *Contract Time* shall only be to the extent that the critical path of the *Work* is affected. Without in any way limiting the generality of the foregoing, it is a condition precedent to the *Contractor’s* claim for extension of the *Contract Time* and for additional compensation or reimbursement of costs that the notice provisions in this paragraph be strictly adhered to in each instance, except where the event of delay itself reasonably precludes strict adherence to such notice provisions. If the *Contractor* fails to comply with such notice provisions, it shall be deemed to have waived the right to claim for the effects of delay.”

3.29.5 Add new paragraphs 6.5.6 to 6.5.9 as follows:

- “6.5.6 The *Contractor* shall take all reasonable steps to reschedule the *Work* and to minimize the effect of the delay referred to in paragraphs 6.5.1, 6.5.2 and 6.5.3. If the *Contractor* fails to do so, the extension of the *Contract Time* and/or any amounts payable to the *Contractor* will be reduced accordingly.
- 6.5.7 The *Contractor* shall be responsible for the care, maintenance and protection of the *Project* in the event of any suspension of the *Work* as a result of the delay described in paragraphs 6.5.1, 6.5.2 or 6.5.3, and the *Contractor* shall be reimbursed by the *Owner* for the reasonable direct costs incurred by the *Contractor* for such care, maintenance and protection, but excluding the *Contractor's* head office personnel and overhead costs.
- 6.5.8 The parties acknowledge and agree that the *Owner* shall not be liable for any delay or part thereof that occurs concurrently with an independent cause of delay for which the *Owner* is not responsible. In addition, in the event the *Owner* is responsible for two or more separate causes of delay that run in whole or in part parallel to each other, those two or more events shall be considered as one for the purpose of determining the duration of the extension of the *Contract Time* and/or any amount payable to the *Contractor*.
- 6.5.9 If the *Contractor* is delayed in the performance of the *Work* by an act or omission of the *Contractor* or anyone employed or engaged by the *Contractor* directly or indirectly, or by any cause within the *Contractor's* control, then the *Contract Time* shall be extended for such reasonable time as the *Consultant* may decide in consultation with the *Owner*. The *Contractor* shall be responsible for the care, maintenance and protection of the *Project* in the event of any suspension of the *Work* as a result of the delay described in this paragraph, at its sole cost and expense. In addition, the *Owner* shall be reimbursed by the *Contractor* for all reasonable costs and expenses incurred by the *Owner* as a result of such delay including, but not limited to, the costs of all additional services required by the *Owner* from the *Consultant* or any other consultants, project managers, contractors, or others employed or engaged by the *Owner*.”

SC 3.30 GC 7.1 OWNER'S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR'S RIGHT TO CONTINUE WITH THE WORK OR TERMINATE THE CONTRACT

3.30.1 Delete paragraph 7.1.2 and replace it with the following:

- “7.1.2 If the *Contractor* neglects to prosecute the *Work* properly, fails or neglects to maintain the construction schedule, or otherwise fails to comply with the requirements of the *Contract*, the *Owner* may, without prejudice to any other right or remedy the *Owner* may have, notify the *Contractor* in writing that the *Contractor* is in default of the *Contractor's* contractual obligations and instruct the *Contractor* to correct the default in the 5 *Working Days* immediately following the receipt of such notice, but without affecting in any respect the liability of the *Contractor* in respect of earlier defaults.”

3.30.2 Add new paragraphs 7.1.5A and 7.1.5B as follows:

- “7.1.5A The *Owner* may terminate the *Contract* at any time for any or no reason. In such event, the *Owner* shall pay for the *Work* performed up to the effective date of termination and for such additional direct costs, if any, directly flowing from such termination which are a reasonable consequence of the termination, but excluding the costs of the *Contractor's* head office personnel and overhead costs, any consequential, indirect or special damages, and any loss of profit or loss of opportunity costs and damages arising from or caused by such termination, regardless of whether any such excluded costs, damages or claims are made or incurred by the *Contractor* or any *Subcontractor* or *Supplier*. The *Owner* shall not be liable to the *Contractor* for any other claims, costs or damages whatsoever arising from such termination of the *Contract*.

7.1.5B If the *Owner* terminates the *Contractor's* right to continue with the *Work* in whole or in part or terminates the *Contract* as provided in this GC 7.1, the *Contractor* shall deliver to the *Owner*, within 5 days of the effective date of the termination, all of the materials listed in paragraph 12.1.1 of GC 12.1 – READY-FOR-TAKEOVER in the possession of or available to the *Contractor*.”

3.30.3 Add a new GC 7.1A as follows:

“GC 7.1A OWNER’S RIGHT TO SUSPEND THE WORK

7.1A.1 The *Owner* may, at any time and from time to time, suspend performance of the *Work* for up to 20 *Working Days* in the aggregate by giving *Notice in Writing* to the *Contractor* indicating the length of the suspension. Upon receiving a notice of suspension the *Contractor* shall, subject to any directions in the notice of suspension, suspend performance of the *Work*.

7.1A.2 The *Contractor* shall be responsible for the care, maintenance and protection of the *Project* during any period of suspension, and the *Contractor* shall be reimbursed by the *Owner* for the reasonable direct costs incurred by the *Contractor* for such care, maintenance and protection, but excluding the *Contractor's* head office personnel and overhead costs.

7.1A.3 If the *Work* is suspended pursuant to paragraph 7.1A.1 the *Contract Time* shall be extended for such reasonable time as the *Consultant* may recommend in consultation with the *Owner* and the *Contractor*. The *Contractor* shall not be entitled to payment for costs incurred as a result of any suspension pursuant to this GC 7.1A.

**SC 3.31 GC 7.2 CONTRACTOR'S RIGHT TO SUSPEND THE WORK OR
TERMINATE THE CONTRACT**

3.31.1 Delete paragraph 7.2.2.

3.31.2 Amend paragraph 7.2.3 as follows:

(a) delete paragraphs 7.2.3.1 and 7.2.3.2;

(b) delete paragraphs 7.2.3.3 and 7.2.3.4 and replace them with the following:

“7.2.3.3 the *Owner* fails to pay the *Contractor* when due the amount certified by the *Consultant* or awarded by arbitration or a court; provided that this paragraph shall not apply to the *Owner's* withholding of payments in accordance with the *Contract Documents*, or

7.2.3.4 the *Owner* violates the requirements of the *Contract* to a substantial degree, and the *Consultant* gives a written statement to the *Owner* and the *Contractor* that provides details of such violation and confirms to the *Contractor* and the *Owner* that sufficient cause exists to justify the *Contractor's* action.”

3.31.3 Amend paragraph 7.2.4 by deleting the number “5” in the second line and replacing it with “10”.

3.31.4 Delete paragraph 7.2.5 and replace it with the following:

“7.2.5 If the default cannot be corrected within the 10 *Working Days* specified in paragraph 7.2.4, the *Owner* shall be deemed to have cured the default if it

- .1 commences the correction of the default within the specified time; and
- .2 provides the *Contractor* with an acceptable schedule for such correction; and
- .3 completes the correction in accordance with such schedule.

7.2.6 If the *Contractor* terminates the *Contract* under the conditions described in this GC 7.2, the *Contractor* shall ensure the *Work* and the *Place of the Work* are left in a safe and secure

condition as required by authorities having jurisdiction and the *Contract Documents*, and shall be entitled to be paid for all *Work* performed to the date of termination. Subject to the *Contractor's* obligation to mitigate costs, the *Contractor* shall also be entitled to recover the costs directly flowing from and which are a reasonable consequence of the termination, but excluding the costs of the *Contractor's* head office personnel and overhead costs, any consequential, indirect or special damages, and any loss of profit or loss of opportunity costs and damages arising from or caused by such termination, regardless of whether any such excluded costs, damages or claims are made or incurred by the *Contractor* or any *Subcontractor* or *Supplier*. Such payment is further subject to the *Owner's* right to claim damages or set off for any costs or loss or damage suffered or which will be suffered by the *Owner*. The *Owner* shall not be liable to the *Contractor* for any other claims, costs or damages whatsoever arising from such termination of the *Contract*."

SC 3.32 GC 8.4 RETENTION OF RIGHTS

3.32.1 Add a new paragraph 8.4.3 as follows:

"8.4.3 If either party elects to have a dispute resolved by arbitration, the *Contractor* agrees that this paragraph 8.4.3 shall be construed as a formal consent to the stay of any lien proceedings until an award is rendered in the arbitration or such dispute is otherwise resolved between the parties. Provided that nothing in this paragraph shall prevent the *Contractor* from taking the steps required by the *Act* to preserve and/or perfect a lien to which it may be entitled."

SC 3.33 GC 9.1 PROTECTION OF WORK AND PROPERTY

3.33.1 Delete paragraph 9.1.1.1 and replace it with the following:

"9.1.1.1 errors or omissions in the *Contract Documents* which the *Contractor* could not reasonably have discovered; or"

3.33.2 Delete paragraph 9.1.2 and replace it with the following:

"9.1.2 Before commencing any *Work*, the *Contractor* shall determine the locations of all underground utilities and structures indicated in the *Contract Documents* or that are discoverable by applying to an inspection of the *Place of the Work* the degree of care and skill described in this *Contract*."

3.33.3 Add a new paragraph 9.1.5 as follows:

"9.1.5 Without in any way limiting the *Contractor's* obligations under this GC 9.1, should the *Contractor* or any *Subcontractor* or *Supplier* cause loss or damage to property, including roads, buildings, structures, paving, grass, sod, trees or other plantings, whether owned by the *Owner* or others, and whether at the *Place of the Work* or adjoining it, the *Contractor* shall be liable for the cost of making good such damage and for the repair and any replacement costs, including the cost of any arborist or other consultant, and such costs may be deducted by the *Owner* from amounts otherwise owing to the *Contractor*."

SC 3.34 GC 9.2 TOXIC AND HAZARDOUS SUBSTANCES

3.34.1 Amend paragraph 9.2.3 by deleting the words "The *Owner*" in the first line and replacing them with "The *Contractor*".

3.34.2 Amend paragraph 9.2.4 by deleting the words "Unless the *Contract* expressly provides otherwise, the *Owner*" in the first line and replacing them with "The *Contractor*".

- 3.34.3 Amend paragraph 9.2.5.3 by adding the following after the words “*Place of the Work*” in line two:
“and no property is damaged or destroyed as a result of exposure to or the presence of the toxic or hazardous substances,”
- 3.34.4 Add a new paragraph 9.2.5.5 as follows:
“9.2.5.5 take all necessary steps to mitigate the impact on *Contract Time* and *Contract Price*.”
- 3.34.5 Amend paragraph 9.2.6 by inserting the following after the word “responsible”:
“or whether any toxic or hazardous substances or materials already at the *Place of the Work* (and which were then harmless or stored, contained or otherwise dealt with in accordance with legal and regulatory requirements) were dealt with by the *Contractor* or anyone for whom the *Contractor* is responsible in a manner which does not comply with legal and regulatory requirements, or which threatens human health and safety or the environment, or material damage to the property of the *Owner* or others,”
- 3.34.6 Amend paragraph 9.2.7.3 by adding the following after the words “as a result of the delay” at the end:
“, but excluding the costs of the *Contractor’s* head office personnel and overhead costs, any consequential, indirect or special damages, and any loss of profit or loss of opportunity costs and damages arising from or caused by such delay, regardless of whether any such excluded costs, damages or claims are made or incurred by the *Contractor* or any *Subcontractor* or *Supplier*”
- 3.34.7 Delete paragraph 9.2.7.4.
- 3.34.8 Amend paragraph 9.2.8 by adding the following after the word “responsible” in the second line:
“or that any toxic or hazardous substances already at the *Place of the Work* (and which were then harmless or stored, contained or otherwise dealt with in accordance with legal and regulatory requirements) were dealt with by the *Contractor* or anyone for whom the *Contractor* is responsible in a manner which does not comply with legal and regulatory requirements, or which threatens human health and safety or the environment, or material damage to the property of the *Owner* or others,”
- 3.34.9 Add new paragraphs 9.2.10 and 9.2.11 as follows:
- “9.2.10 Without limiting its other obligations under this GC 9.2, the *Contractor* acknowledges that its obligations under the *Contract* include compliance with the *Environmental Programs*. The *Contractor* acknowledges that the *Owner* may suffer loss and damage should the *Contractor* fail to comply with the *Environmental Programs* and agrees to indemnify and hold harmless the *Owner* with respect to any loss or damage to which the *Owner* is exposed by the *Contractor’s* failure to comply. The *Contractor* acknowledges that should it fail to comply with the *Environmental Programs*, such failure will constitute a failure to comply with the requirements of the *Contract* in a material way within the meaning of paragraph 7.1.2 of GC 7.1 – OWNER’S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR’S RIGHT TO CONTINUE WITH THE WORK OR TERMINATE THE CONTRACT.
- 9.2.11 The *Contractor* shall indemnify the *Owner* and its agents, officers, directors, employees, consultants, successors and assigns in respect of any loss, costs, expense or fine which might be imposed in respect of any failure by the *Contractor* to satisfy its obligations under this GC 9.2 and, without limiting the general nature of this indemnity, the *Contractor* shall indemnify the *Owner* and its agents, officers, directors, employees, consultants, successors and assigns

in respect of any loss, costs, expense or fine if the *Project* is made subject to an order from a court or government agency requiring remediation of any contamination caused as a result of the *Work* performed by the *Contractor* or its *Subcontractors* or *Suppliers*.”

SC 3.35 GC 9.4 CONSTRUCTION SAFETY

3.35.1 Add new paragraphs 9.4.6 to 9.4.10 as follows:

- “9.4.6 Without limiting the generality of paragraph 9.4.1, the *Contractor* shall be and shall assume all of the responsibilities of the “constructor” under *OHSA* for the *Project* and shall file the “Notice of Project” with the appropriate government agency naming the *Contractor* as the “constructor”.
- 9.4.7 The *Contractor* shall be solely and exclusively responsible for controlling the workplace and the *Place of the Work* and shall take all steps to effectively direct and supervise the *Work* in order to ensure conformity and compliance with *OHSA* and all other applicable construction health and safety requirements, regulations, industry standards and guidelines, including COVID-19 protocols for construction sites. The *Contractor* represents and warrants to the *Owner* that appropriate health and construction safety instruction and training have been provided and will be provided to the *Contractor’s* employees, *Subcontractors*, *Suppliers* and all others attending at the *Place of the Work*, including the *Owner’s* representatives, the *Owner’s* own forces, and *Other Contractors*. No comments, suggestions or instructions from the *Owner*, the *Consultant* or any other representative of the *Owner* are to be relied upon or assumed to reduce or replace the *Contractor’s* designation as the “constructor” or its responsibility for construction safety on the *Project*.
- 9.4.8 The *Contractor* shall indemnify and save harmless the *Owner* and its and its agents, officers, directors, employees, consultants, successors and assigns from and against any and all liability, costs, expenses, charges, fines, damages and all other consequences arising from any and all safety infractions on the *Project*, including the payment of legal fees and disbursements on a full indemnity basis.
- 9.4.9 Without limiting the generality of the foregoing, the *Contractor* shall follow all general instructions and work procedures specified in the *Environmental Programs* and sign and return the acknowledgment form. The *Contractor* shall also ensure that their employees, *Subcontractors* and *Suppliers* who will work at the *Place of the Work* have the appropriate asbestos awareness training certificates.
- 9.4.10 The *Contractor* shall comply with all site access and entry protocols and guidelines established by the *Owner*.”

SC 3.36 GC 9.5 MOULD

3.36.1 Amend paragraph 9.5.3.3 by adding the following after the words “as a result of the delay” at the end:

“; but excluding the costs of the *Contractor’s* head office personnel and overhead costs, any consequential, indirect or special damages, and any loss of profit or loss of opportunity costs and damages arising from or caused by such delay, regardless of whether any such excluded costs, damages or claims are made or incurred by the *Contractor* or any *Subcontractor* or *Supplier*”

SC 3.37 GC 10.1 TAXES AND DUTIES

3.37.1 Amend paragraph 10.1.2 by adding the following to the end:

“For greater certainty, the *Contractor* shall not be entitled to any mark-up for overhead or profit on any increase in such taxes and duties and the *Owner* shall not be entitled to any credit relating to mark-up for overhead or profit on any decrease in such taxes and duties.”

3.37.2 Add new paragraphs 10.1.3 to 10.1.6 as follows:

- “10.1.3 Where the *Owner* is entitled to an exemption or a recovery of sales taxes, customs duties, excise taxes or *Value Added Taxes* applicable to the *Contract*, the *Contractor* shall, at the request of the *Owner*, assist with application for any exemption, recovery or refund of all such taxes and duties and all amounts recovered or exemptions obtained shall be for the sole benefit of the *Owner*. The *Contractor* agrees to endorse over to the *Owner* any cheques received from the federal or provincial governments, or any other taxing authority, as may be required to give effect to this paragraph.
- 10.1.4 The *Contractor* shall maintain accurate records of equipment, material and component costs reflecting the sales taxes, customs duties, excise taxes and *Value Added Taxes* paid.
- 10.1.5 Any refund of taxes including, without limitation, any government sales tax, customs duty, excise tax or *Value Added Tax*, whether or not paid, which is found to be inapplicable or for which exemption may be obtained, is the sole and exclusive property of the *Owner*. The *Contractor* agrees to cooperate with the *Owner* and to cause all *Subcontractors* and *Suppliers* to cooperate with the *Owner* in the application for any refund of any taxes, which cooperation shall include, but not be limited to, making or concurring in the making of an application for any such refund or exemption and providing to the *Owner* copies, or where required, originals of records, invoices, purchase orders and other documentation necessary to support such applications or exemptions or refunds. All such refunds shall either be paid to the *Owner* or shall be a credit to the *Owner* against the *Contract Price*, in the *Owner's* discretion.
- 10.1.6 Customs duties and penalties or any other penalty, fine or assessment levied against the *Contractor* shall not be treated as a tax or customs duty for purposes of this GC 10.1.”

SC 3.38 GC 10.2 LAWS, NOTICES, PERMITS, AND FEES

3.38.1 Amend paragraph 10.2.2 by adding the following to the end:

“The *Contractor* shall pay any construction damage deposits levied by the authorities having jurisdiction in connection with the issuance of the building permit.”

3.38.2 Amend paragraph 10.2.4 by adding the following to the end:

“The *Contractor* shall notify the *Consultant* and the chief building official or the registered code agency where applicable, of the readiness, substantial completion, and completion of the stages of construction set out in the Ontario Building Code. The *Contractor* shall be present at each site inspection by an inspector or registered code agency. If any laws, ordinances, rules, regulations, or codes conflict, the more stringent shall govern.”

3.38.3 Amend paragraph 10.2.5 by deleting the word “The” in the first line and replacing it with the words “Subject to paragraph 1.1.12 of GC 1.1 – CONTRACT DOCUMENTS, the”.

3.38.4 Amend paragraph 10.2.6 as follows:

- (a) delete the words “performs work knowing it to be” and replace them with “performs work when it knew or ought to have known that such work is”; and
- (b) delete the words “bear the” in the third line and replace them with “indemnify and save the *Owner* harmless against all”.

3.38.5 Amend paragraph 10.2.7 by adding the following to the end:

“, provided that any claims arising from any delays due to such changes will be dealt with in accordance with GC 6.5 – DELAYS.”

SC 3.40 GC 12.1 READY-FOR-TAKEOVER

3.40.1 Delete paragraphs 12.1.1.4 and 12.1.1.5 and replace them with the following:

“12.1.1.4 The delivery to the *Owner* of guarantees, warranties, certificates, testing and balancing reports and spare parts, distribution system diagrams, *Shop Drawings*, maintenance and operating manuals, instructions, samples, existing reports and correspondence from authorities having jurisdiction, and all other close-out materials or documents specified in the *Contract Documents*.

12.1.1.5 The delivery to the *Owner* of the final *As-Built Drawings* acceptable to the *Consultant*.”

3.40.2 Add a new paragraph 12.1.1.9 as follows:

“12.1.1.9 Written confirmation by the *Consultant* that the aggregate cost of completing the remaining *Work* and correcting known defects and deficiencies is not more than the lesser of \$5,000 and 1% of the *Contract Price*.”

3.40.3 Amend paragraph 12.1.5 by adding the following to the end:

“, which shall be no later than thirty (30) days after *Ready-for-Takeover*.”

3.40.4 Delete paragraph 12.1.6.

SC 3.41 GC 12.2 EARLY OCCUPANCY BY THE OWNER

3.41.1 Delete GC 12.2.

SC 3.42 GC 12.3 WARRANTY

3.42.1 Amend paragraph 12.3.1 by adding the following to the end:

“Notwithstanding the foregoing, if an item of *Work* is not completed at *Ready-for-Takeover*, except for extended warranties as described in paragraph 12.3.6, the warranty period for such item of *Work* shall be one year from the date that such item of *Work* has been completed and accepted in writing by the *Owner*.”

3.42.2 Amend paragraph 12.3.3 by adding the following to the end:

“The *Contractor* shall correct all remedial and warranty work identified in the *Notice in Writing* within 30 days of receipt of such notice, or within such other time as the parties may agree, failing which the *Owner* may engage others to perform the work necessary to complete and rectify such warranty work at the risk and cost of the *Contractor*.”

3.42.3 Amend paragraph 12.3.4 by adding the following to the end:

“The *Contractor* shall perform all remedial and warranty work at its own cost and expense and at a time convenient to the *Owner*, which may be outside of normal working hours. Before performing the remedial and warranty work the *Contractor* shall provide, for the *Owner's* review and approval, a proposed schedule for the performance of such work.”

SC 3.43 GC13.1 INDEMNIFICATION

3.43.1 Delete paragraphs 13.1.1 through 13.1.6 and replace them with the following:

“13.1.1 The *Contractor* shall defend, indemnify and hold harmless the *Owner* and the *Consultant*, their agents and employees from and against all claims, demands, damages, losses, expenses, costs including legal fees, actions, causes of action, suits, charges or other proceedings (collectively “Claims”), by whomsoever made, brought or prosecuted in any manner, arising out of, resulting from or attributable to, directly or indirectly, the *Contractor's* or any *Subcontractor's*

performance or non-performance of the *Work* or the *Contract*, regardless of whether or not caused in part by a party indemnified hereunder. It is expressly understood that the *Contractor* will save harmless the *Owner* from all *Claims* made by any person other than the *Contractor* itself, financial or otherwise, relating to or arising from the *Work*.

- 13.1.2 The *Owner* shall indemnify and hold harmless the *Contractor* and its agents and employees from and against all *Claims* arising out of the *Contractor's* performance of the *Contract* which are attributable to a lack of or defect in title or an alleged lack of or defect in title to the *Place of the Work*.”

SC 3.44 GC 13.2 WAIVER OF CLAIMS

- 3.44.1 Delete paragraphs 13.2.1 through 13.2.10 and replace them with the following:

“13.2.1 As of the date on which the *Owner* makes final payment to the *Contractor*, the *Owner* expressly waives and releases the *Contractor* from all claims against the *Contractor* including, without limitation, those that might arise from negligence or breach of contract by the *Contractor* except for one or more of the following:

- .1 those made in writing prior to the date of the final payment and still unsettled;
- .2 those arising from the provisions of GC 13.1 – INDEMNIFICATION or GC 12.3 – WARRANTY;
- .3 those arising from GC 9.2 – TOXIC AND HAZARDOUS SUBSTANCES and arising from the *Contractor* bringing or introducing any toxic or hazardous substances to the *Place of the Work* after the *Contractor* commences the *Work*;
- .4 those made by *Notice in Writing* within a period of six years from *Ready-for-Takeover*, or within such shorter period as may be prescribed in any limitation statute of the province or territory of the *Place of the Work* and arising from any liability of the *Contractor* for damages resulting from the *Contractor's* performance of the *Contract* or substantial defects or deficiencies in the *Work* for which the *Contractor* is proven responsible.

13.2.2 As of the date of *Ready-for-Takeover*, the *Contractor* expressly waives and releases the *Owner* from all claims which it has or reasonably ought to have knowledge of that could be advanced against the *Owner* including, without limitation, those that might arise from the negligence or breach of contract by the *Owner* except:

- .1 those for which *Notice in Writing* was given prior to the *Contractor's* application for *Ready-for-Takeover* and still unsettled; and
- .2 claims for payment for *Work* completed after the *Contractor's* application for *Ready-for-Takeover*; and
- .3 those arising from the provisions of GC 9.2 – TOXIC AND HAZARDOUS SUBSTANCES or GC 10.3 – PATENT FEES.”

SC 3.45 PART 14 – OTHER PROVISIONS

- 3.45.1 Add a new “PART 14 – OTHER PROVISIONS” as follows:

“PART 14 OTHER PROVISIONS

GC 14.1 OWNERSHIP OF MATERIALS

14.1.1 Unless otherwise specified, all materials existing at the *Place of the Work* at the time this *Contract* is entered into shall remain the property of the *Owner*. All *Work* and *Products* delivered to the *Place of the Work*, or to a pre-approved off site storage area, shall be the property of the *Owner*. The *Contractor* shall remove all surplus or rejected materials from the *Place of the Work* as its property when notified in writing to do so by the *Consultant*.

GC 14.2 LIENS AND ACTIONS

14.2.1 The *Contractor* shall save and keep the *Owner* and the *Place of the Work* free from all construction liens and all other liens whatsoever arising out of the *Work*. If any lien is claimed, filed or registered or any written notice of a lien is received by reason of any *Work* supplied or claimed to have been supplied by or through a *Subcontractor* or *Supplier*, the *Contractor* shall,

at its own expense, within ten (10) *Working Days* of being notified of the lien or written notice of a lien, secure the discharge, release, vacating or withdrawal of such lien or written notice of a lien by payment or by giving security or in such other manner as is or may be required or permitted by law, failing which the *Owner* may, but shall not be required, take such steps as it, in its absolute discretion, may deem necessary to release, vacate or discharge the lien or written notice of a lien.

- 14.2.2 If a lien action is commenced arising out of a lien described in paragraph 14.2.1, the *Contractor* shall take all reasonable steps to remove the *Owner* from such action, and shall indemnify the *Owner* and hold it harmless in such action.
- 14.2.3 All amounts, including legal costs on a full indemnity basis, disbursements, interest, borrowing, premium or other bonding costs and/or charges incurred by the *Owner* in releasing, vacating, discharging and/or otherwise dealing with a *Subcontractor* or *Supplier* lien, written notice of a lien and/or defending or otherwise dealing with a lien action, shall be charged to the *Contractor* and shall be set off and deducted from any amount owing to the *Contractor*. If there is no amount owing by the *Owner* to the *Contractor* at that time, then the *Contractor* shall reimburse the *Owner* for all amounts incurred by the *Owner*.

GC 14.3 CONTRACTOR LIABILITY FOR DAMAGES

- 14.3.1 Notwithstanding any other provision in this *Contract*, if the *Owner*, as a result of the *Contractor's* act or omission or breach of this *Contract*, incurs damages, costs, fees or expenses, including costs of additional services performed by the *Consultant* and including legal fees, whether or not such act, omission or breach results in any lien, lien action or other legal proceeding, and whether or not such act, omission or breach results in the *Owner* taking any of the steps provided for in GC 7.1, all such damages, costs, fees (including legal fees on a full indemnity basis) and expenses shall be charged to the *Contractor* and the *Owner* shall be entitled to set off and deduct all such damages, costs, fees (including legal fees on a full indemnity basis) and expenses from any amount owing to the *Contractor*. If there is no amount owing by the *Owner* to the *Contractor* at that time, then the *Contractor* shall reimburse the *Owner* for all of the said damages, costs, fees and expenses.

GC 14.4 DAILY REPORTS / DAILY LOGS

- 14.4.1 The *Contractor* shall cause its supervisor, or such competent person as it may delegate, to prepare and maintain a daily site log or diary recording, at least, the following: (a) daily weather conditions and temperatures at the *Place of the Work*, (b) the number of workers of the *Contractor*, *Subcontractors*, *Suppliers* and any other forces at the *Place of the Work*, (c) the *Construction Equipment* at the *Place of the Work*, (d) the descriptions and quantities of *Products* delivered and utilized, and (e) the general nature of *Project* activities. Such log or diary shall also record any extraordinary or emergency events which may occur and also the identities of any persons who visit the *Place of the Work* who are not part of the day-to-day workforce. The *Contractor* shall also take or arrange for the taking of *Project* photographs to record the progress of the *Work*.
- 14.4.2 The *Contractor* shall maintain, either at its head office or at the *Project* site, records recording labour and material resourcing on the *Project*, including the records identified in paragraph 14.4.1 and other records which document the activities of the *Contractor*.
- 14.4.3 Upon request by the *Owner* or the *Consultant*, the *Contractor* shall make available for inspection and copying all of the records generated pursuant to this GC 14.4, along with any other routine *Project* records ordinarily maintained by the *Contractor*.

GC 14.5 PUBLIC STATEMENTS

- 14.5.1 The *Contractor* shall not, and shall ensure its employees, *Subcontractors* and *Suppliers* do not, publish any photographs or images, issue or make any statements or news releases, electronic or otherwise, on any website or social media or other communications platform, concerning the *Owner*, the *Contract*, the *Work*, or the *Project*, without the prior express written consent of the *Owner*. For greater certainty, the *Contractor* shall obtain the prior written approval of the *Owner* for any public advertising, written public sales promotions, press release or other general publicity matter by the *Contractor*, its employees, *Subcontractors* and *Suppliers* in which the *Owner* is mentioned or in which words are used from which any connection with the *Owner*

may be inferred. The *Contractor* will not erect or permit the erection of any sign or advertising without the prior written approval of the *Owner*.

GC 14.6 AMENDMENTS TO THE CONTRACT

- 14.6.1 Except for the written or e-mail direction referred to in paragraph 6.1.2 of GC 6.1 – OWNER'S RIGHT TO MAKE CHANGES, no alteration or amendment to this *Contract*, no course of conduct or dealing between the parties, and no express or implied acceptance of alterations or amendments to the *Contract* shall be binding unless it is in writing and signed by each party.
- 14.6.2 No waiver by or on behalf of a party of any breach of a provision of this *Contract* shall be binding upon the party unless it is expressed in writing and duly executed by the party or signed by its fully authorized representative, and such a waiver shall not operate as a waiver of any future breach, whether of a like or different character. No waiver shall be inferred from or implied by the conduct of any party.

GC 14.7 CONTRACT SECURITY

- 14.7.1 The *Contractor* shall, after receiving written notification from the *Owner*, and prior to commencing the *Work*, deliver to the *Owner* the performance bond and labour and material payment bond specified in the *Contract Documents*, each in the amount specified by the *Owner*.
- 14.7.2 The form of such bonds shall be in accordance with the latest edition of the CCDC approved bond forms and shall be issued by a duly licensed surety company authorized to transact the business of suretyship in Ontario and shall be maintained in good standing until the fulfillment of the *Contract*. All premiums and other costs of the bonds are included in the *Contract Price*."

END OF SUPPLEMENTARY CONDITIONS

1. GENERAL

1. Unless specified otherwise, the following instructions shall apply to all sections of the work.
2. Conform to The latest Ontario Building Code, CEC CSA C22, CAN3-B44 and CSA W59.1 - latest amendments, where applicable, to the Canadian Code for Construction Safety, as currently amended, and to the Construction Safety Act, Ont. as currently amended, and to all other applicable codes and Building By-Laws hereinafter referred to as Codes; and to the requirements of the authorities having jurisdiction, including public utilities, referred to in the Contract Documents as the authorities.
3. Conform to regulations of Municipality having jurisdiction regarding clean up of tracking on streets and protection of sidewalks and curbs, and all other applicable laws, By-laws and Regulations.
4. Read General Work - Section 01015, for instructions and requirements regarding General Work and Services, Miscellaneous Work and Services and Temporary Work and Services. Trades requiring own offices, sheds, etc. shall provide, maintain, relocate and remove same in a manner satisfactory to Contractor.
5. Wherever possible, give preference to use of local labour, building mechanics, suppliers and subcontractors.
6. Install and arrange ducts, piping, tubing, conduit, equipment and fixtures in such a way as to conserve head room and space as much as possible, to provide minimum interference and to be neat, orderly and tidy. Unless otherwise noted, run pipes, ducts, tubing and conduit vertical, horizontal and square with building grid. Conceal pipes, ducts, tubing and conduit above ceilings, behind furrings, in walls, except in mechanical rooms, equipment rooms and unfinished spaces, unless indicated or specified otherwise.
7. In all cases where a device or part of the equipment is herein referred to in the singular number, it is intended that such reference shall apply to as many such devices as are required to complete the installation.
8. Definitions
 1. Wherever the words 'approved', 'satisfactory', 'directed', 'permitted', 'inspected', 'instructed', 'required', 'submit', 'ordered', or similar words or phrases are used in the Contract Documents, it shall be understood, unless the context provides otherwise, that the words 'by (to) the Architect' follow.
 2. The words 'by others' when used in the Specifications or on the Drawings shall not mean by someone other than the Trade Contractor. The only means by which something shown or specified shall be indicated as not being in the Contract is by the use of the initials 'NIC' or the words 'not in (the) Contract', 'by Client', or by another Contractor.

3. Exposed: means when visible by the occupants at completion of the work, unless scheduled or specified otherwise.
4. The use of "scope", "related work", or similar articles in the specifications shall not relieve the contractor from their responsibility to assign the various parts of the work to the appropriate subcontractors and forces and shall not impose upon the Architect or Client the duty to arbitrate disputes between the Contractor and the Subcontractor, nor shall it relieve the subcontractors from their responsibility for carefully examining all the Drawings and Specifications and coordinating their work with each other and the Contractor.

2. CO-OPERATION

1. Co-operate and co-ordinate with other trades as required, for satisfactory and expeditious completion of work. Take field dimensions relative to work. Fabricate and erect work to suit field dimensions and field conditions. Provide forms, templates, anchors, sleeves, inserts and accessories required to be fixed to, or inserted in work, and set in place or instruct related trades as to their location. Pay cost of extra work caused by and make up time lost, as a result of failure to provide in adequate time, the necessary co-operative information of items to be fixed to, or built in.
2. Allow for four (4) site tours by Owner staff to be scheduled throughout construction. Provide safety helmets and vests for twelve (12) persons. It is the Contractors responsibility to lead the tour to ensure safe passage through the work area.

3. MATERIALS

1. Reject material damaged in transit. Store packaged materials in original undamaged containers with manufacturer's labels and seals intact. Handle and store materials in accordance with manufacturers' and suppliers' recommendations. Prevent damage. Remove from site and replace damaged materials.

4. EXAMINATION

1. The Contractor affirms that before tendering, they did examine the site and ascertain the extent and nature of all conditions affecting the performance of the work including the existing conditions; and including the location of all buried services which may have to be protected, removed or relocated. No extras will be allowed for anything which would have been revealed in the course of such an examination.
2. The Contractor affirms that before tendering they did examine the Specifications, Drawings, and other tender documents thoroughly. It shall be assumed that the Contractor thoroughly understands these documents, including those particular items about which questions have been asked and written instructions given.
3. Examine work upon which your work depends. Application of your work or any

part of it shall be deemed acceptance of work upon which your work, or that part of it which has been applied, depends.

4. Drawings are in part, diagrammatic and incomplete, and are intended to convey the general scope of work and indicate general and approximate location, arrangement and size of fixtures, devices, equipment, ducts, piping, conduit and outlets. Obtain more accurate information about locations, arrangement and sizes from study and coordination of construction drawings, including architectural, structural, mechanical and electrical and become familiar with conditions and spaces affecting these matters before proceeding with work.
5. Where job conditions require reasonable changes in indicated location and arrangements, make changes at no extra cost to Client. Install and arrange ducts, piping, conduit, equipment and fixtures in such a way as to conserve head room and space as much as possible.

5. SCAFFOLDING

1. The Contractor shall provide at their own expense all manner of materials, labour, scaffolding, ladders, hand tools, and appliances necessary for the due execution and proper completion of work described herein, unless otherwise specified in tender specifications.
2. Erect scaffolding independent of walls. Use scaffolding so as to interfere as little as possible with other trades. When not in use, move scaffolding as necessary to permit installation of other work. Construct and maintain scaffolding in rigid, secure and safe manner. Remove scaffolding promptly when no longer required. Scaffolding must comply to Occupational Health and Safety Act.

6. FLOOR SURFACES

1. Adequately protect existing and new floors and finishes from damage. Take special measures when moving heavy loads or equipment on them.
2. Keep floors free of oils, grease, or other material likely to damage them, discolour them, or affect bond of applied finishes.
3. Once building is enclosed, keep floors as dry as possible after curing.

7. PROTECTION AND MAKING GOOD

1. Protect existing property, adjacent public and private property and work of other sections from damage while doing work.
2. Damaged work and property shall be made good (includes replacing, fixing, re-finishing) wherever possible by those performing work originally, but at expense of those causing damage.
3. Attach and fasten fixtures and fittings in place in safe, sturdy, secure manner so that they cannot work loose or fall or shift out of position during occupancy of building as a result of vibration or other causes in normal use of building.

4. If, during work, any buildings, curbs, walks, roads or landscaping are damaged, repair or replace them to the satisfaction of Architect and the local jurisdiction.
5. Protect glass and other finishes against heat, slag and weld spatter, by erecting sturdy plywood or other heavy shield.
6. If tape or strippable coatings are used to protect finished metal surfaces, do not allow them to become baked on or to thermoset.

8. IMPACT DRIVEN FASTENINGS

1. Do not use impact driven (explosive, hammer, etc., but not twist driven) fastening devices without written approval. Properly size holes in concrete and drill cleanly to avoid oversizing for expansion anchors. When drilling upward, use jig to hold drill steady and plumb.

9. ALTERATIONS AND MAKING GOOD

1. Wherever it becomes necessary to cut or interfere in any manner with existing services and apparatus, do so at such times as approved by the Architect. Give minimum advance notice of one week and provide sufficient information of such requirements.
2. Take into account existing installations to ensure best arrangement of pipes, conduit, ducts and mechanical, electrical and other equipment in available space. For critical locations, prepare interference and installation drawings showing work of various sections as well as existing installations, for approval, before commencing work.
3. Comply with Section 01045 Cutting and Patching for additional information

10. STANDARDS

1. Where initials of an organization are used, followed by number or combination of numerals and letters, this designates a standard produced by the organization. Conform to issue of standard so designated, as amended and revised to date of contract. When designation does not indicate particular edition of standard edition current at date of Contract shall apply.
2. Wherever a standard confers upon a person, a body politic or a body corporate the right to approve, to select, to exercise authority or to interpret the standard, and refers to that person, body politic or body corporate as the Authority having jurisdiction, the Authority, the Engineer, the Department, the Purchaser, the Contracting Officer (e.g. U.S. Fed. Spec.) or by some other such designation, the Architect shall have the right to exercise the powers of any such person, body politic, or body corporate.
3. Where standards and manufacturer's instructions conflict with the Contract Documents, the Contract Documents shall govern.

11. FINISHED DIMENSIONS AND ELEVATIONS

1. See Article on Setting Out, in Section 01015. Give particular attention to finished dimensions and elevations of the work. Make finished work fit indicated spaces accurately. Make finished work flush, plumb, true to lines and levels and accurate in all respects

12. TRADEMARKS AND LABELS

1. Trademarks and labels shall not be visible in the finished work except for labels of ULC and other similar authorities and except where necessary to identify mechanical and electrical equipment, for maintenance and replacement and except where specified otherwise.
2. Except as provided in the foregoing paragraph, locate trademarks and labels on concealed or inconspicuous surfaces or remove by grinding if necessary or paint out where surface painted, if located conspicuously.

13. BURIED SERVICES

1. The Contractor shall be responsible for keeping records of all buried services. The subcontractors concerned shall provide the Contractor with all necessary dimensions required to accurately locate those services.

14. EXISTING SERVICES

1. Where work involves breaking into or connecting existing services, carry out work at times directed by governing authorities, with minimum of disturbance to the operation of the facility, pedestrian and vehicular traffic.
2. Before commencing work, establish location and extent of service lines in area of work and notify Architect of findings.
3. Where unknown services are encountered, immediately advise Architect and confirm findings in writing.
4. Provide adequate bridging over trenches which cross sidewalks or roads to permit normal traffic.
5. Remove abandoned service lines to distance of six feet from foundations. Cap or otherwise seal lines at cut-off points, in manner approved by authorities having jurisdiction over service.
6. Record locations of maintained, re-routed and abandoned service lines. The sub-contractors concerned shall provide the General Contractor with all necessary dimensions required to accurately locate those services.
7. The appropriate Sub-contractor shall assume full responsibility for the locations and protection of all under and above ground utilities, such as water, sewer and gas mains and building connections, hydro and telephone poles, wires and conduits,

etc. when excavating or digging below grade whether they are shown on the plans or not.

8. Where the location of any of these utilities has been shown on the plans, such information is not guaranteed. It is the appropriate Sub-contractor's responsibility to verify locations, invert elevations, etc., immediately after moving on the site. If for any reason the information obtained necessitates changes in procedures or design, advise the Architect at once. If this verification of existing conditions is not done at the outset and any problems arise, the responsibility for same will be entirely the Contractor's.
9. Contractor to provide temporary support of existing service lines and pipes where work requires excavation below existing lines for construction of new footings, foundations, etc.

15. EMBEDDED CONDUIT, PIPE AND SLEEVES

1. Concrete Slabs
 1. All pipes and conduits shall be depressed to pass under concrete slabs on grade.
 2. Sleeves, conduits and pipes which pass through suspended slabs, beams or walls, shall be in approved locations which do not impair the strength of the construction. Space them all not less than three diameters o.c.

16. SOUND ATTENUATING PARTITIONS

1. Avoid "short circuiting" sound attenuating partitions by the careful location and treatment of ducts, grilles, diffusers, etc., and of electrical outlets and boxes, etc. Where electrical boxes are back to back, serving each side, locate them at least 10 inches (250 mm) apart laterally and if interconnected, use flexible connections.

17. SAFETY

1. The General Contractor will be responsible for submitting their safety program used in the ongoing operation of their company and any safety recommendations specifically relating to the tendered project.
2. Safety measures or procedures taken by the General Contractor i.e. site safety meetings, site construction fences, etc., will not relieve the Contractor of their responsibilities for the safety of persons and property, and for compliance with the federal, provincial and local statutes, rules, regulations and orders applicable to the conduct of the work.
3. Submit copies of all Safety Meeting Minutes to Architect and Client.
4. Comply with Section 01545.

18. OMISSIONS AND DISCREPANCIES

1. Notify Architect at once of discrepancies found in, or omissions from the drawings, specifications or other documents or if in doubt as to their meaning; Architect will send a written instruction to all Bidders. If a discrepancy exists, the Architect will issue an addendum to all Bidders to clarify or correct such discrepancies.
2. Neither Client nor Architect will be responsible for any verbal instructions.
3. Should any discrepancies or omissions go unreported to the Architect during tendering period, the proper interpretation shall be at the discretion of the Architect.

19. PROCEDURES AND SUPPLY OF CRITICAL MATERIALS

1. Submission of a tender shall constitute the Tenderer's agreement that they will commence work immediately upon award of the Contract, and that they will execute the same without interruption until completion, including the furnishing of all necessary supplies and equipment for winter operations. Contractor shall assure themselves before submitting a tender that they are in a position to furnish adequate supplies of all materials, critical or otherwise, at such times necessary to ensure immediate commencement of the work and continuous operation without delays on the project. The Contractor shall include in their tender amount, sufficient sums for the purchase of critical materials from any source available. After award of the contract, the Client will not grant increases to the tender amount to obtain critical materials at premium prices, nor will delays or interruption of the work be tolerated.

20. LAWS, CODES AND REGULATIONS

1. The tenderer is assumed to have made themselves familiar with and abide by the Federal National Authorities, Provincial, Municipal and local laws, rules and regulations which in any manner affect those engaged or employed in the work, or in any way affect the work, and no plea of misunderstanding will be considered on account of ignorance thereof. If the Bidder shall discover any provisions in the drawings, specifications or contract which are contrary to or inconsistent with any law, rule of regulation, Contractor shall at once report it to the architect in writing.

21. SITE ACCESS

1. Contractor to remove all debris from site daily.
2. Location of all trailers, storage units, and construction fences by contractor shall be reviewed and approved by the Client and Architect at a preliminary site meeting prior to contractor moving on to site.
3. Parking for construction workers shall be on site as directed by the General Contractor, only when parking spaces are available.
4. Site access for construction to be confirmed at first site meeting.

22. CONSTRUCTION SAFETY

1. Safety measures or procedures taken by the Contractor, i.e. site safety meetings, protective street hoarding, site construction fences, etc. will not relieve the contractor of their responsibilities for the safety of persons and property, and for compliance with the federal, provincial and local statutes, rules, regulations and orders applicable to the conduct of the work.
2. This Contractor shall be liable for any costs, fines, penalties, etc. levelled against the Client or Consultant due to violation of the Construction Safety Act by this Contractor or any Subcontractors on this project.
3. This Contractor will be responsible for submitting to the Client their safety program used in ongoing operation of their company and any safety recommendations specifically relating to the tendered project.

23. PROJECT SCHEDULE

1. The successful bidder will be required to forward to the Architect, a schedule indicating construction sequences, manpower and equipment required in order to complete the work. This schedule is to be posted on site at all times. Schedule is to be updated on a weekly basis.
2. When the Architect deems that the Contractor's work has fallen behind schedule, the contractor will provide the necessary manpower and work the necessary overtime to bring the work back on schedule at no cost to the Client.
3. Contractor shall commence shop drawings immediately once acceptance of tender has been given by the Client. A complete shop drawing and sample submission schedule is to be provided within seven days of tender award. This will be reviewed by Architect.
4. Commence construction on the Project as soon as Building Permit is obtained.

24. MATERIALS AND EQUIPMENT

1. All materials and equipment supplied for the work shall be new, of the best quality, and in accordance with the latest applicable specifications of the Canadian Standards Association.
2. The particular method, material, procedure or equipment specified in this tender shall be used as a standard.
3. M.S.P.S. (Material Safety Data Sheets) for all materials being used on this project are to be kept on site and made available for use by all concerned.
4. Controlled substances: the use of any controlled substance of any kind must be reviewed by Client and written acceptance of its use obtained.
5. A bidder may submit an alternative method, material, procedure or equipment to that specified in the tender specifications. All alternatives shall be equal or

superior to the standard specified in these tender documents and all unit prices along with overall product quantity cost is to be submitted. Alternates may not necessarily be accepted by the Architect.

Where particular products are specified and approved alternate manufacturers are listed, it is the responsibility of the contractor to ensure that any products carried in their tender from one of the approved manufacturer's meets or exceeds the original specified product.

Upon the alternate product shop drawing submission to the architect for review, all product data sheets (for specified and alternates) comparing the two products are to be submitted.

6. The bidder who furnishes an alternative method, material, procedure or equipment in place of the standard item specified shall furnish complete documented data including such information as chemical content and performance under laboratory tests which proves the quality and equality of the proposed alternative. This information shall accompany the bid. Note that the bidder who furnishes an alternative method, material, procedure or equipment in place of the standard item specified is responsible that the alternative will work with the Architectural layout, equipment will fit in the provided space and any revisions that will be required will be at the bidder's cost.
7. In all cases where alternative methods, materials, procedures or equipment are offered in response to this tender, the Owner shall make the final ruling on their acceptability.
8. During and upon completion of the work, the Contractor shall remove from the premises all surplus materials, equipment and debris.
9. The requirements of sentence 1 to 8 above shall also be applicable to any alternate material or method proposed or carried out during construction and the Contractor shall be responsible for all work related to the coordination of the alternate material or method with any other affected work of the contract including any additional work which may be required at no cost to the Owner.

25. ACCESS TO INFORMATION

1. All tenders, quotes and proposals are subject to the Municipal Freedom of Information and Protection of Privacy Act and will be disclosed where the Owner is required to do so for the purposes of complying with an Order of the Information and Privacy Commissioner.

26. GENERAL NOTES TO CONTRACTOR

1. The contractor will be required to keep and maintain a set of as-built drawings for each project. These drawings will be used for no other purpose than recording the exact location of buried or covered services and all changes to the contract documents. The as-built drawings will be submitted to the Architect along with guarantees, maintenance data, extra supplies, etc. at the substantial performance of the contract.

2. The contractor will turn over to the Architect at the completion of the contract all **project close out documents, as-built drawings, material, etc.** These documents, material, etc. including occupancy permit, will be accepted only with a transmittal and at no other time than when submitting a written request for substantial performance of the contract. For purposes of determining a value of this work it will be considered as **\$5,000.**
3. The contractor is not to act on verbal instruction from the Client, Consultants, or Architect on work they consider to be extra to their contract scope. Extra work can only be authorized by the Architect and in a written form only. The written form must also include that this work is an extra to the contract scope, and the method by which extra costs will be tabulated.
4. Ensure the building is maintained weather tight, safe and secure. Furnish all temporary protection as may be required.
5. Remove and dispose of all resultant debris.
6. Work shall be done in accordance with best standard practice, unless special methods or performance standards are specified or given in writing by the Client. Only skilled mechanics shall be used where such are required to produce a first class job. Where required by code or other by-laws and regulations, trades people shall be licensed in their trades.
7. Use, install and handle manufactured materials in accordance with manufacturer's instructions.
8. Any work not acceptable to the Architect or Client or local authorities shall be removed and replaced when and as directed by them. The cost of re-executing such work shall be borne by the Contractor.
9. All mechanical maintenance pads and penetrations to be by Division 15, and all electrical maintenance pads and penetrations to be by Division 16.
10. The contractor shall have internet service (wifi) on the jobsite and shall maintain this service until the date of substantial performance of the contract.
11. The contractor shall maintain access to the buildings and portable buildings on site and shall restrict access to construction areas.

END OF SECTION

1. EXAMINATION

1. Throughout the project, examine the work of all trades and promptly notify the Architect if any conditions do not or will not comply with the drawings and specifications.

2. SETTING OUT

1. Lay out work from control bench marks and indicate verified reference points.
2. Protect and preserve bench marks and reference points. Inform Consultant immediately if bench marks or reference points are disturbed or damaged by any work and pay for their repair and/or replacement.
3. Locate and fix grid lines and locations of walls, partitions, shafts and all parts of the construction as work proceeds.
4. Verify grades, lines, levels and dimensions indicated, and report any errors or inconsistencies to the Architect before commencing work. Confirm job dimensions at once to allow prompt checking of shop and other drawings.

3. PROTECTION

1. Conform to Ontario Building Code, latest amendments, and The Construction Health and Safety Act, all as currently amended.
2. Provide spare safety helmets for and enforce their use by Owner, Architect, their representatives and any authorized visitors to site.
3. Protect building from damage.
4. Provide temporary 6'-0" (1800 mm) high construction fencing/hoarding where required to enclose construction area as required for protection of public, and of public and private property and as required by law and by authorities having jurisdiction. Maintain fences, gates until construction is complete. Keep free from unauthorized signs.
5. Provide and maintain in working order, adequate, temporary Canadian Underwriters labelled, chemical solution (soda acid) Class A.1, fire extinguishers and locate in prominent positions to approval of authorities having jurisdiction.
6. Before starting the work, verify location of existing services, wiring, plumbing, piping, including buried pipes which may be impacted by the work.

4. AS BUILT DRAWINGS

1. Maintain as work progresses, accurate records of changes to the Drawings and concealed services. Accurate locations, depth, size, and type of underground utilities shall be included in these as built drawings. The General Contractor will be supplied with digital drawings in AutoCad®, 2018 or later and PDF format of the floor plans for making these recordings. As built drawings will be reviewed at each site meeting and must be properly maintained to receive Architect's approval before the monthly certificate draw will be approved.

2. Keep a daily record showing progress of the work and all factors affecting the work, i.e., weather, strikes, accidents, shipping delay, etc.
3. Completed as built drawings and instruction and warranty manuals shall be submitted prior to requesting substantial completion.

5. WASHROOM CONVENIENCES

1. General Contractor to provide washroom facilities as per the Construction Health and Safety Act for use of subcontractors and employees. Facilities shall be provided with a screen and contents shall be removed regularly during construction. Maintain it without offense to neighbourhood and adjacent public and private areas. At completion of building, washroom facilities and contents shall be removed and the ground carefully levelled and cleared. Employees on work must avail themselves of this convenience. It shall be to the satisfaction of local Health Authority.
2. Use of permanent toilets is forbidden.

6. DELIVERY AND STORAGE OF MATERIALS

1. Arrange for early deliveries necessary for execution of work without delay and have materials on job well in advance of the time it is needed.
2. Deliver, store and handle materials to exclude foreign material and prevent damage, soiling or breakage.
3. Materials to be stored on site, which need to be protected from weather shall be so protected.
4. Packaged materials shall be delivered in packages with manufacturer's seals and all labels intact.

7. BUILDING AND PREMISES

1. Owner reserves right to take over any completed portion prior to specified completion date, provided it does not affect completion of remaining work.
2. If Owner is forced to occupy building or parts thereof prior to completion, but after date of Substantial Performance, Contractor shall not be entitled to indemnity for interference with the performance of the work.

8. OWNERSHIP OF MATERIALS

1. All work or material delivered on the site or premises to form part of the works shall be considered the property of the Owner and shall not be removed without the consent of the Architect, but the Contractor shall have the right to and shall remove the surplus materials after he has completed the work. If so directed by the Architect, such surplus materials shall be removed at any time prior to the completion of the work.
2. All materials which are to be removed from the existing site and are not called for

to be re-used or specifically called for in the specifications to be turned over to the Owner, shall become the property of the General Contractor and shall be removed from the site.

9. DETAILS AND MEASUREMENTS

1. Ensure that necessary job dimensions are taken and trades are coordinated for the proper execution of the work. Assume complete responsibility for the accuracy and completeness of such dimensions, and for co-ordination.
2. Verify that work, as it proceeds, is executed in accordance with dimensions and positions indicated which maintain levels and clearances to adjacent work, as set out by requirements of the drawings, and ensure that work installed in error is rectified before construction continues.
3. Check and verify dimensions referring to work and interfacing of services. Dimensions, when pertaining to work of other trades, shall be verified with trade concerned.
4. Do not scale directly from the drawings. If there is ambiguity or lack of information, immediately inform the Consultant and await his instructions before proceeding. Be fully responsible for rectifying, altering or redoing any work resulting from disregarding this clause.
5. All details and measurements of any work which is to fit or to conform with work installed shall be taken at the site.
6. Should revised drawings be issued after work has commenced, Contractor shall immediately return to Architect previous drawings which refer to said work. The Contractor will be held responsible for work being carried out in accordance with said revised drawings.

10. WORKMANSHIP

1. Work shall be done in accordance with best standard practice. Only skilled mechanics shall be used where such are required to produce a first class job.
2. Use, install and handle manufactured materials, equipment and appliances in strict accordance with manufacturer's directions and instructions, unless specified otherwise.

11. PROJECT MEETINGS

1. Arrange regular weekly virtual meetings and bi-weekly in person meetings and notify the representatives of the Owner, Architect, Engineer and each subcontractor concerned with the current progress.
2. Contact all subcontractors concerned at least 24 hours in advance and request their presence at job meeting.
3. Review approved progress schedule for rapid and efficient completion of work according to Contract requirements, with suppliers of materials and sub-contractors.

4. Post and forward copies of progress schedule for advice of interested parties.
5. Record the minutes of each meeting and send copies to all attending and interested parties not later than two days after the meeting. In addition, send copies to the Architect, Consultants and Owner. Contractor to provide updated change order register and shop drawing register attached to each record of minutes to indicate exactly what has been issued and the status of approvals and/or distribution.
6. Keep Architect informed of progress, delays and of potential delays during all stages of work to avoid delays.

12. BROKEN GLASS

1. Replace all broken, damaged or scratched glass and mirrors. Glass which has been broken, scratched or damaged in installation shall be replaced by installer.

13. CHECK FLOOR DRAINS

1. Just before acceptance of building by Owner, check floor drains and see that they are clean, clear and functioning properly.

14. FIRE PROTECTION AND ACCESS TO EQUIPMENT AND EXITS

1. Take necessary precautions to eliminate fire hazards and to prevent damage to work, equipment and other property both public and private having to do with the work. Inspect work of this contract at least once a week for this purpose.
2. Provide and maintain in working order suitable Underwriters' labelled fire extinguishers and locate in prominent positions, to approval of authorities.
3. When welding, brazing and performing any operation with an open flame, a portable fire extinguisher shall be kept within 10 feet (3000 mm) of the operator at all times.
4. Store and locate materials and equipment packed in cardboard cartons, wood crates and other combustible containers in orderly and accessible manner. Place approved types of firefighting equipment in vicinity of materials or equipment packed in this type of crate or carton until permanent fire protection and equipment are available.
5. Store all rags and waste containing oil, grease or other flammable materials in an approved metal container and remove from the site at the end of each working day.
6. Only fire resistant tarpaulins are permitted on site.
7. Locate temporary buildings and storage areas in relation to their hazards and probability of damage to existing buildings under construction. Unless constructed of non-combustible materials, wherever possible locate them at least 33 feet (10 m) away from buildings. If constructed of combustible materials separate these structures into small detached units.

8. Provide and maintain free access at all times from the street to fire hydrants and to outside connections for standpipes or other fire extinguishing equipment whether permanent or temporary. Do not place material or construction equipment within 10 feet (3 m) of hydrants or connection, nor between them and centre line of the street.

Maintain free access at all times to control valves and hose on fire lines within building and to all portable extinguishers.

9. Install fire doors and put into operating condition at the earliest possible time.
10. Comply with requirements of 01545 Safety Requirements.

15. PROTECTION OF NEW AND EXISTING/ADJACENT BUILDINGS

1. Particular attention shall be paid to prevention of fire and elimination of fire hazards which would endanger new work or existing property.
2. No existing footings, foundations, pipe lines, electrical conduit and wiring shall be undermined or otherwise damaged or endangered by digging, butting of any other operation in the performance of the work of this Contract. Any existing work so affected shall be immediately repaired and made good to the Architect's satisfaction at the Contractor's expense.
3. Active services to the adjacent buildings shall be protected.
4. In case of damage to active services, notify Architect, Utilities and Authorities immediately and make all required repairs under direction of appropriate utility. Carry out repairs during off hours if required.

16. NOTES TO GENERAL CONTRACTOR

1. The General Contractor shall furnish all temporary protection, enclosures, tarpaulins, etc., as may be required to protect the Work as well as to protect persons in the adjacent occupied areas.
2. The General Contractor shall carry out all removal and disposal of all resultant debris.
3. In case of damage to active services, notify Architect, Utilities and authorities immediately and make all required repairs under direction of appropriate utility. Carry out repairs during off hours if required.
4. Restore disturbed areas to original condition unless shown otherwise on drawings or stated in specifications.
5. Where site measurement of site conditions, openings and clearances is required by a Trade or supplier prior to preparation of shop drawings or ordering of materials, The Contractor shall ensure that such site conditions are completed and ready for measurement or verification by such Trade or supplier at a time which will allow the Trade or supplier sufficient time to deliver their work with no negative impact to the construction schedule.

17. CONSTRUCTION PARKING

1. Parking will be permitted on site provided it does not disrupt the operations of the existing building. Coordinate with Owner for available parking and building access.

18. SIGN AND ADVERTISEMENTS

1. Erect no other signs, except those signs which are necessary to give direction or for safety, or warning signs, without the Architect's permission. Where other signs are required or wanted, obtain Architect's approval.

19. PROTECTION OF BUILDING FINISHES & EQUIPMENT

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

20. SECURITY

1. Extent of security services shall be at the discretion of the Contractor. Note that the fit, finish and new appearance of the finished Work will not be comprised. Materials, products, finishes, etc. damaged due to vandalism are to be restored and/or replaced to an as-new condition. Should the Contractor determine that additional security measures be required beyond what was allowed for in the tender amount, such costs shall be borne solely by the Contractor.

End of Section

1. GENERAL

1. REQUIREMENTS INCLUDED

1. Requirements and limitations for cutting and patching the Work.

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 elements.
 3. Efficiency, maintenance, or safety of any operational element.
 4. Visual qualities of sight-exposed elements.
 5. Work of the Owner or separate contractor.
2. Include in request:
 1. Identification of Project.
 2. Location and description of affected work.
 3. Statement on necessity for cutting or alteration.
 4. Description of proposed work, and products to be used.
 5. Alternatives to cutting and patching.
 6. Effect on work of the Owner or separate contractor.
 7. Written permission of affected separate contractor.
 8. Date and time work will be executed.

3. GENERAL

1. Execute all cutting, fitting, and patching including excavation and fill, required to complete the Work.
2. Fit the several parts together, to integrate with other work.
3. Uncover work to install ill-timed work.
4. Remove and replace defective and non-conforming work.
5. Remove samples of installed work for testing if requested by Consultant.

6. Provide openings in non-structural elements of Work for penetrations of mechanical and electrical work.

4. INSPECTION

1. Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
2. After uncovering, inspect conditions affecting performance of work.
3. Beginning of cutting or patching means acceptance of existing conditions.

5. PREPARATION

1. Provide supports to assure structural integrity of surroundings; devices and methods to protect other portions of project from damage.
2. Provide protection from elements for areas which may be exposed by uncovering work; maintain excavations free of water.

6. PERFORMANCE

1. Execute work by methods to avoid damage to other work, and which will provide proper surfaces to receive patching and finishing.
2. Use material to match existing.
3. Employ qualified trade contractor to perform cutting and patching for weather-exposed and moisture-resistant elements, and sight exposed surfaces.
4. Cut rigid materials using masonry saw or core drill. Pneumatic or impact tools not allowed without prior approval.
5. Restore work with new products in accordance with requirements of Contract Documents.
6. Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
7. Refinish surfaces to match adjacent finishes: For continuous surfaces refinish to nearest intersection.

End of Section

1. See Individual Specifications Sections for full listing of inspections and approvals.
2. Architect's approvals required:
 1. Architect's and Consultant's approval before interfering with existing services and apparatus. One week notice to be given. Section 01010.
 2. Architect's approval of work schedule (Progress Schedule) - 01310.
 3. Architect's and Consultant's approval of substitutions - 01500.
 4. Consultant's approval of compaction - 02200.
 5. Consultant's approval of cast-in-place concrete materials, admixtures and tests - 03300.
 6. Architect's approval of Masonry Sample Wall - 04200.
3. Notify Architect:
 1. Notify Architect for Deficiency Inspection upon agreed Substantial Performance.
 2. Notify Architect for Two-Year Warranty Holdback Inspection.
 3. Notify Client for Two Year Inspection of Extended Warranties
 4. Notify Client for Three Year Inspection of Extended Warranties
 5. Notify Client for Five Year Inspection for Extended Warranties

End of Section

1. INTERFERENCE DRAWINGS

- 1.1 Before commencing any work, the General Contractor, along with their trade contractors, are to prepare working / interference drawings, to ensure that all components are to be properly accommodated within the spaces provided, ensuring all clearances required by jurisdictional authorities and for proper maintenance are indicated and maintained.
- 1.2 Schedule meetings on site with all associated trades to review all interference areas until all issues have been coordinated and required interference drawings issued.
- 1.3 Prepare drawings to indicate coordination and method of installation of various components and systems where their relationship is critical. Ensure all details of equipment, apparatus and connections are coordinated.
- 1.4 The General Contractor shall provide interference drawings prepared by their Mechanical and Electrical subtrades. Drawings are to be red-line markups scanned to PDF Format and shall indicate any perceived interference between mechanical, structural, and electrical work and the work of all other Divisions along with proposed solution to such interference.
- 1.5 Failure to coordinate with all other trades could result in reworking of installed equipment, piping or ducting at the discretion of the Consultant. Any reworking to accommodate the installation of other trades is to be performed at no extra cost.
- 1.6 All interference drawings shall be submitted and approved prior to the second Certificate of Payment being released.

2. COOPERATION AND COORDINATION

- 2.1 Cooperate and coordinate with other trades as required, for satisfactory and expeditious completion of work. Take field dimensions relative to work. Fabricate and erect work to suit field dimensions and field conditions. Provide forms, templates, anchors, sleeves, inserts and accessories required to be fixed to, or inserted in work, and set in place or instruct related trades as to their location. Pay cost of extra work caused by and make up time lost, as a result of failure to provide inadequate time, the necessary cooperative information of items to be fixed to, or built in.

END OF SECTION

1. GENERAL

1. GENERAL

1. This section details General Contractor's responsibilities in preparation, submission and maintenance of construction schedules with form and requirements for periodic revisions. The Sub-Contractors shall provide the General Contractor with their schedule of work and co-ordinate the work with General Contractor and the Work Progress of other trades on site.
2. The General Contractor shall be solely responsible for taking any corrective action required to make-up for any delays.

2. REQUIREMENTS INCLUDE

1. Schedule, form, content.
2. Stages/Phased Construction.
3. Schedule Revisions.
4. Weekly schedule updating.

3. SCHEDULES REQUIRED

1. Submit the following schedules:
 1. Construction Progress Schedule.
 2. Weekly Schedule and Manpower Loading.
 3. Submittal Schedule for Shop Drawings and Product Data.
 4. Product Delivery Schedule. Include required decision dates for finishes and colours.
 5. Sub-schedule showing submittals, review times, procurement schedules, and delivery dates.
 6. Sub-schedules to define critical portions of overall schedule.

4. FORMS OF SCHEDULES

1. Prepare schedules in form of horizontal bar chart (GANn, or C.P.M. network. Provide separate horizontal bar column for each trade or operation, or separate activity for each operation that can be completed independently of other operations or trades. Provide as follows:
 1. Order: Chronological order of beginning of each item of work.
 2. Identification: Identify each column by distinct graphic

delineation.

3. Horizontal Time Scale: Identify first work day of each week.
4. Scale and Spacing: To allow space for updating.
5. Minimum Sheet Size: 11" x 17" for electronic submission.

5. SUBMITTALS SCHEDULE

1. Include schedule for submitting shop drawings, product data, and samples. Co-ordinate with section 01300 requirements. Incorporate into Preliminary Progress Schedule and Weekly Schedule updates.
2. Indicate dates for submitting, review time, resubmission time, float time, and last date for meeting fabrication schedule.
3. Include dates when SUBMITTALS and delivery will be required for the Owner-furnished products if applicable.
4. Include dates when reviewed submittals will be required from the Consultant.

6. PRODUCT DELIVERY SCHEDULE

1. Include dates for delivery of products specified in Section 01020 - Allowances, if applicable.
2. Include dates for products furnished by Owner, if applicable.
3. Submit a schedule of required equipment order dates and delivery dates for products and/or assemblies which involve insignificant production time or fabrication time and/or will significantly affect the project schedule if not available when needed.

7. CONSTRUCTION PROGRESS SCHEDULE

1. Submit a preliminary construction schedule and phasing plan upon notification of bid acceptance or award of contract, for approval.
2. Incorporate approved preliminary schedule in construction schedule specified in GC 3.5 of The General Conditions of The Stipulated Price Contract.
3. Schedule must be submitted within a minimum of seven (7) days before first progress application for payment. Prepare schedule in sufficient detail to indicate timing of major activities during phased progress of the Work and which will ensure completion of the Work on or before schedule.
4. On schedule indicate a time bar for each major construction activity to be performed at the site, properly sequenced and co-ordinate with other activities of work. Itemize activities in sufficient detail that no one bar

exceeds two months in duration (separate long running trades such as Masonry into Logical Sub-Sections). Allow sufficient space below planned time bar for another time bar to record actual progress.

5. Show dates for commencement and completion of all activities. Estimate duration period and float (contingency) time for each activity.
 6. Show projected percentage of completion for each activity as of the date of submission of monthly progress payment applications and/or to the date of submission of schedule when requested.
 7. Indicate actual progress of each activity to date of submission of schedule. Indicate current status of all activities to date of submissions of schedule by showing where behind, on or ahead of planned schedule.
 8. Show changes occurring since previous submission of schedules:
 1. Major changes to scope
 2. Activities modified since previous submission
 3. Revised projections of progress and completion
 4. Other identifiable changes.
 9. Confirm commencement, duration and completion dates of all activities with subcontractors, subtrades and suppliers.
 10. Deliver to Architect, at the end of each calendar month with progress application a project status report derived from evaluation of Schedule.
 11. Include in this report updated schedule together with such supporting narrative and such graphical presentations necessary to clearly outline the progress of Work, areas of current and anticipated problems, effect of changes on schedules of major trade subcontractors and proposed corrective action.
 12. Lengthy shutdowns and disruptions of services will not be tolerated, and strict attention shall be paid to minimizing any disruption.
8. STAGED/PHASE CONSTRUCTION (if required)
1. Prepare and submit sub-schedules for each separate stage of Work when pertinent to the project.
 2. Provide sub-schedules to define critical portions of prime concern to master schedule.
 3. Describe start and stop, float time and affected other work.
9. WEEKLY SCHEDULE UPDATE AND MANPOWER LOADING

1. Use the Construction Progress Schedule as a basis for reporting on a weekly basis the complete status of construction progress, scheduled activities and manpower loading on the project.
2. There will be an Owner/Architect/Consultant/General Contractor/Trade Contractor meeting every second week to review the project status. Provide a detailed 2 week work schedule (based upon the Construction Progress Schedule) outlining work activities and manpower requirements planned for that period.
3. Identify current and anticipated problems and delays with respect to the past work period the effects of said problems on the overall schedule and proposed corrective measures.
4. Submit to Architect two days prior to site meetings (every second week) the following:
 1. Updated Construction Progress Schedule.
 2. Outline of anticipated work activities for the forthcoming period.
 3. Outline of required and/or anticipated manpower levels (by trade) for the forthcoming period.
 4. Problems or delays experienced and/or anticipated.
 5. Proposed corrective measures to react to problems or delays.

END OF SECTION

1. ACCEPTABLE PRODUCTS

1. First item named or specified by catalogue number meets specifications in all respects regarding performance, quality of material and workmanship, and is acceptable to the Architect.
2. Items, other than first named, meeting specifications regarding quality of materials and workmanship only, are acceptable to the Architect, if they also meet performance, match the first named product in colour and texture, etc. and/or capacities specified and can be accommodated within the space allotted.
3. General approval indicated by inclusion of other manufacturers named is subject to final review of submitted samples of shop drawings, performance data and test reports.
4. Where the contractor uses equivalent products other than that first named, on which design is based, the contractor shall be responsible for all details of installation including product size, arrangement, fit, colour, etc. and maintenance of all required clearances. Contractor shall prepare and submit revised layouts to indicate arrangement of all affected piping, ductwork, conduit, lighting, equipment, etc. Failure by Contractor to provide such drawings may be considered indication that additional costs associated with equivalent products such as revisions to surrounding architectural finishes, structural components, or the need for larger motor starters, larger power feeders, space revisions to associated product equipment, controls, etc. shall be included in Bid price.

2. APPROVAL REQUIRED

1. The Contract is based on the materials, equipment, and methods described in the Contract Documents.
2. The Architect will consider proposals for substitution of materials, equipment, and methods only when such proposals are accompanied by full and complete technical data and all other information required by the Architect to evaluate the proposed substitution.
3. Do not substitute materials, equipment, or methods unless such substitution has been specifically approved for this work by the Architect, in writing.
4. Submit for review and approval full product characteristics comparison chart outlining the spec product and the proposed substitution product with indication if it meets or exceeds or is below the specified standard. This shall include but not limited to: all product characteristics, material testing and manufacturing standards references, dimensional differences, color availability variations.

3. "OR EQUAL"

1. Where the phrase "or equal", "approved equal", or "equal as approved by the Architect" occurs in the Contract Documents, do not assume that materials, equipment, or methods will be approved by the Architect.

2. The decision of the Architect shall be final.

4. AVAILABILITY OF SPECIFIED ITEMS

1. Verify prior to bidding that all specified items will be available in time for installation during orderly and timely progress of the work.
2. In the event specified items will not be available, notify the Architect prior to receipt of bids.
3. Costs of delays because of non-availability of specified items, when such delays could have been avoided by the Contractor, will be back-charged as necessary and shall not be borne by the Owner.

END OF SECTION

1. GENERAL

1. REQUIREMENTS INCLUDED

1. Safety measures
2. Fire protection
3. Overloading precautions
4. Falsework
5. Scaffolding

2. CONSTRUCTION SAFETY MEASURES

1. Observe and enforce construction safety measures required by National Building Code (Part 8) and Ontario Building Code (latest edition as currently amended), Provincial Government, Workplace Safety & Insurance Board and municipal statutes and authorities.
2. In particular, the Ontario Construction Safety Act, the regulations of the Ontario Department of Labour and Ontario Hydro Safety Requirements shall be strictly enforced.
3. In the event of conflict between any provisions of above authorities the most stringent provisions will apply.

3. MATERIAL SAFETY DATA SHEETS

1. Submit Material Safety Data Sheets (MSDS) for any product to be used, installed or applied inside of the building if said product may emit toxic fumes and/or noxious odours.
2. Submit Material Safety Data Sheets for any product which is known to or suspected of creating a health hazard or discomfort when used in confined spaces, including but not limited to the following:
 1. Adhesives
 2. Solvents
 3. Sealants (Caulking, etc.)
 4. Other products which may give off air borne particles after installation
 5. Any other product as direct by Architect/Consultants.
3. The required Material Safety Data Sheets to be submitted prior to ordering material or product for use as a part of the Work

4. The Owner may withhold payment for work of a subtrade or section until MSD Sheets for products supplied by that subtrade or section have been submitted, reviewed by Consultant and found to be acceptable.
5. Refer to Section 01700 - Project Close-Out for requirements regarding Certificates of Compliance.

4. MATERIALS SPECIFICALLY EXCLUDED

1. Asbestos and/or asbestos - containing products are not permitted. Submit Material Safety Data Sheets for any product suspected of containing asbestos if so requested by Consultant. Examples of some materials requiring close scrutiny and/or confirmation include:

1. Transite drainage pipe - whether buried or above grade - not permitted.
2. Insulation and/or jacketting for pipes, ducts, motors, pumps, etc. - not permitted if any asbestos is present.

2. Solder for all piping is to be lead-free. "Lead Free" shall mean solder which contains less than 0.030% of lead when dissolved in fluoroboric and nitric acids and tested by inductively coupled argon plasma atomic emission spectroscopy. Steelbond 281 and Silverbrite are acceptable solder products.

The mechanical contractor shall provide an affidavit signed by the principal of the company, on company letterhead, that all of the solder used on the project was either one of the two acceptable products or that the solder used (identified by brand name) meets or exceeds the testing criteria.

The Owner shall undertake random testing of the soldered joints. Should testing provide that the solder used was not as specified, the Owner shall take legal action against the contractor as appropriate.

3. All paint and finish coatings are to be lead and mercury-free. Submit Material Safety Data Sheets confirming that these products are free of all lead and/or mercury compounds.

5. FIRE SAFETY REQUIREMENTS

1. Comply with requirements of the local municipal fire department with respect to continuous fire safety on the job site.
2. Comply with fire safety requirements of other construction related authorities (Workplace Safety & Insurance Board, Ministry of Labour, construction trade unions, etc.). If more than one authority issues similar requirements, the more stringent shall govern.

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3. The appropriate clauses of the Ontario Building Code relating to fire protection shall be strictly followed.
 4. Provide and maintain free access to temporary or permanent fire hydrants and other fire protection equipment during performance of work required by insurance companies having jurisdiction and governing codes, regulations and by-laws.
 6. OVERLOADING
 1. Ensure no part of Work is subjected to a load which will endanger its safety or cause permanent deformation.
 7. FALSEWORK
 1. Design and construct falsework in accordance with latest issue of CSA S269.1-.
 8. SCAFFOLDING
 1. Design and construct scaffolding in accordance with latest issue of CSA-S269.2-.
 9. LIST OF MINIMUM SAFETY
 1. Include all provisions for construction safety such as fences, hoarding along streets, storage provisions facilities, sanitation facilities, fire protection, electrical supply, temporary heat, ventilation, construction equipment with its supports and guards, stairs, platforms, ladders, scaffolds, guardrails, walkway lighting and morality lighting, work around asbestos lead, silica and fumes, all as required by the Construction Safety Act and Regulation, latest edition of the Province of Ontario, as well as all other applicable regulations of Jurisdictional Authorities.
 10. OWNER SAFETY REQUIREMENTS
 1. The Contractor will take all necessary steps to protect personnel (workers, visitors, general public, etc.) and property from any harm during the course of the contract.
 2. All work procedures will be in accordance with Client legislated standards.
 3. All equipment shall be in safe operating condition and appropriate to the task.
 4. The Contractor shall ensure that only competent personnel are permitted work on site. The owner will throughout the term of the contract also remove from the site any persons not observing or complying with safety requirements.
 5. The Contractor shall provide competent personnel to implement their

safety programs and ensure that the owner's standards and those of the Ontario Health and Safety Act are being complied with.

6. Plant Services or the consultant will monitor every week to ensure that safety requirements are met and that safety records are properly kept and maintained. Continued disregard for safety standards can cause the contract to be cancelled and the Contractor or subcontractors removed from site.
7. The Contractor will report to the owner, architect and jurisdictional authorities any accident or incident involving Contractor, owner or public personnel and/or property arising from the contractor's execution of the work.

END OF SECTION

1. GENERAL

1. DISPOSAL OF WASTES

1. Do not bury rubbish and waste materials on site.
2. Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers.
3. All removal of waste products and debris resulting from the work must be audited and source-separated to comply with the most current version O.Reg 102 103 Industrial, Commercial and Institutional Source Separation Programs under the Environmental Protection Act and the 3 R's Regulation.

2. POLLUTION/DUST CONTROL

1. Provide and maintain temporary pollution control features as required by the local authority and Ontario provincial standard details and requirements installed under this contract or previously installed.
2. Control emissions from equipment from entering adjacent occupied areas.
3. Prevent extraneous materials from contaminating air beyond application area, by providing temporary enclosures.
4. Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.

3. NOISE CONTROL

1. Adhere to local noise bylaws.
2. Coordinate with Owner for scheduling of loud Work during operational hours.
3. Cutting of existing slabs may be required to be completed after hours.

END OF SECTION

1. GENERAL

1. REQUIREMENTS INCLUDED

1. Systems demonstration
2. Document submission
3. Project commissioning
4. Inspection and takeover procedures

2. SYSTEM DEMONSTRATION

1. Prior to substantial performance, demonstrate operation of each system to the Owner and Consultant.

3. DOCUMENTS

1. Collect reviewed submittals and assemble documents executed by Subcontractors, suppliers, and manufacturers. Submit as per requirements in Section 01010 - General Requirements.
2. Provide bonds fully executed and notarized.
3. Submit a final statement of accounting giving total adjusted Contract Sum, previous payments, and monies remaining due.
4. Architect will issue a final change order reflecting approved adjustments to Contract Sum not previously made.

4. PROJECT COMMISSIONING

1. Expedite and complete deficiencies and defects identified by the Consultant.
2. Review record "as-built" drawings for completeness and then provide "as-built" AutoCad 2014 or later drawings.
3. Review Cash and Contingency Allowances in relation to Contract Price, change orders, hold-backs and other Contract Price adjustments.
4. Submit required documentation such as statutory declarations, Workplace Safety & Insurance Board Certificates, certificates of approval or acceptance from regulating bodies.
5. Attend "end-of-work" testing and break-in or start-up demonstrations.
6. Review inspection and testing reports to verify conformance to the intent of the documents and that changes, repairs or replacements have been

completed.

7. Meet with inspection and testing company to co-ordinate completion, testing approvals.

5. INSPECTION/TAKEOVER PROCEDURES

1. The requirements of OAA/OGCA Document No. 100 "Take-Over Procedures" also govern applicable take-over procedures for this Contract.
2. 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 and/or corrected and the building is clean and in condition for occupancy. Notify the Architect, in writing, of satisfactory completion of the Work and request an inspection.
3. During the Architect/Consultant inspections, lists of deficiencies and defects will be tabulated. Correct same.
4. When the Architect/Consultants consider deficiencies and defects have been corrected and it appears requirements of the Contract have been performed, make application for certificate of Substantial Performance. Refer to General Conditions Article GC 14 for specifics to application.
5. All utility meters to be read and transferred into the Owner's name.

END OF SECTION

1. GENERAL

1. DUST AND CLEANING REQUIREMENTS

1. Standards: Maintain project in accordance with the latest edition of The Occupational Health and Safety Act.

2. Hazards and Dust Control

.1 Provide adequate ventilation during use of volatile or noxious substances.

.2 Prevent spread of dust beyond the construction site by wetting, or by other means suitable for conditions, as it accumulates.

.3 Provide Tack Mats at entrances to prevent dust and dirt from being traced through the project as required. Dispose of mats and replace on regular basis with new mat.

3. Floors

.1 Keep troweled concrete floors free from oils, grease or other materials likely to damage them, discolour them or affect bond of applied finishes. Once building is enclosed, keep floors as dry as possible after curing.

.2 To prevent soiling or damage to finish flooring where pedestrian traffic occurs after the flooring has been installed, install and maintain reinforced kraft paper temporary protection, secured in place and with joints sealed by reinforced pressure sensitive tape.

.3 Install plywood panels of minimum 1/4" thickness over completed finish flooring materials on which further construction work is performed or delivery of products is made, or both. Seal joints between panels with reinforced pressure sensitive tape.

2. PRODUCTS

1. MATERIALS

1. Use only cleaning materials recommended by manufacturer of surface to be cleaned.

2. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

3. EXECUTION

1. DURING CONSTRUCTION

1. Execute cleaning to ensure that building, grounds, and public properties are maintained free from accumulations of waste materials and rubbish. Keep site clear of snow, mud and pooling of water due to severe rain. Ensure that work is not stopped because of failure to provide access to site.
2. Wet down dry materials and rubbish to prevent blowing dust.
3. At reasonable intervals during progress of Work, clean site and public properties and dispose of waste materials, debris and rubbish.
4. Unless otherwise specified, salvaged material resulting from construction, and surplus materials and construction debris shall become property of Contractor, who shall dispose of it away from site.
5. Vacuum clean interior building areas when ready to receive finish painting and continue vacuum cleaning on an as-needed basis until building is ready for Substantial Performance or occupancy.
6. Obtain from each Subcontractor, instructions which designate proper methods and materials to be used in final cleaning, and submit such instructions to the Consultant. Include Instructions in Manufacturer's Data Book specified in Section 01300.
7. Handle materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights.
8. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly-painted surfaces.

2. FINAL CLEANING

1. At completion of Work, remove waste materials, rubbish, tools, equipment, machinery, and surplus materials, and clean all surfaces exposed to view; leave project clean and ready for occupancy.

2. Employ experienced workers, or professional cleaners, for final cleaning.
 3. In preparation for Substantial Performance or occupancy, conduct final inspection of interior and exterior surfaces exposed to view, and of concealed spaces.
 4. Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials from all sight-exposed interior and exterior finished surfaces; polish resilient and ceramic surfaces so designated to shine finish. Vacuum carpet.
 5. Clean and polish glass and mirrors.
 6. Repair, patch and touch up marred surfaces to specified finish, to match adjacent surfaces.
 7. Broom-clean paved surfaces; rake clean other surfaces of grounds.
 8. Clean filters, exposed ductwork, and structure.
 9. Clean bulbs and lamps and replace those burned out.
 10. Clean diffusers and grilles.
 11. Clean sinks, faucets, and water closets and controls.
 12. All exposed interior surfaces to be cleaned.
 12. Maintain cleaning until project, or portion thereof, is occupied by Owner.
3. REMOVAL OF TEMPORARY FACILITIES
1. Completely remove temporary facilities from site, making good any damage when no longer required.

END OF SECTION

The printed forms outlined below shall form the basis of communication between the Architect and the General Contractor. Copies of forms unrelated to the issuance of monies, shall be kept on the site; neatly filed and readily accessible to the parties concerned.

1. TRANSMITTAL RECORD

A record of material issued by the Architect or General Contractor.

2. GENERAL REVIEW REPORT

A progress report completed by the Architect or Consultant on a regular basis (minimum monthly).

3. PROPOSED CHANGE

A description of contemplated changes to the Contract.

4. CASH ALLOWANCE EXPENDITURE

Assignment of money for work executed under the Cash Allowance Section.

5. CHANGE ORDER

Assignment of money for work executed beyond the financial limits of the Contract.

6. CHANGE DIRECTIVE

A description of a change in the work when the Owner requires the Contractor to proceed with a change in the work prior to the Owner and the Contractor agreeing upon the adjustment in Contract Price and Contract Time.

7. CERTIFICATE FOR PAYMENT

For release of contract money based on monthly progress draws.

8. SUPPLEMENTAL INSTRUCTIONS

A description and/or clarification for the purpose of recording a clarification or interpretation of the contract documents or giving directions on problems resulting from field conditions.

END OF SECTION

1. NEWFORMA SOFTWARE SYSTEM

- 1.1 This project will be administered through the Architect using the NEWFORMA software system.
- 1.2 The Contractor is required to use this internet based software for ALL RFIs, quotations, shop drawings. All documents shall be submitted electronically through the Newforma Info Exchange in PDF format and shall be numbered in the order which they are submitted. Numbering shall be in the following format; 001, 002, 003, etc. Submittals will not be deemed as received unless delivered through Newforma Info Exchange.
- 1.3 Utilization of this system does not require the purchase or download of the Newforma software. The Architect will send an email notification which will automatically provide online access to the Newforma Info Exchange specific to this project.

2. NEWFORMA INSTRUCTIONS

1. You will receive an email instructing you how to get into the system (click on link). The system is self-explanatory as to the "use" for Submittals (Shop Drawings) and RFIs. Refer to attached screen shots.
2. Shop Drawings are to be issued as "Submittals". There is a place on the Submittal section to put in the Contractor's "expected response date" – please ensure that is filled in. Submittals are to be numbered in the sequence which they are submitted. Numbering to be as follows; 001, 002, 003, etc. (NOTE: as per the contract, the Architect has 10 working days to respond).
3. RFIs: There is a place on the RFI section to put in the Contractor's "expected response date" – please ensure that is filled in. RFI's are to be numbered in the sequence which they are submitted. Numbering to be as follows; 001, 002, 003, etc.. (NOTE: as per the contract, the Architect has 5 working days to respond)
4. RFCs: (all Contractor quotations to be submitted as an RFC) RFC's are to be numbered in the sequence which they are submitted. Numbering to be as follows; 001, 002, 003, etc.
5. Submittals and RFI's requiring consultant review other than the Architect shall be sent via Newforma directly to the respective consultant. The +VG Project Manager as well as the persons noted above shall be copied on all submittals and RFI's.
6. All shop drawings, interference drawings and as-built drawings shall be submitted electronically through the Newforma Info Exchange in PDF format. Submittals will not be deemed as received unless delivered through Newforma Info Exchange.

END OF SECTION

1. GENERAL

1.1. Conform to Sections of Division 1 as applicable.

1.2. REFERENCES

1.2.1. CSA S350 M80 (R2003) Code of Practice for Safety in Demolition of Structures

1.3. QUALITY ASSURANCE

1.3.1. Regulatory Requirements:

1.3.2. Conform to the latest Occupational Health and Safety Act, as currently amended.

1.3.3. Most recent Occupational Health and Safety Act, as currently amended, Designated Substance - Asbestos on Construction Projects and in Building and Repair Operations;

1.3.4. Conform to OBC, especially Article 2.3.2.3 as applicable.

1.3.5. Conform to Fire Code, Regulation under Fire Marshals Act especially Part 8.

1.3.6. Remove hazardous materials in accordance with applicable laws and regulations.

1.3.7. Qualifications:

Employ for this work demolition company having 5 years Canadian experience in this type of work satisfactory to Architect. If requested, submit proof of experience.

1.4. PROJECT CONDITIONS

1.4.1. Building shall remain occupied and full operational in adjacent spaces during entire duration of the Work. Protect existing building from damage due to demolition work.

2. PRODUCTS

2.1. All existing components being demolished shall become property of this Section. Remove from Site.

3. EXECUTION

3.1. PREPARATION

3.1.1. Protect all existing adjacent work against damages which might occur from falling debris, scrapes or other causes due to work of this Section.

- 3.1.2. Erect and maintain dustproof partitions as required to prevent spread of dust to other parts of building. On completion, remove partitions and make good surfaces to match adjacent surfaces of building. Ensure that all dust and debris is removed before finishing work commences.

3.2. PERFORMANCE

- 3.2.1. Contractor to remove all items where noted on the drawings and specifications and where required to perform new Work.
- 3.2.2. Contractor to remove all existing flooring as noted on the drawings.
- 3.2.3. Contractor to remove existing light fixtures and associated wiring as noted on the drawings.
- 3.2.4. Contractor to carry out selective demolition (cutting out) of existing ceilings as noted on the drawings and as required to complete the Work.
- 3.2.5. Contractor to remove existing doors as noted on the drawings.
- 3.2.6. Contractor to remove all existing fitments and equipment including plumbing, HVAC and electrical where noted on the drawings.
- 3.2.7. Where the installation of new Work requires the removal of existing building components or finishes, the removal and reinstatement of the existing work shall be included as part of the work of this Section.
- 3.2.8. Materials and debris shall not be stacked in building but removed entirely from all circulation spaces at the end of each day.
- 3.2.9. At end of each day's work leave work in safe and clean condition.
- 3.2.10. Carry out demolition in accordance with requirements of CSA S350-M. Demolish and remove materials from Site.

3.3. DISPOSAL OF WASTE MATERIALS

- 3.3.1. Selling or burning of materials on Site is not permitted.
- 3.3.2. Provide bin for garbage on sidewalk in a location acceptable to the Owner.
- 3.3.3. Conform to requirements of municipality's Works Department regarding disposal of waste materials.
- 3.3.4. Materials prohibited from municipality waste management facilities shall be removed from Site and dispose of at recycling companies specializing in recyclable materials.

END OF SECTION

1. GENERAL

1. GENERAL REQUIREMENTS

1. Division One, General Requirements, is a part of this Section, and shall apply as if repeated here.

2. REFERENCE STANDARDS

1. Standard of finished carpentry, metalwork and cabinet work in accordance with the "Millwork Standards" of the Architectural Woodwork Manufacturers Association of Canada (AWMAC).

3. QUALIFICATIONS

1. The work of this trade shall be executed by a company having a minimum of 5 years proven first class experience in this type of work and having adequate equipment and skilled personnel. Contractor to be from pre-approved list.

4. WORK INCLUDED

1. Provide millwork alcove surrounds, wall panels and similar items where shown on drawings as specified herein, and as needed for a complete and proper installation.
2. Provision of rough hardware, including fastening devices required to secure in place items of carpentry and millwork.
3. Supply and installation of finishing hardware for millwork by this millwork contractor section 06400.
4. Installation of all miscellaneous metals for millwork items by Section 05500 Miscellaneous Metals..
5. Supply and installation miscellaneous trims, scribes, filler panels.

5. SHOP DRAWINGS

1. Submit Shop Drawings in electronic PDF format in accordance with GC 3.10 of CCDC-2-2008 and Section 01300 – Submittals.
2. Before shop drawings and fabrication is started, take critical measurements at the site to facilitate installation, fitting of work and access required to move millwork into final location. Take such measurements prior to fabrication of the work of this section and in ample time to avoid delays in the work.

3. Draw Shop Drawings in related and/or dimensional positions with sections. Scale minimum 1:10. Shop drawing detail numbering to be same as Architectural Drawing detail numbering.
4. Shop Drawings shall show fabrication details, materials, jointing, description of anchorage and hardware.

6. DELIVERY AND STORAGE

1. Give Painter sufficient notice so that untreated or unprimed carpentry items or materials can be primed immediately upon delivery to site.
2. No equipment shall be delivered to the site until portion of the building in which it is to be installed is completely ready for equipment as approved by Consultant.
3. Store finished work properly and keep under cover both in transit and at site. Finish woodwork shall not be delivered to site until concrete and masonry work has dried out.
4. Cover all plastic laminate and prefinished top surfaces at shop with heavy Kraft Paper.
5. Carefully protect from damage of any kind.

1. SAMPLES

1. Submit duplicate 12"x12" (300 mm x 300 mm) samples of each type of paneling (plastic laminate, melamine c/w edging) and each type of solid wood or plywood to receive stain or natural finish.
2. Submit duplicate 12" (300 mm) long samples of each type of molding.
3. Submit samples of construction methods and of all hardware.

2. INTENT

1. The intent of this Section is that casework shall be manufactured and finished at the plant, delivered to the Site and immediately installed by this Section including provision of necessary strapping, backings, bearers, rough hardware and finish hardware and miscellaneous support metals and stainless steel metal components. Touch up finish immediately prior to completion of the Work and leave in perfect condition.

3. CO-OPERATION

1. Water, drainage and air piping, faucets, traps, ventilation ducts, sinks, electric receptacles and wiring are supplied and installed by the Mechanical and Electrical Sections at all rooms. Co-ordinate the work with

these trades and make provision in the construction of the fitments to accommodate this work. Methods of construction shall be such as to permit mechanical and electrical work being concealed in the fitments, cut and frame accordingly, provide removal access panels in the units or provide proper access for installation and repairs.

2. Cabinet hardware, pilaster strips, locks, finishing hardware and miscellaneous metals will be supplied by this Section.
3. Woodwork, not shop primed, will be primed and back painted as per painting section immediately upon delivery to the site. Care shall be taken that all surfaces cut after priming are brush coated with an approved primer before installation. This section to ensure that woodwork and trim which are to be installed directly against masonry are back painted with one coat of priming paint before installation.
4. Work of this section shall be coordinated with work of other sections where such work is adjacent to or dependent on the placement of the work of this section. Review all drawings for all such related work and coordinate scheduling, sizes, mounting location, required cutouts, clearances, etc. required for proper installation of all related work. Modification of the work of this section due to lack of coordination will be done at no extra cost to the Owner.

4. MAINTENANCE

1. Provide Owner with printed instructions for "Care and Maintenance of Plastic Laminate" and millwork finishes.

5. WARRANTY

1. Warranty workmanship against manufacturing defects, including warpage or delamination, for a period of five (5) years from date of acceptance of the completed installation. Make good or replace work showing defects in this period, as requested, at no expense to the Owner.

2. PRODUCTS

1. MATERIALS

1. Finishing Work: Materials used for finish work shall be sound, free from defects that would mar finished appearance, well-seasoned and air dried and of good quality for intended purposes. Wood laminates pressure bonded.
2. Plywoods:
 1. Select Rift Cut / Quarter Sawn Oak architectural Grade 'A' No. 1 Face grade (varnish grade) as in compliance with C.S.A.

0115-M1982 with a minimum 5 ply plywood veneer waterproof core, laminated with waterproof adhesive. Plywood shall be good both sides except where concealed by construction. Exposed faces to be natural grade per AWMAC. Interior of doors to be classified as exposed.

3. Hardwood: shall be selected Oak, all shall be Architectural Grade (knots will not be accepted). It shall be selected for colours and graining when used for stain work.
4. Wood Edging: 1/8" (3 mm) hardwood to match plywood unless indicated otherwise (if oak, use oak).
5. Plywood Concealed by Construction: Douglas Fir plywood shall be veneer core, waterproof, bonded, sanded, complying with C.S.A. 0121-M1978. Solid grade where concealed by construction.
6. Concealed Framing Lumber: N.L.G.A.C. select eastern white pine, kiln dried to a 5% moisture content.
7. Unexposed Plywood for Framing: Waterproof fir plywood minimum 1/2" (12.7 mm) thickness unless indicated otherwise.
8. Adhesive:
 1. Waterproof synthetic resinous glue of approved general type conforming to C.S.A. 0112.
 2. For plastic laminate - as recommended by plastic laminate manufacturer and to conform to C.S.A. 0120-M1978.
 3. Approved waterproof type.
9. Plastic Laminate:
 1. Laminated Plastic for Flatwork: .062" (1.6 mm) thick decorative surfaced, high pressure laminated plastic sheeting to conform to CAN3-A172-M1979 Grade G.P., Type 1. Manufacturer shall thoroughly sand back of sheet to form a homogeneous bonding surface. Plastic laminates shall be as manufactured by Arborite, Formica, Tafisa, Wilsonart, Nevamar, Octolam or Panelux. Backing sheet .020" (.5 mm) thick, sanded one side. Products to be selected by Architect based upon manufacturer's full standard range of colors, patterns and textures.
 2. Laminated plastic for postforming work and preforming work: to CAN3-A172-M79 Grade P.F., Type 3, .050" (1.25 mm) thick. Plastic laminates shall be as manufactured by Arborite, Formica, Tafisa, Wilsonart, Nevamar, Octolam or Panelux. Backing sheet .020" (.5 mm) thick, sanded one side. Products to be selected by Architect

based upon manufacturers' full standard range of colors, patterns and textures.

PLAM 1 – Tafisa Fashionista, HG582

PLAM 2 – Formica Deco Metal, Woven Brass, M6435-99

PLAM 3 – Panelux, Light Smoked Oak Acoustical Slat Wall Panel

10. Cork: 1/4" (6 mm) natural fine grain sheet cork.
11. Nails and Staples: To C.S.A. Bill-1974. Use spiral threaded nails and barbed staples.
12. Architectural Woodwork Finish: Refer to Section 09900.
13. Miscellaneous Metals: Miscellaneous angles, tubes, brackets, supports, etc. as noted/ detailed on drawings or as required for complete and proper installation. provided by Section 05500.
14. Exposed Fasteners: All millwork units secured to walls shall be secured with stainless steel screws and cup washers. All specialty fasteners such as acorn head bolts shall be supplied and installed by this section. Submit samples for Architect's approval. All exposed fasteners to be stainless steel.
15. Aluminum Grilles: Brush finished aluminum size as indicated on drawings.
16. Toe Kicks: All toe kicks to be 3/4" (19mm) veneer core waterproof fir or spruce plywood
17. Melamine Faced Particle Board: to CAN3-0.188.1-M78, grade "R" particle board sanded faces, 13 mm, 16 mm, 19 mm, 28.6 mm and 32 mm thickness, faced with laminated plastic. Melamine resin impregnated cover sheet with coloured and/or patterned paper inner layer. Melamine shall be thermally fused to rigid particle board substrate. Melamine faces shall be 120 Gram Weight Paper. Maximum three colours/patterns to be chosen by Consultant from manufacturer's full range.
18. PVC Edge Banding: solid polyvinylchloride (PVC), 3 mm thickness x full width of board to match each type of plastic laminate or melamine colour choice. Final colour by Architect.

1. FABRICATION

1. General

1. Fitments shall be machined, assembled in mill where possible and delivered to job in units. Construct in accordance with details using first class cabinet construction with joints dowelled, glued and properly fastened.

2. Check job dimensions and conditions and notify the Architect in writing of unacceptable conditions. Design construction methods for expansion. Do not proceed until remedial instructions are received.
3. Deliver work to the job ready for installation. Leave ample allowance for fitting and scribing on the job. Shop assemble work for delivery to site in size easily handled and to ensure passage through building openings, Design units to fit together if site assembly is required.
4. Fabricate work square and to the required lines. Recess and conceal fasteners and anchor heads. Fill with matching wood plugs.
5. Comply with glue manufacturer's recommendations for lumber moisture content, glue life, pot life, working life, mixing spreading, assembly time, time under pressure and ambient temperature.
6. Refer to Drawings and Architectural Detail Sheets for location, details, number of units required and location of fittings.
7. Interior fitments shall be complete in every respect with special fittings required and hardware.
8. Provide exposed end grain of solid members and edges of exposed plywood with matching solid hardwood edging at least 1/4" (6.4 mm) thick and thicker where specified. At melamine faced particle board provide 3 mm P.V.C. edging complete with 3 mm radius on all exposed edges and corners.
9. Make all necessary cut-outs in the furniture for sinks, appliances, and electrical switch and outlet boxes and pre-drill all mounting holes for faucets, fittings and outlet boxes. Refer to electrical and mechanical drawings and specifications.
10. Provide and install pipe covers, scribing pieces, top, bottom and/or closures and filler panels where necessary, including wherever units require furring out or blocking to existing conduits, pipes, etc.
11. Telephone and electrical receptacles and wiring are specified under Electrical Division. Co-ordinate work of this trade, make provision to accommodate this work and cut tops for and provide wood bearers for support.
12. Cooperate with others engaged in work on the building to the end that proper unity of action will assure the orderly progress of the work. Do necessary boxing and protecting of sills, jambs, and the like. Construct scaffold, ramps, and other temporary staging necessary.

13. The plywood used in interior fitments throughout regardless of whether for paint or stain finish, shall have exposed edges edged with solid strips 1/4" (6 mm) wide, unless noted otherwise by full thickness of plywood. No exposed edges of plywood will be permitted. Strips shall be glued and accurately fixed to edges. Adjustable shelves shall have strips applied to front edge.
14. Exposed framing members and trim shall be solid Oak.
15. Plastic laminate coverings to fitments, cupboards and counters shall be in colours selected by Architect, and applied in accordance with manufacturer's directions. Where plastic laminate occurs, exposed edges and edges around cut-outs such as sinks shall be edged in the same material. Where tops and splashbacks are indicated, the laminate backing sheets shall be used on back face of material on which plastic laminate facing sheets are applied to minimize twist. Bond plastic laminate using waterproof glue. Self edging shall be 1/16" (1.5 mm) material electro pressure sealed and with edges beveled. Joints will not be permitted except in lengths exceeding 8'-0" (2400 mm) in length. Butt joints tightly together. Chamfer edges of plastic laminate to avoid chipping. Apply backing sheet to plywood. Seal remaining exposed edges of surfaces with heavy Kraft paper prior to shipment. Paper shall not be removed until final cleaning. When cutting holes in plastic laminate work, corners shall be rounded and filed smooth.
16. When cutting holes in plastic laminate work, corners shall be rounded and filed smooth.
17. Protection erected by this trade shall be removed, damage to this work and adjoining work due to the lack or failure of such protection, made good and debris, surplus materials, plant and equipment removed and premises and the whole left clean and tidy to Architect's satisfaction.
18. Fabricate all plywood, plastic laminate and melamine faced particle board backs, gables and bottoms of millwork units together by means of 8 mm x 25 mm hardwood dowels or with hardwood biscuits. All backs to be 5/8" (16 mm) stock. Dowel all panel cabinet components using 5 mm x 25 mm hardwood dowels or biscuits at maximum 4" (100 mm) o.c. All drawer bottoms and backs are 2" stock or greater. All exposed edges to be at least 1/4" (6.4 mm) thick matching hardwood edge banding at Oak units and thicker where specified. At plastic laminate and melamine faced particle board provide 3 mm P.V.C. edging complete with 3 mm radius on all exposed edges and corners. Kick material for normal application shall be 3/4" (19 mm) waterproof fir plywood to be used.

3. EXECUTION

1. PREPARATION AND PROTECTION

1. Protect work of other trades from damage.
2. Make good any resulting damage, to the satisfaction of the Consultant, at no additional cost to the owner.

2. WORKMANSHIP

1. Fabricate and install work in accordance with the best practice. Finished work shall be free from drag, feathers, slivers or roughness of any kind. Remove machine marks by sanding. Give finished work smooth surfaces, ready for painting or varnish application.
2. Mortise and tenon joints shall be glued and pinned. All panels shall be secured together with specified glued and dowelled method. Glue blind screw all fabricated component work unless otherwise specified. Set surface nails and plug countersunk screws with matching wood plugs. Use screws with cap washers where units with doors are secured to walls behind.
3. Finished woodwork shall be free from bruises, blemishes, mineral marks, knots, shakes and other defects.
4. All metal items such as grilles, tracks, supports, legs, brackets, etc. supplied by other trades shall be built into fitments, paneling, wood doors, etc., in strict accordance with directions of trades supplying such.
5. Furnish rough hardware, nails, expansion shields, screws, brackets and incidentals required to assemble and install the fitments in their proper locations.
6. Fit small scribe moulds or fillers of same materials as fitment to hide or fill voids at walls, partitions ceilings, furrings, exposed tops of millwork units, at base locations where rubber base occurs.
7. Support for Hanging Cabinets and Shelves: All cabinets and shelves shall be supported 1" x 3" (65 mm) hardwood bearers and prevented from tipping with steel angles fastened to top of cabinet or shelf, spaced 36" (900 mm) O.C. and lagged into wall surface. 1" (19 mm) x 2" (44 mm) hardwood rails shall be at top and bottom of cabinet or shelf unit, secured into gables of units and fastened to supporting wall with expansion shields and lag screws. Where bulkheads occur over cabinets, upper framing shall be secured to the ceiling.

3. MILLWORK WORKMANSHIP

1. Fitments shall have joints dowelled and all joints shall be glued and nailed or screwed. All cabinet bases shall be of 3/4" plywood, blocked 3'-0" O.C. maximum and at corners.
2. All plywood used in millwork shall be Oak faced graded for stain finish. Counter tops shall have splash backs where sinks occur.
3. Shelving shall be 3/4" (19 mm) plywood, adjustable or fixed as detailed. Maximum unsupported span for shelving shall be 3'-0" (900 mm). Adjustable shelves shall be set on angle clips on metal pilaster strips. Loose shelves shall have hardwood edges on all edges.
4. Laminates shall be pressure bonded to back-up board. Counter tops shall be self-edged and have plastic laminate covered back splash. Back-up material for counter tops shall be waterproof plywood core.
5. Plastic laminate surface shall be level, without bubbles and core ghosting. Core edges in counter cut outs shall be sealed with asphalt compound. All exposed plastic edges shall be matched and sanded.

4. INSTALLATION

1. Installation and assembly work on the job shall be executed by skilled forces under supervision of a competent joinery foreman.
2. Furnish rough hardware, nails, expansion shields, screws, brackets and incidentals required to assemble and install fitments in proper locations. Units shall be adequately fastened and secured in place with concealed fixings wherever possible. Include grounds and furring where required.
3. Fitments shall be installed level, plumb and true and complete in all respects.
4. Provide smooth surfaces with fastenings sunk and filled over to receive stain and sealer.
5. Use draw bolts in countertop joints. Two per joint to be Richelieu 516-2G.
6. At junction of plastic laminate counter, back splash and adjacent wall finish, apply small bead of silicone sealant as per Section 07900 in colour as selected by Architect.
7. Apply water resistant building paper over wood framing members in contact with masonry or cementitious construction.
8. Commencement of installation implies acceptance of adjacent site conditions and coordination of related work of other sections.

1. At completion of the work, moving parts shall be gone over, made to work easily, smoothly and efficiently. Work carefully cleaned down and left in complete and finished condition satisfactory to Architect.

5. FLOORING BASE

1. Supply and installation of Resilient Base at millwork units as indicated is by Section 09655 for millwork base locations.
2. Provide speciality millwork reveal base at walls with wall panels.

END OF SECTION

PART 1 - GENERAL

1. GENERAL REQUIREMENTS:

1. Division One is part of this Section and shall apply as if repeated here.

2. REFERENCE STANDARDS:

1. Do tile work to Installation Manual 2000 "Quarry Tile and Ceramic Tile", produced by Terrazzo Tile and Marble Association of Canada (TTMAC), except where specified otherwise.
2. Contractor shall have been and still be a current member of the TTMAC.

3. MAINTENANCE DATA:

1. Provide maintenance data for tile work.

4. MAINTENANCE MATERIALS:

1. Provide minimum 2% of each type and colour of ceramic and porcelain tile required for project maintenance use. Store where directed.
2. Maintenance material to be of same production run as installed material.

5. ENVIRONMENTAL REQUIREMENTS:

1. Air temperature and structural base temperature at porcelain tile and ceramic installation area must be above 54°F (12°C) for 48 hours before, during and 48 hours after installation.

6. SAMPLES:

1. Submit 1'-0" x 1'-0" (300 mm x 300 mm) samples of each type, colour, texture, size and pattern of tile to be used for the approval of the Architect before installation.

7. SHOP DRAWINGS:

1. **Porcelain and Ceramic Tile: submit shop drawings showing expansion joint, control joint locations and pattern layouts for Architect's approval.**

8. ASSEMBLY:

1. All installation assemblies will compose of materials from the same manufacturer and be completely compatible. The completed assembly will pass the service requirements "Extra Heavy Duty" (Passing ASTM C627 - Cycles 1 through 14) as described in the TTMAC Specification Guide and TCA Handbook (Page 10).

PART 2 - PRODUCTS

1. Tiles:

1. Tile: Conforming to CGSB 75-GP-1A.
2. Colours: Indicated for ceramic, porcelain and glass tiles are for tendering purposes. Final colour selection to be confirmed by Architect prior to installation. Three colours to be selected from full range with one colour as the field from price group 2 and two colours as accent from price group 4.
3. NOTE: Provide round edge, round edge both sides, cove base, nosing's and tiles to do all work as per drawings and as required.
4. Porcelain Tiles: (coordinate with room finish schedules)
 - .1 PT1 – Accent Wall Tile: Daltile, Revalia Remix, 3" x 4", Color to be Metallic Grey, RV25; stack bond pattern installed vertically

5. Mortar Beds:

1. For Walls: 1 part Portland Cement: 1/5 to 1/2 parts hydrated lime; 4 parts sand; gauged with Custom - Flex latex by Custom Building Products as per manufacturer's directions. All Custom Building Products are distributed by Brolain Distributors Ltd. 519-740-9311. Approved equal manufacturer is TEC. NOTE: Adhesive application will not be accepted.
- .2 Thin Set Mortar: Master Blend Thin-Set Mortar gauged with Custom - Flex latex by Custom Building Products as per manufacturer's directions. Approved equal manufacturer is TEC
- .3 Porcelain Tile Grout and Joint Filler: Classic-Blend Grout by Custom Building Products floor grout and joint filler mixed with Custom's Acrylic Mortar Admix grout as per manufacturer's directions in colours as selected by Architect. Approved equal manufacturer is TEC. One colour to be selected by Architect.
- .4 Ceramic Tile Grout and Joint Filler: Custom 100% Solids epoxy by Custom Building Products grout system. Approved equal manufacturer is TEC. One colour to be selected by Architect.

8. Caulking:

- .1 Flexible caulking conforming to CGSB 19-GP.22M: Dow Corning 786 and CGE 1702 Sanitary Sealant. Colours as selected by Architect.

1. Control Joints:

1. Porcelain Tile:

- .1 For wall tile: Schluter, Jolly, ATGB, colour to be satin anodized aluminum.

PART 3 - EXECUTION:

1. EXAMINATION:

- 1. Examine substrates before commencing work to ensure they are satisfactory. Defective work resulting from installation on unsatisfactory surfaces will be considered the responsibility of those performing the work of this section.

2. WORKMANSHIP:

- 1. Regard recommendations, installation methods specified and illustrated in Terrazzo, Tile and Marble Association Manual No. 2000, and applicable manufacturer's instructions as minimum acceptable standard accept as varied by this Specification.
- 2. Fit tile units around corners, fitments, fixtures, drains and other built-in objects to maintain uniform joint appearance. Make cut edges smooth, even and free from chipping. Edges resulting from splitting not acceptable.
- 3. Maximum surface tolerance 1:800.
- 4. Make joints between tiles uniform. Tile joints shall be approximately 1/8" (3 mm) wide, for ceramic tiles and 1/4" (6 mm) wide for porcelain tile, plumb, straight, true, even and with adjacent units flush. Align patterns.
- 5. Drill holes for fixing accessories of other trades.
- 6. Finish surfaces flat and level (ensure leveler is used to accomplish this) or sloped and graded to drain where floor drains occur.
- 7. Sound tiles after setting and replace hollow sounding units to obtain full bond.
- 8. Make internal angles square, external angles bull nosed.

9. Install transition strips at junction of tile flooring and dissimilar material. Where transition occurs in a doorway, transition strip to be below door.
10. Clean installed tile surfaces progressively as work proceeds. Do not allow mortar to stain absorbent tile. Do not use acids for cleaning. Seal in accordance with manufacturer's approved products and in accordance with TTMAC certified products only.
11. Layout borders, defined lines, accent patterns and bands wherever they occur prior to setting tile. Keep inner edges of borders against fields or wall panels straight.
12. Install base trim, control joints, and beveled reducing strips as per manufacturer's instructions.

3. EXPANSION AND CONTROL JOINTS:

1. Control joints to be located directly on block control joints and concrete floor control joints and expansion joints.
2. Control joints are also to be placed where tile abuts other hard materials.
3. Install control joints in tile floors at 10'-0" (3050 mm) max. o.c. and at 20'-0" (6100 mm) max o.c. at wall locations. Align joints at concrete floor and masonry control joint locations as well.
4. Allow for control joints at the perimeter junction to all walls, around all columns.
5. Submit shop drawings to indicate layout of control joints. Porcelain tile control joints shall occur directly above a concrete floor control joint therefore minimizing the cutting of porcelain tile.
6. The approved control joint shop drawing layout shall be marked onto the concrete floor slabs by the porcelain tile contractor and the actual cutting of the control joints in the concrete floor slab shall be done by the concrete floor finisher.
7. It is the responsibility of the porcelain tile contractor and the concrete floor finisher to co-ordinate through the project manager the exact location of floor control joints.
8. At expansion joint locations install back to back metal transition strips at each side of joint then caulk between.

4. CERAMIC TILE:

1. Install ceramic tile by adhesive method in accordance with installation manual Detail No. 303W-2000, for walls and 319SR-2000 detail A at shower floors. Terrazzo Tile and Marble Association of Canada using waterproof membrane system as per 3.5 this section at all shower floor, wall and ceiling areas.
 2. Install levelling coat of 1 part Portland Cement and 4 parts sand 1/10 part latex additive and 1 part water (including latex additive) at floor locations and slope to drains.
 3. Install levelling coat of 1 part portland cement: 1/5 to 1/2 parts hydrated lime: 4 parts sand: gauged with Custom Flex latex as per Custom building Products instructions at block wall locations.
 4. Use a skim coat of adhesive to true up minor imperfections in the substrate surface.
 5. Tamp tile into place for truing surface and for good contact with adhesive.
 6. Grout joints after 24 hour adhesive set. Remove excess material and clean surface.
 7. Clean all surfaces with cleaner solution specified as per manufacturer's instructions.
5. UNDER FLOOR LAYMENT:
1. Installation of the uncoupling membrane as per written manufacturer's instructions.
 2. Apply the thin-set mortar using recommended notched trowel.
 3. Apply the uncoupling membrane & embed the matting into the mortar, making sure to observe the open time of the bonding mortar.
 4. Use the recommended roller weight to ensure bonding of the membrane to the bonding mortar.
 5. Install tile as per written manufacturer's instructions.
6. WATERPROOF MEMBRANE SYSTEM:
1. Install Laticrete 9235 Waterproof Membrane System with reinforced fabric at all new ceramic tile on levelling coats over concrete and masonry locations at shower walls, floors and ceilings and Drying Area, and as indicated on drawings.
 2. Installation shall be made in strict accordance with the manufacturer's

instructions.

3. Surface Preparation: Surface to be waterproofed should be plumb and true within 1/4 inch (6 mm) in 10 ft.(3m) as per 3.4 (b) above. Dry, dusty concrete slabs must be dampened and swept off. Installations may be made on a damp surface. Surface should be smooth, clean and free from dirt, grease, concrete sealers or curing compounds.

7. Installation:

1. Install the waterproofing liquid and fabric at ceilings, walls, floors and into the drains according to the approved details.
2. Use a brush or roller to apply a layer of liquid waterproofing slightly wider than the width of the fabric.
3. Immediately install the reinforcing fabric into the liquid. Install a final layer of liquid to completely seal the fabric.
4. Set tile with Laticrete 4237 Latex Thin Set method and grout with Latapoxy SP-100 stainless grout. Colour as selected by Architect.

8. PORCELAIN TILE:

1. Refer to TTMAC Specifications and Detail No. 311F-2000 Detail A, thin set method of porcelain tile floor to concrete slab, and Detail No. 303W-2000 thin set method of porcelain tile base to wall.
2. Install tile using thin set mortar, in accordance with manufacturer's instructions.
3. Provide levelling coat where required to achieve a level sub-floor prior to installation. Existing wood sub-floors may require additional plywood flooring coverage and shimming to achieve this, install as required.
4. Provide leveling coat at all wall tile locations.
5. Wall to wall, floor to wall, wall to ceiling tiles should not touch to stop transfer of noise and vibrations from one plane to the other, all joints are to be caulked (wall tile should start above floor tile with caulking space typical).
6. Porcelain tile base to be installed on first course of block without rounded corners (i.e. square). Block to be ground above base to match radius of block courses above first course.
7. Install porcelain tile base using Schluter, Jolly stainless steel cap (thickness to suit tile) complete with 90 degree corner return caps installed as per

manufacturer's instructions.

8. Install porcelain tile base using Schluter, Jolly stainless steel at all vertical outside corners (thickness to suit tile) installed as per manufacturer's instructions.

9. GROUTING OF CERAMIC AND PORCELAIN TILE AND GLASS MOSAIC TILE:

1. Pack joints solid with grout at porcelain tile using a plastic or non-staining trowel.
2. Allow joints to stiffen before finishing.
3. Remove excess grout with clean cloths.
4. Grout shall be mixed according to manufacturer's instructions. Colours as selected by Architect.
5. Clean all surfaces with clean solution specified as per manufacturer's instructions.

10. CAULKING:

1. Install continuous caulking neatly and tool concave around base of all door frames and at all inside corners at 'wall to wall' and 'wall to ceiling' and 'wall to floor' (install at 'floor to wall' locations even where there is a base noted to cover this joint up) transition locations to stop transfer of noise and vibrations. Tiles at plane transitions should not touch, wall tile should start above floor tile with caulking space, etc. typical.

11. CLEANING AND REMEDIAL WORK:

1. Clean tile surfaces upon completion of grouting as per tile manufacturer printed instructions using cleaning agents and procedures recommended by the manufacturers of tile and grout.
2. Remove all grout haze, observing tile manufacturer's recommendations as to use of acid and chemical cleaners. (Do not use muriatic acid on tile work or pavers.)
3. Rinse tile work thoroughly with clean water before and after using chemical cleaners.
4. After setting, all tile surfaces shall be sounded and visually inspected and wherever any hollow backed or damaged tiles are found they shall be removed and replaced with matching tiles.

12. PROTECTION FROM CONSTRUCTION DIRT:

1. Seal cementitious grout joints and unglazed tile with "Aqua Mix Penetrating Sealer" by Aqua Mix Inc. or as recommended by manufacturer.
2. Cover all tile floors with heavy duty non-staining cotton reinforced paper or 6 mil vapour barrier taped into place.
3. Prior to final acceptance of tile work, remove paper and clean with "Aqua-Mix Miracle Cleaner" by Aqua Mix Inc. or as recommended by manufacturer.

13. PROTECTION FROM TRAFFIC:

1. Prohibit all foot and wheel traffic from using newly tiled floors for at least three days, preferably seven days after grouting is completed.
2. Place large, flat boards in walkways and wheel ways for seven days, where use of newly tiled floor is unavoidable.
3. Leave finished installation clean and free of cracked, chipped, brock, unbonded or otherwise defective tile work. Replace damaged or defective work.
4. Provide cardboard walkway using recycled boxes to protect finished work during construction.

END OF SECTION

1. GENERAL

1. GENERAL REQUIREMENTS

1. Division One is a part of this Section and shall apply as if repeated here.

2. SUBMITTALS

1. Submit 24" x 24" (600 mm x 600 mm) sample, in each colour or design to be used, for approval of the Architect.
2. Submit 12" (300 mm) long samples of each colour of rubber base.
3. Submit shop drawings in reproducible form in accordance with G.C. 3.11 of CCDC Document 2 - 2008 to show layout, treatment at walls, floor drawings, and other objects. Indicate details of proposed treatment, where flooring material meets other floor materials.

3. SPECIAL PROTECTION

1. Protect finished floors immediately after installation, using heavy cotton reinforced paper or polyethylene lapped 5" (125mm) with taped joints.

4. EXTRA MATERIALS

1. Upon completion of work, deliver to Owner where directed, all large scrap cuttings from flooring and a 12'-0" x 12'-0" (3600 mm x 3600 mm) piece of each design in each colour used.
2. Material to be wrapped packages and fully labelled as to product and colour.

5. ENVIRONMENTAL CONDITIONS

1. Maintain room, surface and materials at minimum temperature of 68 deg. F. (20 deg. C.), for three days before and during laying and after installation, and until floor area is occupied by Owner.

6. MAINTENANCE INSTRUCTIONS

1. Submit 3 copies maintenance manual at completion of work in accordance with Section 01015 - General Work.

7. DELIVERY, STORAGE AND HANDLING

1. Deliver materials in original containers with manufacturer's seals and labels intact. Maintain temperature of storage area at 70 degrees F. for 48 hours prior to installation.

8. WARRANTY

1. The warranty specified in Article GC 12.3 of CCDC Document No. 2, 2008 is to be extended for all work of this Section, including materials and workmanship for a period of five (5) years from the date of Substantial Performance.

9. COORDINATION WITH MECHANICAL CONTRACTOR

1. Confirm the following mechanical products are being used to allow proper water tightness:
 1. Floor Drains – As specified on Mechanical drawings
 2. Trench Drains – from Vodaland drains or similar. As specified on Mechanical drawings.
 3. Floor Cleanouts - As specified on Mechanical drawings or similar approved TO ENSURE WATERTIGHTNESS.

2. PRODUCTS

1. MATERIALS

1. Primer and Adhesives: Environmentally friendly products as recommended by seamless floor manufacturer for specified material and which will produce good and permanent waterproof bond between applicable substrate and flooring.
2. Cleaner: Those recommended by flooring manufacturers.
3. Luxury Vinyl Tile Flooring (LVT1): 5mm thick x 177.8mm x 1219.2mm as manufactured by Polyflor, Expona Simplay PUR 19dB, Colour to be 9064 Blond Country Oak.
4. Wall Base (B1): 1/4" thick, by 4" high, as manufactured by Tarkett, Johnsonite millwork wall base system, Monument MW-XX-S4 in color 150 wetlands to be installed with LVT1.
5. Wall Base (B2): 4" Millwork Reveal Base, MWRB75400 to be installed with 3/4" thick millwork panels as manufactured by Fry Reglet Corporation. Aluminum shall be extruded alloy 6063 T5 with powder coat finish, color to be Caribou Trails.
6. Sub-floor Filler and Leveller:
 1. White premix latex requiring water only to produce cementitious paste 2 part latex-type filler requiring no water as recommended by flooring manufacturer for use with their product.
 2. Sub-floor Filler and Leveller: Ardex SD-F Feather Finished Portland

Cement based filler by Ardex Engineered Cements and distributed by Centura.

7. Metal Edge Strips: Aluminum extruded smooth, mill finish polished lip to extend under floor finish, shoulder flush with top of adjacent floor finish.
8. Concrete Floor Sealer: to C.G.S.B. 25-GP-20M Type 1.
9. Accessories:
 1. Compass #901 Fillet Strip
 2. Compass Stainless Steel Cap-8 strip at cove bases
 3. Compass GE 25/35 Trench Drain Edging
 4. Compass Altroseal (matching)
 5. Compass CSL No. 160 Sealant
 6. Tarkett welding rod (matching)

3. EXECUTION

1. INSPECTION

1. Ensure floor surfaces are smooth and flat to plus or minus 1/8" (3 mm) over 10'-0" (3000 mm).
2. Ensure concrete floors are dry by using test methods recommended by manufacturer, and exhibit negative alkalinity, carbonization or dusting.
3. Installation of any part shall constitute acceptance of these surfaces as satisfactory.

2. PREPARATION

1. Remove subfloor ridges and bumps. Fill low spots, cracks, joints, holes and other defects with subfloor filler.
2. Clean floor and apply trowel and float filler to leave smooth, flat hard surface. Prohibit traffic until filler cured.
3. Split, bumpy or otherwise deformed flooring resulting from improperly prepared base, will not be accepted.
4. Prime/seal concrete slab sheet flooring by manufacturer's printed instructions.
5. Fill low spots in flooring with latex base flashing compound and gently blend in floor level at a rate of 1/8" per 1'-0" (10.5 mm per 10000 mm) to

flush sheet flooring with ceramic tile, quarry tile, etc.

6. Machine sand concrete smooth then dry vacuum entire floor area immediately prior to application of adhesive.

3. INSTALLATION

1. Apply adhesive uniformly to manufacturer's directions and recommended trowel. Do not spread more adhesive than can be covered by flooring before initial set takes place.
2. Lay flooring with seams parallel to building lines to produce a minimum number of seams. Border widths minimum 1/3 width full material.
3. Run sheets in direction of traffic. Double cut sheet joints and continuously heat weld all joints according to manufacturer's printed directions.
4. Set flooring in place, press with 100 lb. (45 kg) minimum roller to ensure full adhesion.
5. Continue flooring over areas which will be under built-in furniture or appliances where flooring will remain visible. Cut flooring neatly around fixed objects.
6. Continue flooring through areas to receive moveable type partitions without interrupting floor pattern.
7. Terminate flooring at centre line of door in door openings where adjacent floor finish is dissimilar. Ensure smooth transition.
8. Terminate flooring 1.5 mm back from wall substrate and seal with Compass Altroseal in selected areas.
9. Install metal edge strips at unprotected or exposed edges where flooring terminates.
10. Install floor patterns as shown on drawings. Refer to Architectural drawings 9 series for grain direction.
11. Provide water tight seal to all pipes and projections coming through floor, using Compass Altroseal.
12. At new flush clamp drains remove clamping ring. Fix sheet flooring / linoleum flooring into body of drain and mechanically clamp with clamping ring. New drains should be surface clamp type; Enpoco E1000 F.C. Type, or similar.

4. INSTALLATION OF RUBBER BASE

1. Layout base to keep number of joints at minimum.

2. Set base in adhesive tightly by using a 7 lb. (3 kg.) hand roller against wall and floor surfaces. Install base tight to surface of flooring avoiding any gaps. Space joints uniformly.
 3. Install straight and level to variation of plus or minus 1/8" (3 mm) over 10'-0" (3000 mm) straight edge.
 4. Scribe and fit to door frames and other obstructions.
 5. Cope internal corners.
 6. Use full length pieces where possible. Accumulated short lengths of base not permitted.
5. SPECIAL CLEANING
1. Clean off excess adhesive as work progresses from floor, base and wall surfaces without damage.
 2. Upon completion of laying, clean floors in accordance with manufacturer's printed instructions and leave ready for sealing and waxing by Owner.
6. PROTECTION OF FINISHED WORK
1. Protect new floors from time of final set of adhesive after initial waxing, until final waxing and final inspection.
 2. Prohibit traffic on floor for 48 hours after installation.

End of Section

1. GENERAL

1.1 GENERAL REQUIREMENTS

- .1 The General Conditions of CCDC 2-1994 as supplemented in Section 00810, and the General Requirements of Division 1, form part of this section, and must be read in conjunction with the requirements of this section, and all related sections.
- .2 The work of this section, and related work specified in other sections shall comply with all requirements of Division 1 - General Requirements.

1.2 SECTION INCLUDES

- .1 Provision of all labour, materials, equipment and incidental services necessary to provide vinyl coated fabric wall covering.

1.3 RELATED SECTIONS

- .1 Gypsum Board - Section 09250
- .2 Submission requirements for WHMIS MSDS - Section 01500

1.4 REFERENCE STANDARDS

- .1 CGSB 41-GP-30M-82 Wall Coverings, Vinyl Coated Fabrics.

1.5 SUBMITTALS

- .1 Product Data
 - .1 Submit product data in accordance with Section 01300.
 - .2 Submit WHMIS MSDS - Material Safety Data Sheets in accordance with Section 01500. WHMIS acceptable to Labour Canada, and Health and Welfare Canada for vinyl coated fabric wall coverings and adhesives. Indicate VOC content.
- .2 Samples
 - .1 Submit duplicate 300 x 300 mm samples of each colour and texture of wall covering, in accordance with Section 01300.

1.6 MOCK-UPS

- .1 Construct mock-ups in accordance with Section 01300.
- .2 Apply wall covering of each finish and decorate effect to 10m² area of surface to be covered.
- .3 Allow 24 hours for inspection of mock-up by Consultant before proceeding with wall

covering work.

- .4 When accepted, mock up will demonstrate minimum standard for this work. Mock-up may remain as part of finished work.

1.7 ENVIRONMENTAL REQUIREMENTS

- .1 Temperature: Maintain air temperature and structural base temperature at wall covering installation area above 20°C for 72 hours before, during and 48 hours after installation.
- .2 Ventilation
 - .1 Ventilate enclosed spaces in accordance with Section 01500.
 - .2 Provide continuous ventilation during and after coating application.
 - .3 Arrange for ventilation system to be operated on maximum outdoor air and exhaust during installation of vinyl coated fabric wall covering.
 - .4 Ventilate immediate area of work as directed by Consultant by use of approved portable supply and exhaust fans.

1.8 CLOSEOUT SUBMITTALS

- .1 Maintenance Data
 - .1 Provide maintenance data for wall covering for incorporation into Operations and Maintenance manual.
- .2 Extra Materials
 - .1 Provide 3m² extra materials of each pattern, texture and colour vinyl coated fabric wall covering and proportionate amount of adhesives in accordance with Section 01780.
 - .2 Extra materials shall be from same production run as installed materials.
 - .3 Clearly identify each roll of vinyl coated fabric wall covering and each container of adhesive.

2. PRODUCTS

2.1 MATERIALS

- .1 **WC-1:** LEVEY, SOUNDBITE ACOUSTICAL WALL COVERINGS
 - .1 Pattern: Lea Lux
 - .2 Pattern Colour: Flax

- .3 Product Code: HW3613R
- .4 Backing: Acrylic
- .5 Type/Weight: Type II, 13.9 oz/lyd
- .6 Width: 54"

.2 **WC-2:** OMEXCO WALL COVERINGS, BARRABAND'S GARDEN

- .1 Pattern: Birds of Paradise
- .2 Product Code: BOP701
- .3 Backing: Acrylic – Printed Non-Woven
- .4 Type/Weight: Type II, 13.9 oz/lyd
- .5 Width: 118"
- .3 Sealer: type recommended by wall covering manufacturer.
- .4 Sizing: type recommended by covering manufacturer.
- .5 Adhesive: as recommended by wall covering manufacturer.
- .6 Physical Properties: meets ASTM E84, NFA 286, Flame Spread – 10, Corner Burn Test – Passed, Smoke Development – 25.
- .7 As distributed by Levey Wallcoverings: 2150 Winston Park Drive, Oakville, Ontario, L6H 5V1
Canada 905-829-8000 1-800-588-3990 Fax: 905-829-8292
Email: csr@leveyindustries.com
- .8 As distributed by Metro Wallcoverings: 2600B Steeles Ave W, Concord, ON L4K 3C8,
Canada 905-738-5177
Email: menriquez@metrowallcoverings.com

3. EXECUTION

3.1 PREPARATION

- .1 Unwrap wall covering and allow acclimatizing in installation area for 24 hours before application.
- .2 Prepare surfaces according to covering manufacturer's instructions.
- .3 Work penetrating substrate to be completed before installing covering.
- .4 Size surfaces to receive covering.

3.2 INSTALLATION

- .1 Use rolls in consecutive numerical sequence of manufacture.
- .2 Place panels consecutively in exact order they are cut from roll including spaces above or below windows, doors or similar penetrations.

- .3 Reverse alternate strips except on match patterns.
- .4 Trim additional salvage where required to achieve colour and pattern match at seams.
- .5 Hang non-matched patterns by overlapping edges and double cutting through both pieces with metal back-up strip to prevent cutting substrate.
- .6 Wrap fabric 150 mm beyond inside and outside corners. No cutting at corners permitted, unless pattern or colour changes.
- .7 No horizontal seams permitted.
- .8 Install wall covering before installation of bases and cabinets.
- .9 Remove excess adhesive with damp sponge from seams as work progresses and leave clean.
- .10 Make completed work smooth and without wrinkles, gaps, overlaps, or air pockets.

3.3 CLEANING

- .1 Clean surfaces of all glue to manufacturer's printed instructions.

3.4 PROTECTION

- .1 Protect finished surfaces and exterior corners from damage until final inspection.

End of Section 09660

PART 1 - GENERAL

1. GENERAL REQUIREMENTS

1. Division One, General Requirements, is a part of this Section and shall apply as if repeated here.

2. SUBMITTALS

1. Samples

- .1 Prepare samples of various finishes for Architect's approval either on site or by submitting samples as directed, at least thirty days before materials are required. Submit samples in triplicate on 8" x 12" (200 mm x 300 mm) material. Identify each sample as to job, finish, formula, color name, number, sheen name and gloss units, date and name of Subcontractor.

3. PRODUCT HANDLING

1. Delivery and Storage

- .1 Deliver materials to site in their original containers with label intact and store in spaces directed by Architect. Keep stored materials covered at all times and take all necessary precautions against fire.
- .2 Provide CO2 fire extinguisher of minimum 20 lbs. (9 kg.) capacity in storage area.

4. ENVIRONMENTAL CONDITIONS

1. Do not paint or finish in unclean or improperly ventilated areas. Do not paint in temperatures lower than 50 degrees F. (10 degrees C.) or varnish in temperatures lower than 65 degrees F. (18 degrees C.) for 24 hours before, during and 48 hours after application.
2. Do not undertake exterior painting at temperatures under 50 degrees F. (10 degrees C.) for 24 hours before, during and 48 hours after application or immediately following rain, frost or dew. Safe levels shall be determined by use of an electronic metre.
3. Test for moisture content in each location immediately before commencing application of paint. Do not apply paint on surfaces where moisture content exceeds 14%. Promptly notify Consultant if such conditions are encountered.
4. Provide approved equipment for testing moisture content of surfaces to receive paint finishes and have available on Site at all times during Work of this Section.

Do not apply paint finish in areas where dust is being generated.

5. PROTECTION

1. Provide metal pans or adequate tarpaulin to protect floors in areas assigned for the storage and mixing of paints.
2. Use sufficient drop cloths and protective coverings for the full protection of floors, furnishings and work not being painted.
3. Leave above areas clean and free from evidence of occupancy upon completion of painting.
4. Protect paint materials from fire and freezing.
5. Keep waste rags in metal drums containing water and remove from building at end of each working shift.

6. RELATED WORK SPECIFIED ELSEWHERE

1. Read carefully all other Sections of the specifications to determine the extent of prime and finish coats applied by others.
2. Concrete Floor Sealer - Section 03300
3. See Division 15 - Mechanical and 16 - Electrical, for extent of baked enamel finish on equipment.

7. FINISH CARPENTRY & ARCHITECTURAL MILLWORK

1. All cabinet millwork must be finished in the shop by Section 06400. All other finish carpentry materials (including miscellaneous brackets for benches) to be finished by Section 09900.

8. SCOPE OF WORK

1. With exceptions noted in 1.6 and 1.7 above or specifically called for in other Sections of the Specification, all paintwork is included in the scope of this Section
2. NOTE: In locations where Drawings do not call for paint or similar finish on walls and/or ceilings, the intent of this Specification is that all exposed unpainted metal surfaces shall be painted.
3. Paint exposed drywall and the like in locations where finish is not otherwise specified or noted. Do not paint such surfaces in mechanical shafts, unless specifically noted.
4. In locations where Drawings do not call for paint or similar finish on walls and/or ceilings, the intent of this Specification is that items such as new

work, including miscellaneous metal work, shall be painted.

5. Paint pipes, conduit, ducts and related thermal insulation and all prime painted mechanical and electrical equipment and supports located in mechanical and electrical storage and maintenance rooms in allocations where Drawings call for paint or similar finish on walls and/or ceilings.
6. Do not paint pipe, conduit, ducts, insulation and the like where concealed above ceilings (except louvred type ceilings) or in service shafts.
7. Make good paint finish on shop coated work where damaged.
8. Paint visible portions of steel shelf angles, lintels and structural steel.
9. Paint all edges and all faces of doors where primed for paint supplied.
10. Stain all top, bottom and side edges of all plastic laminate doors.
11. Interior of ducts and diffusers visible from exterior on room side.
12. Paint all roof top equipment, stairs, pipes, conduit, vents, ducts, pipe insulation, etc. exposed on roofs (including primed and prefinished items).
13. Allow for ten (10) different paint colours to be used in the building - including field, accent walls and bulkheads.

9. QUALITY ASSURANCE AND REFERENCES

1. Paint work shall meet or exceed standards set out in C.G.S.B. Specification No.'s 85-GP-1M to 85-GP-33A and C.P.C.A. Canadian Painting Contractors Association - Painting Manual.
2. Employ fully trained workers who are regularly employed in this field.
3. Manufacturer's sales representative shall perform inspections on the Owner's behalf in order to ensure compliance with product specifications.

10. RETOUCHING

1. Do all retouching, etc. to ensure that the building may be handed over to the Owner in perfect condition, free of spatter, fingerprints, rust, watermarks, scratches, blemishes or other disfiguration.

11. TEST AREA

1. A room or area in the building will be designated by the Architect as a test area to establish standard of workmanship, texture, gloss and coverage.
2. Prior to any painting being started, request a meeting on Site between

Architect, Contractor, Subcontractor and Material Manufacturer's Representative to review conditions, surfaces, anticipated problems and to clarify quality of workmanship acceptable to Architect.

3. Apply finishes to each type of surface within room with correct material, coats, color, texture and degree of gloss in sample area and have same approved prior to providing Work of this Section.
4. Retain test area until after completion of Work. Test area to be minimum standard for the Work.
5. Failure to comply with the above will be cause for Architect to request all Work previously painted to be repainted.

PART 2 - PRODUCTS

1. MATERIALS

1. "Top Line" products only are acceptable. Use only products of manufacturers whose best quality lines meet or exceed CGSB Specifications for the particular type of material required. Approved manufacture and product unless specifically indicated otherwise in specification:

.1 Paints, stains and varnish:

1. General Paint
2. Benjamin Moore
3. Sherwin Williams
4. Zinsser
5. Glidden/Devoe Coatings
6. Modern Masters

.2 Latex Water Based Epoxy

1. Sherwin Williams B70W00211 - Waterbased catalyzed epoxy extra white/
Tint base A/B60V00025 - Waterbased Catalyzed epoxy
Semi Gloss Hardner Part B
2. Glidden - 4420 - True Glaze Waterborn epoxy / 4426 True Glaze semi gloss converter

.3 Latex Supper Adherent Primer,

1. General Paint 51-050 Premium Latex Plastic Primer
 2. Benjamin Moore #23-00 Freshstart Acrylic Primer Sealer
 3. Zinsser 1-2-3 Acrylic Primer Sealer
 4. Sherwin-Williams - B51WQ8850 - Adhesion Prm White
 5. Glidden Latex super undercoat 94280
- .4 Interior Latex Block Filler, C.G.S.B. Standard #-GP-188M
1. General Paint 70-224 Premium Latex Block Filler
 2. Benjamin Moore #595-01 Latex Block Filler
 3. Glidden #362650 Concrete Block Filler
 4. Sherwin-Williams B42W00046 Heavy Duty Block Filler
- .5 Stain Suppressant Sealer/Primer Hi-Hide, C.G.S.B. #1-GP-119M (where required)
1. General Paint 60-200 X-Terminator 2 Latex Sealer
 2. Zinsser BIN Primer, hi-hide (spot prime only)
 3. Zinsser Bullseye Odourless
 4. Sherwin-Williams - B49WQ8820 Multipur LTX Pr Wh
 5. Glidden/Jammer 200
- .6 Clear Wood Trim and Panel Finish
1. General Paint 25-011 Urethane Semi-Gloss
 2. Benjamin Moore & Co. Ltd. #435 Low Lustre Alkyd Urethane.
 3. Glidden #90333 Urethane Varnish.

Note: Colours will be **selected from Sherwin-Williams** colour system. Sherwin-Williams colour formulas must be matched if one of the other approved manufacturer's are being used.

- .7 Fire Retardant Clear Coat at all exposed wood panels: Quantum Safe Coat Clear Fire Retardant Coating or equal by Ocean Products.
- .8 Metallic Paint finish, as manufactured by Modern Masters, Colors to be either Champagne or Oyster or to be selected from

manufactured entire range, finish to be Tone-On-Tone finish with Satin+Matte Metallic finish.

- .9 Typical Furniture Finish of all Wood Millwork, wood trim, panels, etc. (by Sections 06200 and 06400): shall be polymerizing two component catalytic varnish system equal to "Duravar Plus" manufactured by M. L. Campbell. The individual components of the system used must be chemically compatible to assure perfect adhesion and a top quality, durable final finish.
- .10 Thinners, cleaners: Type and brand recommended by the paint manufacturer.
- .11 Materials to be new and first line of manufacturer.
- .12 Deliver materials to site in original unbroken containers bearing brand and manufacturer's name.

PART 3 - EXECUTION

1. CONDITION OF SURFACES

- 1. Check all surfaces with electric moisture metre and do not proceed if reading is higher than 12-15 without written permission from Architect.
- 2. Proceed with work only when surfaces and conditions are satisfactory for production of a first class job.
- 3. Clean and remove dust, grease, rust and extraneous matter from all surfaces (except that rust occurring on items specified to be primed under other sections shall be removed and worked reprimed under these sections).
- 4. The commencing of work in a specific area shall be construed as acceptance of the surfaces, and thereafter the contractor shall be fully responsible for satisfactory work as required herein.
- 5. All surfaces shall be prepared in accordance with Chapter 2 for Interior Work of the Master Painters and Decorators Association Painting Manual latest edition.
- 6. Prepare surfaces in accordance with paint covering manufacturer's instructions.

2. PREPARATION

1. Concrete and Masonry

- .1 Test surfaces for alkalinity with pink litmus paper or other recognized method.

- .2 Where extreme alkalinity occurs, wash surface with 4% solution tetrapotassium pyrophosphate (5 oz. per gallon (31 ml./l.) of water) where latex base paint is to be used and with zinc sulphate solution (3 lbs. per gallon (300 g./l.) of water where other paint bases are to be used.)
- .3 Etch normal concrete surfaces to receive alkyd paint with muriatic acid solution (1 part commercial) 31.45% to 3 parts water. Neutralize and allow to dry before painting.
- .4 Prepare masonry concrete surfaces to CGSB 85-GP-31M.

2. Metal

- .1 All metal surfaces to receive coatings shall be cleaned to SSPC-SP1 (solvent washing) prior to painting as specified herein.
- .2 Touch-up shop primed metal after first removing loose primer, rust, oil, grease and other contaminants.
- .3 All metal surfaces exposed and/or exhibiting rust shall be cleaned to SSPC-SP2 or SSPC-SP3 standards and primed with an approved rust inhibitive primer prior to recoating as specified.
- .4 Feather edges to make touch-up inconspicuous when applying new primer.
- .5 Conform to CGSB 1-GP40d.M to CGSB 85-GP-14M.

3. Galvanized Surfaces

- .1 For Primer Application Type C Corrosive ensure that all surfaces to be painted are clean, dry, and free of all contaminants.
- .2 Cleaning of existing surfaces to be conducted according to SSPC-SP-4 Flame Cleaning procedure. Pass high temperature, high velocity, oxyacetylene flames over entire surface and then wire brushing. Primer is to be applied before surface is cool.
- .3 Phosphatize galvanized metal surfaces using CGSB 31-GP-105M pretreatment or prime with galvanized metal primer.

4. Woodwork

- .1 Inspect millwork, trim and panels to assure surfaces are smooth, free from machine marks and that nailheads have been countersunk. Seal all knots and sapwood in surfaces to receive paint, with a vinyl sealer compatible with finish specified conforming to CGSB 1-GP-125b.

- .2 Sand smooth all woodwork which is to be finished and clean surfaces free of dust before applying first coat. Fill nail holes, splits and scratches with non-shrinking filler conforming to CGSB 1-GP-103b after first coat is dry. When these occur on a transparent surface, filler shall be stained to match the finish as approved by Architect. Between coats, sand lightly with No. 00 sandpaper and remove dust.
- .3 Prime all wood noted for paint finish immediately on delivery to site.
- .4 Back paint all wood noted for stain, varnish or Intumescent fire retardant clear coating or natural finish.
- .5 Prepare all wood surfaces to CGSB-85-GP-1M.

5. Hardware

- .1 Remove finishing hardware, electric cover plates and accessories, mask any that are not removable. Replace these when paint is dry and clean them. Do not clean hardware with solvent that will remove permanent lacquer finish.

6. Gypsum Wallboard

- .1 For small holes, scratches or other surface marks fill with patching compound and sand smooth.
- .2 For larger holes or damaged areas do not proceed until trade for original work has filled or repaired surfaces to acceptable levels.
- .3 Prepare wallboard surfaces to CGSB-85-GP-33M.

7. Copper

- .1 Prepare copper piping and accessories to CGSB 85-GP-20M.

8. General

- .1 Mask specification plates occurring on equipment, switch boxes, and similar items requiring painting.
- .2 Protect, remove and replace hardware, accessories, lighting fixtures and similar items as required.
- .3 Conform with Architect's colour schedules and exactly match approved samples.

3. APPLICATION

1. Finishes and number of coats specified in the schedule are intended to cover surfaces perfectly. If they do not, apply further coats until perfect coverage and colour are achieved as required.
2. Any areas exhibiting incomplete or unsatisfactory coverage shall have the entire plane painted. Patching will not be acceptable.
3. Walls needing repainting, entire wall (plane) shall be painted to the satisfaction of the Architect. See drawings for extent of work.
4. Spray painting will not be permitted (except at metal deck and joist areas) unless specifically approved in writing by the Architect in each instance. Architect may withdraw approval at any time and prohibit spray painting for reasons such as carelessness, poor masking or protection measures drifting paint fog, disturbance to other Trades or failure to obtain a dense, even, opaque finish. Spray painting shall be full double coat, i.e. at least two passes for each coat. Do not use spray or roller on wood or metal surfaces, brush only unless approved in writing by Architect. Spray painting and backroll may be permitted on concrete blocks.
5. Arrange to have traffic barred from completed areas wherever possible.
6. Apply materials in strict accordance with manufacturer's directions and specifications and be familiar with these directions and specifications.
7. Prime woodwork as soon as possible after woodwork is delivered to site. Prime all surfaces, whether exposed or not, before installation. In case of woodwork which is to be stained, apply one coat of penetrating sealer to all finish surfaces of wood having uneven absorption, such as birch. Woods of uniform density such as oak shall be left unsealed. Back prime stained and varnished woodwork with one coat of gloss varnish reduced 25%. Fill open grain woods with filler tinted to match wood when transparent finish is required, and work well into grain. Before filler sets, wipe excess from surface.
8. Apply primer-sealer coats by brush or roller method. All primers and undercoats to be tinted to no more than 25% of intensity of the finish colour.
9. Permit paint to dry before applying succeeding coats, touch up suction spots and sand between coats with No. 00 sandpaper.
10. Where two coats of the same paint are to be applied, the first coat shall be the same colour as the finish coat and be inspected by the Architect before application of final coat, to allow the Architect to make reasonable modification of colour if necessary. Furnish Architect with a schedule showing expected completion of the respective coats of paint for the various areas and surfaces. Keep this schedule current as the job progresses.

11. Exterior paints and deep/intense interior and exterior colours shall be from the nearest factory premixed colour selection and shall be alterable to match required colours.
12. Flat and semi-gloss finishes on gypsum wall board, block and other surfaces of large areas shall be applied by roller and to all other surfaces applied by brush.
13. Paint shall be uniform in sheen, colour and texture, free from brush or roller marks, sags, runs or other defects.
14. Finish edges of doors (top, bottom, sides and cutouts) with paint or stain treatment as required to match face of door. Stain top and bottom edges a different colour and seal with one coat of shellac and one coat gloss varnish or two coats paint. Refinish tops and edges of wood doors after fitting.
15. Even up stained woodwork in colour as required by nature of wood and as directed by Architect. Apply same finish on trim, fitments, cupboards and other protecting ledges as on surrounding work, disregard sight lines.
16. Carefully hand smooth and sandpaper wood between coats (including priming). Apply one coat sealer before applying first coat paint filler to knots or sap blemishes on wood surfaces to receive paint or stain finish.
17. Remove rust, oil, grease and loose shop paint from metal work by brushing or with wire brushes and make good shop coat before proceeding with final finish. Feather out edges to make touch up patches inconspicuous.
18. After first coat, fill nail holes, splits, and scratches, using putty coloured to match finish.
19. Clean castings with wire brush before application of first paint coat.
20. Do not etch galvanized metal. Prepare prime and paint elsewhere in this section. This includes metal door frames and the like with wiped zinc coating.
21. Remove form oil or parting compounds from concrete surfaces. Use Xylol or approved compound.
22. Paint interior of pipe spaces, ducts, etc. visible through grilles or through metal ceilings in black matt finish.
23. Conform with Architect's colour schedule and exactly match approved samples.
24. Mechanical and Electrical Materials

- .1 Refer to Mechanical and Electrical Sections of the Specifications and note the instructions regarding painting and finishing of materials and equipment supplied and installed by those trades.
 - .2 Remove grilles, covers, access panels for mechanical and electrical systems from location and paint separately, if these items are not factory finished.
 - .3 Paint work to match adjacent walls and ceilings unless directed otherwise. Note: This includes trim on fixtures exposed, speaker covers, emergency lights, grilles, diffusers, louvres, vents, fire extinguisher cabinets, electrical panels, etc.
 - .4 Paint interior surfaces that are visible through grilles and louvres with one coat of flat black metal paint to limit of sight line.
 - .5 Where walls and ceilings are not scheduled to be painted, the work described above shall be painted a colour selected by Architect.
 - .6 Unless factory painted, all exposed piping, conduits, ductwork hangers, insulation and mechanical equipment shall be painted.
25. Rooms without finished ceilings will have decks, joists, beams, ducts, etc., painted.
26. Paint graphics as shown on drawings. All graphics to be semi-gloss minimum two coat application.

4. ADJUST AND CLEAN

- 1. Cracks occurring in walls or ceilings requiring patching during "warranty period" shall be repainted in such a way that the patch is not visible at a distance of 5'-0" (1500 mm).
- 2. If patch painting not acceptable repaint entire wall or ceiling surface.
- 3. At completion clean entire area of surplus materials and equipment.

5. FIELD QUALITY CONTROL

- 1. Locate testing area in building to establish standard of workmanship, texture, gloss and coverage where designated.
- 2. Apply samples of all finishes on each type of surface to be coated with correct material, number of coats, colour, texture and degree of gloss required.
- 3. Retain test area until completion of work. Use approved work in test areas as standard for corresponding work throughout building. Correct and refinish work which does not compare with approved finishes.

6. FINISH SCHEDULE

1. General

- .1 Finish the listed exposed surfaces, wherever they occur unless such surfaces are specifically noted to be left unfinished.
- .2 Exposed means visible in the completed work and includes the interior of closets, cabinets and drawers.
- .3 The Architect shall have the option of having wood painted or with transparent finish and of which finish shall be used.
- .4 In instances where materials specified are not suitable for a particular job application, or are contrary to manufacturer's recommendations for use on a particular surface, such condition shall immediately be brought to the attention of the Architect for clarification and instructions.
- .5 Finishes shall match approved samples but Architect reserves the right to make reasonable changes to finish specifications to obtain desired results without additional cost or obligation of Owner.
- .6 A colour chart giving colour schemes for various areas will be prepared after tendering, by the Architect. The final selection of colours and surface textures of all finishes throughout and whether finishes are transparent (natural) or opaque (paint) shall rest solely with the Architect.
- .7 Where surfaces have been disturbed the entire plane shall be painted.

2. Interior Schedule

- .1 Metal (Ferrous): One coat latex super adherent primer (metal surfaces already primed need not receive a field prime coat except for touch up). Apply two coats latex water based epoxy 2 coats.
- .2 Hot Ferrous Metal - (Valve bodies, strainers, etc., on high temperature lines.) - One coat primer, latex super adherent heat resistant - Two coats latex water based epoxy.
- .3 Galvanized Steel: One coat galvanized primer. Use a Polyamide converted epoxy by Devoe Coatings "4170-1000 with 4170-9999-catalyst". Two coats of galvanized Finish Coat. Use a single package tough, durable alkyd modified urethane coating with water, chemical and solvent resistance by Devoe Coatings "Devoe Glid Shield Urethane Gloss Enamel No. 4328-0100 Series

(install within 72 hours of installing primer).

- .4 Hollow Metal Doors, Metal Ducts, etc.: One coat super adherent primer. Two coats latex water based epoxy.
- .5 Metal Roof Decks and Joists: One of the approved primer finish combinations as follows:
 - 1. General Paint 10900 Alkyd Dryfall Primer. Apply one coat: spread rate, 250 square feet per 3.78 litre container on smooth surfaces and 75 square feet on corrugated steel. Each coat wet thickness: 4.6 mils. Each coat dry thickness: 2.0 mils.
 - 2. General Paint 6000-Line or 33-Line. Apply two coats: spread rate 400 square feet per 3.78 litre container. Each coat wet thickness: 4.0 mils. Each coat dry thickness: 2.0 mils.

OR
 - 3. Benjamin Moore and Co. Ltd. #597-01 Sweep-Up Spray Latex Flat primer. Apply one coat: spread rate, 255 square feet per 3.79 litre container. Each coat wet thickness: 6.3 mils. Each coat dry thickness: 2.5 mils.
 - 4. Benjamin Moore & Co. Ltd. T-7688 Impervo or T-7721 Satin Impervo. Apply two coats: spread rate, 500 square feet per 3.79 litre container. Each coat wet thickness: 3.0 mils. Each coat dry thickness: 1.3 mils.

OR
 - 5. Glidden #10120 Spraymaster Latex Eggshell primer. Apply one coat: spread rate, 264 square feet per 3.78 litre container. Each coat wet thickness: 6.0 mils. Each coat dry thickness: 2.0 mils.
 - 6. Glidden #4308 Devguard. Apply two coats: spread rate, 320 square feet per 3.78 litre container. Each coat wet thickness: 5.0 mils. Each coat dry thickness: 2.25 mils.
- .6 Woodwork Painted: One coat super adherent primer. Two coats latex Ultra "94800" by Glidden.
- .7 Natural or Stained Close Grain Wood: One coat non-bleeding alkyd stain. One coat sanding sealer.
Approved Finish Clear Coats are as follows:
 - 1. General Paint 25-011 Urethane Semi-Gloss. Apply two

coats: spread rate, 350 square feet per 3.78 litre container. Each coat wet film thickness: 4.0 mils. Each coat dry thickness: 1.5 mils.

OR

2. Benjamin Moore & Co. Ltd. #435 Low Lustre Alkyd Urethane. Apply two coats: spread rate, 575 square feet per 3.79 litre container. Each coat wet thickness: 2.8 mils. Each coat dry thickness: 1.1 mils.

OR

3. Glidden #90333 Urethane Varnish. Apply two coats: spread rate, 638 square feet per 3.78 litre container. Each coat wet thickness: 2.5 mils. Each coat dry thickness: 1.0 mils.

.8 Natural Cedar Slat Ceilings: natural finish.

.9 Natural or Stained Open Grain Wood: One coat stain filler. One coat sanding sealer.
Approved Finish Clear Coats are as follows:

1. General Paint 25-011 Urethane Semi-Gloss. Apply two coats: spread rate, 350 square feet per 3.78 litre container. Each coat wet film thickness: 4.0 mils. Each coat dry thickness: 1.5 mils.

OR

2. Benjamin Moore & Co. Ltd. #435 Low Lustre Alkyd Urethane. Apply two coats: spread rate, 575 square feet per 3.79 litre container. Each coat wet thickness: 2.8 mils. Each coat dry thickness: 1.1 mils.

OR

3. Glidden #90333 Urethane Varnish. Apply two coats: spread rate, 638 square feet per 3.78 litre container. Each coat wet thickness: 2.5 mils. Each coat dry thickness: 1.0 mils.

.10 Concrete Block (Base Price): One coat latex block filler, applied at the minimum rate of 80 sq. ft per gallon (1.63 m2 per litre), or as required by block texture to completely fill block. **Pinholes will not be accepted.** Apply more block filler if necessary to completely fill the block before applying finish coats. Note that lightweight block requires more block filler to fill than standard weight block does and adjust application rate as required. Two coats interior Latex

Semi-Gloss "Ultra 94800" by Glidden.

- .11 Concrete Block (Alternate Price Products): One coat latex block filler. Pinholes will not be accepted, apply additional coats as required to fill pinholes. Two coats latex water based epoxy.
- .12 Exposed Insulated Pipes and Ductwork: One coat size. One coat super adherent primer undercoat. Two coats Ultra "94800" by Glidden eggshell.
- .13 Gypsum Wallboard (Base Price): One coat of Latex super adherent primer.. Two coats semi gloss Ultra "94800" by Glidden. Velvet or eggshell at walls and Low gloss at ceilings.
- .14 Gypsum Wallboard (Alternate Price Products): one coat of latex super adherent primer. Two coats latex water based epoxy. Velvet or eggshell at walls and Low gloss at ceilings.
- .15 Surfaces Behind Grilles and Duct Work Where visible Within 12' (300 mm) of Grille:
 - 1. Two coats vinyl latex matt black.
- .16 Painted Light Trims, Emergency Lights, Louvres, Diffusers, Vents, Concealed Sprinkler Covers, Fire Extinguisher Cabinets, and Electrical Panels, Etc.
 - 1. One coat super adherent primer. Two coats Ultra "94800" by Glidden to match surrounding wall and ceiling colours or as specified by Architect.
- .17 Exposed Sealed Concrete Floors to be Painted
 - 1. One coat Sikafloor 2001 Primer
 - 2. One coat Sikafloor polyurethane UV in colour as selected by Architect from complete colour range.
 - 3. Install floor primer and finish coat as per manufacturer's printed installation instructions.
- .18 Flame Retardant Coating at Corridor Wood Ceiling and Wall Panels:
 - 1. One coat stain filler. One coat sanding sealer. Two (4 mil) coats Safe Coat Clear Fire Retardant Coating for a total min. 8 mil thickness.
- .19 General Notes
 - 1. See drawings for locations of areas where more than one

colour occurs on one wall and one ceiling plane.

2. Each ceiling bulkhead section or level may be a different colour.
3. Wall planes may be designated a different colour from surrounding walls such as stairwells, entrances to classrooms, corridor intersections, gym (area below band one colour area above another) and Library. Classrooms to have one wall an accent colour.
4. At stairwells and metal railings, allow for flatbars, pickets and stringers at stairs to be each painted a different colour. Maximum three colours to be chosen by Architect. Clarification detail will be issued with colour schedule after tender.
5. Gymnasium walls acoustic sound block to be painted a different colour from surrounding wall. Allow for three colours to be chosen by Architect.
6. Door frames may be one colour and door another colour.

7. WOOD FURNITURE FINISHES (By Section 06400)

1. Natural or Stained Transparent Wood Furniture Finish: One coat non-bleeding alkyd stain. One coat sanding sealer. Two coats polymerizing two component catalytic conversion varnish system. "Duravar Plus" manufactured by M.L. Campbell and distributed by W. E. Saunders & Sons Painters Ltd. (519-582-2621). Flat, stain or gloss finish as directed by Architect.
2. Interior of Wood Drawers: Three coats tinted sealer to inside sides, back and bottom.
3. Unexposed Millwork Surfaces: Two coats of tinted sealer including backs of all base and wall cabinets, enclosures, etc.

8. MAINTENANCE MATERIAL

1. Provided one sealed can of four litre capacity, of each product in each colour used in the Work for Owner's use in maintenance work.
2. Container to be new fully labelled with manufacturer's name, type of paint, and colour.
3. Provide Owner 3 copies of paint formula for each colour and type of paint for Owner's maintenance manual.

END OF SECTION