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Request for Proposal and Project Manual - Specifications

for

**Selective Roof Replacement
Children's Aid Society of Nipissing & Parry Sound**
140 Elmwood Avenue
North Bay, ON P1B 5G6

RFP # 2021-03



Children's Aid Society
La Société d'aide à l'enfance
NIPISSING & PARRY SOUND

Issued for Permit, Tender and Construction
Architectural Project No. 2165
February 2022

Background information

The Children's Aid Society of the District of Nipissing and Parry Sound (the Society) is a multi-service children's organization with approximately one hundred and fifty (150) employees providing services in early intervention, child protection, family support, and residential services. There are seven (7) office locations, five (5) of which are located in North Bay at: 433 McIntyre Street West, 471 Main Street East; 457 Main Street West, 140 Elmwood Avenue, and 6 Bob Wood Drive in North Bay. The other two (2) sites are located in Burks Falls and Parry Sound.

The Society is a community service agency mandated by the Province of Ontario through the Child, Youth and Family Services Act (2017) to ensure the best interests, protection, and well-being of children. We are committed to working together to build communities where families are strong and all children and youth are safe and resilient. The Society is continuously working towards its vision of families and communities keeping children and youth safe, nurtured and strong. The Society's values (mutual respect, inclusiveness, integrity, courage, accountability, and innovation) continue to be at the forefront of all the decision making and at all organizational levels.

Purpose

The purpose of this RFP is to solicit proposals for the purposes of entering into a contract through competitive negotiations for the supply of labour, materials, supervision, and equipment necessary for the roof replacement located at 140 Elmwood Avenue, North Bay. **The Plans and Specifications for this opportunity are attached and are referred to herein as the Contract Documents.**

The complete set of RFP Documents are available on the Society's Website at www.parnipcas.org. The RFP Documents are made available only for the purpose of submitting responses to this RFP.

Expected timelines

Refer to attached Specification Section 00100, Instructions to Bidders from Bertrand Wheeler Architecture Inc. for further information.

Pre-Bidding Event

Refer to attached Specification Section 00100, Instructions to Bidders from Bertrand Wheeler Architecture Inc. for further information.

The Contractor, in undertaking this contract, is assumed to have visited the premises and to have taken into consideration all conditions which might affect the work. No consideration will be given to any claims based on lack of knowledge of existing conditions.

General Conditions

All Work shall conform to the attached Contract Documents.

It is understood that except as otherwise specifically stated in the contract, that the Contractors shall provide and pay for all materials, labour, tools, equipment, and transportation of every nature and all other services and facilities of every nature whatsoever, necessary to execute, complete and deliver the work within the specified time.

Permits and licenses necessary for the execution of work shall be arranged and paid for by the Contractor. All supplies and material shall be new. Any work necessary to be performed after regular working hours, such as evenings, weekends or statutory holidays, shall be performed without additional expense to the Society.

Project Description

The Society will be replacing the roof of their 140 Elmwood Avenue location as per the Contract Documents attached herein.

This work must reach substantial completion by not later than **March 31, 2022**.

All Contract Documents are intended to convey scope and general intent of performance and work. All given dimensions are approximate. The Contractor shall verify all dimensions, quantities and details on site. Contractor shall report all discrepancies to the Architect

The Elmwood building shall never be opened to the elements at any time. All openings must be covered in a manner to withstand any weather condition and must be secured to avoid anyone entering the building through any roof openings.

All outside and inside areas of the building and the grounds shall remain clean and free of any construction debris. An allotted area will be allowed for material storage.

Evaluation Criteria

Proposals will be evaluated by an evaluation team with representation from all key functional areas.

BY RESPONDING TO THIS RFP, CONTRACTORS AGREE TO ACCEPT THE RECOMMENDATION OF THE EVALUATION TEAM AS TO THE SUCCESSFUL CONTRACTOR AND ACKNOWLEDGE AND AGREE THAT THE SOCIETY EVALUATION TEAM MAKES THE FINAL DECISION.

Price 40% (Submit Completed Tender Form as per the Bid Documents)

Completion Date / Scheduling 20%

Completion of projects with similar size and scope, providing references to confirm that the contractor has the experience and resources to complete the project. 20%

RFP Compliance and Understanding 10%

Qualifications 20%

Proposals will be evaluated from Contractors that can demonstrate that they have the necessary staffing, facilities, experience, ability, and financial resources to perform the work in a satisfactory manner. Proven track record must be demonstrated.

In event that the lowest compliant bid exceeds the amount of funding allocated for the Work, the Society in its sole discretion may:

- a. Cancel the solicitation; or
- b. Obtain additional funding and award the contract to the Bidder submitting the lowest compliant bid, and/or;
- c. Negotiate a reduction in the bid price and/or scope of work or not more than 15% with the Bidder submitting the lowest compliant bid. Should an agreement satisfactory to the Society not be reached, the Society shall exercise option a. or b.

The Society may reject any bid based on an unfavourable assessment of the:

- a) Adequacy of the bid price to permit the work to be carried out;
- b) Contractor's ability to provide the necessary management structure, skilled personnel, experience and equipment to perform competently the work under the contract; and
- c) Contractor's performance on other contracts.

Proposal Form and Format

This section defines the proposal preparation and submission procedures that are to be followed by all applicants. Applicants are cautioned to carefully read and follow the procedures required by this proposal, as any deviation from these requirements may be cause for rejection.

1. The Proposal submission is to remain firm for acceptance for a period of 45 days from the date of closing. The Society will not be responsible for any costs incurred in the preparation and submission of proposal.
2. The proposal shall be signed, with an original signature, by a duly authorized representative of the Contractor.
3. The bid shall be in Canadian currency;

All proposals must be in a sealed envelope and clearly marked "RFP 2021-03, Roof Replacement".

All expenses for making Proposals to the Society shall be borne by the Contractor.

All proposals shall be received as per the time indicated within the attached Documents.

All Proposals should include:

1. A completed and executed Tender Form (see Specification Section 00300).
2. A summary of your work experience, and should include specific examples of previous work.
3. Contact information for at least three references to whom you have provided similar work.
4. A description of the project process or work plan (timeline).
5. An hourly service rate for additional time, should it be required for work outside the scope of this RFP

Questions/Inquiries

Additional information or clarification of any of the instructions or information contained herein regarding this Request for Proposal are to be directed to **Marcus Wheeler** via email at **marcus@bertrandwheeler.ca**.

Any interpretation documents will be made by addendum to the RFP and posted on the Society's public website. All questions should be submitted no later than 5 days prior to date of submission.

Inquiries must not be directed to other Society employees or Elected Officials. **Directing inquiries to anyone other than the above mentioned may result in your submission being rejected.**

All clarification requests are to be sent in writing to the individual mentioned above. No clarification requests will be accepted by telephone. **Responses to clarification requests will be provided to all Contractors in writing.**

The Society will not be responsible for any other explanations or interpretations. The Society reserves the right to extend the due date if such information significantly amends this solicitation or makes compliance with the original due date impractical.

Rights Reserved by the Society

Submission of a Proposal indicates acceptance by the Contractor of the conditions contained in the Request for Proposal, unless clearly and specifically noted in the proposal and in any contract between the Society and the Contractor selected.

The Society is not liable for any costs incurred by the Contractor in the preparation of their response to the RFP or selection interviews, if required. Furthermore, the Society shall not be responsible for any liabilities, costs, expenses, loss or damage incurred, sustained or suffered by any Contractor, prior or subsequent to, or by reason of the acceptance, or non-acceptance by the Society of any proposal, or by reason of any delay in the award of the Proposal.

The lowest bid proposal will not necessarily be accepted. The Society reserves the right to accept/reject any or all proposals and/or reissue the RFP in its original or revised form.

The Society reserves the right to cancel this RFP at any time, without penalty or cost to the Society. This RFP should not be considered a commitment by the Society to enter into any contract.

The Society further reserves the right to negotiate and to refine the requirements where it is in the Society's best interest.

The Society reserves the right to accept or reject any or all bids as it deems to be in their interest to do so, without penalty.

In the event of any disagreement between the Society and Contractor regarding the interpretation of the provisions of the RFP, the Director of Corporate Services for the Society, shall make the final determination as to interpretation.

Insurance and Indemnification

Contractor shall protect, defend and save the Children's Aid Society of the District of Nipissing and Parry Sound harmless from suits or actions of every nature and description brought against it, for or on account of any injuries or damages received or sustained by a part or parties, by or from any of the acts of the Contractor, and/or the agents, employees, successors or assigns the Contractor.

Prior to commencement of work, the Contractor shall furnish to the Society a Certificate of Insurance showing compliance with the Contract Documents.

Compliance with applicable laws

- 1) By submission of a bid, the Contractor certifies that the Contractor has the legal capacity to enter into a contract and is in possession of all value licenses, permits, registrations, certificates, declarations, filings, or other authorizations necessary to complete with all federal, provincial and municipal laws and regulations applicable to the submission of the bid and enter into any ensuing contract for the performance of work.
- 2) The Contractor shall, if requested, provide a copy of every valid license, permit, registration, certificate, declaration, filing or other authorization listed in the request

Conflict of Interest

- 1) In order to protect the integrity of the procurement process, Contractors are advised that the Society may rejected a bid in the following circumstances:
 - a) If the Contractor, any of its subcontractors, any of their respective employees or former employees was involved in any manner in the preparation of the bid solicitation or in any situation of conflict of interest or appearance of conflict of interest;
 - b) If the Contractor, any of its subcontractors, any of their respective employees had access to information related to the bid solicitation that was not available to other Contractors and that would, in the Society's opinion, give or appear to give the Contractor an unfair advantage.

Warranty

Refer to attached Contract Documents from Bertrand Wheeler Architecture Inc. for full information.

Payment

Refer to attached Contract Documents from Bertrand Wheeler Architecture Inc. for full information.

1 Consultants

.1 The following are the consultants and sub-consultants who have prepared the Contract Documents.

PRIME CONSULTANT / ARCHITECT

Bertrand Wheeler Architecture Inc.
528 Cassells Street
North Bay, Ontario P1B 3Z7
Phone: (705) 472-0988
Fax: (705) 472-2486

Marcus Wheeler, OAA
Architect

2 Sub-Consultants

STRUCTURAL ENGINEERS

A2S Consulting Engineers
289 Cedar St, Suite 201
Sudbury, ON P3B 1M8
Phone: (705) 222-0420

END OF SECTION

1.1 List of Documents

- .1 The following is a list of all documents issued for Tender, excluding addenda issued during bidding period. The Bidder is responsible for reviewing the documents received and ensuring that all documents are complete.

.2 DRAWINGS:

Architectural

- A1 ROOF PLAN
 A2 ROOF DETAILS

Structural

Structural Drawings are included below.

.3 PROJECT MANUAL – SPECIFICATIONS

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Not Used

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Division 06 – Wood & PlasticsNo. Pages

Not Used

Division 07 – Thermal & Moisture ProtectionNo. Pages

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Divisions 08 – 14No. Pages

Not Used

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Not Used

END OF SECTION

1 GENERAL

1.1 Invitation

- .1 The **Children's Aid Society of Nipissing and Parry Sound** shall receive proposals from General Contractors for the supply of all goods and/or services specified in this tender call.
 - .1 Proposals shall be emailed to the Consultant at the following email:
marcus@bertrandwheeler.ca
 - .2 Alternatively, proposals may be delivered prepaid to the Consultant at the following address:
**Bertrand Wheeler Architecture Inc.
528 Cassells Street,
North Bay, ON P1B 3Z7**
 - .3 All proposals shall be directed to the attention of **Mr. Marcus Wheeler**.
 - .4 Closing Time: Submit before **3:00:00 p.m. local time on Thursday, February 24, 2022**.
- .2 Closing time will be taken from the Universal Time Clock (UTC) at [<http://www.time.gov>]. Offers submitted after the above time will be returned to the bidder unopened.
- .3 Tender submission envelopes or containers that are not properly identified as such may be rejected and returned to the proponent if they are inadvertently opened as regular mail prior to the closing date and time.
- .4 Tenders must be submitted on the Tender Form issued with Tender Documents.
- .5 Tenders may not be submitted by telephone, email or facsimile. See sentence 1.7.1.4 for amendments by facsimile.
- .6 All tender submissions will be opened privately.
- .7 All blanks on Tender Forms must be filled in.
- .8 Bidders shall be solely responsible for the delivery of Tender in the manner and time prescribed.
- .9 All prices (unless otherwise specifically requested in Tender Documents) shall be for "Complete Job" prices and shall be understood to include for all materials, labour and other expenses as herein outlined in these contract documents including but not limited to fees, insurances, permits, compensation and other items required by governing regulations as well as overhead and profit for the work concerned.

1.2 Intent

- .1 The intent of this bid call is to obtain an offer to perform all work for the **Selective Roof Replacement Upgrades at 140 Elmwood, North Bay, Ontario**.
- .2 The work shall be performed within a Stipulated Price contract, in accordance with the Contract Documents.

1.3 Contract Documents and Owner Identification

- .1 The Contract Documents are identified as the:

**Selective Roof Replacement
Children's Aid Society of Nipissing & Parry Sound
140 Elmwood, North Bay, ON P1B 5G6
Arch. Project No. 2117**

- .2 The Owner of the Project:

**Children's Aid Society of Nipissing & Parry Sound
457 Main Street West, North Bay, ON P1B 2V3**

1.4 Contract / Bid Documents

- .1 Form of Contract

- .1 The CCDC Document 2, Stipulated Price Contract, 2008, will be used to form the Construction Contract. This document will be appended to this document to form the Contract Documents for the project. A digital sample of this document will be made available to Bidders upon individual request to the Consultant.

- .2 Definitions

- .1 Contract Documents: Defined in CCDC 2 - 2008 Edition, Definitions.
.2 Bid Documents: Contract Documents supplemented with Instructions to Bidders, Soils Investigation Data, Bid Form, Bid Securities, and Bid Supplementary Forms identified herein.
.3 Bid, Offer, or Bidding: Act of submitting an offer under seal.
.4 Bid Price: Monetary sum identified by the Bid Form.

- .3 Availability

- .1 Electronic Bid Documents, in PDF format, may be obtained at the office of the Consultant.
.2 CAD documents will not be made available.
.3 Hardcopy Bid Documents will not be made available.
.4 Bid Documents are made available only for the purpose of obtaining offers for this project. Their use does not confer a license or grant for any purpose.

- .4 Examination

- .1 Upon receipt of Bid Documents verify that documents are complete. Notify Consultant should the documents be incomplete.
.2 Immediately notify the Consultant upon finding discrepancies or omissions in the Bid Documents.

.5 Queries / Addenda

- .1 Direct questions to the Consultant at the following address:

Mr. Marcus Wheeler
c/o Bertrand Wheeler Architecture Inc.
528 Cassells Street, North Bay, Ontario P1B 3Z7
Tel: 705-472-0988 Fax: 705-472-2486
email: marcus@bertrandwheeler.ca

- .2 Addenda may be issued during the bidding period. All addenda become part of the Contract Documents. Include costs for all related work within the Bid Price.
- .3 Verbal answers are only binding when confirmed by written addenda.
- .4 Clarifications requested by bidders must be in writing not less than seven (7) days before date set for receipt of bids. The reply will be in the form of an addendum, a copy of which will be forwarded to known bidders no later than two (2) working days before receipt of bids.

.6 Product/System Options

- .1 Where the Bid Documents stipulate a particular product, alternative will be considered by the Consultant up to ten (10) days before receipt of bids.
- .2 When a request to substitute a product is made, the Consultant may approve the substitution and will issue an Addendum to known bidders. The request shall include sufficient information to enable the Consultant to determine acceptability of such products.
- .3 In submission of substitutions to products specified, bidders shall include in their bid, any changes required in the work to accommodate such alternatives. A later claim by the bidder for an addition to the contract price because of changes in work necessitated by use of alternatives shall not be considered.
- .4 Unless alternatives are submitted in this manner and subsequently accepted, provide products as specified.
- .5 Alternative products will not be considered if submitted as an attachment to the Bid Form.

1.5 Site Assessment and Investigations

.1 Site Examination

- .1 Carefully examine and study all of the Contract Documents. Selected photos are included for further review and information.
- .2 Bidders shall inspect the Site of the work in order to determine all conditions affecting the work and associated costs. Each bidder shall visit the site of the work before submitting a Bid and shall by personal examination be satisfied as to the local conditions that may be encountered during construction. Each Bidder shall make its own estimate of the available facilities and any difficulties that may be encountered and the nature of the sub surface materials and conditions.
- .3 In connection with the place of Work, each Bidder shall examine the surroundings and adjacent public and private properties for existing conditions and limitations including but not limited to the rights and interest of other parties that may be interfered with during the construction.

- .4 Mandatory Bidder Meeting: There will be no Mandatory Meeting for Bidders.
- .5 Self-Tour: Bidders will be allowed to tour the facility **between the hours of 9am and 12pm on Tuesday, February 8, 2022**. All attendees should pre-register with the Consultant prior to attending. Bidders are solely responsible for safety during the reviews, and to perform all reviews with full safety protocols. Ladders will not be offered for Bidder use. Bidders shall respect and adhere to all safety and COVID restrictions as per the local Health Authorities and the Owner.
- .6 The act of submitting a tender is confirmation that the Bidder has visited the project site and surrounding properties and has become familiar with the place of work and related documents.
- .7 A Hazardous Materials Survey was not completed for this project. Report all issues regarding existing conditions of the site promptly to the Consultant.

1.6 Qualifications

- .1 All work shall be performed diligently and to a high standard of professional competence by all parties.
- .2 Bidders may be asked to provide detailed information on the professional qualifications of all staff who are expected to be involved with the work.
- .3 Bidders may be asked to identify a single senior individual who shall co-ordinate the work from beginning to end.
- .4 Subcontractors
 - .1 All Contractors shall carefully consider the suitability of all sub-contractors.
 - .2 The Owner reserves the right to reject a proposed subcontractor for reasonable cause.
 - .3 Refer to CCDC 2 Article GC 10 of General Conditions.

1.7 Bid Submission

- .1 Bid Ineligibility
 - .1 Bids that are unsigned, improperly signed or sealed, conditional, illegible, obscure, contain arithmetic errors, erasures, alterations, or irregularities of any kind, may at the discretion of the Owner, be declared informal.
 - .2 Bids with Bid Forms and enclosures which are improperly prepared may at the discretion of the Owner, be declared informal.
 - .3 Bids that fail to include security deposit, bonding or insurance requirements shall at the discretion of the Owner, be declared informal.
 - .4 Bids that are submitted by general contractors that are not prequalified or that did not attend the mandatory site visit shall be disqualified and returned to the Bidder without further consideration
 - .5 Submitted that do not include all requested values for each separate price, add-on price or take-out price shall at the discretion of the Owner, be declared informal.
- .2 Submissions
 - .1 Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.
 - .2 Submit one copy of the executed offer on the Bid Forms provided, signed together with the required security in a closed opaque envelope, clearly identified with bidder's name, project

- name and Owners name on the outside. Alternatively, if submitting by e-submission, attach all required documents as outlined in 1.1.1 above.
- .3 Improperly completed information, irregularities in bid bond, may be cause not to open the bid envelope and declare the bid informal.

1.8 Bid Enclosures/Requirements

- .1 Security Deposit
- .1 Bid Security will not be required for this project.
- .2 Agreement to Bond
- .1 Bonding will not be required for this project.
- .3 Performance Assurance
- .1 Bonding will not be required for this project.
- .4 Insurance
- .1 Provide a signed "Undertaking of Insurance" on a standard form provided by the insurance company stating their intention to provide insurance to the bidder in accordance with the insurance requirements of the Contract Documents.
- .5 Bid Form Requirements
- .1 State in the Bid Form, the time required to complete the work. The Substantial Completion date in the Agreement shall be calculated based on the number of weeks of construction indicated in the Bid Form commencing from the date of Intent to Award. The commencement date of the construction schedule in the agreement will be the date of Award of Contract.
- .2 Verify the receipt and inclusion of all Addenda.
- .3 Verify the inclusion of all Allowances.
- .4 Include the names of all Subcontractors and the portion(s) of the work the Bidder will perform as per the list provided within the Bid Form.
- .6 Bid Signing
- .1 The Bid Form shall be signed under seal by the bidder.
- .2 Sole Proprietorship: Signature of sole proprietor in the presence of a witness who will also sign. Insert the words "Sole Proprietor" under the signature. Affix seal.
- .3 Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word partner under each signature. Affix seal to each signature.
- .4 Limited Company: Signature of a duly authorized signing officer (s) in their normal signatures. Insert the officer's capacity in which the signing officer acts, under each signature. Affix the corporate seal. If the bid is signed by officials other than the President and Secretary of the company, or the President and Secretary of the company, or the President-Secretary-Treasurer of the company, a copy of the by-law resolution of the Board of Directors authorizing them to do so, must also be submitted with the bid in the bid envelope.
- .7 Taxes
- .1 Base Bid Price (Tender Price) excludes required Harmonized Sales Tax (HST).
- .8 Cash Allowances

- .1 Cash Allowances shall be included in the Base Bid in accordance with Part 4 of the General Conditions of the Contract. Cash Allowances are identified in Division 01.

1.9 Offer Acceptance/Rejection

- .1 Duration of Offer.
 - .1 Bids shall remain open to acceptance and shall be irrevocable for a period of **sixty (60) days** after the bid closing date.
- .2 Bid Evaluation and Acceptance
 - .1 The Owner will first evaluate bids based upon the completion of the bid submission, including the submission of all required documents conforming to Bid Submission and Bid.
 - .2 Enclosures/Requirements will deem a bid complete. All incomplete submissions shall at the discretion of the Owner, be deemed informal and disqualified.
 - .3 After completion of the bids has been evaluated the bidders submitting complete tenders will be evaluated for the offer which represents "best value"; the interpretation of which will be made by the Owner.
 - .4 The Owner reserves the right to reject all bids.
 - .5 Tender opening will be closed to the public. The company name of the successful bidder will be made available after Award.
 - .6 Except as otherwise indicated within this document all other bid evaluation procedures shall follow the guidelines as addressed in 'CCDC Document 23 – 2005 A Guide to Calling Bids and Awarding Contracts' as indicated for a Stipulated Price Contract.

1.10 Conflict of Interest

- .1 Bidders shall declare in the Tender Form any situation that may be a conflict of interest or a potential or perceived conflict of interest of the Bidder, including but not limited to its obligations to the Owner, the contract, the contract price or any customer.

1.11 No Influence

- .1 The Client prohibits its representatives from using their official position for personal financial gain, or from accepting any personal advantage from anyone under circumstances which might reasonably be interpreted as an attempt to influence the recipient in the conduct of their duties, extend any gratuity or special favor to the proponent, or to influence the outcome of any proposal.
- .2 The Client reserves the right to disqualify the tender of any bidder who engages in any acts or practices which are either directly or indirectly, or may reasonably be perceived.

1.12 Inappropriate Conduct

- .1 The Client may disqualify a bidder's tender and give it no further consideration based on past performance or based on inappropriate conduct in a prior procurement process, and such inappropriate conduct shall include but not be limited to:
 - .1 The submission of proposals or quotations containing misrepresentations or any other inaccurate, misleading or incomplete information;
 - .2 The refusal of the proponent to honor its previous commitments; or
 - .3 Any other conduct constituting a conflict of interest. For the purposes of this section, "conflict of interest" shall have the meaning ascribed to it on the Proposal Submission Form.

1.13 Agreement to Abide by the Established Tender Process

- .1 No proponent can be seen to be deriving, intentionally or otherwise, an advantage, information or benefit which is not available to all other Bidders or from any special or personal relationships or contacts or seeking or obtaining any advantage or information from any staff and representatives of the **Owner**, whether authorized or not. The Tender Form includes a clause which confirms concurrence with the Tender Process. In signing the Tender Form, Bidders are agreeing to abide by the established process.

1.14 Construction Policies in Response to Covid-19

1. General Contractor shall provide a policy and plan intended to follow all policies as outlined in Workplace and Safety requirements and as outlined in the Ontario Governments policy. See following guidelines at <https://www.ontario.ca/page/construction-site-health-and-safety-during-covid-19> (see also attached in Appendix).
2. The General Contractor shall be responsible to inform all Sub-Contractors, Trades and Workers of the COVID-19 policies. This plan shall be submitted within 3 working days to the Consultant and Owner upon request. Such policies should cover how the site will operate, including, but not limited to:
 - .1 the sanitization of sites
 - .2 how employees and contractors report illnesses
 - .3 how to ensure physical distancing
 - .4 how work will be scheduled
3. The General Contractor shall consider all safety policies and procedures in the cost and timing of the work. The Base Bid shall include all such costs for safety procedures as mandated by all local authorities.
4. Contact Tracing: The General Contractor shall maintain a record to track and contact employees. If an employee tests positive for COVID-19, the Contractor shall immediately inform the Public Health authorities, and advise the Owner and Consultant promptly after.

END OF SECTION

1 GENERAL

1.1 Site Photographs

- .1 Photographs of existing roof conditions at 140 Elmwood Avenue, North Bay are attached for reference in the following pages.

















1 GENERAL

1.1 Structural Report

- .1 A copy of a detailed Structural Report is attached, titled "Children's Aid Society of the District of Nipissing and Parry Sound, 140 Elmwood Ave, North Bay, ON, Partial Roof Structure Review", dated January 7, 2022, and prepared by A2S Consulting Engineers (15 pages, attached).

1.2 Structural Details

- .1 The following three drawings (S1, S2 and S3) represent structural work required in direct relation to the above report (3 pages, attached).
- .2 The work shall be included in the Base Bid.
- .3 Allow time for structural inspection and shop drawings in accordance with the work and inspection requirements.

END OF SECTION



January 7, 2022

BERTRAND WHEELER ARCHITECTURE INC.

528 Cassells St
North Bay, Ontario
P1B 3Z7
Attn: Marcus Wheeler

Dear Marcus,

Re: **CHILDREN'S AID SOCIETY OF THE DISTRICT OF NIPISSING AND PARRY SOUND**
140 ELMWOOD AVE, NORTH BAY, ON
PARTIAL ROOF STRUCTURE REVIEW

Further to your request, and our proposal P21209 dated January 5, 2022, we have completed a Detailed Structural Condition Assessment of select roof structures at the above-mentioned building. The roofs reviewed include that of the 1963 Addition and the high gym roof of the 1973 Addition (refer to Appendix B for the extent of areas reviewed). The remainder of the building structure was not reviewed as part of the current scope of work.

The purpose of our review is to:

- Determine the general condition of the accessible roof structure.
- Verify the capacity by analysing a rational sampling of the accessible roof structure.
- Identify changes that may have resulted in load not considered in the original design.
- Provide comment on the feasibility of installing a heavier, ballasted roof system.
- Identify older roof structures that were designed prior to specific benchmark editions of the Ontario Building Code (OBC) and/or National Building Code of Canada (NBC).

1. SUMMARY

The roof structure at the 1963 Addition and the high roof of the 1973 Addition are both generally in good condition with no obvious signs of structural distress noted.

The type of aerated concrete slabs (Siporex) used in the 1963 Addition roof have a history of poor performance when subjected to excessive levels of moisture for prolonged periods of time. While no obvious signs of deterioration were observed, we did note that there is evidence of active leakage through the roof in at least two (2) locations. Roof replacement is recommended in the short-term to maintain the integrity of the roof structure.

Roof insulation levels may be increased to your desired level of thermal performance. However, the proposed ballasted roof system will exceed the safe limits of some components in the existing roof structures. Additional destructive investigation and compensating construction would be required to accommodate.

Existing penetrations through the roof structure were identified in both the 1963 and 1973 Additions. Further investigation is recommended in the 1963 Addition and compensating construction is recommended to address the unreinforced openings identified in the 1973 Addition.

2. SCOPE AND METHODOLOGY

During our review, we completed the following:

- Reviewed existing drawings made available to us (refer to the table below).
- Visited the site on December 3, 2021 to complete a visual review of the accessible structure.
- Analysed a rational sampling of structural members to confirm their adequacy for the anticipated roof loading.

Date	Drawing Title/Description	Author
June 1963	Four Classroom Addition for St Paul's School – Architectural	Manfred J. May Architect
June 1963	Four Classroom Addition for St Paul's School – Structural	Northland Engineering
May 1973	Proposed Addition to St. Paul's Separate School – Architectural and Structural	Critchley & Delean Architects
April 1974	Steel joist shop drawings for 1973 Addition	Canadian Metal Rolling Mills Ltd.

3. OBSERVATIONS, ANALYSIS, AND DISCUSSION

3.1 1963 Addition

The roof framing over the classrooms generally consists of 3" thick Siporex slabs spanning approximately 5'-0" between a combination of 18" deep open-web steel joists and masonry walls. Above the corridors, 5" thick Siporex slabs span between the masonry corridor walls.

3.1.1 Siporex

Siporex is the brand name for an aerated concrete slab system that was fabricated and sold by Domtar Construction Materials Ltd. from 1955 to 1970 and used extensively in new school construction throughout Canada during this period. Aerated concrete slabs are lightweight, passively reinforced slabs that were cast off-site by the supplier. The slabs consist of a concrete slurry impregnated with an aluminum powder additive that reacts with the concrete to produce an extensive system of small air voids throughout the concrete. The slabs are reinforced with plain reinforcing steel bars at the tops and bottoms of the slabs in pre-determined configurations with corresponding capacities noted in load tables developed by the supplier. A protective coating is applied to all reinforcement, which is intended to help bond the reinforcement to the concrete and to provide some improved resistance to corrosion resulting from exposure to water.

Previous studies have shown that prolonged exposure to moisture can cause irreparable damage to the strength of the aerated concrete matrix, negatively affect the bond between the concrete and the reinforcing steel and corrode the embedded reinforcing steel. The cellular nature of aerated concrete slabs makes them susceptible to freeze-thaw damage but can limit concrete spalling around corroded reinforcement as often happens in traditional reinforced concrete elements, effectively concealing potential structural concerns resulting from deterioration.

The low compressive strength of the concrete used in Siporex slabs (3 MPa vs 25 MPa for traditional concrete) translates to a significantly lower tensile strength, which can make it difficult to suspend ceilings and building services from the underside and makes the slabs susceptible to damage from abrasion, adhesion, and impact loads. For example, aerated concrete can be easily cut by hand or damaged by the removal of an adhered roof system.

On April 23, 1990, the Ontario Ministry of Education issued a memorandum to all school boards in the province identifying the potential for deterioration of Siporex slabs when exposed to water and recommended regular testing and/or inspections by a Professional Engineer. Numerous schools have since had Siporex roof slabs removed and replaced, reinforced with supplemental structure, or have implemented a routine monitoring program.

3.1.2 Observations

Where reviewed, the roof structure generally appeared to be in good condition. We did not observe any obvious signs of structural distress (i.e., excessive differential deflections, excessive cracking, spalling, excessive corrosion... etc.) except where noted below.

Evidence of water infiltration (i.e., staining, peeling paint, and generally light surface irregularities) was observed at the northeast and southwest corners of the building. A pocketknife was used to probe the slabs within the stained areas to try and identify any obvious areas of noticeably soft or damaged material. While random probing with a knife can help identify areas of deterioration, it is not a definitive technique for identifying structural damage. Where probed, the stained slabs generally felt the same as typical slabs.

It is our understanding that the ceilings were painted within the last few years. Given that some peeling paint and staining was observed, it generally confirms that the leakage remains active. Continued water infiltration will eventually reduce the capacity of the Siporex slabs. Roof replacement (or repair) is recommended in the short-term. We do not know when the roof system was last replaced.

We identified one location at the southeast corner where a slab appears to have been damaged, possibly during construction. The damage is not significant and does not represent a reduction in the capacity of the member in our opinion.

A newer mechanical penetration through the existing roof slabs at the northwest corner of the building was noted. The size of the opening is hidden behind the metal flange, which was not removed during our review. Typical Siporex details limit opening sizes to 6" square maximum without providing compensating construction. We recommend removing the flange to expose the penetration to ensure that the opening does not exceed the recommended limit.

3.1.3 Structural Analysis

Existing structural drawings indicate that the roof structure was designed to accommodate a superimposed dead load of 5 psf and a snow load of 43 psf. Our analyses generally confirmed that the structure was designed for these loads.

We note that the superimposed dead load is relatively light and does not include an allowance for suspended ceilings, mechanical, or electrical systems. That said, current building systems are minimal, and the ceiling and services in the corridors are generally suspended from secondary framing members that span between the masonry walls. The design snow load is consistent with current requirements of the Ontario Building Code for buildings in North Bay, Ontario (45 psf).

Comparing the slab spans and the self-weight noted on the existing drawings with published Siporex load tables, we are of the opinion that the slabs are most likely capable of safely supporting the anticipated loads. This opinion is based on our review of slab performance to date and the Siporex load tables, which indicate that slabs with minimal reinforcement would generally suffice. Note that we did not perform any destructive investigation to confirm the slab density, strength, or reinforcing steel configuration.

A typical open-web steel joist over one of the classrooms was measured on site and analysed. Considering the load-reduction factors presented in Commentary L of the 2015 Structural Commentaries User's Guide – NBC 2005 Part 4 of Division B, we have generally confirmed that the joists are capable of safely supporting the anticipated loads but have no appreciable reserve capacity for increased loading beyond that considered in the original design.

3.2 1973 Addition

The high roof framing over the gym consists of a 1 1/2" deep, corrugated steel deck spanning approximately 4'-0" between 28" deep open-web steel joists spanning between masonry walls.

3.2.1 Observations

Where reviewed, the roof structure generally appeared to be in good condition. We did not observe any obvious signs of structural distress (i.e., excessive differential deflections, excessive cracking, spalling, excessive corrosion... etc.) or water infiltration.

We identified two (2) unreinforced openings through the steel deck at the southwest corner of the roof that exceed the maximum unreinforced opening width of 6" recommended by the Canadian Sheet Steel Building Institute. Compensating construction is required to adequately support the steel deck at both locations.

3.2.2 Structural Analysis

Existing structural drawings indicate that the roof structure was designed to accommodate a superimposed dead load of approximately 16 psf and a snow load of 43 psf. Our analyses generally confirmed that the structure was designed for these loads.

We recommend maintaining a minimum allowance of 6 psf to account for current or future mechanical and/or electrical services, leaving approximately 10 psf for the roof assembly. As noted previously, the design snow load is consistent with current code requirements.

3.3 Reroofing

It is our understanding that a new roof system is proposed, and a winter installation is being considered. As such, an adhered roof system may not be feasible and either a ballasted or mechanically fastened system is being considered in lieu.

A ballasted roof system in North Bay will need an average ballast weight of approximately 15 psf, which represents a significant increase in the applied loads on both roofs in question. To compensate for the additional weight, all open-web steel joists (in both the 1963 and 1973 Additions) would require full-length reinforcement (i.e., new steel members welded to the existing). Destructive investigation would be required to confirm the reinforcement configuration in the Siporex slabs of the 1963 Addition. We anticipate that the slabs over the classrooms would be

capable of supporting the additional weight without any compensating construction, however, the slabs over the corridors would likely require that new steel beams be installed to reduce the slab spans.

A mechanically fastened system may prove challenging on the 1963 Addition as many fasteners are not suitable for use in Siporex slabs. A roofing manufacturer/installer with experience on similar roofs would be an asset and may be able to recommend suitable fasteners. Ultimately, the roof system and its connections to the structure should be determined by the manufacturer/installer to ensure that the Owner receives a roof system complete with warranty.

Siporex is at risk of damage during reroofing operations, even when special care is taken by the Contractor. In addition to damage caused by impact and/or abrasion forces, the removal of bonded roofing can damage the grouted joint between slabs (which provides the continuity necessary for roof diaphragm action) and/or the top surface of the slabs. We generally recommend avoiding the removal of any existing bonded roof systems during reroofing. A series of preliminary roof test-cuts are recommended to generally confirm that the top surface of the slabs is in good condition, the grouted joint is intact, and whether the existing roofing system is well-adhered. Test-cuts should be performed and reviewed prior to developing the Tender Documents.

Increasing the level of insulation on a roof constitutes a reduction in the performance level of the structure, as defined by the Ontario Building Code. This effective reduction in performance level is because improved insulation results in a colder roof, less melting of snow, and therefore greater snow accumulations as compared to those experienced by the roof to date. Based on our review and analyses, the structure at both roofs in question can accommodate increased insulation in our opinion.

4. RECOMMENDATIONS

Where noted, recommended timeframes for further investigation/remediation are provided. Timeframes provided are not to be construed as the definitive remaining lifespan of a particular system, but rather to help identify the urgency of a particular recommendation.

All compensating construction is to be designed by a Professional Engineer, installed by a qualified Contractor, and with the approval of the Chief Building Official or Authority Having Jurisdiction.

4.1 Reinforce roof penetrations in the 1973 Addition [immediate]

Two (2) unreinforced penetrations were observed through the steel roof deck at the southwest corner of the roof. New structural steel reinforcement is recommended at each location to provide adequate support to the deck. New steel channels spanning to the adjacent joist top chords are anticipated at the larger opening, while new steel angles installed at the underside of the deck is likely sufficient at the smaller opening.

4.2 Investigate roof penetration in the 1963 Addition [1 year]

A mechanical penetration through the roof slabs at the northwest corner should be exposed to verify that the opening does not exceed the recommended maximum. Compensating construction may be required to support the slabs should it be confirmed that the opening exceeds 6" square.

4.3 Replace roofing on the 1963 Addition [1 year]

The roof over the 1963 Addition appears to be leaking. Siporex slabs have a documented history of poor performance under prolonged exposure to moisture. While we did not observe any obvious signs of structural

distress or significant damage to the slabs during our review, continued leakage will eventually reduce the structural capacity of the roof structure. Replacing the roof system should be a priority.

Reroofing over Siporex slabs can be challenging as they are inherently weak, easily damaged, and may not accept traditional mechanical fastening systems. Prior to developing reroofing details, we recommend performing a series of cut-test openings to verify the existing roofing system (including the quality of bond to the slabs, if appropriate) and the condition of the top surface of the slabs. It might be feasible to engage a Roofer at this stage to investigate potential mechanical fastening options that would satisfy Manufacturer warranty requirements.

We trust this information is adequate for your current needs. Please do not hesitate to contact us with any questions or comments.

Sincerely,



Steve Cairns, P.Eng.

A2S Consulting Engineers



Attachments: Appendix A – Limitations (2 pages)
 Appendix B – Extent of Review (1 page)
 Appendix C – Photos (6 pages)

21177A.let01//swc

APPENDIX A – LIMITATIONS

“Consultant” in the following document refers to A2S Consulting Engineers.

- The scope of our work and related responsibilities related to our work are defined in our proposal and Conditions of Assignment.
- Any user accepts that decisions made or actions taken based upon interpretation of our work are the responsibility of only the parties directly involved in the decisions or actions.
- No party other than the Client shall rely on the Consultant's work without the express written consent of the Consultant, and then only to the extent of the specific terms in that consent. Any use which a third party makes of this work, or any reliance on or decisions made based on it, are the responsibility of such third parties. Any third party user of this report specifically denies any right to any claims, whether in contract, tort and/or any other cause of action in law, against the Consultant (including sub-consultants, their officers, agents and employees). The work reflects the Consultant's best judgement in light of the information reviewed by them at the time of preparation. It is not a certification of compliance with past or present regulations. Unless otherwise agreed in writing by the Consultant, it shall not be used to express or imply warranty as to the fitness of the property for a particular purpose. No portion of this report may be used as a separate entity; it is written to be read in its entirety.
- Only the specific information identified has been reviewed. No physical or destructive testing and no design calculations have been performed unless specifically recorded. Conditions existing but not recorded were not apparent given the level of study undertaken. Conditions may differ from those observed, which were relied upon to develop our recommendations. Only conditions actually seen during examination of representative samples can be said to have been appraised and comments on the balance of the conditions are assumptions based upon extrapolation. Therefore, this work does not eliminate uncertainty regarding the potential for existing or future costs, hazards or losses in connection with a property. We can perform further investigation on items of concern if so required.
- The Consultant is not responsible for, or obligated to identify, mistakes or insufficiencies in the information obtained from the various sources, or to verify the accuracy of the information.
- No statements by the Consultant are given as or shall be interpreted as opinions for legal, environmental or health findings. The Consultant is not investigating or providing advice about pollutants, contaminants or hazardous materials.
- The Client and other users of this report expressly deny any right to any claim against the Consultant, including claims arising from personal injury related to pollutants, contaminants or hazardous materials, including but not limited to asbestos, mould, mildew or other fungus.
- Applicable codes and design standards may have undergone revision since the subject property was designed and constructed. As an example, design loads (such as those for temperature, snow, wind, rain, seismic, etc.) and the specific methods of calculating the capacity of the systems to resist these loads may have changed significantly. Unless specifically included in our scope, no calculations or evaluations have been completed to verify compliance with current building codes and design standards.
- Timeframes given for undertaking work represent our opinion of when to budget for the work. Failure of the item, or the optimum repair/replacement process, may vary from our estimate. This opinion is therefore given as a reasonable average approximation rather than a specific prediction.

- Qualified design professionals are required to perform additional evaluation (as necessary), design and general review during construction when carrying out the recommendations included in this report. Ongoing monitoring is required to confirm that repair or renewal measures are successful and to identify for changing conditions that would require increased levels of intervention or different repair / renewal strategies.
- Qualified contractors are required to implement any recommendations included in this report.
- Failure to implement the recommendations included in this report and/or failure to maintain building components appropriately could lead to ongoing and accelerated deterioration that may lead to unsafe conditions developing.

APPENDIX B – EXTENT OF REVIEW



APPENDIX C – PHOTOS



Figure 1: 1963 Addition - Typical roof framing over classrooms.



Figure 2: 1963 Addition - Typical roof framing over corridors.



Figure 3: 1963 Addition – Evidence of water infiltration at northeast corner.



Figure 4: 1963 Addition - Evidence of water infiltration at northeast corner.



Figure 5: 1963 Addition - Evidence of water infiltration at northeast corner.



Figure 6: 1963 Addition – Minor surface damage to a slab at the southeast corner.



Figure 7: 1963 Addition – Evidence of water infiltration at the southwest corner.



Figure 8: 1963 Addition – Mechanical penetration through Siporex slabs.



Figure 9: 1973 Addition - Typical high roof framing.



Figure 10: 1973 Addition – Roof penetrations at the southwest corner.



Figure 11: 1973 Addition – Larger roof penetration.



Figure 12: 1973 Addition – Smaller roof penetration.

STRUCTURAL WORK

1. GENERAL

- 1.1. COMPLY WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE AND THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
 - 1.1.1. A BUILDING PERMIT IS REQUIRED FOR ALL STRUCTURAL WORKS UNLESS OTHERWISE NOTED BY THE CHIEF BUILDING OFFICIAL OR AUTHORITY HAVING JURISDICTION.
- 1.2. DO NOT CUT OR DRILL ANY OPENINGS IN STRUCTURAL MEMBERS WITHOUT WRITTEN PERMISSION FROM THE STRUCTURAL CONSULTANT UNLESS SPECIFICALLY NOTED ON THE STRUCTURAL DRAWINGS.

2. SUBMITTALS

- 2.1. SUBMIT FOR REVIEW BEFORE THE START OF THE WORK SUBMIT SHOP DRAWINGS IN UNLOCKED, PDF DOCUMENT FORMAT FOR:
 - 2.1.1. STRUCTURAL STEEL (ERECTION DRAWINGS AND DETAILS SEALED AND SIGNED BY A PROFESSIONAL ENGINEER)
- 2.2. REVIEW OF SHOP DRAWINGS IS PERFORMED ON A RATIONAL SAMPLING BASIS FOR GENERAL CONFORMANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS PREPARED BY THE STRUCTURAL CONSULTANT. OUR REVIEW DOES NOT INCLUDE DETAILED CHECKING OF DIMENSIONS OR EXTENSIVE CHECKING OF CALCULATIONS FOR ELEMENTS ENGINEERED BY OTHERS AND DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COMPLETE THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

3. EXISTING STRUCTURES


- 3.1. VERIFY EXISTING DIMENSIONS AND CONDITIONS ON SITE PRIOR TO CONSTRUCTION.
- 3.2. TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING STRUCTURES DURING CONSTRUCTION.
- 3.3. EXISTING CONDITIONS ARE ASSUMED. REPORT ANY VARIATIONS TO THE STRUCTURAL CONSULTANT BEFORE PROCEEDING WITH THE WORK.

4. INSPECTION AND TESTING

- 4.1. RETAIN AN INDEPENDENT INSPECTION AND TESTING COMPANY TO UNDERTAKE CONCRETE TESTING, MASONRY TESTING AND TO INSPECT STRUCTURAL STEEL WORK (AS APPLICABLE) ON SITE.
 - 4.1.1. STRUCTURAL STEEL INSPECTION SHALL BE COMPLETED BY AN INDIVIDUAL OR FIRM QUALIFIED TO CWB, CSA W178.1 AND CSA W178.2. THE INSPECTION SHALL COVER SHOP WORK AND FIELD WORK TO ENSURE COMPLIANCE WITH ALL APPLICABLE STANDARDS AND BE PERFORMED IN ACCORDANCE WITH CSA S16.

5. STRUCTURAL STEEL

- 5.1. CONFORM TO CAN/CSA S16: "LIMIT STATES DESIGN OF STEEL STRUCTURES"
- 5.2. FABRICATOR SHALL BE CERTIFIED BY THE CANADIAN WELDING BUREAU UNDER REQUIREMENTS OF CSA W47.1, DIVISION 1 OR 2.
- 5.3. MATERIALS:
 - 5.3.1. CHANNELS, ANGLES: CAN/CSA G40.21, 300W
 - 5.3.2. PLATES, BARS: CAN/CSA G40.21, 300W
 - 5.3.3. BOLTS: ASTM A325M, UNLESS NOTED
 - 5.3.4. WELDING: CAN/CSA W59
- 5.4. SUBMIT SHOP DRAWINGS INCLUDING ERECTION DRAWINGS AND SHOP DETAIL DRAWINGS. ALL SHOP DRAWINGS TO BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN ONTARIO RETAINED BY THE CONTRACTOR TO BE RESPONSIBLE FOR THE DESIGN OF ALL CONNECTIONS. SHOW ON STEEL SHOP DRAWINGS: MEMBER SIZES, MATERIAL SPECIFICATIONS, SPLICES, AND SHOP / FIELD CONNECTIONS.
- 5.5. SUBMIT MILL TEST REPORTS/CERTIFICATES FOR ALL MEMBERS WHEN REQUESTED.

	NIPISSING AND PARRY SOUND CAS 140 ELMWOOD AVE, NORTH BAY, ON	
	GENERAL NOTES AND TYPICAL DETAILS	
	DATE:	2022.01.31
	SCALE:	NTS
	DRAWN BY:	SWC
	CHECKED BY:	SWC
	PROJECT NO.:	21177A
DRAWING NO.:		
S1		

5.6. SHOP PAINTING

5.6.1. PREPARE SURFACE AND PROVIDE SHOP PAINT TO CISC/CPMA STANDARD 1-73a.

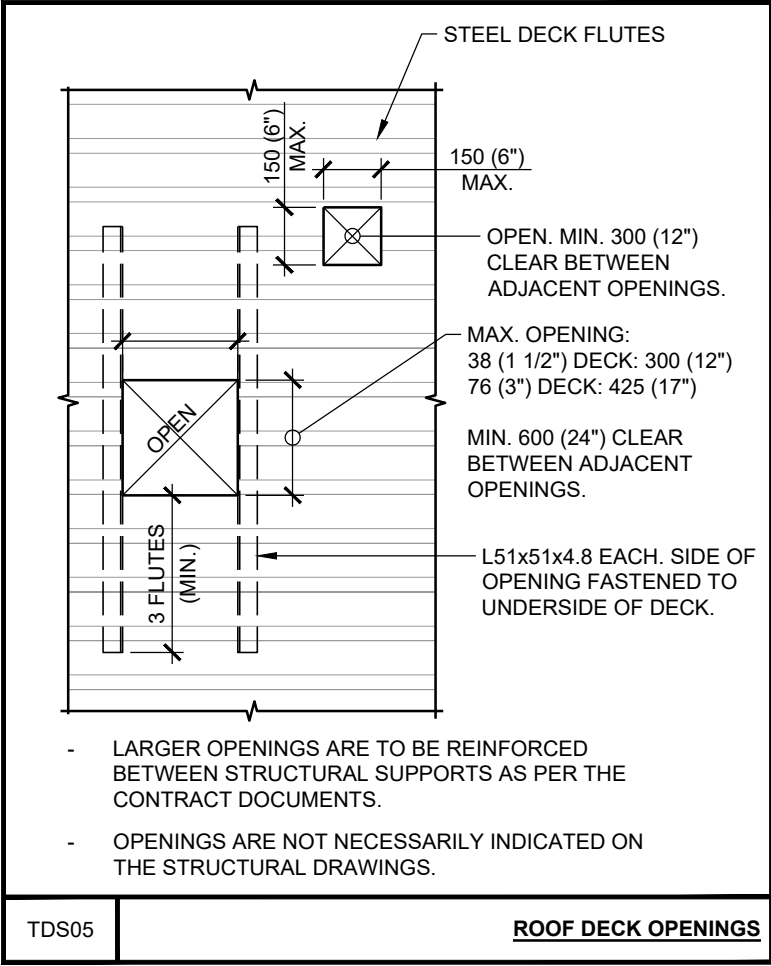
5.6.2. TOUCH-UP PAINT AFTER ERECTION.

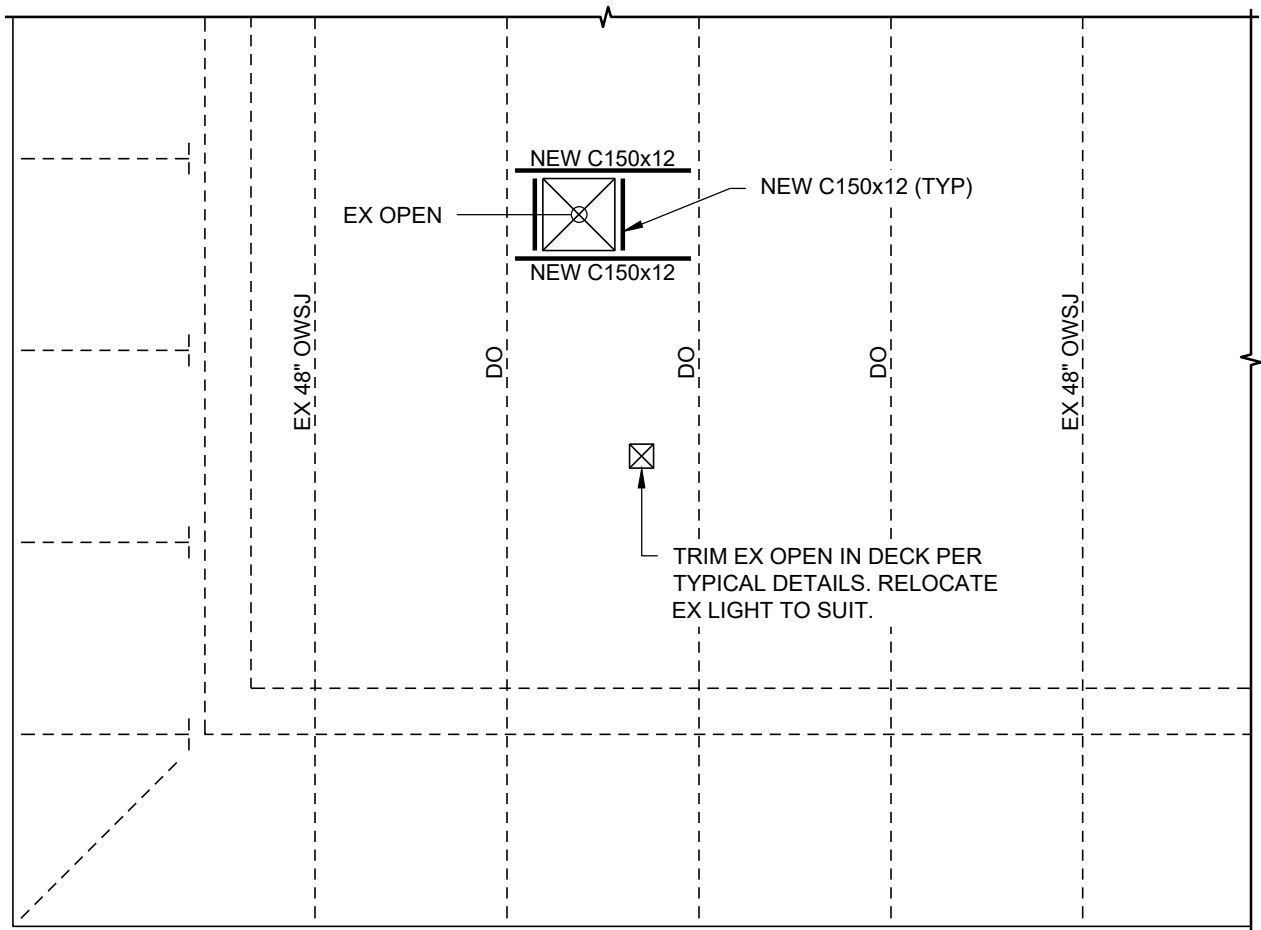
6. DESIGN DATA

6.1. STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE ONTARIO BUILDING CODE 2012 SUPPLEMENTED BY THE USER'S GUIDE - NBC 2015 STRUCTURAL COMMENTARIES (PART 4 OF DIVISION B).

6.2. CLIMATIC LOCATION: NORTH BAY, ONTARIO

6.3. IMPORTANCE CATEGORY: NORMAL





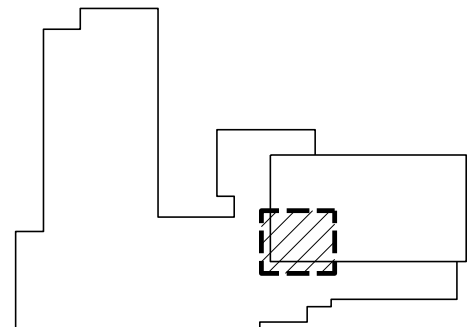
PARTIAL HIGH ROOF FRAMING PLAN

SCALE: 1/4"=1'-0"

ROOF PLAN NOTES

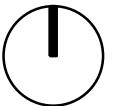
1. SEE GENERAL REQUIREMENTS AND TYPICAL DETAILS ON DRAWINGS S1 AND S2.
2. ROOF DATUM ELEVATION TO UNDERSIDE OF EXISTING DECK IS 21'-4".
3. DESIGN LOADS (NEW STRUCTURE):
 - 3.1. DEAD LOAD (PSF):

ROOFING -	13
STRUCTURE -	6
MECHANICAL -	6
<u>CEILING + ELEC. -</u>	<u>4</u>
	29 PSF
 - 3.2. MINIMUM DESIGN SNOW LOAD ON ROOF IS 45 PSF.
 - 3.3. CONCENTRATED LIVE LOAD: 1.3 kN (290 LBS) ACTING ON AN AREA OF 200 x 200 (8" x 8") AT ANY LOCATION PER TABLE 4.1.5.9 OF THE OBC.



KEY PLAN

SCALE: NTS



PROJECT
NORTH

Tender Form Submitted By Name: _____
Address: _____
Telephone: _____
Email: _____

Tender Submitted to Attention:

Marcus Wheeler
Bertrand Wheeler Architecture Inc.
528 Cassells Street,
North Bay, ON P1B 3Z7

Base Bid We offer to enter into a Contract to perform the Work required by the Tender Documents for the stipulated price of:

_____ (\$ _____)

The above Base Bid offer does not include value added taxes (HST).

Construction Time We agree to complete the Work in accordance with the Tender Documents, including Section 01011, Summary of Work within _____ weeks of Notice of Award.

Confirmation of Documents We acknowledge our compliance with the Instructions to Bidders and the Tender Documents relating to the Work, including all Addenda as follows.

We acknowledge receipt of Addenda No's. _____ to _____.

Bid Evaluation Information We have appended information relating to the Bid Evaluation procedure as prescribed by the Owner and understand that the selection will be based upon the procedure described therein.

Tender We agree and acknowledge that the lowest or any of the submitted Tenders will not necessarily be accepted.

We agree and acknowledge that this Bid is irrevocable and open to acceptance for a period of **60 days** from the date of Bid Closing.

Selective Roof Replacement
Children's Aid Society of Nipissing & Parry Sound
140 Elmwood Avenue, North Bay, ON P1B 5G6
Arch. Project No. 2165
February 2022

00300
TENDER FORM

Signed, sealed and submitted for and on behalf of:

Company Name

Address

Name and Title

Witness Name and Title

Signature

Witness Signature

Date

(Affix Corporate Seal over signature)

List of Sub-Contractors

The following are the Sub-Contractors we propose to use for the divisions or sections of the Work (name all subcontractors to perform work). Value added taxes for the sections of Work are not included in the following amounts.

Division / Section	Name of Sub-Contractor	Amount
	See Specification Section 01021 (insert full amount of both Cash & Contingency Allowances)	
Allowances		\$
Demolition/ Removals		\$
Structural Steel		\$
Roofing		\$
Flashings		\$

1 Contract Form

- .1 This section of the final Contract Documents shall contain a copy of CCDC Document 2, Stipulated Price Contract, 2008 edition.
- .2 A copy of the noted CCDC document is available from the Consultant upon request from the Bidder.
- .3 By submitting a tender, the Bidder acknowledges that the Bidder and all related Sub-Contractors are fully aware of the proposed CCDC document.
- .4 The balance of the Contract Form will be completed upon acceptance of a Bid.

The Standard Construction Document for a Stipulated Price Contract, English version, consisting of the Agreement between the Owner and the Contractor, Definitions and General Conditions of the Stipulated Price Contract, Parts 1 to 12 inclusive, governing the same is made part of these Contract Documents, with the following amendments, additions and modifications:

1. AGREEMENT BETWEEN OWNER AND CONTRACTOR

1.1 ARTICLE A-5 – PAYMENT

- 1.1.1. Amend paragraph 5.1, line 3, by inserting “ten” in the first blank in that line. Further amend paragraph 5.1, line 3, by inserting “10” in the second blank in that line.
- 1.1.2. Amend paragraph 5.1.3, in the first line, by deleting the words “...the issuance of the...” and replacing them with “...receipt of the Consultant’s...”.
- 1.1.3. Delete paragraph 5.3.1 and replace it with the following:

“Should either party fail to make payments as they become due under the terms of the *Contract* or in an award by arbitration or court, interest shall also become due and payable on such unpaid amounts at 2% above the prime rate. Such interest shall be compounded on a monthly basis. The prime rate shall be the rate of interest quoted by **Royal Bank of Canada** for prime business loans as it may change from time to time.”

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

- 1.2.1. Delete the text of ARTICLE A-6 RECEIPT OF AND ADDRESSES FOR NOTICES IN WRITING (retaining the provision for the addresses of the Owner, Contractor and Consultant) and replace it with the following:

“6.1 *Notices in Writing* between the parties or between them and the *Consultant* shall be considered to have been received by the addressee on the date of receipt if delivered by hand or by commercial courier or if sent during normal business hours by fax and addressed as set out below. Such *Notices in Writing* will be deemed to be received by the addressee on the next business day if sent by fax after normal business hours or if sent by overnight commercial courier. Such *Notices in Writing* will be deemed to be received by the addressee on the fifth *Working Day* following the date of mailing, if sent by pre-paid registered post, when addressed as set out below. An address for a party may be changed by *Notice in Writing* to the other party setting out the new address in accordance with this article.”

The Owner at: **Children's Aid Society of Nipissing & Parry Sound
457 Main Street West
North Bay, ON P1B 2V3**

The Contractor at: To be determined

The Consultant at: **Marcus Wheeler, OAA
Bertrand Wheeler Architecture Inc.
528 Cassells Street, North Bay, On
Fax: 705-472-2486**

2. DEFINITIONS

- 2.1.1. Amend Definition 4 by adding the following to the end of that Definition:

"For purposes of the *Contract*, the terms "Consultant", "Architect" and "Engineer" shall be considered synonymous."

- 2.1.2. Amend Definition 12 by adding the following to the end of that Definition:

"For purposes of the *Contract*, the terms "Owner", and "**Children's Aid Society of Nipissing & Parry Sound**" shall be considered synonymous.

- 2.1.3. Amend Definition 16, Provide, as follows:

"*'Provide'* means to supply and install. *Provide* has this meaning whether or not the first letter is capitalized."

- 2.1.4. Add a new Definition 27, Act, as follows:

" *'Act'* means the Construction Lien Act (Ontario)."

- 2.1.5. Add a new Definition 28, by others, as follows:

"The words 'By Others' when used in the *Specifications* or on the *Drawings* means a person performing part of the *Work*, other than the *Contractor*. For greater certainty, the only means by which work or services shown or specified shall be indicated as not being in the *Contract* is by use of the initials 'N/C' or the words 'Not In Contract' or the words 'by *Owner*'."

- 2.1.6. Add a new Definition 29, Construction Schedule, as follows:

"*'Construction Schedule'* means the schedule for the performance of the *Work* provided by the *Contractor* pursuant to GC3.5, including any amendments to the *Construction Schedule* made pursuant to the *Contract Documents*."

- 2.1.7. Add a new Definition 30, Environmental Programs, as follows:

"*'Environmental Programs'* means the environmental plans, programs, procedures and requirements of the *Owner* found in the manual prepared and maintained by the *Owner* and referred to in the Instructions to Bidders. The *Environmental Programs* include *Owner's* Asbestos Control Program, its mould program and a program for controlling and handling designated substances."

- 2.1.8. Add a new Definition 31, Exposed, as follows:

"*'Exposed'* means visible by the *Owner* at the completion of the *Work*, unless otherwise indicated in the *Contract Documents*. *Exposed* items include all items on roof areas, mechanical and service rooms, inside of cupboards, cabinets and similar items."

- 2.1.9. Add a new Definition 32, Force Majeure, as follows:

"*'Force Majeure'* means any cause, beyond the *Contractor's* control, other than bankruptcy or insolvency, which prevents the performance by the *Contractor* of any of its obligations under the *Contract* and the event of *Force Majeure* was not caused by the *Contractor's* default or active commission or omission and could not be avoided or mitigated by the exercise of reasonable effort or foresight by the *Contractor*. *Force Majeure*

includes *Labour Disputes*, fire, unusual delay by common carriers or unavoidable casualties, civil disturbance, acts, orders, legislation, regulations or directives of any government or other public authority, acts of a public enemy, war, riot, sabotage, blockage embargo, shortage of materials and supplies, lightning, earthquake, abnormally adverse weather conditions or acts of God."

2.1.10. Add a new Definition 33, Install, as follows:

"*Install* means install and connect. *Install* has this meaning whether or not the first letter is capitalized."

2.1.11. Add a new Definition 34, Labour Dispute, as follows:

"*Labour Dispute* means any lawful or unlawful labour problems, work stoppage, labour disruption, strike (including lockouts decreed or recommended for its members by a recognized contractor's association of which the *Contractor* is a member or to which the *Contractor* is otherwise bound), job action, slow down, picketing, refusal to work or continue to work, refusal to supply materials, cessation or work or other labour controversy which does, or might, affect the *Work*."

2.1.12. Add a new Definition 35, OHSA, as follows:

"*OHSA* means the Occupational Health and Safety Act (Ontario)"

2.1.13. Add a new Definition 36, Request for Information, as follows:

"*Request for Information* or *RFI* means written documentation sent by the *Contractor* to the *Owner* or to the *Owner's* representative or to the *Consultant* requesting written clarification(s) and/or interpretation(s) of the *Drawings* and/or *Specifications*, *Contract* requirements and/or other pertinent information required to complete the *Work* of the *Contract* without applying for a change or changes to the *Work*."

2.1.14. Add a new Definition 37, Submittals, as follows:

"*Submittals* means documents or items required by the *Contract Documents* to be provided by the *Contractor* such as:

- *Shop Drawings*, samples, models, mock-ups to indicate details or characteristics, before the portion of the *Work* that they represent can be incorporated into the *Work*; and,
- Record drawings and manuals to provide instructions to the operation and maintenance of the *Work*.

2.1.15. Add a new Definition 38, reviewed, instructed, required, directed, permitted, inspected, ordered, as follows:

"Wherever the words 'reviewed', 'instructed', 'required', 'directed', 'permitted', 'inspected', 'ordered' or similar words are used they shall mean, unless the context provides otherwise, 'reviewed by the *Consultant*', 'instructed by the *Consultant*', 'required by the *Consultant*', 'directed by the *Consultant*', 'permitted by the *Consultant*' and 'ordered by the *Consultant*'."

2.1.16 Add a new Definition 39, satisfactory, as follows:

"Wherever the word 'satisfactory' or similar words or phrases are used in the *Contract Documents*, it means, unless the context provides otherwise, 'satisfactory to the *Owner* and the *Consultant*'."

3. AMENDMENTS TO THE GENERAL CONDITIONS OF THE STIPULATED PRICE CONTRACT GC 1.1 CONTRACT DOCUMENTS

3.1.1. Amend paragraph 1.1.1 by adding the following between the first and second sentences:

"In many cases, the language of the *Contract Documents* is written in the imperative for the sake of brevity. Clauses containing instructions or directions are intended for the *Contractor* and such sentences are deemed to include the words, "the *Contractor* shall"."

3.1.2. Amend paragraph 1.1.6 by adding the following to the end of that paragraph:

"The *Specifications* are divided into divisions and sections for convenience but shall be read as a whole and neither such division 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 divisions. The Drawings are, in part, diagrammatic and are intended to convey the scope of the *Work* and indicate general and appropriate locations, arrangement and sizes of fixtures, equipment and outlets. The *Contractor* shall obtain more accurate information about the locations, arrangement and sizes from study and coordination of the Drawings, including *Shop Drawings* and shall become familiar with conditions and spaces affecting these matters before proceeding with the *Work*. Where site conditions require reasonable minor changes in indicated locations and arrangements, the *Contractor* shall make such changes at no additional cost to the Owner. Similarly, where known conditions or existing conditions interfere with new installation and require relocation, the *Contractor* shall include such relocation in the *Work*. The *Contractor* shall arrange and install fixtures and equipment in such a way as to conserve as much headroom and space as possible. The schedules are that portion of the *Contract Documents* wherever located and whenever issued, compiling information of similar content and may consist of drawings, tables and/or lists."

3.1.3. Amend paragraph 1.1.7 by adding subparagraphs 1.1.7.5, 1.1.7.6, 1.1.7.7, 1.1.7.8, and 1.1.7.9 as follows:

- .5 Annotations on the *Drawings* shall govern over the graphic representation of the *Drawings*.
- .6 Finishes in the room finish schedules shall govern over those shown on the *Drawings*.
- .7 Schedules of Division 01 – General Requirements of the *Specifications* shall form part of and be read in conjunction with the technical specification section as listed in the table of contents of the *Specifications*.
- .8 Architectural drawings shall have precedence over structural, plumbing, mechanical, electrical and landscape drawings insofar as outlining, determining and interpreting conflicts over the required design intent of all architectural layouts and architectural elements of construction, it being understood that the integrity and installation of the systems designed by the *Consultant* or its sub-*Consultants* are to remain with each of the applicable drawing disciplines.
Fixturing drawing provided by the *Owner* shall have precedence over architectural drawings insofar as outlining, determining and interpreting conflicts over the required design intent of all architectural layouts."

3.1.4. Delete paragraph 1.1.8 in its entirety and substitute new paragraph 1.1.8:

"1.1.8 The *Contractor* may obtain, at its own additional cost, copies of the *Contract Documents* from the electronic plans room at the North Bay Construction Depository."

3.1.5. Add a new paragraph 1.1.11 as follows:

"1.1.11 One set of signed and sealed *Contract Documents* shall be retained by each of the *Owner* and the *Contractor*."

3.2 GC2.2 ROLE OF THE CONSULTANT

3.2.1. Amend paragraph 2.2.7 in the second and third lines by deleting the words: "...except with respect to GC5.1 — FINANCING INFORMATION REQUIRED OF THE OWNER".

3.2.2. Amend paragraph 2.2.13 by adding the following to the end of that paragraph:

"If, in the opinion of the *Contractor*, the Supplemental Instruction involves an adjustment in the *Contract Price* or in the *Contract Time*, it shall, within ten (10) *Working days* of receipt of a Supplemental Instruction provide the *Consultant* with a written notice to that effect. In the event that the *Contractor* needs additional information to determine whether a Supplemental Instruction involves an adjustment of the *Contract Price* or in the *Contract Time*, it may issue a written request to the *Consultant* seeking such additional information. Following receipt of such information, the *Contractor* shall, within ten (10) *Working days* of receipt of such additional information provide the *Consultant* with the written notice described in the first sentence of this paragraph 2.2.13. Failure to provide written notification within the time stipulated in this paragraph 2.2.13 shall be deemed an acceptance of the Supplemental Instruction by the *Contractor* without adjustment in the *Contract Price* or *Contract Time*."

3.2.3. Add new paragraphs 2.2.19 and 2.2.20 as follows:

"2.2.19 The *Consultant's* services will be performed solely for the benefit of the *Owner* and no *Contractor*, *Subcontractor*, *Supplier* or other third party shall have any claim against the *Consultant* as a result of the performance or non-performance of the *Consultant's* services. The *Contractor* shall include this provision in any contracts it makes with its *Subcontractors*, *Suppliers* and others and shall require such *Subcontractors*, *Suppliers* and others to include the same term in their contracts with sub-*Subcontractors*, sub-*Suppliers* and others.

2.2.20 The *Specifications* are divided into divisions and sections for convenience but shall be read as a whole and neither such division nor anything else contained in the *Contract Documents* will be construed to place responsibility on the *Consultant* to settle disputes among *Subcontractors* and *Suppliers* in respect to such divisions."

3.2.4. Add a new paragraph 2.4.1.1 as follows:

"2.4.1.1 The *Contractor* shall prioritize the correction of any defective *Work* which, in the sole discretion of the *Owner*, adversely affects the day to day operation of the *Owner*."

3.2.5. Add a new paragraph 3.1.3 as follows:

3.1.3 Prior to commencing individual procurement, fabrication and construction activities, 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, the *Contractor* shall immediately notify the *Consultant* in writing and obtain written instructions from the *Consultant* before proceeding with any part of the affected *Work*.

3.3 GC 3.2 CONSTRUCTION BY OWNER OR OTHER CONTRACTORS

3.3.1. Delete subparagraphs 3.2.2.1 and 3.2.2.2 in their entirety and substitute "intentionally left blank".

3.3.2. Delete paragraph 3.2.3.2 and replace it with the following:

"3.2.3.2 Co-ordinate and schedule the activities and work of other contractors and *Owner's* own forces with the Work of the *Contractor* and connect as specified or shown in the *Contract Documents*;"

3.3.3. Add a new paragraph 3.2.3.4 as follows:

"3.2.3.4 Subject to GC9.4 CONSTRUCTION SAFETY, for the *Owner's* own forces and for other contractors, assume overall responsibility for compliance with all aspects of the applicable Health and Safety legislation of the *Place of the Work*, including all the responsibilities of the "constructor" under OHSA."

3.4 GC3.4 DOCUMENT REVIEW

3.4.1. Delete the second sentence of paragraph 3.4.1 and replace it with the following two sentences:

"Such review by the *Contractor* shall meet the standard of care described in paragraph 3.15.1 of this Contract. Except for the obligation to make such review and report the result, the *Contractor* does not assume any responsibility to the *Owner* or to the *Consultant* for the accuracy of the *Contract Documents*."

3.4.2. Amend paragraph 3.4.1 in the fourth line, at the beginning of the third sentence, by adding the words, "Provided it has exercised the degree of care and skill described in this paragraph 3.4.1, the *Contractor*..."

3.4.3. Add new paragraphs 3.4.2 and 3.4.3 as follows:

"3.4.2 Errors, inconsistencies and/or omissions in the Drawings and/or *Specifications* which do not allow completion of the *Work* of the Contract shall be brought to the *Consultant's* attention prior to the execution of the Contract by means of an *RFI*."

3.4.3. Notwithstanding the foregoing, errors, inconsistencies, discrepancies and/or omissions shall not include lack of reference on the Drawings or in the *Specifications* to labour and/or *Products* that are required or normally recognized within respective trade practices as being necessary for the complete execution of the *Work*. The *Contractor* shall not use subsequent *RFIs*, issued during execution of the *Work*, to establish a change and/or changes in the *Work* pursuant to Part 6 – CHANGES IN THE WORK."

3.5 GC3.5 CONSTRUCTION SCHEDULE

3.5.1. Further amend paragraph 3.5.1 by adding a new subparagraph 3.5.1.2 as follows:

"3.5.1.2 provide the expertise and resources, such resources including manpower and equipment, as are necessary to maintain progress under the construction schedule referred to in paragraph 3.5.1.1 or any successor or revised schedule approved by the *Owner* pursuant to this GC3.5."

3.5.2. Delete existing paragraph 3.5.1.2 and replace it with a new paragraph which is numbered 3.5.1.3 and reads as follows:

"3.5.1.3 continuously monitor the progress of the *Work* and provide a monthly progress schedule covering all of the baseline activities and including the actual start, actual finish and percentage completion of those activities. Each month, the *Contractor* shall submit, for the *Owner's* approval, any changes made to the baseline logic and activity durations."

3.5.3. Delete existing paragraph 3.5.1.3 and replace it with a new paragraph which is numbered 3.5.1.4 and reads as follows:

"3.5.1.4 if after applying the expertise and resources required under paragraph 3.5.1.2, the *Contractor* forms the opinion that the slippage in schedule reported in paragraph 3.5.1.3 cannot be recovered by the *Contractor*, it shall, in the same notice provided under paragraph 3.5.1.3, indicate to the *Consultant* if the *Contractor* intends to apply for an extension of Contract Time as provided in PART 6 — CHANGES IN THE WORK."

3.5.4. Add a new paragraph 3.5.2 as follows:

"3.5.2 Without limiting the other obligations of the *Contractor* under GC3.5, the *Contractor* shall not amend the baseline schedule described in paragraph 3.5.1.1 without the prior written consent of the Owner. In addition, at each site construction meeting, the *Contractor* shall provide to the *Owner* and the *Consultant* a two (2) week look-ahead schedule indicating the major activities to be undertaken or constructed in such two (2) week period."

3.6 GC 3.6 SUPERVISION

3.6.1. Delete paragraph 3.6.2 in its entirety and replace it with the following:

"3.6.2 The supervisor, and any project manager appointed by the *Contractor*, shall represent the *Contractor* at the Place of Work and shall have full authority to act on written instructions given by the *Consultant* and/or the *Owner* and the Owner's representative. Instructions given to the supervisor or the project manager shall be deemed to have been given to the *Contractor* and both the supervisor and any project manager shall have full authority to act on behalf of the *Contractor* and bind the *Contractor* in matters related to this Contract."

3.6.2. Add a new paragraph 3.6.3 as follows:

"3.6.3 The Owner, acting reasonably, shall have the right to order the *Contractor* to remove from the *Project* any representative or employee of the *Contractor*, *Subcontractors* or *Suppliers* who, in the opinion of the Owner, are a detriment to the *Project*."

3.7 GC 3.7 SUBCONTRACTORS AND SUPPLIERS

3.7.1. Add a new paragraph 3.7.7 as follows:

"3.7.7 Where provided in the Contract, the *Owner* may assign to the *Contractor*, and the *Contractor* agrees to accept, any contract procured by the *Owner* for *Work* or services required on the *Project* that has been pre-tendered or pre-negotiated by the Owner."

3.8 GC 3.8 LABOUR AND PRODUCTS

3.8.1. Amend paragraph 3.8.1 by adding the following sentence at the end of that paragraph:

"The *Contractor* represents and warrants that the *Products* provided for in accordance with the Contract are not subject to any conditional sales contract and are not subject to any security rights obtained by any third party which may subject any of the *Products* to seizure and/or removal from the *Place of the Work*."

3.8.2. Delete paragraph 3.8.2 and replace it with the following:

"3.8.2 *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, National Fire Prevention Association, the Technical Standards and Safety Authority (also known as TSSA) 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. The said Product shall be at the sole risk of the *Contractor*."

3.8.3. Amend paragraph 3.8.3 by adding the words, "... , agents, Subcontractors and Suppliers. . ." after the "employees" toward the end of line one.

3.8.4. Also with respect to paragraph 3.8.3, add three new sentences to the end of this paragraph which read as follows:

"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 tender documents. If no job site rules are described in the tender 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 *Contractors* duties and obligations under the OHSA and shall also include provisions making smoking and the consumption of alcohol or non-prescription drugs on the *Project* site the subject of discipline proceedings and/or termination of employment."

3.8.5. Add new paragraphs 3.8.4, 3.8.5 and 3.8.6 as follows:

"3.8.4 Upon receipt of a written notice from the *Consultant*, the *Contractor* shall dismiss from the *Place of the Work* tradesmen and labourers whose *Work* is unsatisfactory to the *Consultant* or who are considered by the *Consultant* to be unskilled or otherwise objectionable.

3.8.5 The *Contractor* shall not employ any persons on the *Work* whose labour affiliation, or lack thereof, is incompatible with other labour employed in connection with the *Work*. Any costs arising from Labour Disputes, as a result of the employ of any such person by the *Contractor*, it's Subcontractor or *Suppliers* shall be the sole expense of the *Contractor*.

3.8.6 The *Contractor* shall cooperate with the Owner and its representatives and shall take all reasonable and necessary actions to maintain stable and harmonious labour relations with respect to the *Work* at the *Place of the Work*, including cooperation to attempt to avoid *Work* stoppages, trade union jurisdictional disputes and other Labour Disputes."

3.9 GC 3.9 DOCUMENTS AT THE SITE

3.9.1. Delete paragraph 3.9.1 in its entirety and replace it with the following:

3.9.1 The *Contractor* shall keep one copy of the current *Contract Documents*, *Supplemental Instructions*, *Contemplated Change Orders*, *Change Orders*, *Change Directives*, *Cash Allowance Disbursement Authorizations*, reviewed *Shop Drawings*, *Submittals*, reports and records of meetings at the *Place of the Work*, in good order and available to the Owner and *Consultant*.

3.10 GC 3.10 SHOP DRAWINGS

3.10.1. Add new paragraphs 3.10.13, 3.10.14, 3.10.15, 3.10.16, 3.10.17 and 3.10.18 as follows:

"3.10.13 Reviewed *Shop Drawings* shall not authorize a change in the *Contract Price* and/or the *Contract Time*.

3.10.14 The *Contractor* shall prepare a *Shop Drawings* schedule acceptable to the Owner and the *Consultant* prior to the first application for payment. A draft of the proposed *Shop Drawings* schedule shall be submitted by the *Contractor* to the *Consultant* and the Owner for approval. The draft *Shop Drawings* schedule shall clearly indicate the phasing of *Shop Drawings* submissions.

- 3.10.15 Except where the parties have agreed to a different *Shop Drawings* schedule pursuant to paragraph 3.10.3, the *Contractor* shall comply with the requirements for *Shop Drawings* submissions stated in the *Specifications*, Section 01300, *Submittals*.
- 3.10.16 The *Contractor* shall not use the term "by others" on *Shop Drawings* or other *Submittals*. The related trade, Subcontractor or Supplier shall be stated.
- 3.10.17 Certain *Specifications* sections require the *Shop Drawings* to bear the seal and signature of a professional engineer. Such professional engineer must 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*.
- 3.10.18 The *Consultant* will review and return *Shop Drawings* and *Submittals* in accordance with the Schedule agreed upon in 3.10.3, or, in the absence of such a schedule, with reasonable promptness. If, for any reason, the *Consultant* cannot process the *Shop Drawings* and/or *Submittals* within the agreed-upon schedule or with reasonable promptness, the *Consultant* shall notify the *Contractor* and they shall meet to review and arrive at an acceptable revised schedule for processing. The *Contractor* shall update the *Shop Drawings* and *Submittals* schedule to correspondence to changes in the construction schedule. Changes in the *Contract Price* or *Contract Time* may be made only as provided in the *Contract*.

3.11 GC 3.13 CLEANUP

- 3.11.1. Add new paragraph 3.13.4 and 3.13.5 as follows:

- "3.13.4 Clean up during construction and the final cleaning of the *Place of the Work* is further specified in the *Specifications*, Section 01700, Execution Requirements.
- 3.13.5 In the event that the *Contractor* fails to remove waste and debris as provided in this GC 3.13, then the *Owner* or the *Consultant*, may give the *Contractor* twenty-four (24) hours' written notice to meet its obligations respecting clean up. Should the *Contractor* fail to meet its obligations pursuant to this GC 3.13 within the twenty-four (24) hour period next following delivery of the notice, the *Owner* may remove such waste and debris and deduct from payments otherwise due to the *Contractor*, the *Owner's* costs for such clean up, including a reasonable markup for administration."

3.12 GC 3.15 CONTRACTOR STANDARD OF CARE

- 3.12.1. Add a new General Condition 3.15 as follows:

- "3.15 CONTRACTOR STANDARD OF CARE
- 3.15.1 In performing this *Contract*, the *Contractor* shall exercise the degree of care, skill and diligence that would normally be exercised by an experienced, skilled and prudent contractor supplying similar services for similar projects in a first class and expeditious manner. The *Contractor* acknowledges and agrees that, throughout this *Contract*, the *Contractor's* obligations, duties and responsibilities shall be judged, evaluated and interpreted in accordance with this standard. The *Contractor* shall exercise the same standard of care in respect of any *Products*, personnel or procedures which it may recommend to the *Owner* or employ on the *Project*."

3.13 GC 3.16 CONTRACTOR USE OF PERMANENT EQUIPMENT OR SYSTEMS

- 3.13.1. Add a new General Condition 3.16 as follows:

"3.16 CONTRACTOR USE OF PERMANENT EQUIPMENT OR SYSTEMS

- 3.16.1 With the prior written approval of the Owner, the *Contractor* may make use of elements of the mechanical and electrical systems or equipment comprising a permanent part of the *Work* for the purpose of providing heat or power to the *Project* during the final stages of construction. In such event, and before the issuance of the certificate of Substantial Performance of the *Work*, the *Contractor* shall clean and make good, to the satisfaction of the *Consultant*, such systems and equipment as it had been permitted to use. The *Contractor* shall pay any and all costs associated with such use, cleaning and making good."

3.14 GC 5.1 FINANCING INFORMATION REQUIRED OF THE OWNER

- 3.14.1 Delete GC5.1 in its entirety and replace it with "Intentionally left blank."

3.15 GC 5.2 APPLICATIONS FOR PROGRESS PAYMENT

- 3.15.1. Amend paragraph 5.2.3 by adding the following to the end of that paragraph:

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

- 3.15.2. Amend paragraph 5.2.4 by adding the following to the end of that paragraph:

"Such statement of values shall subdivide the *Contractor's* allocation for "general conditions" to identify a separate line item labeled "allocation for baseline schedule required by GC3.5." The allocation to such line item shall be calculated as follows:

- .1 where the *Contract Price* is \$2,000,000 or less, the greater of \$5,000 and 5% of the total amount allocated by the *Contractor* to "general conditions;
- .2 where the *Contract Price* is greater than \$2,000,000, the sum of \$12,000.

In addition, the statement of values shall identify a separate line item labeled "allocation for warranty obligations described in GC12.3". The allocation to such line item shall be \$_0.30% of Stipulated Sum Price"

- 3.15.3. Amend paragraph 5.2.7 by adding the following new sentence at the end of that paragraph:

"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 the title has passed to the *Owner* pursuant to GC13.1 OWNERSHIP OF MATERIALS."

- 3.15.4. Add new paragraphs 5.2.8, 5.2.9 and 5.2.10 as follows:

- "5.2.8 The *Contractor* shall submit, with each application for progress payment after the first, a Statutory Declaration, on an original form of CCDC Document 9A-2001, stating that all accounts for labour, subcontracts, *Products*, Construction Equipment and other indebtedness which may have been incurred by the *Contractor* and for which the *Owner* might in any way be held responsible have been paid in full up to the previous invoice, except for amounts properly retained as a holdback or as an identified amount in dispute
- 5.2.9 The *Contractor* shall submit Workplace Safety & Insurance Board Clearance Certificate, with each application for progress payment.
- 5.2.10 The *Contractor* shall prepare and maintain current as-built *Drawings* which shall consist of the *Drawings* and *Specifications* revised by the *Contractor* during the *Work*, showing changes to the *Drawings* and *Specifications*, which current as-built *Drawings* shall be maintained by the *Contractor*

and made available to the *Consultant* for review with each application for progress payment. The *Consultant* reserves the right to retain a reasonable amount for the value of the as-built *Drawings* not presented for review."

3.16 GC 5.3 PROGRESS PAYMENTS

3.16.1 Amend paragraph 5.3.1.3, in the second line, by removing "20" and replacing it with fifteen (15) *Working Days*."

3.16.2 Add new paragraph 5.3.2 as follows:

"5.3.2 If the *Contractor* fails to provide a statutory declaration as required by paragraph 5.2.8 or the clearance certificate required by paragraph 5.2.1, the *Owner* shall be entitled to deduct from amounts otherwise payable to the *Contractor* an amount sufficient to cover any liability which it might incur as a result of the *Contractor's* failure."

3.17 GC 5.4 SUBSTANTIAL PERFORMANCE OF THE WORK

3.17.1 Amend paragraph 5.4.3 by adding the following sentence at the end of the paragraph:

"Immediately following the issuance of a certificate of Substantial Performance of the *Work*, the *Contractor* shall publish the Certificate in the manner provided in the *Act* failing which publication, the *Owner* shall be at liberty to publish and back charge the *Contractor* for its reasonable costs for doing so."

3.17.2 Add a new paragraph 5.4.4 as follows:

"5.4.4 The *Contractor* acknowledges that the *Submittals* described in this paragraph 5.4.4 are critical to the *Owner's* use, occupancy and maintenance of the *Project* and agrees to make such *Submittals* to the *Owner*, before or after applying for the payment described in paragraph 5.4.1, as follows:

- .1 submit to the *Consultant*, with its application for payment, all written guarantees, warranties, certificates, testing and balancing reports, distribution system diagrams, *Shop Drawings*, maintenance and operating instructions, spare parts, maintenance manuals and materials and any other materials or documentation required by the *Contractor*, except for record drawings;
- .2 with respect to record or as built drawings, the *Contractor* shall submit full and complete record or as-built drawings to the *Consultant* within forty-five (45) days of the issuance of the certificate of Substantial Performance of the *Work* and the *Owner* shall be at liberty to withhold from amounts otherwise payable to the *Contractor* the sum of \$15,000.00 as security for the obligation of the *Contractor* to deliver such record or as built drawings within the time described in this paragraph 5.4.4."

3.18 GC 5.5 PAYMENT OF HOLD BACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK

3.18.1 Delete paragraph 5.5.3 in its entirety and substitute "Intentionally left blank".

3.19 GC 5.6 PROGRESSIVE RELEASE OF HOLDBACK

3.19.1 Add a new paragraph 5.6.4 as follows:

"5.6.4 For release of holdback on subcontract *Work* which is 100% complete, prior to final payment, the *Contractor* shall make application by written request for a review to determine the date of completion of the subcontract and shall submit such supporting material as the *Consultant* may in his discretion require, and may include statutory declarations from such persons and dealing with such matters as

the *Consultant* requires. Such material shall in any event include:

- .1 Description of the scope of *Work* included in the subcontract.
- .2 Declaration of Last Supply by the *Subcontractor* as prescribed in subsection 31(5) of the Act (Form 5).
- .3 Certificate of Completion of Subcontract as prescribed in subsection 33(1) of the Act (Form 7).
- .4 *Workplace Safety & Insurance Board* 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 subcontracts.
- .7 Confirmation by the bonding company that it has been notified of the intent to claim early release of holdback and does not object."

3.20 GC 5.7 FINAL PAYMENT

- 3.20.1. Amend paragraph 5.7.4, in line 2, by removing "5" by replacing it with "15 *Working Days*".

3.21 GC 6.1 CHANGES

- 3.21.1 Amend paragraph 6.1.2 by adding the following to the end of that paragraph:

"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 has been strict compliance with PART VI CHANGES IN THE *WORK*. No course of conduct or dealing between the parties, no express or implied acceptance of alterations or additions to the *Work* and no claims that the *Owner* has been unjustly enriched by any alteration or addition to the *Work*, whether in fact there is any such unjust enrichment or not, shall be the basis of a claim for additional payment under this *Contract* or a claim for any extension of the *Contract Time*."

- 3.21.2 Add a new paragraph 6.1.3 as follows:

"The *Contractor* agrees that changes resulting from construction coordination including but not limited to site surface conditions, site coordination, *Subcontractor* and *Supplier* coordination are included in the *Contract Price* and shall not entitle the *Contractor* to claim in addition to the *Contract Price* in relation to coordination."

3.22 GC 6.2 CHANGE ORDER

- 3.22.1. Add new paragraph 6.2.3 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.
- .2 by unit prices established in the Contract or subsequently agreed upon. Unit Prices shall include overhead, profit, and other reasonable charges of the *Contractor* 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.
- .3 by the amount, net of all credits, of time, materials and *Products* expended:
 - (1) by a Subcontractor applying the labour charge out rates set out in the wage schedule in the *Contract Documents* together with the actual costs, without mark-up of materials and *Products* utilized in the change, plus the Subcontractor's mark-up disclosed in the table below which applies to material and Product costs only;
 - (2) by the *Contractor* applying the labour charge out rates set out in the wage schedule in the *Contract Documents* together with the actual costs, without mark-up, of materials and products plus the mark-up disclosed in the table below which applies to material and Product costs only;
 - (3) the *Contractor* shall be entitled to the *Contractor* mark-up in the table below on the value of Subcontractor *Work* even where the Subcontractor is not entitled to a mark-up on its labour charge out rates pursuant to paragraph 6.2.3.3(1).

Change in the <i>Contract Price</i>	Subcontractor Mark-Up (%) (includes overhead and profit)	Contractor Mark-Up (%) On Subcontractor <i>Work</i> (includes overhead and profit)
\$0 to no more than \$5,000	10	10
\$5,001 to no more than \$20,000	5	5
\$20,001 or more	5	5

Interpretive Note: The mark-ups disclosed in the above table are flat not graduated.

- .4 where the *Contractor* self performs a change pursuant to paragraph 6.2.3.3(2), it shall be entitled to the mark-ups described in the "Subcontractor Mark-Up (%)" column above, subject to the limitation on the mark-up of labour costs described in paragraph 6.2.3.3(2).
- .5 the mark-ups described in paragraph 6.2.3.3 include all necessary supervision, travel, accommodations, subsistence, general account items, general clean-up, small tools, as-built drawings and job safety necessary to perform the change. Additional bonding cost is excluded from the mark-ups but may be included as a cost, using the value declared for bonding by the *Contractor* in its bid to the Owner, unless otherwise agreed by the parties."

3.23 GC 6.3 CHANGE DIRECTIVE

3.23.1 Further amend paragraph 6.3.6.3 by adding the following to the end of that paragraph:

"Such allowance for overhead and profit shall be as described in paragraphs 6.2.3.3 and 6.2.3.4."

3.23.2 Delete paragraph 6.3.7.1 the introductory language and replace it with the following:

- .1 salaries, wages and benefits paid to personnel in the direct employ of the *Contractor*, applying the labour rates set out in the wage schedule in the *Contract Documents* or as otherwise agreed between the *Owner* and *Contractor* for personnel..."

3.23.3 Delete paragraphs 6.3.7.1(1), (2), (3) and (4) and replace them with the following:

- "(1) carrying out the *Work*, including necessary supervisory services;
- (2) intentionally left blank;
- (3) engaged in the preparation of *Shop Drawings*, fabrication drawings, coordination drawings and project record drawings: or...
- (4) including clerical staff engaged in processing changes in the *Work*."

3.23.4 Add new paragraph 6.3.14 as follows:

"6.3.14 Without limitation, the cost of performing the *Work* attributable to the Change Directive does not include:

- .1 head office salaries and benefits and all other overhead or general expenses, except only for the salaries, wages and benefits of personnel described in paragraph 6.3.4.2 and the contributions, assessments or taxes referred to in paragraphs 6.3.4.3;
- .2 capital expenses and interest on capital;
- .3 general clean-up, except where the performance of the *Work* in the Change Directive causes specific additional clean-up requirements;
- .4 wages paid for field supervision of *Subcontractors*;
- .5 wages, salaries, rentals, or other expenses that exceed the rates that are standard in the locality of the *Place of the Work* that are otherwise deemed unreasonable by the *Consultant*;
- .6 any costs or expenses attributable to the negligence, improper *Work*, deficiencies, or breaches of contract by the *Contractor* or *Subcontractor*; and
- .7 any cost of quality assurance, such as inspection and testing services, charges levied by authorities, and any legal fees unless any such costs or fees are pre-approved in writing by the *Owner*."

3.24 GC 6.4 CONCEALED OR UNKNOWN CONDITIONS

3.24.1 Delete paragraph 6.4.1 and replace it with the following:

"6.4.1.1 The *Contractor* confirms that, prior to tendering the *Project*, it carefully investigated the *Place of the Work* and applied to that investigation the degree of care and skill described in paragraph 3.15.1, given the amount of time provided between the issue of tender documents and the actual closing of tenders.

6.4.1.2 If the *Contractor* has not conducted such careful investigation, 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 executed. No claim by the *Contractor* will be entertained in connection with conditions which could reasonably have been ascertained by such investigation or other due diligence undertaken prior to the execution of the Contract."

3.24.2 Amend paragraph 6.4.2 by adding a new first sentence which reads as follows:

"6.4.2 Having regard to paragraph 6.4.1, if the *Contractor* believes that the conditions of the *Place of the Work* differ materially from those reasonably anticipated, differ materially from those indicated in the *Contract Documents* or were concealed from discovery notwithstanding the conduct of the investigation described in paragraph 6.4.1, it shall notify the *Owner* and *Consultant* in writing no later than five (5) *Working Days* after the first observation of such conditions."

3.24.3. Amend the existing second sentence of paragraph 6.4.2, in the second line, following the word "materially" by adding the words "or were concealed from discovery notwithstanding the conduct of the investigation described in paragraph 6.4.1."

3.24.4. Delete paragraph 6.4.3 and substitute the following:

"6.4.3 If the *Consultant* makes a finding pursuant to paragraph 6.4.2 that no change in the *Contract Price* or the *Contract Time* is justified, the *Consultant* shall report in writing the reasons for this finding to the *Owner* and the *Contractor*."

3.25 GC 6.5 DELAYS

3.25.1 Amend paragraphs 6.5.1 by deleting all of the words in the fifth line following the word "for" and substituting the following:

".....reasonable direct costs directly flowing from the delay but excluding any consequential, indirect or special damages."

3.25.2 Delete paragraph 6.5.3 and replace it with the following:

"6.5.3 If the *Contractor* is delayed in the performance of the *Work* by Force Majeure, then the *Contract Time* shall be extended for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor*. The extension of time shall not be less than the time lost as a result of the event causing the delay, unless the *Contractor* agrees to a shorter extension. The *Contractor* shall not be entitled to payment for costs incurred by such delays unless such delays result from the actions of the *Owner*."

3.25.3 Add new paragraphs 6.5.6, 6.5.7 and 6.5.8 as follows:

"6.5.6 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 *Contractor*. The *Owner* shall be reimbursed by the *Contractor* for all reasonable costs incurred by the *Owner* as the result of such delay, including all services required by the *Owner* from the *Consultant* as a result of such delay by the *Contractor* and, in particular, the cost of the *Consultant's* services during the period between the date of *Substantial Performance of the Work* stated in Article A-1 herein as the same may be extended through the provisions of these General Conditions and any later, actual date of *Substantial Performance of the*

Work achieved by the Contractor.

- 6.5.7 The *Contractor* shall be responsible for the care, maintenance and protection of the *Work* in the event of any suspension of construction as a result of the delay described in paragraph 6.5.1, 6.5.2 or 6.5.3. In the event of such suspension, the *Contractor* shall be reimbursed by the *Owner* for the reasonable costs incurred by the *Contractor* for such protection, but excluding the costs of the *Contractor's* head office personnel, for such care, maintenance and protection. The *Contractor's* entitlement to costs pursuant to this paragraph 6.5.6, if any, shall be in addition to amounts, if any, to which the *Contractor* is entitled pursuant to paragraph 6.5.1, 6.5.2 or 6.5.3.
- 6.5.8 Without limiting the obligations of the *Contractor* described in GC3.2 or GC9.4, the *Owner* may, by notice in writing, direct the *Contractor* to stop the *Work* where the *Owner* determines that there is an imminent risk to the safety of persons or property at the Place of *Work*. In the event that the *Contractor* receives such notice, it shall immediately stop the *Work* and secure the site. The *Contractor* shall not be entitled to an extension of the Contract Time or to an increase in the *Contract Price* unless the resulting delay, if any, would entitle the *Contractor* to an extension of the Contract Time or the reimbursement of the *Contractor's* costs as provided in paragraph 6.5.1, 6.5.2 or 6.5.3.

3.26 C 7.1 OWNER'S RIGHT TO PERFORM THE WORK, STOP THE WORK OR TERMINATE THE CONTRACT

- 3.26.1. Amend paragraph 7.1.2 by adding the words ".....fails or neglects to maintain the latest schedule provided pursuant to GC3.5...". Immediately following the word "properly" in line one.

3.27 GC 7.2 CONTRACTOR'S RIGHT TO STOP THE WORK OR TERMINATE THE CONTRACT

- 3.27.1. Amend paragraph 7.2.2, in line 1, by deleting "20 *Working Days*" and replacing it with "45 days".
- 3.27.2. Delete paragraph 7.2.3.1 and replace it with "Intentionally left blank".
- 3.27.3. Delete paragraph 7.2.3.3 and replace it with the following:
- "7.2.3.3 The *Owner* fails to pay the *Contractor* when due the amounts certified by the *Consultant* or awarded by arbitration or a Court, except where the *Owner* has a *bona fide* claim for setoff, or..."
- 3.27.4. Amend paragraph 7.2.3.4 by deleting the comma toward the end of the first line. Further amend paragraph 7.2.3.4 by deleting the phrase beginning with the word "except" and ending with the word "Owner".
- 3.27.5. Renumber paragraph 7.2.5 as 7.2.6. Add a new paragraph 7.2.5 as follows:
- "7.2.5 If the default cannot be corrected within the five *Working Days* specified in paragraph 7.2.4, the *Owner* shall be deemed to have cured the default if it:
- .1 commences correction of the default within the specified time;
 - .2 provides the *Contractor* with an acceptable schedule for such correction; and
 - .3 completes the correction in accordance with such schedule.
- 3.27.6. Delete renumbered paragraph 7.2.6 in its entirety and replace it with the following:
- "7.2.6 If the *Contractor* terminates the Contract under the conditions described in this GC7.2, the *Contractor* shall be entitled to be paid for all *Work* performed to the date of termination. The *Contractor* shall also be entitled to recover the direct costs associated with termination, including the costs of demobilization, losses sustained on *Products* and construction machinery and equipment. The *Contractor* shall not be entitled to any recovery for any special, indirect or consequential losses."

3.28 GC 8.2 NEGOTIATION, MEDIATION & ARBITRATION

- 3.28.1 Delete GC 8.2 in its entirety

3.29 GC 8.3 RETENTION OF RIGHTS

- 3.29.1. Delete GC 8.3 in its entirety

3.30 GC 9.1 PROTECTION OF WORK AND PROPERTY

- 3.30.1. Amend paragraph 9.1.1.1 by adding the following words at the end of that subparagraph:

- 3.30.2. Add a new paragraph 9.1.5 as follows:

"...which the *Contractor* could not reasonably have discovered applying the standard of care described in paragraph 3.14.1;"

"9.1.5 Without in any way limiting the *Contractor's* obligations under this GC9.1, should the *Contractor* or any Subcontractor or Supplier cause loss or damage to trees or other plantings, whether owned by the *Owner* or third parties, the *Contractor* shall be liable for the replacement cost of the trees or other plantings damaged, 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*."

3.31 GC 9.2 TOXIC AND HAZARDOUS SUBSTANCES

- 3.31.1 Add a new paragraph 9.2.5.5 as follows:

"5 In addition to the steps described in subparagraph 9.2.5.3, take any further steps it deems necessary to mitigate or stabilize any conditions resulting from encountering toxic or hazardous substances or materials."

- 3.31.2 Add the following to paragraph 9.2.6 after the word "responsible" in line two:

"...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,

- 3.31.3 Amend paragraph 9.2.8 by adding the following after the word "responsible" in line two:

"...or that 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,..."

- 3.31.4 Add a new paragraph 9.2.10 as follows:

"9.2.10 Without limiting its other obligations under this GC9.2, the *Contractor* acknowledges that its obligations under the Contract include compliance with the Environmental Programs, including, but not limited to, the Asbestos Abatement Program. 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* expressly agrees that such loss and damage shall be included within the scope of the *Contractor's* indemnity described in

paragraph 12.1.1 of the General Conditions. The *Contractor* acknowledges that should it fail to comply with the Environmental Program, such failure will constitute a failure to comply with the Contract to a substantial degree within the meaning of paragraph 7.1.2."

3.32 GC 9.4 CONSTRUCTION SAFETY

3.32.1. Delete paragraph 9.4.1 in its entirety and replace it with the following:

"9.4.1 The *Contractor* shall be solely responsible for construction safety at the *Place of the Work* and for compliance with the rules, regulations and practices required by the applicable construction health and safety legislation and shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the *Work*."

3.32.2. Add new paragraphs 9.4.2, 9.4.3 and 9.4.4 as follows:

"9.4.2 Prior to the commencement of the *Work*, the *Contractor* shall submit to the *Owner*:

- .1 a current WSIB clearance certificate;
- .2 copies of the *Contractor's* insurance policies having application to the *Project* or certificates of insurance, at the option of the *Owner*;
- .3 documentation of the *Contractor's* in-house safety-related programs;
- .4 a copy of the Notice of *Project* filed with the Ministry of Labour naming itself as "constructor" under OHSA.

9.4.3 The *Contractor* shall indemnify and save harmless the *Owner*, its agents, officers, directors, employees, *Consultants*, successors and assigns from and against the consequences of any and all safety infractions committed by the *Contractor* under OHSA, including the payment of legal fees and disbursements on a solicitor and client basis. Such indemnity shall apply to the extent to which the *Owner* is not covered by insurance, provided that the indemnity contained in this paragraph shall be limited to costs and damages resulting directly from such infractions and shall not extend to any consequential, indirect or special damages.

9.4.4 The *Owner* undertakes to include in its contracts with other contractors and/or in its instructions to its own forces the requirement that the other contractor or own forces, as the case may be, will comply with directions and instructions from the *Contractor* with respect to occupational health and safety and related matters. The text of such instruction is attached to these Supplementary Conditions as Appendix 1."

3.33 GC9.5 MOULD

3.33.1. Delete paragraph 9.5.3.3 in its entirety and replace it with the following:

"9.5.3.3 Extend the *Contract Time* for such reasonable time as the *Consultant* may recommend on consultation with the *Contractor* and the *Owner*. If, in the opinion of the *Consultant*, the *Contractor* has been delayed in performing the *Work* and/or has incurred additional costs under paragraph 9.5.1.2, the *Owner* shall reimburse the *Contractor* for the reasonable costs incurred as a result of the delay and as a result of taking those steps, and..."

3.34 GC 10.1 TAXES AND DUTIES

3.34.1 Amend paragraph 10.1.2 by adding the following sentence at the end of the existing paragraph:

"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."

3.34.2 Add new paragraphs 10.1.3, 10.1.4, 10.1.5 and 10.1.6 as follows:

"10.1.3 Where an exemption or a recovery of sales taxes, customs duties, excise taxes or Value Added Taxes is applicable to the Contract, the *Contractor* shall, at the request of the *Owner* or the *Owner's* representative, assist, join in, or make 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 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 10.1.3.

10.1.4 The *Contractor* shall maintain accurate records tabulating equipment, material and component costs reflecting the 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 obtain from all *Subcontractors* and *Suppliers* cooperation 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 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".

3.35 GC 10.2 LAWS, NOTICES, PERMITS, AND FEES

3.35.1. Amend paragraph 10.2.2 by replacing the word, "Owner" with "Contractor".

3.35.2. Amend paragraph 10.2.5 by adding the words, "Subject to paragraph 3.15.1" to the beginning of the paragraph.

3.35.3. Further amend paragraph 10.2.5 by adding the following to the end of the second sentence:

"...and no further *Work* on the affected components of the Contract shall proceed until these changes to the *Contract Documents* have been obtained by the *Contractor* from the *Consultant*."

3.35.4. Further amend paragraph 10.2.5 by adding the following sentence to the end of the paragraph, as amended:

"The *Contractor* shall notify 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 as applicable under the Ontario Building Code."

3.35.5. Amend paragraph 10.2.6 by adding the following sentence at the end of that paragraph:

"In the event the *Owner* suffers loss or damage as a result of the *Contractor's* failure to comply with paragraph 10.2.5, and notwithstanding any limitations described in paragraph 12.1.1, the *Contractor* agrees to indemnify and to hold harmless the *Owner* and the *Consultant* from and against any claims, demands, losses, costs, damages, actions, suits or proceedings resulting from such failure by the *Contractor*."

3.36 GC 10.4 WORKERS' COMPENSATION

3.36.1 Amend paragraph 10.4.1 so that, as amended, it reads as follows:

"Prior to commencing the *Work*, and with each application for payment thereafter, the *Contractor* shall provide a Clearance Certificate from WSIB."

3.38 GC 11.2 CONTRACT SECURITY

3.38.1 Delete paragraphs 11.2.1 and 11.2.2 in their entirety and replace them with the following:

"11.2.1 Subject to paragraph 11.2.4, the *Contractor* shall furnish a performance bond in favour of the *Owner*, covering the faithful performance of the Contract, including the payment obligations arising there under, made upon the contract bond form of the *Owner* and issued by such surety company(ies) as the *Owner* may approve. The bond shall be for fifty per cent (50%) of the *Contract Price* or such other amount as may be specified in the *Contract Documents*.

11.2.2 The *Contractor* shall furnish a labour and material payment bond in favour of the *Owner* in a form satisfactory to the *Owner* and issued by such surety company(ies) the *Owner* may approve. The bond shall be for fifty per cent (50%) of the *Contract Price*.

11.2.3 It is the intention of the Contract that the performance bond shall be applicable to all of the *Contractor's* obligations under this Contract and, wherever a performance bond is provided with language which conflicts with this intention, it shall be deemed to be amended to comply. The *Contractor* represents and warrants that it has provided its surety with a copy of the Contract prior to the issuance of such bonds.

11.2.4 Where the *Contract Price*, arising from the *Owner's* award of the Contract, includes Subcontractor default insurance in lieu of a performance bond, the *Contractor* shall deliver to the *Owner* a certified copy of the policy of Subcontractor default insurance. Such policy shall have an aggregate loss limit of not less than 50% of the *Contract Price* and a claim limit of not less than 50% of such *Contract Price*. Such policy of insurance shall be subject to the approval of the *Owner*, acting reasonably, as to the terms and conditions of the Subcontractor default insurance, including those described in this paragraph 11.2.4."

3.39 GC 12.1 INDEMNIFICATION

3.39.1 Delete paragraphs 12.1.1 through 12.1.6 in their entirety and replace them with the following:

"12.1.1 The *Contractor* shall indemnify and hold harmless the *Owner* and the *Consultant*, their agents, employees and assigns from and against all claims, demands, damages, losses, expenses, costs, including legal fees, actions, suits or proceedings by whomsoever made, brought or prosecuted in any manner, arising out of, resulting from or attributable to the *Contractor's* or any Subcontractor's performance or non-performance of 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 party other than the *Contractor* itself, financial or otherwise, relating to labour and materials furnished by the *Contractor* or by others for the *Work*.

12.1.2 It is the intention of the parties that the *Consultant*, its officers, agents, partners, employees, directors and insurers, as well as any *Subconsultants*, or other *Consultants* retained with respect to the *Project*, and their officers, agents, partners, employees, directors and insurers, is to benefit from the indemnification and hold harmless provisions of paragraph 12.1.1.

12.1.3 The *Owner* shall indemnify and hold harmless the *Contractor*, his agents and employees from and against claims, demands, losses, costs, damages, actions, suits or proceedings 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*.

- 12.1.4 Notwithstanding the provisions of GC1.1 -*CONTRACT DOCUMENTS*, paragraph 1.1.7, GC12.1 -*INDEMNIFICATION* shall govern over the provisions of paragraph 1.3.1 of GC1.3 – *RIGHTS AND REMEDIES*."

3.40 GC 12.2 WAIVER OF CLAIMS

- 3.40.1 Delete paragraphs 12.2.1 through 12.2.10 and replace them with the following:

"12.2.1 As of the date of the final certificate for payment, 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 certificate for payment and still unsettled;
- .2 those arising from the provisions of GC12.1 – *INDEMNIFICATION* or GC12.3 – *WARRANTY*;
- .3 those arising from GC9.2 – *TOXIC AND HAZARDOUS SUBSTANCES AND MATERIALS* and arising from the *Contractor* bringing or introducing any toxic or hazardous substances and materials 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 the date of *Substantial Performance of the Work* as set out in the certificate of substantial performance, 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* with respect to substantial defects or deficiencies in the *Work* for which the *Contractor* is proven responsible. As used herein, "substantial defects or deficiencies" means those defects or deficiencies in the *Work* where the reasonable cost of repair of such defects or deficiencies exceeds:
 - .1 for a *Contract Price* of \$2,000,000 or less, the sum of \$50,000, before GST;
 - .2 for a *Contract Price* of \$2,000,000 or more, the sum of \$100,000, before GST.

12.2.2 As of the date of certificate of *Substantial Performance of the Work*, 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 made in writing prior to the *Contractor's* application for final payment and still unsettled; and
- .2 those arising from the provisions of GC9.2 – *TOXIC AND HAZARDOUS SUBSTANCES AND MATERIALS* or GC10.3 – *PATENT FEES*."

3.41 GC 12.3 WARRANTY

- 3.41.1 Amend paragraph 12.3.1 as follows.

- 3.41.1.1 Amend paragraph 12.3.1 by adding the following sentence at the end of that paragraph:

"Where the *Contractor* has been permitted to make use of permanent equipment or systems, as provided in GC3.16, prior to the issuance of the certificate of Substantial Performance of the *Work*, such permanent equipment or system shall be subject to the same warranty as described in this GC12.3 and shall be judged, for purposes of assessing compliance with the warranty, as though the equipment or system was new, clean and unused by the *Contractor*, except for normal commissioning and startup activities, prior to the date of Substantial Performance of the *Work*."

- 3.41.2. Amend paragraph 12.3.2 by adding the words, "Subject to paragraph 3.14.1...." at the beginning of that paragraph.

3.41.3. Add a new paragraph 12.3.7 as follows:

"12.3.7 Where required by the *Contract Documents*, provide a maintenance bond as security for the performance of the *Contractor's* obligations as set out in GC 12.3-Warranty."

3.41.4 Add a new paragraph 12.3.7 as follows:

"12.3.8 The *Contractor* shall assign to the *Owner* all warranties, guarantees or other obligations for *Work*, services or *Products* performed or supplied by any Subcontractor, Supplier or other person in connection with the *Work* and such assignment shall be with the consent of the assigning party where required by law or by the terms of that party's contract. Such assignment shall be in addition to, and shall in no way limit, the warranty rights of the *Owner* under the *Contract Documents*. Until the expiry of the relevant warranty periods enforceable against the *Contractor*, the *Owner* shall have in its custody all warranties, guarantees and other obligations to third parties respecting the *Work*."

3.42 PART 13- OTHER PROVISIONS

3.42.1. Add GC 13.1 OWNERSHIP OF MATERIALS as follows:

"13.1 Unless otherwise specified, all materials existing at the *Place of the Work* at the time of execution of the Contract shall remain the property of the Owner. All *Work*, *Products* and materials delivered by the *Contractor* which form part of the *Work* shall be considered the property of the *Owner* but the *Contractor* shall remove all surplus or rejected materials as its property when notified in writing to do so by the *Consultant*."

3.42.2. Add GC13.2 CONTRACTOR DISCHARGE OF LIABILITIES as follows:

"13.2.1 In addition to the obligations assumed by the *Contractor* pursuant to GC3.7, the *Contractor* agrees to discharge all liabilities incurred by it for labour, materials, services, *Subcontractors* and *Products*, used or reasonably required for use in the performance of the *Work*, on the date upon which each such liability becomes due.

13.2.2 The *Contractor* shall cause every Subcontractor and Supplier engaged in the performance of the *Work* to discharge all liabilities incurred by them for labour, materials, services and *Products* used or reasonably required for use in the performance of the *Work*. *Workmen* employed by a Subcontractor or Supplier shall be paid in full at intervals not less frequently than required by the governing law and all liabilities of the *Subcontractors* and *Suppliers* shall be discharged on the date upon which each becomes due. At the request of the Owner, the *Contractor* shall furnish the *Owner* with satisfactory evidence that its liabilities and those of its *Subcontractors* and *Suppliers* have been discharged."

3.42.3. Add GC 13.3 AS-BUILT OR RECORD DRAWINGS as follows:

"13.3 Unless otherwise provided in the *Contract Documents*, the *Contractor* shall prepare as-built or record drawings and provide them to the *Consultant* for review."

3.42.4. Add GC 13.4 DAILY REPORTS/DAILY LOGS as follows:

"13.4.1 The *Contractor* shall cause its supervisor, or such competent person as he or she may delegate, to prepare a daily log or diary reporting on weather conditions, *work force* of the *Contractor*, *Subcontractors*, *Suppliers* and any other forces on site and also record the general nature of *Project* activities. Such log or diary shall also include any extraordinary or emergency events which may occur and also the identities of any persons who visit the site who are not part of the day-to-day *work force*.

- 13.4.2 The *Contractor* shall also maintain records, either at its head office or at the job site, recording manpower and material resourcing on the *Project*, including records which document the activities of the *Contractor* in connection with GC3.5, and comparing that resourcing to the resourcing anticipated when the most recent version of the schedule was prepared pursuant to GC3.5.
- 13.4.3 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 GC13.4 along with any other routine *Project* records ordinarily maintained by the *Contractor*."

3.42.5 Add GC 13.5 CONSTRUCTION LIENS as follows:

- "13.5 In the event that any construction lien is registered against the *Project* by or through a *Subcontractor* or *Supplier*, and provided the *Owner* has paid all amounts properly due under the *Contract*, and has otherwise complied with its material obligations under the *Contract*, the *Contractor* shall, at its own expense, post the security necessary to vacate or discharge such lien, as the case may be. In the event that a lien action is commenced and a Statement of Claim is issued and served, the *Contractor* shall take all reasonable steps to remove the *Owner* from the main action and to indemnify it and hold it harmless in such action, except where the Statement of Claim makes substantial claims against the *Owner* beyond the recovery of holdback under the *Act*."

3.42.6 Add GC13.6 NEUTRAL APPOINTING AUTHORITY

- "13.6.1 For purposes of the Rules for Mediation and Arbitration of Construction Disputes CCDC 40, the term "neutral appointing authority", as used in both the Rules for Mediation of CCDC2 Construction Disputes and the Rules for Arbitration of CCDC2 Construction Disputes shall mean the "Appointing Committee" at ADR Chambers presiding at the time notice of the dispute is given pursuant to the *Contract*."

3.42.7 Add GC13.7 FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY ACT:

- "13.7.1 Throughout the term of this *Contract*, and for a period of seven years thereafter, the *Owner* and the *Contractor* will protect the confidentiality of all proprietary and confidential information of the other that is disclosed to it and will protect such information with the same standard of care as such party would use to protect the confidentiality of its own proprietary and confidential information which shall be, at a minimum, a reasonable standard, and, in any event, each party shall protect the confidentiality of all such proprietary and confidential information as may be required by law, including, without limitation, as may be required under the *Freedom of Information and Protection of Privacy Act*.
- 13.7.2 Notwithstanding the obligations of the *Owner* described in paragraph 13.7.1, the *Contractor* acknowledges that the *Owner* is subject to the *Freedom of Information and Protection of Privacy Act*, as amended, and may be required to release, in whole or in part, this *Contract* and any other documents or information in the *Owner's* possession or control that relate to this *Contract*."

END OF SUPPLEMENTARY CONDITIONS

1.1 Contract Method

- .1 Single Contract: Construct work under single contract for stipulated price CCDC Document 2, 2008, with Supplementary General Conditions.

1.2 Division 01 Requirements

- .1 All Sections of Division 01 apply to all sections of Division 02 to Division 16.

1.3 Regulatory Requirements

- .1 Ontario Building Code: Comply with Ontario Building Code 2012 including all amendments. Maintain one copy at the site.
- .2 Construction Safety: Comply with occupational Health and Safety Act and Ontario Fire Code Ontario Regulation 388/97 and amendments.
- .3 Referenced Standards: Comply with specifications standards produced by various organizations, included in the sections. Use latest edition.
- .4 Comply with local bylaws and regulations.

1.4 Examination

- .1 Examine the site of the project. Investigate the complete extent of work which is indicated in the contract documents. No allowance will be made for any error or negligence to fully understand the work and conditions.
- .2 Examine work of other sections before commencing work of any section. Commencement of new work shall imply acceptance of work by other sections upon which the new work depends.
- .3 Verify dimensions of work prepared by other sections before fabrication of new work.

1.5 Project Coordination

- .1 Coordinate progress of the work, progress schedules, submittals, use of site, temporary utilities, construction facilities and controls.
- .2 Provide information required for preparation of coordination drawings. Prepare interference drawings to properly coordinate the work.
- .3 Check and verify all dimensions referring to the work.

1.6 Utilities & Existing Services

- .1 Before commencing work, establish location and extent of service lines in area of work and notify Consultant of findings.
- .2 Where work involves breaking into existing services to remain, protect existing and carry out work at lines approved by owner and with minimum disturbance to user groups and pedestrian/vehicular traffic.
- .3 Where unknown service lines are encountered, immediately advise Consultant and confirm findings in writing.
- .4 Remove abandoned service lines within 2 m of structures. Cap or otherwise seal off lines at cut-off points as directed by Consultant.
- .5 Arrange and pay for any connection charges.
- .6 Record locations of maintained, rerouted and abandoned service lines.

1.7 Air Leakage, Expansion Control and Air/Vapour Barrier

- .1 The General Contractor and all Sub-contractors shall conform to the following requirements to maintain and protect the continuity and integrity of the building air/vapour barrier system.
- .2 Make provisions for expansion, contraction and differential movement between structural frame and wall and roof assemblies.
- .3 Make assembly joints and connections air/vapour tight and provide flexible sealant joints.
- .4 Coordinate installation of all pipes, ducts, conduits and outlets to prevent occurrence of air/vapour leaks in exterior walls. Adequately insulate and provide continuous air/vapour seal at frames and openings at windows, doors, louvres, grilles, ducts, steel members and other openings or projections through walls and roof.
- .5 The vapour barrier is an integral part of the building thermal enclosure and must be maintained intact and continuous on the interior (warm) side of all exterior insulated walls, soffits, overhangs, roofs.
- .6 The vapour barrier membrane is a moisture impermeable sheet and must be maintained in tight physical contact with the interior (warm) side of the insulation and must be sealed air and vapour tight to all designed openings and penetrations and to all other building vapour barrier systems. The vapour barrier is not an air barrier.
- .7 The air barrier is a physically strong and sound barrier designed to resist air movement into or out of a building enclosure and must be able to resist high air pressures without tearing, rupturing or breaking away from its fastening.
- .8 The vapour barrier must be maintained across all expansion and control joints whether indicated and designed or not.
- .9 All Contractors and Sub-contractors and any persons on the site must take all necessary precautions not to puncture, tear, weaken or damage in any way the air/vapour barrier membranes. Any damage shall be sealed to the Architect's approval.
- .10 The vapour barrier membrane must always be protected from the cold in the final building by insulation.

1.8 Materials, Fitments Supplied by Owner

- .1 Include installation of materials, fitments supplied by owner where indicated.
- .2 Provide protected storage on site for materials, fitments and furniture.

1.9 Exterior Wind Load

- .1 Design and install framing, hangers, supports and all accessories required to withstand local wind loads, snow loads and uplifts.

1.10 Concealing Mechanical and Electrical Items

- .1 Drawings are diagrammatic and intended to show general arrangement only.
- .2 Arrange to fully conceal pipes, ducts, conduit components and fitments in finished spaces.

END OF SECTION

1 GENERAL

1.1 Section Includes

- .1 General Description of the Work
- .2 Work by others
- .3 Timing and sequencing of the Work
- .4 Owner Occupancy & Adjacent Projects

1.2 Work Covered by Contract Documents

- .1 Work of this Contract comprises of the **Selective Roofing Replacement & Structural Upgrades for the Children's Aid Society of Nipissing and Parry Sound.**
- .2 The workplace is located at **140 Elmwood Avenue, North Bay, Ontario.**

1.3 Work by Others

- .1 The Owner advises that the following work will be completed under separate contract to the Owner. Work of this Project must include provisions for coordinating additional related work, identified in Contract Documents, for following principal items.
 - .1 none
- .2 For items furnished by the Owner, the responsibilities of the Contractor and Owner are as follows.
 - .1 Owner Responsibilities:
 - .1 Arrange for delivery of shop drawings, product data, samples, manufacturer's instructions, and certificates to Contractor.
 - .2 Deliver supplier's bill of materials to Contractor.
 - .3 Arrange and pay for delivery to site in accordance with Progress Schedule.
 - .4 Inspect deliveries jointly with Contractor.
 - .5 Submit claims for transportation damage.
 - .6 Arrange for replacement of damaged, defective or missing items.
 - .7 Arrange for manufacturer's field services; arrange for and deliver manufacturer's warranties and bonds to Contractor.
 - .2 Contractor Responsibilities:
 - .1 Designate submittals and delivery date for each product in progress schedule / Quality Control schedule.
 - .2 Review shop drawings, product data, samples, and other submittals. Submit to Consultant notification of any observed discrepancies or problems anticipated due to non-conformance with Contract Documents.
 - .3 Receive and unload products at site.
 - .4 Inspect deliveries jointly with Owner; record shortages, and damaged or defective items.
 - .5 Handle products at site, including uncrating and storage.
 - .6 Protect products from damage, and from exposure to elements.
 - .7 Assemble, install, connect, adjust, and finish products.
 - .8 Provide installation inspections required by public authorities.
 - .9 Repair or replace items damaged by Contractor or Subcontractor on site (under his control).

1.4 Contractor Use of Premises

- .1 Contractor has restricted use of site as strictly defined by extent of contract.
- .2 Preserve safe egress from the building at all times during the execution of the Work and do not impede required exits and access to occupied areas at any time.
- .3 Supply and install temporary signage required to demarcate temporary exit paths to the satisfaction of the Consultant, local building and fire departments.
- .4 Obtain and pay for use of additional storage or work areas needed for operations under this Contract.
- .5 Assume full responsibility for the protection and safekeeping of products under this Contract.
- .6 The Contractor shall preserve all survey coordinates and demarcations for the property.
- .7 Existing Utilities
 - .1 The Contractor shall take every precaution to prevent or minimize disruption to utilities/services including gas, electrical, communications, water, sanitary and storm services.
 - .2 Accidental disruptions must be attended to immediately. Provisions and procedures for such instances should be put in place in anticipation of them occurring and is especially for the gas, electrical, communication and water services to the building.
 - .3 Planned disruptions shall be coordinated with the Owner, the Municipal authorities, the Consultant and the respective utility service provider. All disruptions will be scheduled to best suit the Owner's operations and may need to be carried out during the evening and weekend hours.
- .8 The Contractor shall maintain safe and continuous flow of traffic for nearby buildings. The Contractor will be responsible to provide and delineate detours for traffic to, from and in the vicinity of the site as required.
- .9 Trucks hauling loose materials from or to the site shall have their loads trimmed and their bodies tight to prevent spillage of loads.
- .10 In the event of the contractor's operation causing delay and inconvenience to the flow of traffic on existing roads, the Consultant may restrict the number of trucks driving into the roads during certain hours. The Contractor will have no claim for additional payment as a result of such restrictions.
- .11 Road Closing
 - .1 No existing Provincial Highway or Municipal streets shall be occupied or closed without permission of the governing authority. The Contractor shall notify the Consultant in writing of proposed road closing at least 96 hours in advance of such action, and shall not detour nor restrict traffic until he has received the governing authority's written approval. All traffic restriction shall comply with Municipal and Ministry of Transportation of Ontario Regulations, whichever govern. All work which restricts or detours traffic shall be carried out systematically and expeditiously so as to minimize the inconvenience to vehicular and pedestrian traffic.
 - .2 Any road closure shall be carried out systematically following the sequence of the underground utility installation and the direction of the Consultant.
 - .3 The Contractor will be responsible for the setting up of and maintenance of signage of all traffic routes for local vehicular and pedestrian traffic within the Contract limits.

1.5 Timing of Work

- .1 Time is of the essence in this contract.
- .2 Start work immediately following the acceptance of the tender by the Owner.
- .3 Perform work continuously toward completion. Periods of inactivity on site will not be permitted without prior consent of the Owner.

1.6 Work Sequence and Phasing

- .1 Owner occupancy of the existing facilities will be required. The sequence of the Work must provide for the uninterrupted safe operation, access and use of the facility, by the Owner, staff, residents and visitors.
- .2 Coordinate the sequence of the Work with the Owner's representative to minimize disruption and inconvenience.

1.7 Owner Occupancy & Adjacent Construction Projects

- .1 Cooperate with Owner in scheduling operations to minimize conflict and to facilitate Owner usage.
- .2 The Owner plans on performing other construction projects on the property, including roofing upgrades on nearby roofs. The Contractor is expected to cooperate with all parties to accommodate all concerns of work, labour and safety.

1.8 Reference Codes, Standards and Regulations

- .1 Where relevant documents applicable to this work exist, follow these criterion, recommendations, and requirements as minimum standards.
- .2 In event of conflict between Codes, Regulations, or Standards, or where work shown is in conflict with these documents, obtain interpretation before proceeding. Failure to clarify any ambiguity will result in an interpretation requiring application of most demanding requirements.

END OF SECTION

1 GENERAL

1.1 Section Includes

- .1 Cash allowances.
- .2 Contingency allowance.

1.2 References

- .1 CCDC 2, 2008, Stipulated Price Contract.
- .2 Project Supplementary Conditions

1.3 Cash Allowances

- .1 Refer to CCDC 2, GC 4.1.
- .2 Include in Contract Price, cash allowances stated herein.
- .3 Cash allowances, unless otherwise specified, cover net cost to Contractor of services, products, construction machinery and equipment, freight, handling, unloading, storage installation and other authorized expenses incurred in performing Work.
- .4 The Contract Price, and not cash allowance, includes Contractor's overhead and profit in connection with such cash allowance.
- .5 The Contract Price will be adjusted by written order to provide for an excess or deficit to each cash allowance.
- .6 Where costs under a cash allowance exceed amount of allowance, Contractor will be compensated for any excess incurred and substantiated plus an allowance for overhead and profit as set out in Contract Documents.
- .7 Progress payments on accounts of work authorized under cash allowances shall be included in Consultant's monthly certificate for payment.
- .8 A schedule shall be prepared jointly by Consultant and Contractor to show when items called for under cash allowances must be authorized by Consultant for ordering purposes so that progress of Work will not be delayed.
- .9 The overall amount of the cash allowances shall be **\$0.00**. This shall include Work specified in respective specification Sections is as follows:
 - .1 *Left intentionally blank*

1.4 Contingency Allowance

- .1 Refer to CCDC 2, GC 4.2.
- .2 Include in Contract Price a contingency allowance of**\$ 5,000.00**
- .3 Expenditures under contingency allowance will be authorized in accordance with procedures provided in CCDC 2, GC 6.1 Changes CCDC 2, 6.2 Change Order and CCDC 2, 6.3 Change Directive.

END OF SECTION

1 General

1.1 Section Includes

- .1 Shop drawings and product data.
- .2 Samples.
- .3 Certificates and transcripts.

1.2 Related Sections

- .1 Section 01320 - Construction Progress Documentation.
- .2 Section 01450 - Quality Control.
- .3 Section 01820 - Demonstration and Training.
- .4 Section 01780 - Closeout Submittals.
- .5 Section 15075 - Mechanical Identification.

1.3 References

- .1 Canadian Construction Documents Committee (CCDC)
 - .1 CCDC 2, 2008, Stipulated Price Contract.

1.4 Administrative

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

1.5 Contract Security.

- .1 Contractor shall acquire at his expense the following bonds:
 - .1 50% Performance Bond
 - .2 50% Labour and Materials Bond
- .2 Submit required Bonds prior to commencing work on site.

-
- .3 Bonds shall be issued by a surety company acceptable to the Consultant and kept in force until expiration of the Contract.

1.6 Certificates and Transcripts

- .1 Prior to commencing work on site, and with each application for progress payment submit Clearance Certificate from Workplace Safety & Insurance Board.
- .2 Prior to commencing work on site, in accordance with GC 11.1, submit:
 - .1 Certificate of General Liability Insurance.
 - .2 Certificate of "All Risk" Property and Boiler Insurance.
- .3 Re-submit insurance certificates prior to expiration dates of certificates submitted.

1.7 Contract Cost Breakdown

- .1 Refer to GC 5.2.
- .2 Submit a breakdown of the Contract Price into items related to components of the Work. Items must be small enough to permit analysis of percentage of completion.
- .3 Submit breakdown a minimum of two weeks prior to first application for payment, for approval of the Consultant.
- .4 Include in the breakdown, a line item in the value of **\$2,500** for the submission of administrative documents required under Divisions 00 to 14 (e.g. warranty, maintenance manuals, as-built drawings, etc.) by the Contract Documents. This cost is included in the Base Bid and is not a cash allowance.

1.8 Building Permit

- .1 Arrange, acquire and pay for all permits and fees required.
- .2 Submit copy of building permit to Consultant, prior to commencing work on Site.
- .3 The Contractor shall submit to the Consultant the original copy of the reviewed Building Permit application contract documents for review within 48 hours of receipt of the Building Permit.

1.9 Shop Drawings and Product Data

- .1 Refer to CCDC 2 GC 3.11.
- .2 Submissions shall include:
 - .1 Date and revision dates.
 - .2 Project title and number.
 - .3 Name and address of:
 - .1 Subcontractor.
 - .2 Supplier.
 - .3 Manufacturer.
 - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
 - .5 Details of appropriate portions of Work as applicable:
 - .1 Fabrication.
 - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
 - .3 Setting or erection details.
 - .4 Capacities.
 - .5 Performance characteristics.
 - .6 Standards.

-
- .7 Operating weight.
 - .8 Wiring diagrams.
 - .9 Single line and schematic diagrams.
 - .10 Relationship to adjacent work.
-
- .3 After Consultant's review, distribute copies.
 - .4 Submit 6 prints of shop drawings for each requirement requested in specification Sections and as consultant may reasonably request.
 - .5 Delete information not applicable to project.
 - .6 Supplement standard information to provide details applicable to project.
 - .7 If upon review by Consultant, no errors or omissions are discovered or if only minor corrections are made, copies will be returned and fabrication and installation of Work may proceed. If shop drawings are rejected, noted copy will be returned and re-submission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.

1.10 Samples

- .1 Submit for review samples in triplicate as requested in respective specification Sections. Label samples with origin and intended use.
- .2 Deliver samples prepaid to Consultant's business address site office.
- .3 Notify Consultant in writing, at time of submission of deviations in samples from requirements of Contract Documents.
- .4 Where colour, pattern or texture is criterion, submit full range of samples.
- .5 Adjustments made on samples by Consultant are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.
- .6 Make changes in samples which Consultant may require, consistent with Contract Documents.
- .7 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

END OF SECTION

1 GENERAL

1.1 Section Includes

- .1 Inspection and testing, administrative and enforcement requirements.
- .2 Tests and mix designs.

1.2 Related Sections

- .1 Section 01021 Allowances.
- .2 Section 01330 Submittal Procedures.
- .3 Section 01780 Closeout Submittals.

1.3 References

- .1 CCDC 2, Stipulated Price Contract.

1.4 Inspection

- .1 Refer to CCDC 2, GC 2.3.
- .2 Allow Consultant access to Work. If part of Work is in preparation at locations other than Place of Work, allow access to such Work whenever it is in progress.
- .3 Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Consultant instructions, or law of Place of Work.
- .4 If Contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.
- .5 Consultant may order any part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If, upon examination such work is found not in accordance with Contract Documents, correct such Work and pay cost of examination and correction. If such Work is found in accordance with Contract Documents, Consultant shall pay cost of examination and replacement.

1.5 Independent Inspection Agencies

- .1 Independent Inspection/Testing Agencies will be engaged by Consultant for purpose of inspecting and/or testing portions of Work.
- .2 Allocated costs: to Section 01021, Allowances.
- .3 Provide equipment required for executing inspection and testing by appointed agencies.
- .4 Employment of inspection/testing agencies does not relax responsibility to perform Work in accordance with Contract Documents.
- .5 If defects are revealed during inspection and/or testing, appointed agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by Consultant at no cost to Consultant. Pay costs for retesting and re-inspection.

1.6 Access to Work

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

1.7 Procedures

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

1.8 Rejected Work

- .1 Refer to CCDC, GC 2.4.
- .2 Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by Consultant as failing to conform to Contract Documents. Replace or re execute in accordance with Contract Documents.
- .3 Make good other Contractor's work damaged by such removals or replacements promptly.
- .4 If in opinion of Consultant it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, Owner may deduct from Contract Price difference in value between Work performed and that called for by Contract Documents, amount of which shall be determined by Consultant.

1.9 Reports

- .1 Submit (4) copies of inspection and test reports to Consultant.
- .2 Provide copies to Subcontractor of work being inspected or tested manufacturer or fabricator of material being inspected or tested.

1.10 Tests and Mix Designs

- .1 Furnish test results and mix designs as may be requested.
- .2 The cost of tests and mix designs beyond those called for in Contract Documents or beyond those required by law of Place of Work shall be appraised by Consultant and may be authorized as recoverable.

1.11 Equipment and Systems

- .1 Submit adjustment and balancing reports for mechanical, electrical and building equipment systems.

END OF SECTION

1 GENERAL

1.1 Section Includes

- .1 Product quality, availability, storage, handling, protection, and transportation.
- .2 Manufacturer's instructions.
- .3 Quality of Work, coordination and fastenings.

1.2 Related Sections

- .1 Section 01450, Quality Control.
- .2 Section 01730, Execution.

1.3 Reference Standards

- .1 Canadian Construction Documents Committee (CCDC)
 - .1 CCDC 2 2008, Stipulated Price Contract.
- .2 Within the text of the specifications, reference may be made to the following standards:

ACI	American Concrete Institute
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute
ASTM	American Society of Testing and Materials
AWMAC	Architectural Woodwork Manufacturers Association of Canada
CEC	Canadian Electrical Code including Ontario Supplement (published by CSA)
EEMAC	Electrical and Electronic Manufacturers Association of Canada
CGSB	Canadian General Standards Board
CISC	Canadian Institute of Steel Construction
CLA	Canadian Lumberman's Association
CPCA	Canadian Painting Contractors' Association
CPCI	Canadian Prestressed Concrete Institute
CRCA	Canadian Roofing Construction Association
CSA	Canadian Standards Association
FM	Factory Mutual Engineering Corporation
IEEE	Institute of Electrical and Electronic Engineers
IPCEA	Insulated Power Cable Engineers Association
NAAMM	National Association of Architectural Metal Manufacturers
NBC	National Building Code
NEMA	National Electrical Manufacturers Association
OPSD	Ontario Provincial Standards for Roads & Municipal Services
TTMAC	Terrazzo, Tile and Marble Association of Canada
ULC	Underwriters' Laboratories of Canada
- .3 Conform to these standards, in whole or in part as specifically requested in specifications.
- .4 If there is question as to whether any product or system is in conformance with applicable standards, Consultant reserves right to have such products or systems tested to prove or disprove conformance.
- .5 The cost for such testing will be born by Owner in event of conformance with Contract Documents or by Contractor in event of non-conformance.
- .6 Conform to latest date of issue of referenced standards in effect on date of submission of Bids, except where specific date or issue is specifically noted.

1.4 Quality

- .1 Refer to CCDC 2, GC 3.9.
- .2 Products, materials, equipment and articles (referred to as products throughout specifications) incorporated in Work shall be new, not damaged or defective, and of best quality (compatible with specifications) for purpose intended. If requested, furnish evidence as to type, source and quality of Products provided.
- .3 Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility, but is precaution against oversight or error. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
- .4 Should any dispute arise as to quality or fitness of products, decision rests strictly with Consultant based upon requirements of Contract Documents.
- .5 Unless otherwise indicated in specifications, maintain uniformity of manufacture for any particular or like item throughout building.
- .6 Permanent labels, trademarks and nameplates on products are not acceptable in prominent locations, except where required for operating instructions, or when located in mechanical or electrical rooms.

1.5 Availability

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

1.6 Storage, Handling and Protection

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

1.7 Transportation

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

1.8 Manufacturer's Instructions

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

1.9 Quality of Work

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

1.10 Coordination

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

1.11 Concealment

- .1 In finished areas, conceal pipes, ducts and wiring in floors, walls and ceilings, except where indicated otherwise.
- .2 Before installation, inform Consultant if there is interference. Install as directed by Consultant.

1.12 Remedial Work

- .1 Refer to CCDC 2, GC 3.13 and Section 01730 Execution.
- .2 Perform remedial work required to repair or replace parts or portions of Work identified as defective or unacceptable. Coordinate adjacent affected Work as required.
- .3 Perform remedial work by specialists familiar with materials affected. Perform in a manner to neither damage nor put at risk any portion of Work.

1.13 Location of Fixtures

- .1 Consider location of fixtures, outlets, and mechanical and electrical items indicated as approximate.
- .2 Inform Consultant of conflicting installation. Install as directed.

1.14 Fastenings

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

1.15 Fastenings and Equipment

- .1 Use fastenings of standard commercial sizes and patterns with material and finish suitable for service.
- .2 Use heavy hexagon heads, semi-finished unless otherwise specified. Use No. 304 stainless steel for exterior areas.
- .3 Bolts may not project more than one diameter beyond nuts.
- .4 Use plain type washers on equipment, sheet metal and soft gasket lock type washers where vibrations occur. Use resilient washers with stainless steel.

1.16 Protection of Work in Progress

- .1 Prevent overloading of any part of building. Do not cut, drill or sleeve any load bearing structural member, unless specifically indicated without written approval of Consultant.

1.17 Existing Utilities

- .1 When breaking into or connecting to existing services or utilities, execute Work at times directed by local governing authorities, with minimum of disturbance to Work, and/or building occupants and pedestrian and vehicular traffic.
- .2 Protect, relocate or maintain existing active services. When services are encountered, cap off in manner approved by authority having jurisdiction. Stake and record location of capped service.

END OF SECTION

1 GENERAL

1.1 Section Includes

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

1.2 Related Sections

- .1 Section 01110 Summary of Work.
- .2 Section 01330 Submittal Procedures.
- .3 Individual product Sections: cutting and patching incidental to work of section. Advance notification to other sections required.

1.3 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 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 Owner or separate contractor.
 - .7 Written permission of affected separate contractor.
 - .8 Date and time work will be executed.

1.4 General

- .1 Execute cutting, fitting, and patching including excavation and fill, 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.
- .6 Provide openings in non-structural elements of Work for penetrations of mechanical and electrical work.

1.5 Preparation

- .1 Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
- .2 After uncovering, inspect conditions affecting performance of Work.
- .3 Beginning of cutting or patching means acceptance of existing conditions.
- .4 Provide supports to assure structural integrity of surroundings; provide devices and methods to protect other portions of project from damage.

-
- .5 Provide protection from elements for areas which may be exposed by uncovering work; maintain excavations free of water.

1.6 Execution

- .1 Execute cutting, fitting, and patching including excavation and fill, to complete Work.
- .2 Fit several parts together, to integrate with other Work.
- .3 Uncover Work to install ill-timed Work.
- .4 Remove and replace defective and non-conforming Work.
- .5 Remove samples of installed Work for testing.
- .6 Provide openings in non-structural elements of Work for penetrations of mechanical and electrical Work.
- .7 Execute Work by methods to avoid damage to other Work, and which will provide proper surfaces to receive patching and finishing.
- .8 Employ original installer to perform cutting and patching for weather exposed and moisture resistant elements, and sight exposed surfaces.
- .9 Cut rigid materials using masonry saw or core drill. Pneumatic or impact tools not allowed on masonry work without prior approval.
- .10 Restore work with new products in accordance with requirements of Contract Documents.
- .11 Fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- .12 At penetration of fire rated walls, ceilings, or floor constructions, completely seal voids with firestopping material, full thickness of the construction element.
- .13 Refinish surfaces to match adjacent finishes: For continuous surfaces refinish to nearest intersection; for an assembly, refinish entire unit.
- .14 Conceal pipes, ducts and wiring in floor, wall and ceiling construction of finished areas except where indicated otherwise.

1.7 Materials

- .1 Required for original installation.
- .2 Change in Materials: Submit request for substitution in accordance with Section 01330, Submittal Procedures.

END OF SECTION

1 GENERAL

1.1 Section Includes

- .1 Progressive cleaning.
- .2 Final cleaning.

1.2 Related Section

- .1 Section 01770 Closeout Procedures.

1.3 Reference Standards

- .1 Canadian Construction Documents Committee (CCDC)
 - .1 CCDC 2, Stipulated Price Contract.

1.4 Project Cleanliness

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

1.5 Final Cleaning

- .1 Refer to CCDC 2, GC 3.14.
- .2 When Work is Substantially Performed, remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .3 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
- .4 Prior to final review, remove surplus products, tools, construction machinery and equipment.
- .5 Remove waste products and debris.
- .6 Remove waste materials from site at regularly scheduled times. Do not burn waste materials on site.

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- .7 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
 - .8 Clean and polish glass, mirrors, hardware, wall tile, stainless steel, chrome, porcelain enamel, baked enamel, plastic laminate, and mechanical and electrical fixtures. Replace broken, scratched or disfigured glass.
 - .9 Remove stains, spots, marks and dirt from decorative work, electrical and mechanical fixtures, furniture fitments, walls, and floors and ceilings.
 - .10 Clean lighting reflectors, lenses, and other lighting surfaces.
 - .11 Vacuum clean and dust building interiors, behind grilles, louvres and screens.
 - .12 Wax, seal, shampoo or prepare floor finishes, as recommended by manufacturer.
 - .13 Inspect finishes, fitments and equipment and ensure specified workmanship and operation.
 - .14 Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds.
 - .15 Remove dirt and other disfiguration from exterior surfaces.
 - .16 Clean and sweep roofs, gutters, areaways, and sunken wells.
 - .17 Sweep and wash clean paved areas.
 - .18 Clean equipment and fixtures to a sanitary condition; clean or replace filters of mechanical equipment.
 - .19 Clean roofs, downspouts, and drainage systems.
 - .20 Remove debris and surplus materials from crawl areas and other accessible concealed spaces.
 - .21 Remove snow and ice from access to building.

END OF SECTION

1 GENERAL

1.1 Section Includes

- .1 Administrative procedures preceding preliminary and final inspections of Work.

1.2 Related Sections

- .1 Section 01320 Construction Progress Submittals.
- .2 Section 01810 Commissioning.

1.3 References

- .1 Canadian Construction Documents Committee (CCDC)
 - .1 CCDC 2, Stipulated Price Contract.
- .2 OAA/OGCA Take-Over Procedures, Document 100

1.4 Substantial Performance Procedures

- .1 Project takeover procedures will generally follow the "OAA/OGCA Take-Over Procedures", Document 100, except as augmented herein.
- .2 Refer to General Conditions Article GC5.4 to 5.9.
- .3 Prior to making application for certification of Substantial Performance, the Contractor shall undertake a formal inspection of the Work. Following this inspection, the Contractor shall produce a complete list of all uncompleted or unsatisfactory work. This list shall identify uncompleted or unsatisfactory work by room number for all interior spaces and by exterior location. This list shall be distributed to the appropriate sub-contractors for immediate action. This list will also be submitted to the Consultant on paper, and in digital format using Microsoft Word software.
- .4 Make written application to the Consultant for Substantial Performance at least 3 weeks prior to the anticipated date of Certification of Substantial Performance. Such application shall include:
 - .1 A statement that the Contract is substantially performed.
 - .2 A statement that the balance of the work is in progress and the date upon which completion is scheduled. Where the balance of the Work, or a portion thereof, cannot be performed forthwith, and the Contractor wishes to propose a deferral of some component of the Work, the application must include an explanation of the proposed deferral and completion dates for all components to be deferred.
 - .3 An itemized invoice for payment which substantiates the application for Substantial Performance.
 - .4 A statement of the cost value of
 - .1 Work yet to be completed including unsatisfactory work
 - .2 Work which, if agreed by the Owner, will not be completed expeditiously.
- .5 The application for Substantial Performance will not be considered or acted upon by the Consultant until such time as the Consultant has been provided with the following:
 - .1 A complete deficiency list prepared by the General Contractor and circulated for action to sub-contractors as specified above.
 - .2 Project Documentation to be provided at Substantial Performance shall include:
 - .1 Letter requesting a review for Substantial Performance
 - .2 Application for Payment that reflects the completion of Contract Value required for Substantial Performance. Submit as per Section 01330, Submittals Procedures.

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- .3 All safety certificates, air balancing reports, manuals and binders required for occupancy.
 - .6 An Inspection for Substantial Performance will be conducted within 10 days of Application for Substantial Performance and satisfaction of the requirements of .5 above.
 - .7 The Inspection for Substantial Performance must include representatives of:
 - .1 The Consultant
 - .2 The Sub-Consultants as deemed necessary by Consultant
 - .3 The Owner
 - .8 At the Inspection for Substantial Performance, the Consultant will compile a list of deficiencies and defects. The Consultant reserves the right to refuse to complete an Inspection for Substantial Performance and a deficiency list, if in the Consultant's opinion the incomplete or unsatisfactory work far exceeds that required to achieve Substantial Performance.
 - .9 If, in the judgement of the Consultant, the requirements of the Construction Lien Act for Substantial Performance have been achieved, the Consultant will issue a Certificate of Substantial Performance within 7 days of the inspection.
 - .10 If, in the judgement of the Consultant, the requirements of the Construction Lien Act for Substantial Performance have not been achieved, the Consultant shall notify the Contractor and the Contractor shall expedite the correction of incomplete or unsatisfactory work required to achieve Substantial Performance, and, within two weeks of initial inspection, make written application for re-inspection for Substantial Performance.
 - .11 The Consultant, shall provide only one re-inspection for Substantial Performance within his fee for Basic Services. Inspections beyond this, required to achieve Substantial Performance, will be charged to the Owner as Additional Services as per the terms of the Client Architect Agreement. The Owner shall be entitled to deduct from any money owing to the Contractor the cost of such additional inspections.
 - .12 Upon issuance of the Certificate of Substantial Performance, the Contractor will, in accordance with the Construction Lien Act, promptly publish the Certificate of Substantial Performance and provide the Consultant with proof of its publication.
 - .13 Upon publication of the Certificate of Substantial Performance, the Contractor shall submit to the Consultant an invoice for the value of holdback monies to be released at the expiration of the lien period. This submission must include a Statutory Declaration and a Clearance Certificate issued by the Workplace Safety & Insurance Board.
 - .14 The Consultant shall immediately issue a Certificate for the release of holdback dated one day following the expiration of the lien period. The Consultant will present this to the Owner with instructions to satisfy himself that no liens are registered and no notice of Lien filed against the title of the property, and only if such is the case, to pay holdback monies identified as due by the Certificate.
 - .15 The Contractor and sub-contractors shall continue to work to complete all work and repair all deficiencies and defects promptly.

1.5 Final Inspection Procedures

- .1 Project takeover procedures will generally follow the "OAA/OGCA Take-Over Procedures", Document 100, except as augmented herein.
- .2 Upon completion of the Work and deficiencies and defects such that value of outstanding work does not exceed \$1,000, verified by the Contractor's own inspection, the Contractor shall make written application to the Consultant for Final Inspection. Such application shall include:
 - .1 A statement that the Contract is totally performed.
 - .2 An itemized invoice for payment which substantiates the application for Total Performance, including a statement of the holdback monies for finishing work.

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- .3 The application for Final Inspection will not be considered or acted upon by the Consultant until such time as the Consultant has been provided all Project Documentation to be provided before issuance of Final Payment Certificate - see Specification Section 01320.
 - .4 The Final Inspection must include representatives of:
 - .1 The Consultant
 - .2 The Sub-Consultants as deemed necessary by Consultant
 - .3 The Owner
 - .5 At the Final Inspection, the Consultant will review the work indicated by the list of deficiencies and defects.
 - .6 If, in the judgement of the Consultant, the Work is satisfactorily completed, the Consultant will issue a Certificate for Payment for the value of the work, less 10% holdback. The date of this certificate shall be deemed the date of completion and the commencement of the lien period for finishing holdback.
 - .7 If, in the judgement of the Consultant, the Work is not satisfactorily completed, the Consultant shall notify the Contractor of outstanding deficiencies and the Contractor shall expedite the correction of incomplete or unsatisfactory work as soon as possible and make written application for re-inspection. No certificate of payment will be issued until Total Performance has been achieved.
 - .8 The Consultant, shall provide only one Final Inspection following Substantial Performance within his fee for Basic Services. Inspections beyond this, required to achieve a Final Payment Certificate, will be charged to the Owner as Additional Services as per the terms of the Client Architect Agreement. The Owner shall be entitled to deduct from any money owing to the Contractor the cost of such additional inspections.
 - .9 Upon issuance of this payment certificate, the Contractor shall submit to the Consultant an invoice for the value of finishing holdback monies to be released at the expiration of the lien period. This submission must include a Statutory Declaration and a Workers Compensation Board Certificate of Good Standing.
 - .10 The Consultant shall prepare a Certificate for the release of holdback dated one day following the expiration of the lien period. The Consultant will present this to the Owner with instructions to satisfy himself that no liens are registered and no notice of Lien filed against the title of the property, and only if such is the case, to pay holdback monies identified as due by the Certificate.

1.6 Warranty Inspection Procedures

- .1 Refer to requirements of GC 12.3.
- .2 Near the end of the warranty period, an inspection meeting will be convened to be attended by representatives of:
 - .1 The Consultant
 - .2 The Sub-Consultants as deemed necessary by Consultant
 - .3 The Owner
- .3 The Consultant will prepare and issue to the Contractor a list of observed defects required to be corrected.
- .4 The Contractor shall promptly correct all observed defects.

END OF SECTION

1 GENERAL

1.1 Section Includes

- .1 As built, samples, and specifications.
- .2 Equipment and systems.
- .3 Product data, materials and finishes, and related information.
- .4 Operation and maintenance data.
- .5 Spare parts, special tools and maintenance materials.
- .6 Warranties and bonds.
- .7 Final site survey.

1.2 Related Sections

- .1 Section 01320, Construction Progress Documentation
- .2 Section 01330, Submittal Procedures.
- .3 Section 01450, Quality Control.
- .4 Section 01770, Closeout Procedures.
- .5 Section 01810, Commissioning.
- .6 Section 01820, Demonstration and Training.

1.3 Submission

- .1 Prepare instructions and data by personnel experienced in maintenance and operation of described products.
- .2 Copy will be returned, with Consultant comments.
- .3 Revise content of documents as required prior to final submittal.
- .4 Two weeks prior to Substantial Performance of the Work, submit to the Consultant, (3) final copies of operating and maintenance manuals in English.
- .5 Ensure spare parts, maintenance materials and special tools provided are new, undamaged or defective, and of same quality and manufacture as products provided in Work.
- .6 If requested, furnish evidence as to type, source and quality of products provided.
- .7 Defective products will be rejected, regardless of previous inspections. Replace products at own expense.
- .8 Pay costs of transportation.
- .9 **Refer to Section 01330 for Values associated with accepted Close-Out Documentation.**

1.4 Format

- .1 Organize data in the form of an instructional manual. Also provide digital copy of all material within a single, labeled and organized file.
- .2 Binders: vinyl, hard covered, 3 D-ring, loose leaf 219 x 279 mm with spine and face pockets.
- .3 When multiple binders are used, correlate data into related consistent groupings. Identify contents of each binder on spine.
- .4 Cover: Identify each binder with type or printed title "Project Record Documents"; list title of project and identify subject matter of contents.
- .5 Arrange content by systems, under Section numbers and sequence of Table of Contents.
- .6 Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- .7 Text: Manufacturer's printed data, or typewritten data.

- .8 Drawings: provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- .9 Provide 1:1 scaled CAD files in dwg format on compact disc.

1.5 Contents, Each Volume

- .1 Table of Contents: provide title of project;
 - .1 date of submission; names,
 - .2 addresses, and telephone numbers of Consultant and Contractor with name of responsible parties;
 - .3 schedule of products and systems, indexed to content of volume.
- .2 For each product or system:
 - .1 list names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
- .3 Product Data: mark each sheet to clearly identify specific products and component parts, and data applicable to installation; delete inapplicable information.
- .4 Drawings: supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.
- .5 Typewritten Text: as required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions specified in Section 01450 Quality Control.
- .6 Training: Refer to Section 01820 Demonstration and Training.

1.6 As-builts and Samples

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

1.7 Recording Actual Site Conditions

- .1 Record information on set of opaque drawings, provided by Consultant.

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

1.9 Equipment and Systems

- .1 Each Item of Equipment and Each System: include description of unit or system, and component parts. Give function, normal operation characteristics, and limiting conditions. Include performance curves, with input data and tests, and complete nomenclature and commercial number of replaceable parts.
- .2 Panel board circuit directories: provide electrical service characteristics, controls, and communications.
- .3 Include installed colour coded wiring diagrams.
- .4 Operating Procedures: include start up, break in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut down, and emergency instructions. Include summer, winter, and any special operating instructions.
- .5 Maintenance Requirements: include routine procedures and guide for trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- .6 Provide servicing and lubrication schedule, and list of lubricants required.
- .7 Include manufacturer's printed operation and maintenance instructions.
- .8 Include sequence of operation by controls manufacturer.
- .9 Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- .10 Provide installed control diagrams by controls manufacturer.
- .11 Provide Contractor's coordination drawings, with installed colour coded piping diagrams.
- .12 Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- .13 Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.

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- .14 Include test and balancing reports as specified in Sections 01450, Quality Control and 01810, Commissioning.
 - .15 Additional requirements: As specified in individual specification sections.

1.10 Materials and Finishes

- .1 Building Products, Applied Materials, and Finishes: include product data, with catalogue number, size, composition, and colour and texture designations. Provide information for re ordering custom manufactured products.
- .2 Instructions for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .3 Moisture protection and Weather exposed Products: include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .4 Additional Requirements: as specified in individual specifications sections.

1.11 Spare Parts

- .1 Provide spare parts, in quantities specified in individual specification sections.
- .2 Provide items of same manufacture and quality as items in Work.
- .3 Deliver to site; place and store.
- .4 Receive and catalogue all items. Submit inventory listing to Consultant. Include approved listings in Maintenance Manual.
- .5 Obtain receipt for delivered products and submit prior to final payment.

1.12 Maintenance Materials

- .1 Provide maintenance and extra materials, in quantities specified in individual specification sections.
- .2 Provide items of same manufacture and quality as items in Work.
- .3 Deliver to site location as directed; place and store.
- .4 Receive and catalogue all items. Submit inventory listing to Consultant. Include approved listings in Maintenance Manual.
- .5 Obtain receipt for delivered products and submit prior to final payment.

1.13 Special Tools

- .1 Provide special tools, in quantities specified in individual specification section.
- .2 Provide items with tags identifying their associated function and equipment.
- .3 Deliver to site; place and store.
- .4 Receive and catalogue all items. Submit inventory listing to Consultant. Include approved listings in Maintenance Manual.

1.14 Storage, Handling and Protection

- .1 Store spare parts, maintenance materials, and special tools in manner to prevent damage or deterioration.
- .2 Store in original and undamaged condition with manufacturer's seal and labels intact.
- .3 Store components subject to damage from weather in weatherproof enclosures.
- .4 Store paints and freezable materials in a heated and ventilated room.
- .5 Remove and replace damaged products at own expense and to satisfaction of Consultant.

1.15 Warranties and Bonds

- .1 Separate each warranty or bond with index tab sheets keyed to Table of Contents listing.
- .2 List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
- .3 Obtain warranties and bonds, executed in duplicate by subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work.
- .4 Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial Performance is determined.
- .5 Verify that documents are in proper form, contain full information, and are notarized.
- .6 Co execute submittals when required.
- .7 Retain warranties and bonds until time specified for submittal.

END OF SECTION

1 GENERAL

1.1 GENERAL REQUIREMENTS

- .1 The General Conditions of the Contract, Supplementary Conditions, 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 Requirements for selective demolition of portion, or portions, of existing buildings in preparation for renovation or re-modeling. Demolition work shall include the draining and capping and/or re-routing of existing building services, protection of remaining structure and other building elements, and removal of debris.

1.3 RELATED SECTIONS

- .1 Temporary Barriers and Enclosures, Section 01560
- .2 Environmental Protection, Section 01561

1.4 REFERENCES

- .1 CSA S350-M1980(R1998), Code of Practice for Safety in Demolition of Structures. .2 Occupation Health and Safety Act and Regulations for Construction Projects; Ontario Reg.213/91, as amended by Reg. 145/00.

1.5 SUBMITTALS

- .1 Demolition Drawings
 - .1 Where required by authorities having jurisdiction, submit drawings, diagrams, and/or details for approval, clearly indicating sequence of demolition work, support of existing structures, shoring, and underpinning.
 - .2 Where required by authorities having jurisdiction, such drawings to bear stamp of qualified professional engineer registered or licensed in the Province of Ontario.

1.6 EXISTING CONDITIONS

- .1 Structures to be partially demolished shall be based on their condition at time of examination during the Bid Period.

2 PRODUCTS

NOT APPLICABLE.

3 EXECUTION

3.1 PROTECTION

- .1 Prevent movement, settlement or damage of adjacent structures, services, walks, paving, trees, landscaping, adjacent grades, and other parts of existing building to remain. Provide all bracing, shoring, and/or underpinning required. Make good damage caused by demolition.
- .2 Take precautions to support affected structures and if safety of building being demolished, or adjacent structures or services appears to be endangered, cease operations and notify Consultant.
- .3 Prevent dust and debris from blocking surface drainage systems, or affecting elevators, mechanical, and/or electrical systems which must remain in operation.
- .4 Adhere strictly to requirements of Sections 01560 and 01561 during demolition and removal process. Provide all temporary safety controls, as required by The Occupational Health & Safety Act, and Section 01500.
- .5 Ensure that secure site hoarding and/or fencing is in place and complete, prior to commencement of demolition operations. Maintain hoarding during demolition operations. Replace or repair sections of hoarding damaged or removed, as a result of demolition operations.

3.2 PREPARATION

- .1 Locate and mark all enclosed or hidden services within the structure, and on the site.
- .2 Disconnect and re-route electrical and telephone service lines entering areas to be demolished, in accordance with authorities having jurisdiction. Post warning signs on electrical lines and equipment which must remain energized during period of demolition.
- .3 Disconnect and cap, designated mechanical services in accordance with authorities having jurisdiction;
 - .1 Natural gas supply lines to be removed by local gas authority where required, or by qualified tradesman in accordance with gas authority instructions.
 - .2 Disconnect, and cap remove sewer and water lines to point indicated on drawings.
 - .3 Remove and dispose of other underground services as indicated on drawings, and as directed by Consultant.
- .4 Do not disrupt active or energized utilities traversing premises, designated to remain undisturbed.

3.3 SAFETY CODE

- .1 Unless otherwise specified, carry out demolition work in accordance with CSA S350.

3.4 DEMOLITION

- .1 Demolish parts of building to permit construction of addition and/or remedial work as indicated.
- .2 All concrete and masonry broken from demolition work to be removed from open basements or excavations.
- .3 Remove existing equipment, services, and obstacles where required for refinishing or making good of existing surfaces, and replace same as work progresses.

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- .4 At end of each day's work, leave work in safe condition so that no part is in danger of toppling or falling. Protect interiors of parts not to be demolished from exterior elements at all times.
 - .5 Demolish to minimize dusting. Keep dusty materials wetted as directed by Consultant.
 - .6 Demolish masonry and concrete walls in small sections to prevent damage to existing structure or surfaces to remain.
 - .7 Remove contaminated or dangerous materials, as defined by authorities having jurisdiction, from site, and dispose of in strict accordance with by-laws, regulations and/or guidelines applicable to such material.

3.5 SITE CLEANING

- .1 Promptly remove and dispose of demolished materials except where noted otherwise, in accordance with authorities having jurisdiction.
- .2 Do not sell, bury or burn materials on site.
- .3 Leave interior areas in a "swept clean" condition after demolition in preparation for remedial work.
- .4 If affected by demolition, leave exterior soft areas in a "raked clean" condition, and clear of all debris. Leave paved areas in a "swept clean" condition, and clear of all dirt, debris, and other contamination.

END OF SECTION

1 GENERAL

1.1 Related Sections

- .1 Section 01610 - Basic Product Requirements
- .2 Section 07620, Metal Flashings and Trim
- .3 Section 07900, Joint Sealers

1.2 References

- .1 ASTM C 36 97, Standard Specification for Gypsum Board.
- .2 CGSB 37 GP 54M 1979, Roofing and Waterproofing Membrane, Sheet Applied, Flexible, Polyvinyl Chloride.
- .3 CGSB 37 GP 55M 1979, Application of Sheet Applied Flexible Polyvinyl Chloride Roofing Membrane.
- .4 CAN/ULC-S704-2001: Standard for Thermal Insulation, Polyurethane and Polyisocyanurate Boards, Faced.
- .5 CAN/CGSB 51.34 M86, Vapour Barrier, Polyethylene Sheet for Use in Building Construction.
- .6 CSA A231.1 1972, Precast Concrete Paving Slabs.
- .7 CAN/ULC S704 98, Thermal Insulation, Urethane and Isocyanurate, Boards, Faced.
- .8 CAN/ULC S706 98, Insulated Fiberboard.

1.3 Performance Requirements

- .1 Roofing system: mechanically fastened single-ply PVC membrane roofing system with thermal barrier underlay board, vapour retarder, rigid board insulation, overlay board, and cap flashings.
- .2 Provide products that are compatible with one another under field conditions, as demonstrated by roofing manufacturer.
- .3 Provide watertight roofing system capable of resisting specified uplift pressures, thermally induced movement and exposure to weather without failing during the specified warranty period.

1.4 Submittals

- .1 Submit shop drawings in accordance with Section 01330, Submittal Procedures.
- .2 Product Data: for each major component, including membrane, thermal barrier underlay board, vapour retarder, rigid board insulation and adhesives. Highlight critical criteria for proper installation.
- .3 Manufacturer's Instructions: Provide technical data sheets, installation sequence, cleaning procedures.
- .4 Indicate flashing, control joints, tapered insulation details. Provide layout for tapered insulation.
- .5 Manufacturer to provide a maintenance manual at completion of project, on company letterhead outlining maintenance procedures for the Owner.
- .6 Manufacturer to visit the site periodically and provide written reports to the Owner. These reports shall acknowledge Contractors installation and must declare acceptance of installed flashing and projections details.

1.5 Delivery, Storage and Handling

- .1 Deliver, handle, store and protect materials in accordance with Section 01610, Basic Product Requirements.
- .2 Provide and maintain dry, off ground weatherproof storage.
- .3 Store rolls of PVC flat on cross supports.
- .4 Remove only in quantities required for same day use.
- .5 Store materials in accordance with manufacturer's written instructions.

- .6 Place plywood runways over work to enable movement of material and other traffic.
- .7 Store Products in designated areas elevated off the ground and protected from ultra-violet radiation, inclement weather and construction activities.
- .8 Store insulation protected from sunlight and weather and deleterious materials. Flammable insulation shall not be stored on the roof.
- .9 Store products in a manner to prevent overloading the structure and properly secured to prevent movement due to wind or other forces.

1.6 Project/Site Environmental Requirements

- .1 Temperature, relative humidity, moisture content.
 - .1 Apply PVC membrane only when surfaces and ambient temperatures are within manufacturers' prescribed limits.
 - .2 Do not install PVC membrane when temperature remains below 5 degrees C, or when wind chill gives equivalent cooling effect.
 - .3 Install PVC membrane on dry substrate, free of snow and ice. Use only dry materials and apply only during weather that will not introduce moisture into system.
- .2 Safety: Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of asphalt, sealing compounds, primers and caulking materials.
- .3 Moisture Testing: Perform a deck dry test on all concrete decks prior to materials application.

1.7 Quality Assurance

- .1 This roofing system shall be applied only by a Roofing Contractor pre-approved by the manufacturer.
- .2 The roofing Contractor shall commit to the manufacturer's standard procedures for assurance of quality workmanship and warranty.
- .3 There shall be no deviation made from the Project Specification or the approved shop drawings without prior written approval by the Consultant.

1.8 Warranty

- .1 The Contractor shall make good, and promptly, and all defects and deficiencies which occur or become apparent within a two (2) year guarantee period, for all work of this section against defects in labour, materials and workmanship for a period of two (2) years.
- .2 The Contractor will provide a manufacturer's warranty for all work of this section against defects in materials for a period of fifteen years (15) years. The warranty shall cover all components of the roof assembly; including, but not limited to, the vapour retarder, roof insulation, roof insulation, roof membranes, and flashings.
- .3 The manufacturer to supply all labour, materials, tools and equipment to repair and replace all material defects, at no additional cost, for a period of fifteen (15) years.

1.9 Alternative Roofing Systems and Manufacturers

- .1 Alternative roofing assemblies shall meet the specification requirements and shall include all components specified. Modifications to specifications to suit alternative roofing systems shall be subject to review and acceptance by Consultant.
- .2 Use products of a single manufacturer for all components including membrane, primers, vapour barriers, adhesives, fastenings and flashings.
- .3 Colour for membrane shall be selected by Consultant from manufacturer's range that must be comparable to specified product.

- .4 Installation of entire roofing systems using a single ply membrane shall be in accordance with membrane manufacturer's specifications.

2 PRODUCTS

2.1 Compatibility

- .1 Compatibility between components of system and adjacent materials is essential. Provide a written declaration to Consultant stating that materials and components, as assembled in system, meet this requirement.
- .2 Use products of a single manufacturer.

2.2 Vapour Retarder

- .1 Mechanically Fastened Roofs:
 - .1 Polyethylene: to CAN/CGSB 51.34, Type 1, 10 mil (0.25 mm) thick polyethylene vapor retarder/air retarder. Approved product shall be Sarnavap- 10 or approved equal.
- .1 Fully Adhered Roofs:
 - .1 Self-Adhered 32 mil (0.8 mm) thick self-adhesive vapor barrier. Approved product shall be Sarnavap SA or approved equal.
 - .2 Primer for applying vapour barrier: polymer emulsion-based primer designed to improve the adhesion of the self-adhered membrane to wood, concrete, lightweight concrete, and gypsum boards. Approved product shall be Sarnavap SA Primer or approved equal.

2.3 Membranes and PVC Flashings

- .1 Flexible polyvinyl chloride PVC sheet membrane: to CGSB 37 GP 54M.
 - .1 G410.15, minimum 60 mil (1.5 mm), Textured thermoplastic membrane with fiberglass reinforcement.
 - .2 Acceptable Product: Sarnafil G410 fibreglass reinforced membrane with a lacquer coating.
 - .3 Colours:
 - .1 Over gym roof: white
 - .2 All other roof areas: light grey with low reflectivity; Textured for anti-glare.
- .2 Wall/Curb Flashing
 - .1 Acceptable Product: Sarnafil G410-15 Membrane. Colour to match adjacent membranes.
- .3 Perimeter Edge Flashing
 - .1 Approved Product: Sarnaclad. Colour to match adjacent membranes.
- .4 Miscellaneous Flashings
 - .1 PVC-coated, heat-weldable sheet metal capable of being formed into a variety of shapes and profiles; 25 gauge, G90 galvanized metal sheet with a 20 mil (1 mm) unsupported PVC membrane laminated on one side. Approved Product: SarnaClad or approved equal.
 - .2 60 mil (1.5mm) thick prefabricated stack/pipe boot for stack/pipe penetrations. Approved Product: Sarnastack or approved equal.

2.4 Isocyanurate (Urethane) Insulation, Fiberglass Faced

- .1 To CAN/ULC S704, Type 3:
 - .1 Facing: Fiberglass Facing
 - .2 Flame spread classification: less than 500 unrated.
 - .3 Thickness: 2 layers as indicated. Staggered joints.

- .4 Compression rated for 140kPa (20.0 psi)
- .5 Acceptable material:
 - 1. Sarnafil: Sarnatherm CG .
 - 2. AC Foam II as manufactured by Atlas Roofing Corporation
 - 3. Sopra-ISO as manufactured by Soprema Waterproofing Inc
 - 4. E'NRG'Y 2 as manufactured by Johns Manville
 - 5. ISO 95X as manufactured by Firestone Building Products Canada
 - 6. IKOTerm as manufactured by IKO Industries Inc
 - 7. Isolex as manufactured by Lexcan Limited
- .2 Tapered Backslope:
 - .1 Use matching tapered insulation at roof perimeter, roof drains and as indicated.

2.5 Adhesive and Solvents (for Adhered Roofs)

- .1 Insulation Board Adhesive: low odor, VOC compliant, two-component foamable polyurethane adhesive for adhering rigid insulation and overlay boards to compatible substrates. Approved product shall be Sarnacol 2163 Board Adhesive by Sika Sarnafil or approved equal.
- .2 Other Membrane Adhesive /Solvents: as recommended by roof membrane manufacturer.

2.6 Sealers

- .1 Sealant: To Section 07900, Joint Sealers. Asbestos free sealant, compatible with systems materials, recommended by roof system manufacturer.

2.7 Mechanical Fasteners

- .1 Covering to steel deck: No.10 flat head, self tapping, Type S, cadmium plated screws to ASTM C 1002.
- .2 Insulation to substrate: fasteners and disks must meet Factory Mutual 4470 Standard for wind uplift and corrosion resistance.
- .3 Membrane to substrate: fasteners and spacing as recommended by manufacturer.
- .4 Install corrosion resistant fasteners in all areas exposed to interior swimming pools and high humidity areas.
- .5 Install prefabricated caps to underside of all exposed fasteners within exposed gymnasium deck.

2.8 Accessories

- .1 Edge and fascia flashings: PVC clad galvanized steel, 25 gage G90 metal sheet with 1 mm membrane. Colour as indicated, or as later selected by Consultant.
- .2 Steel termination strips, "U" shaped steel channels, PVC cord, distribution plates as recommended by membrane manufacturer.
- .3 Roof Drains and Strainers: PVC-coated, heavy-duty aluminum roof drain that connects to interior drainage pipe using a U-Flow seal. 0.0125 inches thick spun aluminum. The extra-large flange that has a PVC plastisol compound bonded to it to accept the PVC flashing membrane. Cast aluminum strainer dome. Approved Product: Sarnadrain or approved equal.
- .4 Caps for Exposed Fasteners: Low density polyethylene (LDPE) plastic cap used to cover segment of fastener exposed on underside of metal roof deck. Approved product shall be Mo-Caps by Sika Sarnafil or approved equal.

2.9 Source Quality Control

- .1 Submit laboratory test reports in accordance with Section 01450, Quality Control.

- .2 Submit glass transition temperature of all PVC materials considered for use on this project, "as manufactured" and after heat aging for 28 days at 100°C. The increase in the glass transition temperature (Tg) shall not exceed 5°C regardless of its value.

3 EXECUTION

3.1 Protection

- .1 Cover walls and adjacent work where materials hoisted or used.
- .2 Use warning signs and barriers. Maintain in good order until completion of work.
- .3 Dispose of rain water away from face of building until drains or hoppers installed and connected.
- .4 Protect from traffic and damage. Comply with precautions deemed necessary by Consultant.
- .5 Place plywood runways over work to enable movement of material and other traffic.
- .6 At end of each day's work or when stoppage occurs due to inclement weather, provide protection for completed work and materials out of storage.
- .7 Seal exposed edges.

3.2 Substrate Examination

- .1 Examine and immediately inform Consultant in writing of defects.
- .2 Prior to commencement of work ensure:
 - .1 Substrates are firm, straight, smooth, dry, free of snow, ice or frost, and swept clean of dust and debris.
 - .2 Curbs have been built.
 - .3 Drains have been installed at proper elevations relative to finished surface.
 - .4 Plywood and lumber nailer plates have been installed to walls and parapets as indicated.

3.3 Deck Sheathing

- .1 Mechanically fasten gypsum sheathing board to steel deck with screws spaced 400 mm o/c each way.
- .2 Place gypsum sheathing board with long axis of each sheet transverse to steel deck ribs, with end joints staggered and fully supported on ribs.

3.4 Vapour Retarder

- .1 Install vapour barrier as per manufacturers recommendations.
- .2 Mechanically Fastened Roofs:
 - .1 Loose-lay polyethylene vapor retarder/air retarder. Overlap all edges 4 inches (100 mm) and seal with butyl tape. Extend vapour retarder to perimeter and deck penetrations and seal to provide continuity of the building's air/vapor envelope. Vapour retarder must be sealed on the vertical surfaces and at roof penetrations.
- .3 Fully Adhered Roofs:
 - .1 Apply primer on all substrates except for steel. Let the primer dry completely.
 - .2 Apply and press self-adhered vapour barrier onto the substrate. Use a steel roller to press the vapor retarder onto the substrate including overlaps. Use the roller to push out any air bubbles out to the edge of the membrane. Do not cut the membrane to remove a bubble.
 - .3 Extend vapor retarder to perimeter and deck penetrations and seal to provide continuity of the building's air/vapor envelope. Seal on all vertical surfaces and roof penetrations.

3.5 Insulation Installation

- .1 Insulation shall be installed according to insulation manufacturer's instructions.
- .2 Insulation shall be neatly cut to fit around penetrations and projections.
- .3 Install tapered insulation in accordance with insulation manufacturer's shop drawings.
- .4 Install tapered insulation around drains creating a drain sump.
- .5 Do not install more insulation board than can be covered with PVC membrane by the end of the day or the onset of inclement weather.
- .6 Use at least 2 layers of insulation when the total insulation thickness exceeds 2-1/2 inches (64 mm). Stagger joints at least 12 inches (0.3 m) between layers.
- .7 Adhered Roofing
 - .1 Install insulation boards using adhesives in accordance with manufacturer's recommendations and details.
- .8 Mechanically Fastened Roofs:
 - .1 Fasten insulation boards to the deck with approved fasteners and plates according to CSA 123 wind design requirements and the insulation manufacturers recommendations for fastening rates and patterns. The quantity and locations of the fasteners and plates shall also cause the insulation boards to rest evenly so that there are no significant and avoidable air spaces between the boards and the insulation. Each insulation board shall be installed tightly against the adjacent boards on all sides.
 - .2 Fasteners are to be installed consistently in accordance with fastener manufacturer's recommendations.
 - .3 All fasteners secured through deck must be located in the top deck flute and should not exceed bottom flute depth. All fasteners to receive a plastic sleeve (Mo-Cap).

3.6 PVC Membrane Application

- .1 Adhered Roofing
 - .1 Over the properly installed and prepared substrate, apply adhesive and immediately unroll PVC membrane into wet adhesive. Adjacent rolls overlap previous rolls by 3 inches (75 mm). This process is repeated throughout the roof area. Broom and roll the membrane in two directions with a minimum 100 lb (45 kg), steel, membrane roller to avoid air bubbles. Clean any adhesive residue on the seams while still wet and before welding.
- .2 Mechanically Fastened Roofs:
 - .1 Install mechanically fastened membrane and flashings in accordance with manufacturer's written instructions.
- .3 Flashings.
 - .1 Install PVC membrane flashings in accordance with manufacturer's written instructions.
- .4 Penetrations.
 - .1 Install drains, strainers, vent stack covers and other penetration flashings and seal to membrane in accordance with manufacturer's recommendations and details.

3.7 Field Quality Control

- .1 Inspection and testing of membrane application will be carried out by testing laboratory designated by Consultant.

3.8 Flood Testing

- .1 Do not conceal waterproofing until inspection and testing are completed to satisfaction of Consultant.

-
- .2 Temporarily plug drains and dam horizontal surface areas to be tested and flood with water to minimum depth of 80 mm.
 - .3 Maintain flooded depth for 24 hours.
 - .4 If leaks occur repair and retest.
 - .5 Remove water at end of test.

3.9 Protection of Completed Work

- .1 Ensure membrane is undamaged before application of protection board.
- .2 Apply protection board to cover membrane at locations as indicated

3.10 Cleaning

- .1 Clean work in accordance with Section 01740, Cleaning.
- .2 Clean to Consultant's approval, soiled surfaces, spatters, and damage caused by work of this Section.
- .3 Check drains to ensure cleanliness and proper function, and remove debris, equipment and excess material from site.

END OF SECTION

1 GENERAL

1.1 RELATED SECTIONS

- .1 Section 01610 - Basic Product Requirements
- .2 Section 06100 - Rough Carpentry.
- .3 Section 07541 – Single Ply PVC Roofing
- .4 Section 07550 – Modified Bitumen Roofing
- .5 Section 07465 – Preformed Metal Flashing & Trim

1.2 REFERENCES

- .1 Aluminum Sheet Metal Work in Building Construction-1980
- .2 ASTM A 653/A 653 M-95, Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- .3 Canadian Roofing Contractors Association (CRCA). Roofing Specifications

1.3 SAMPLES

- .1 Submit shop drawings in accordance with Section 01330 - Submittal Procedures.
- .2 Submit duplicate 50 x 50 mm samples of each type of sheet metal material, colour and finish.

2 PRODUCTS

2.1 SHEET METAL MATERIALS

- .1 Aluminum-zinc alloy coated steel sheet: to ASTM A 792/A 792M, commercial quality, with AZ150 Galvalume coating, regular spangle, 0.6 mm base metal thickness, prefinished.

2.2 PREFINISHED STEEL SHEET

- .1 Prefinished steel with factory applied silicone modified polyester.
 - .1 Colour(s) as later selected by Consultant from manufacturer's standard range. Up to (3) colours for entire project.
 - .2 Specular gloss: 30 units +/- 5 in accordance with ASTM D 523.
 - .3 Coating thickness: not less than 25 micrometres.
 - .4 Resistance to accelerated weathering for chalk rating of 8, colour fade 5 units or less and erosion rate less than 20 % to ASTM D 822 as follows:
 - .1 Outdoor exposure period 1000 hours.
 - .2 Humidity resistance exposure period 500 1000 hours.
 - .5 Acceptable Products:
 - .1 Dofasco Precoat 5000 Series
 - .2 Baycoat 10000 Series

2.3 ACCESSORIES

- .1 Isolation coating: alkali resistant bituminous paint.

- .2 Plastic cement: to CAN/CGSB 37.5-M89.
- .3 Underlay for metal flashing: to Section 07300 Ice & Water Roof Underlayment.
- .4 Sealants: to Section 07900.
- .5 Cleats: of same material, and temper as sheet metal, minimum 50 mm wide. Thickness same as sheet metal being secured.
- .6 Fasteners: of same material as sheet metal, to CSA B111, ring thread flat head roofing nails of length and thickness suitable for metal flashing application.
- .7 Washers: of same material as sheet metal, 1 mm thick with rubber packings.
- .8 Solder: to ASTM B 32, alloy composition.
- .9 Flux: rosin, cut hydrochloric acid, or commercial preparation suitable for materials to be soldered.
- .10 Touch-up paint: as recommended by prefinished material manufacturer.

2.4 FABRICATION

- .1 Fabricate metal flashings and other sheet metal work in accordance with applicable CRCA 'FL' series details as indicated.
- .2 Fabricate aluminum flashings and other sheet aluminum work in accordance with Aluminum Association Aluminum Sheet Metal Work in Building Construction.
- .3 Form pieces in 2400 mm maximum lengths. Make allowance for expansion at joints.
- .4 Hem exposed edges on underside 12 mm. Miter and seal corners with sealant.
- .5 Form sections square, true and accurate to size, free from distortion and other defects detrimental to appearance or performance.
- .6 Apply isolation coating to metal surfaces to be embedded in concrete or mortar.

2.5 METAL FLASHINGS

- .1 Form flashings, copings and fascia to profiles indicated of 0.6mm thick prefinished steel.

2.6 PANS

- .1 Form pans to receive roofing plastic from galvanized steel sheet metal with minimum 75 mm upstand above finished roof and 100 mm continuous flanges with no open corners. Make pans minimum 50 mm wider than member passing through roof membrane.

2.7 REGLETS AND CAP FLASHINGS

- .1 Form recessed surface mounted reglets metal cap flashing sheet metal to be built-in concrete masonry work for base flashings as detailed in accordance with CRCA FL series details. Provide slotted fixing holes and steel/plastic washer fasteners. Cover face and ends with plastic tape.

3 EXECUTION

3.1 INSTALLATION

- .1 Install sheet metal work in accordance with CRCA FL series details, and as detailed.
- .2 Use concealed fastenings except where approved before installation.
- .3 Provide underlay under sheet metal. Secure in place and lap joints 100 mm.
- .4 Counterflash bituminous flashings at intersections of roof with vertical surfaces and curbs. Flash joints forming tight fit hook as detailed.
- .5 Lock end joints and caulk with sealant.
- .6 Install surface mounted reglets true and level, and caulk top of reglet with sealant.
- .7 Insert metal flashing into reglets under cap flashing to form weather tight junction.
- .8 Turn top edge of flashing into recessed reglet or mortar joint minimum of 25 mm. Lead wedge flashing securely into joint.
- .9 Caulk flashing at reglet cap flashing with sealant.
- .10 Install pans, where shown around items projecting through roof membrane.

END OF SECTION

Selective Roof Replacements

Children's Aid Society of Nipissing & Parry Sound

140 Elmwood Avenue, North Bay, Ontario

GENERAL NOTES:

- DRAWINGS & DETAILS SHOWN HEREIN ARE INTENDED TO CONVEY SCOPE & GENERAL INTENT OF PERFORMANCE & WORK. ALL GIVEN DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, QUANTITIES AND DETAILS ON SITE. CONTRACTOR TO REPORT ALL DISCREPANCIES TO ARCHITECT. MOST STRINGENT DETAIL APPLIES.
 - ALL WORK MUST BE FULLY COMPLETED ON EACH DAY. PHASED CONSTRUCTION WILL NOT BE ACCEPTED.
- ### ROOFING DEMOLITION & REMOVALS:
- PERFORM (x5) CUT TESTS OF EXISTING ROOF PRIOR TO FINALIZING MATERIAL ORDERS. (x3) TESTS ON ROOF A, (x1) ON ROOF B AND (x1) OF GYM ROOF.
 - REMOVE AND DISPOSE OF EXISTING ROOFING SYSTEM MATERIALS AS REQUIRED AND PREPARE EXISTING ROOF DECK AS TO RECEIVE THE NEW ROOFING SYSTEM WORK AS SPECIFIED.
 - COMPLETELY REMOVE EXISTING MEMBRANE ROOF SYSTEMS AND RELATED METAL FLASHINGS, PARAPETS, ASSOCIATED SEALANTS, CANTS, BLOCKING & NAILERS, EXISTING INSULATION AND VAPOUR BARRIER TO EXPOSE EXISTING ROOF DECK.
 - REMOVE AND DISPOSE OF EXISTING PREFINISHED METAL PARAPET CAP FLASHINGS AND PREPARE EXISTING BLOCKING AS REQUIRED TO RECEIVE NEW PREFINISHED METAL PARAPET CAP FLASHINGS.
 - CLEAN ALL EXISTING SURFACES OF DEBRIS PRIOR TO INSTALLING NEW ROOF SYSTEM.
 - COORDINATE INSPECTION OF EXISTING ROOF DECK PRIOR TO REINSTALLING NEW ROOFING SYSTEM.
 - MAKE GOOD ALL EXISTING MATERIALS AND FINISHES AFFECTED BY DEMOLITIONS AND REMOVALS.

CONSTRUCTION NOTES:

- LOCATE ALL KETTLES AND SIMILAR ODOR-PRODUCING EQUIPMENT AWAY FROM ENTRANCE, WINDOWS AND AIR INTAKES OF FACILITY. COORDINATE LOCATIONS AND TIMING FOR SUCH WORK WITH OWNER PRIOR TO STARTING WORK.
 - MODIFY EXISTING PARAPETS AND REPLACE ALL EXISTING METAL PARAPET FLASHINGS IN AFFECTED AREAS. PREFINISHED METALS COLOURS TO MATCH EXISTING.
 - REPLACE ALL SCREENS ON ALL EXISTING ROOF DRAINS. SECURE SCREENS USING SCREWED FASTENERS.
- ### MECHANICAL EQUIPMENT COORDINATION:
- INSTALL NEW CURBS FOR ALL EXISTING ROOFTOP EQUIPMENT WHERE INDICATED.
 - THE CONTRACTOR SHALL BE RESPONSIBLE TO CAREFULLY RAISE/REMOVE/REPLACE ALL EXISTING ROOFTOP EQUIPMENT DURING ROOF REPLACEMENT. REFLASH ALL CURBS AND ENCLOSURES TO SUIT EXISTING CONDITIONS.
 - THE CONTRACTOR SHALL EMPLOY QUALIFIED TRADESPERSONS TO HANDLE, DISCONNECT AND REINSTALL ALL EQUIPMENT AS REQUIRED. THE CONTRACTOR SHALL TEST AND CONFIRM THAT REINSTALLATION IS IN GOOD WORKING ORDER.

GENERAL NOTES (CONTINUED):

- DO NOT SCALE FROM THE DRAWINGS.
- READ ALL DRAWINGS IN CONJUNCTION WITH ALL SPECIFICATIONS, DRAWINGS AND DOCUMENTS FROM ALL CONSULTANTS. PROMPTLY NOTIFY THE CONSULTANT OF ANY CONCERNS OR QUESTIONS REGARDING CONFLICTS.
- PROMPTLY REPORT ALL DRAWING DISCREPANCIES TO THE CONSULTANT.
- ARCHITECTURAL CONTACT INFO:
MARCUS WHEELER
BERTRAND WHEELER ARCHITECTURE INC.
705-472-0988
MARCUS@BERTRANDWHEELER.CA
- OWNER CONTACT INFO:
SCOTT LEPINE
FACILITIES MANAGEMENT AND CLINICAL COORDINATOR
CHILDREN'S AID SOCIETY OF THE DISTRICT OF NIPISSING AND PARRY SOUND
CELL PHONE: (705) 492-4726
EMAIL: SCOTT.LEPINE@PARNIPCAS.ORG

BUILDING CODE NOTES:

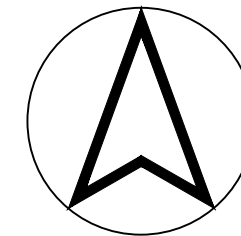
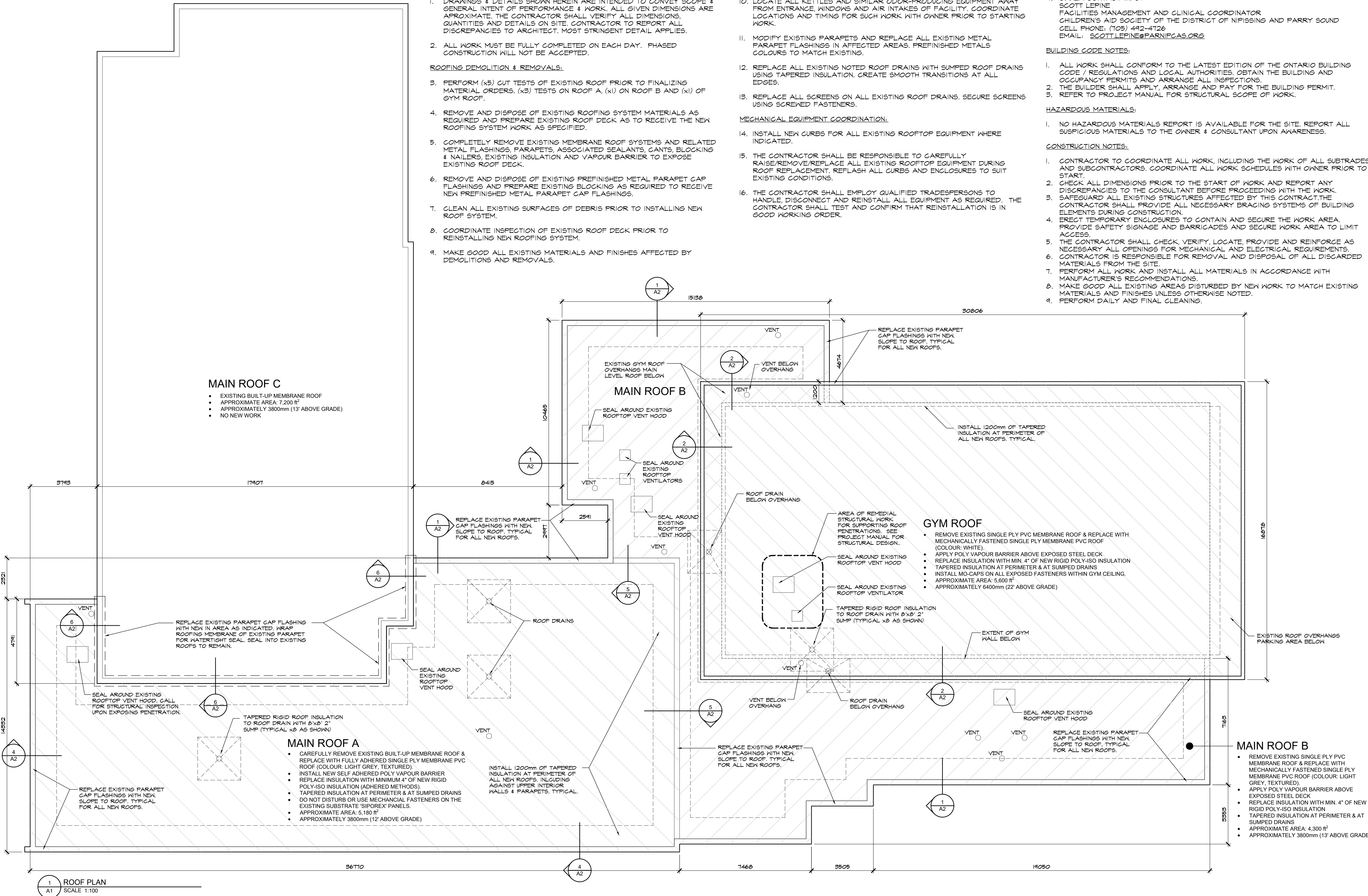
- ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE ONTARIO BUILDING CODE / REGULATIONS AND LOCAL AUTHORITIES. OBTAIN THE BUILDING AND OCCUPANCY PERMITS AND ARRANGE ALL INSPECTIONS.
- THE BUILDER SHALL APPLY, ARRANGE AND PAY FOR THE BUILDING PERMIT.
- REFER TO PROJECT MANUAL FOR STRUCTURAL SCOPE OF WORK.

HAZARDOUS MATERIALS:

- NO HAZARDOUS MATERIALS REPORT IS AVAILABLE FOR THE SITE. REPORT ALL SUSPICIOUS MATERIALS TO THE OWNER & CONSULTANT UPON AWARENESS.

CONSTRUCTION NOTES:

- CONTRACTOR TO COORDINATE ALL WORK, INCLUDING THE WORK OF ALL SUBTRADES AND SUBCONTRACTORS. COORDINATE ALL WORK SCHEDULES WITH OWNER PRIOR TO START.
- CHECK ALL DIMENSIONS PRIOR TO THE START OF WORK AND REPORT ANY DISCREPANCIES TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.
- SAFEGUARD ALL EXISTING STRUCTURES AFFECTED BY THIS CONTRACT. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BRACING SYSTEMS OF BUILDING ELEMENTS DURING CONSTRUCTION.
- ERECT TEMPORARY ENCLOSURES TO CONTAIN AND SECURE THE WORK AREA. PROVIDE SAFETY SIGNAGE AND BARRICADES AND SECURE WORK AREA TO LIMIT ACCESS.
- THE CONTRACTOR SHALL CHECK, VERIFY, LOCATE, PROVIDE AND REINFORCE AS NECESSARY ALL OPENINGS FOR MECHANICAL AND ELECTRICAL REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL DISCARDED MATERIALS FROM THE SITE.
- PERFORM ALL WORK AND INSTALL ALL MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- MAKE GOOD ALL EXISTING AREAS DISTURBED BY NEW WORK TO MATCH EXISTING MATERIALS AND FINISHES UNLESS OTHERWISE NOTED.
- PERFORM DAILY AND FINAL CLEANING.



ISSUED FOR TENDER, PERMIT & CONSTRUCTION
FEB 02/2022



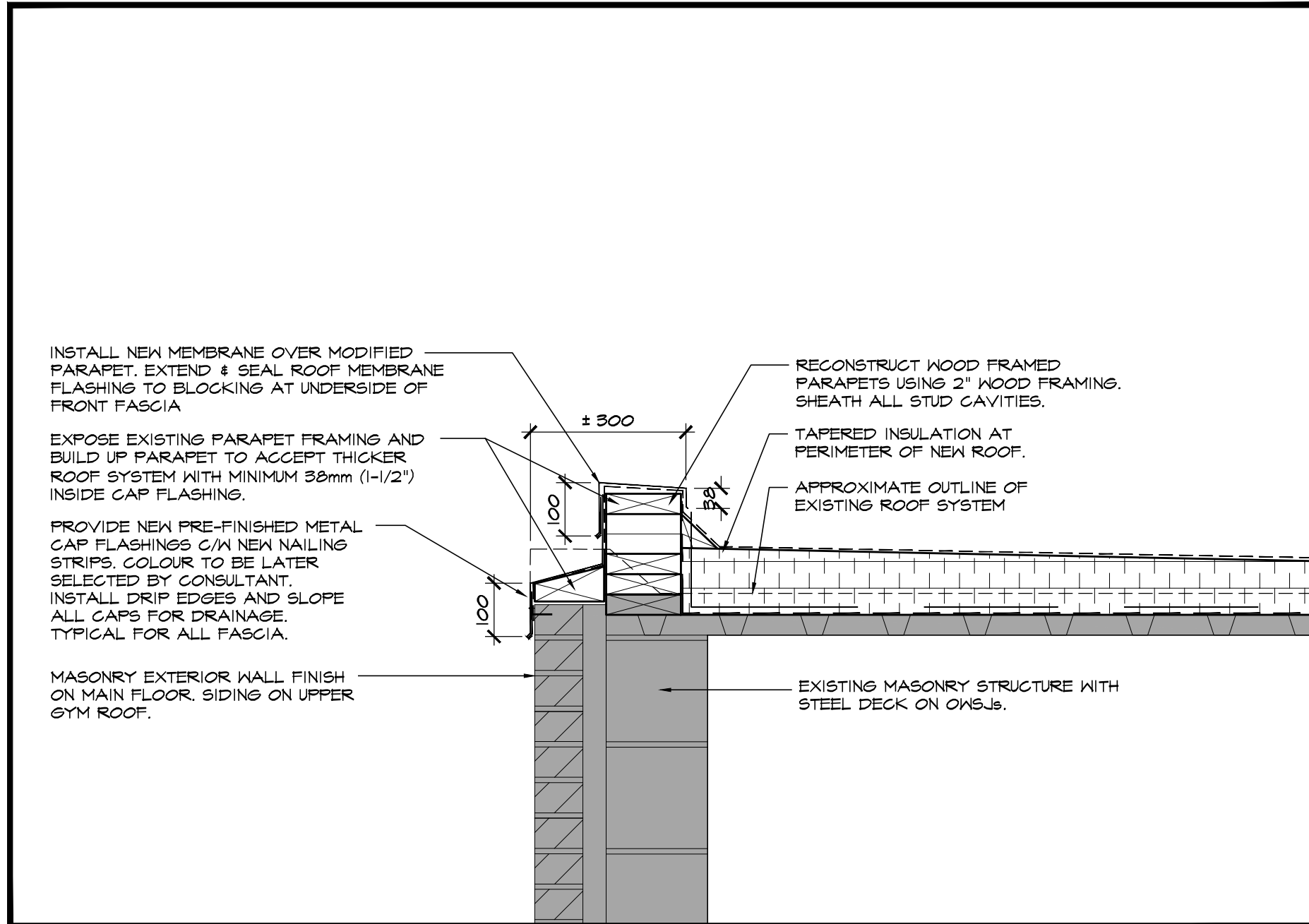
Bertrand Wheeler architecture inc.
528 Cassels Street, North Bay, ON P1B 3Z7
tel: 705-472-0988 fax: 705-472-2486

PROJECT: SELECTIVE ROOF REPLACEMENT
CHILDREN'S AID SOCIETY OF NIPISSING & PARRY SD
140 ELMWOOD AVENUE
NORTH BAY, ONTARIO

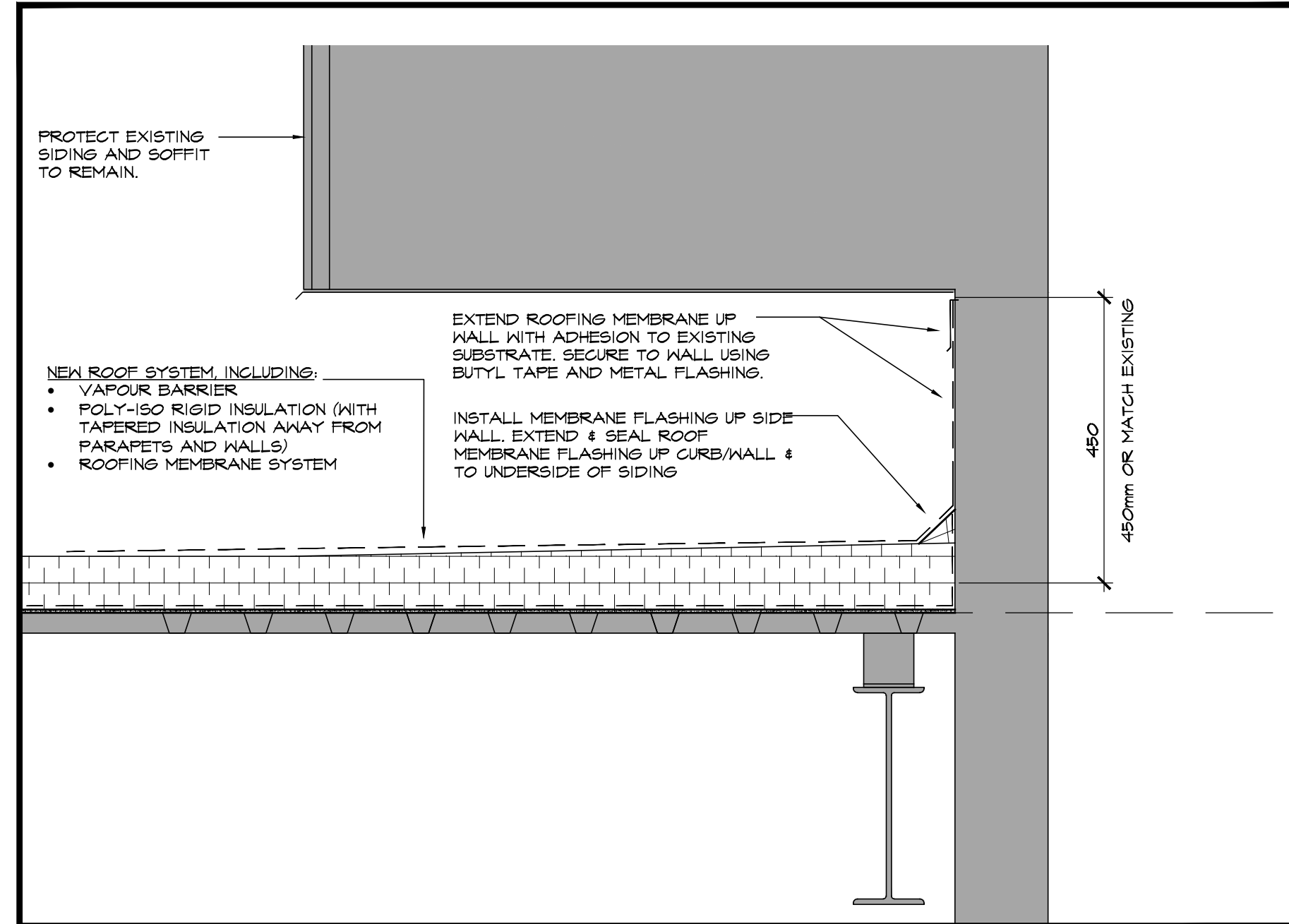
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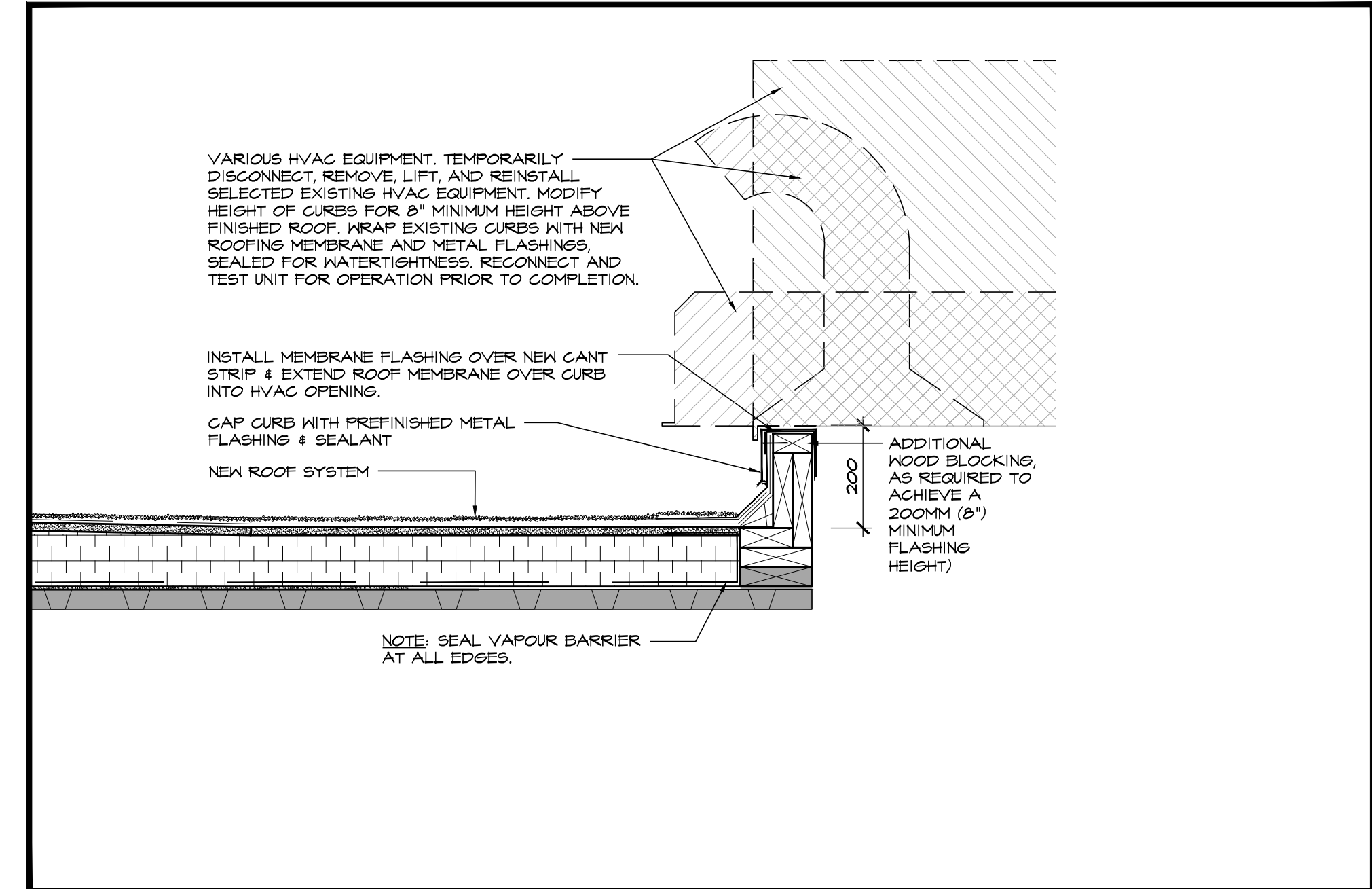
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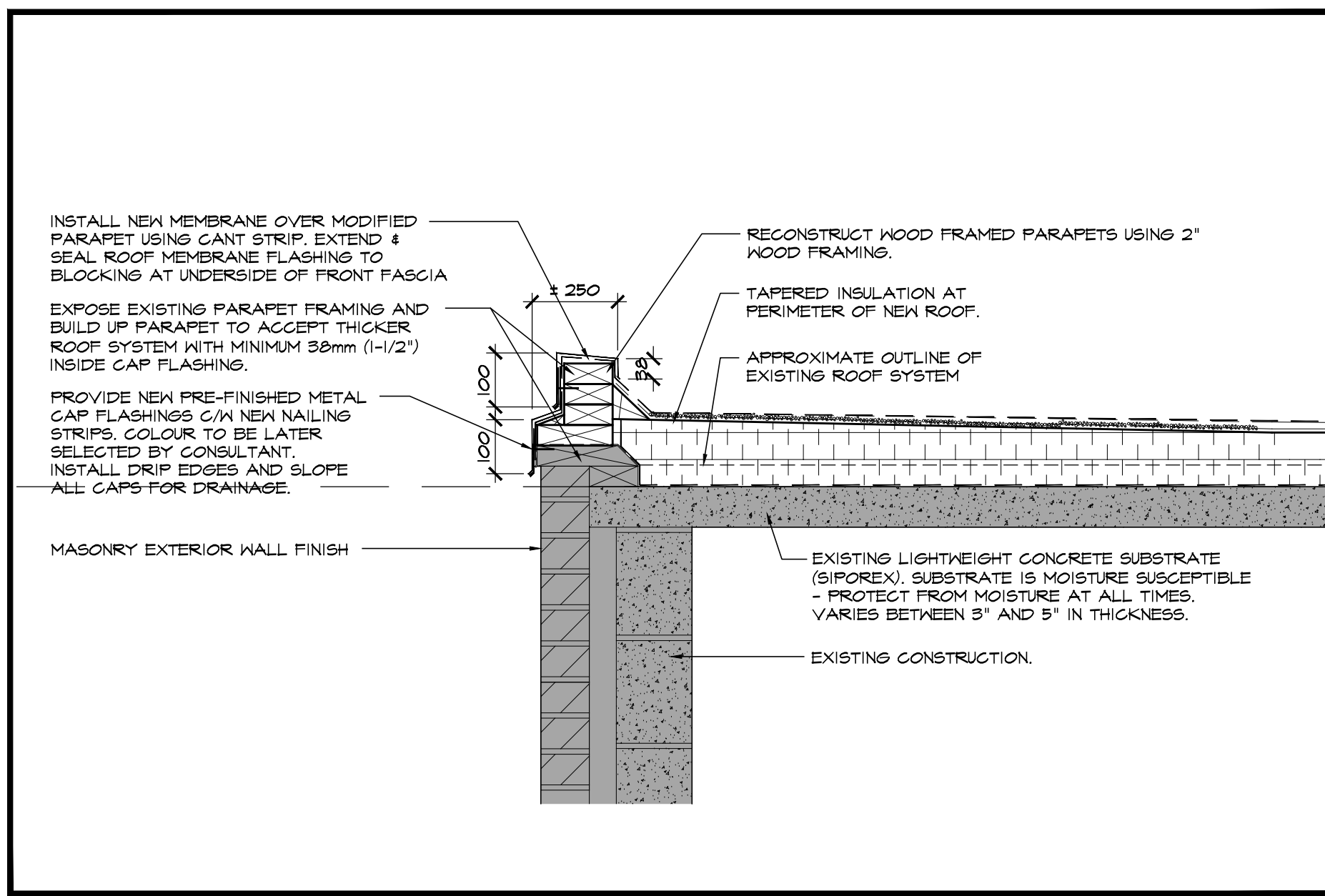
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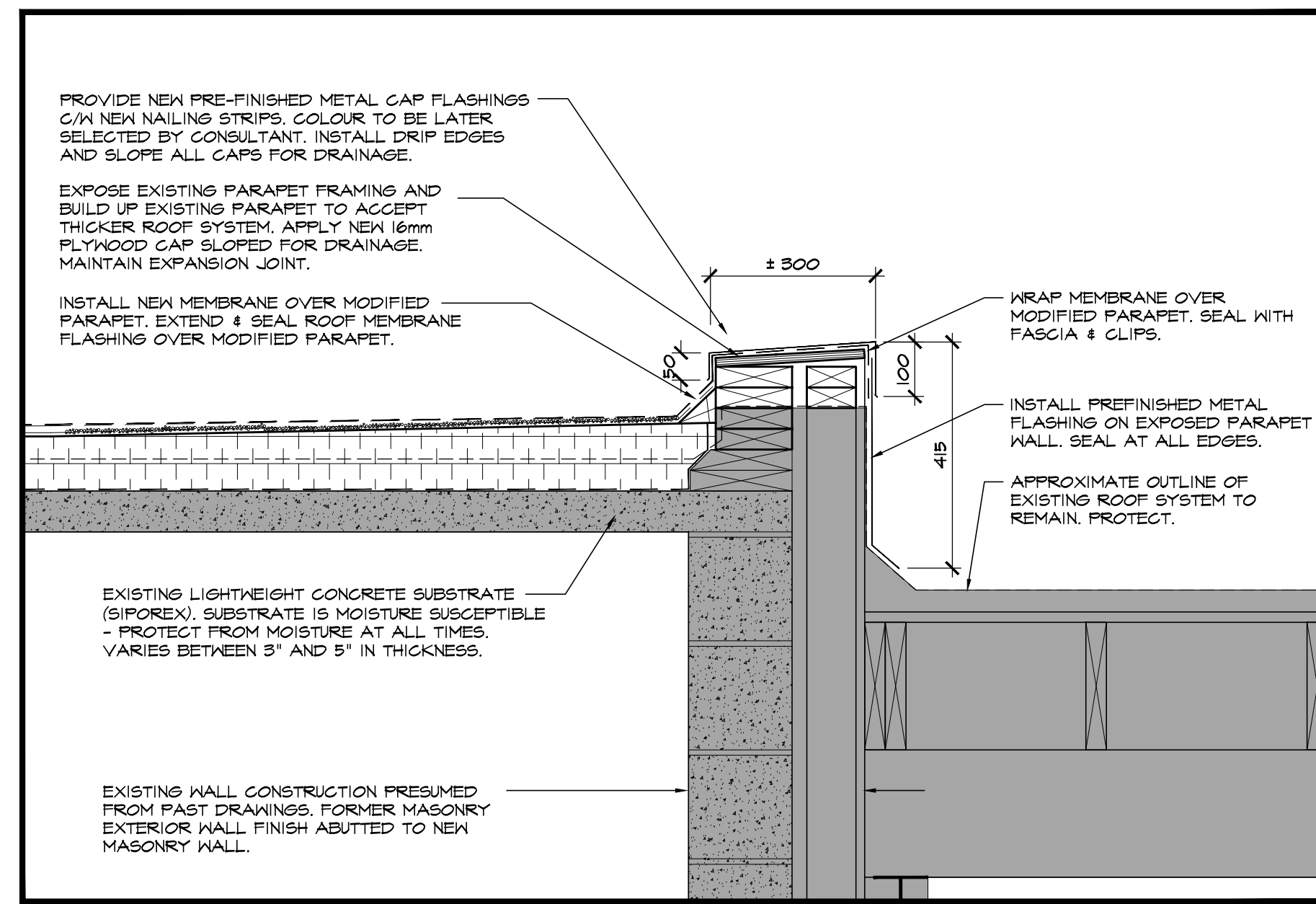
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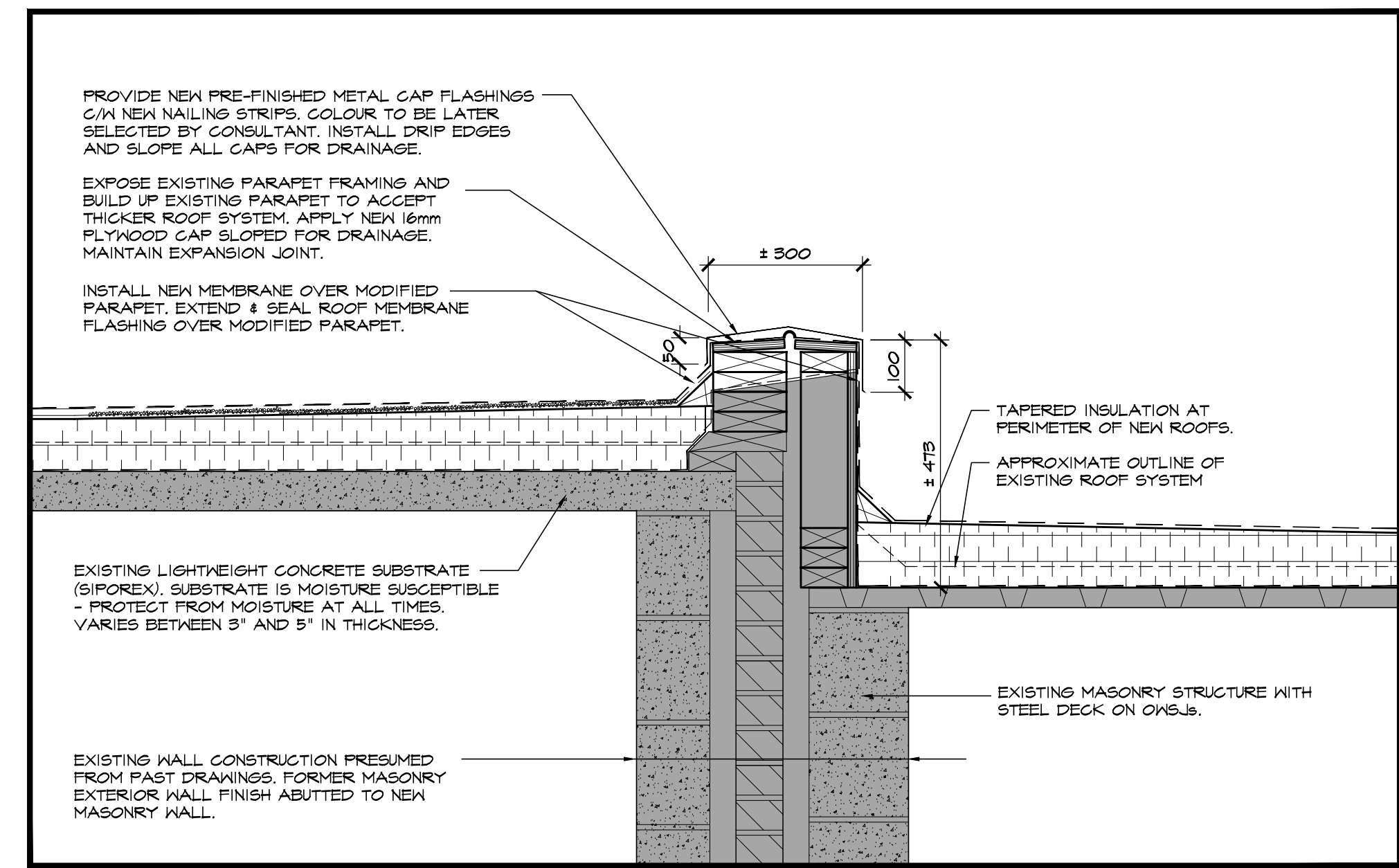
3 TYPICAL HVAC EQUIPMT DETAIL
A2 SCALE 1:10



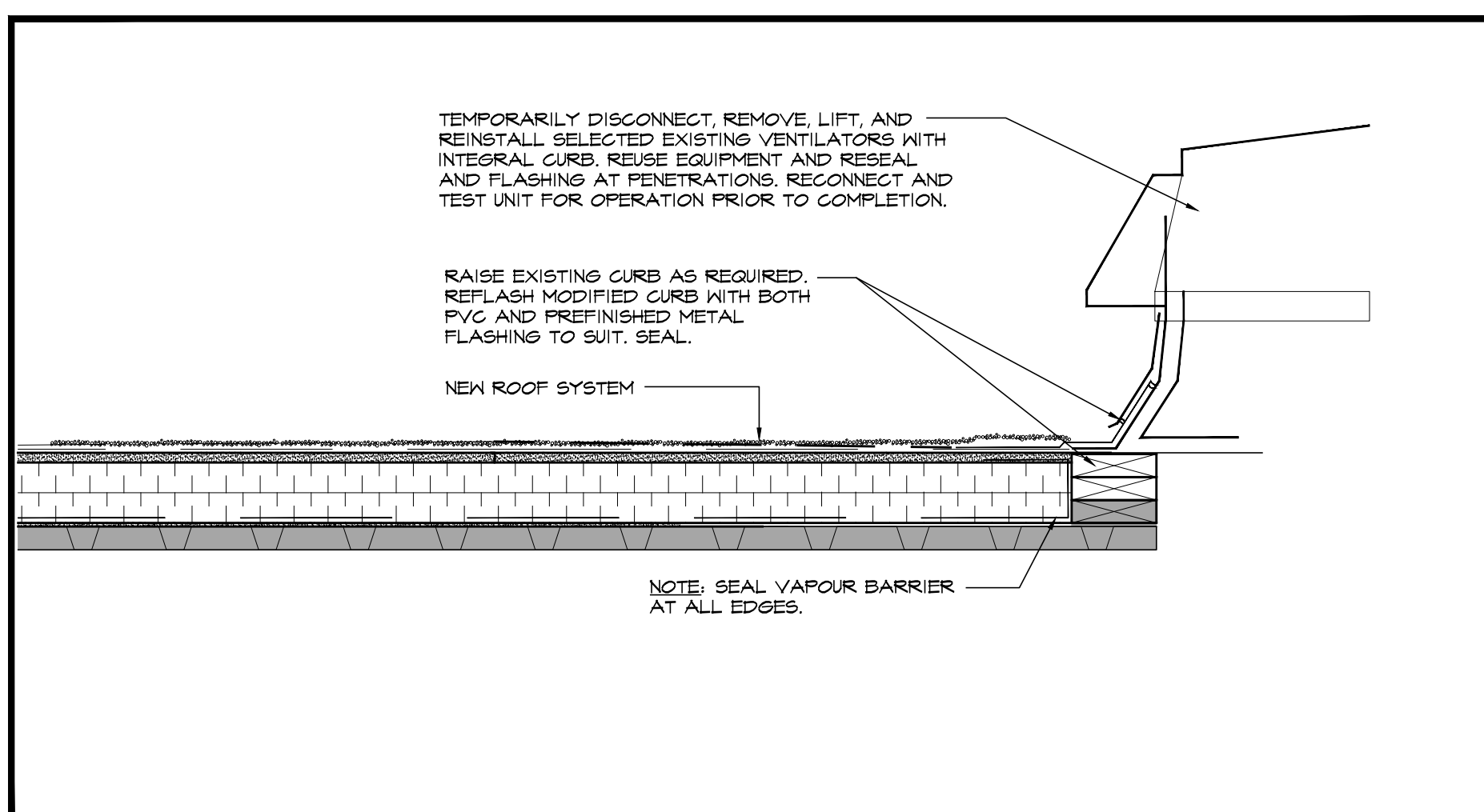
4 TYPICAL PARAPET DETAIL - ROOF A
A2 SCALE 1:10



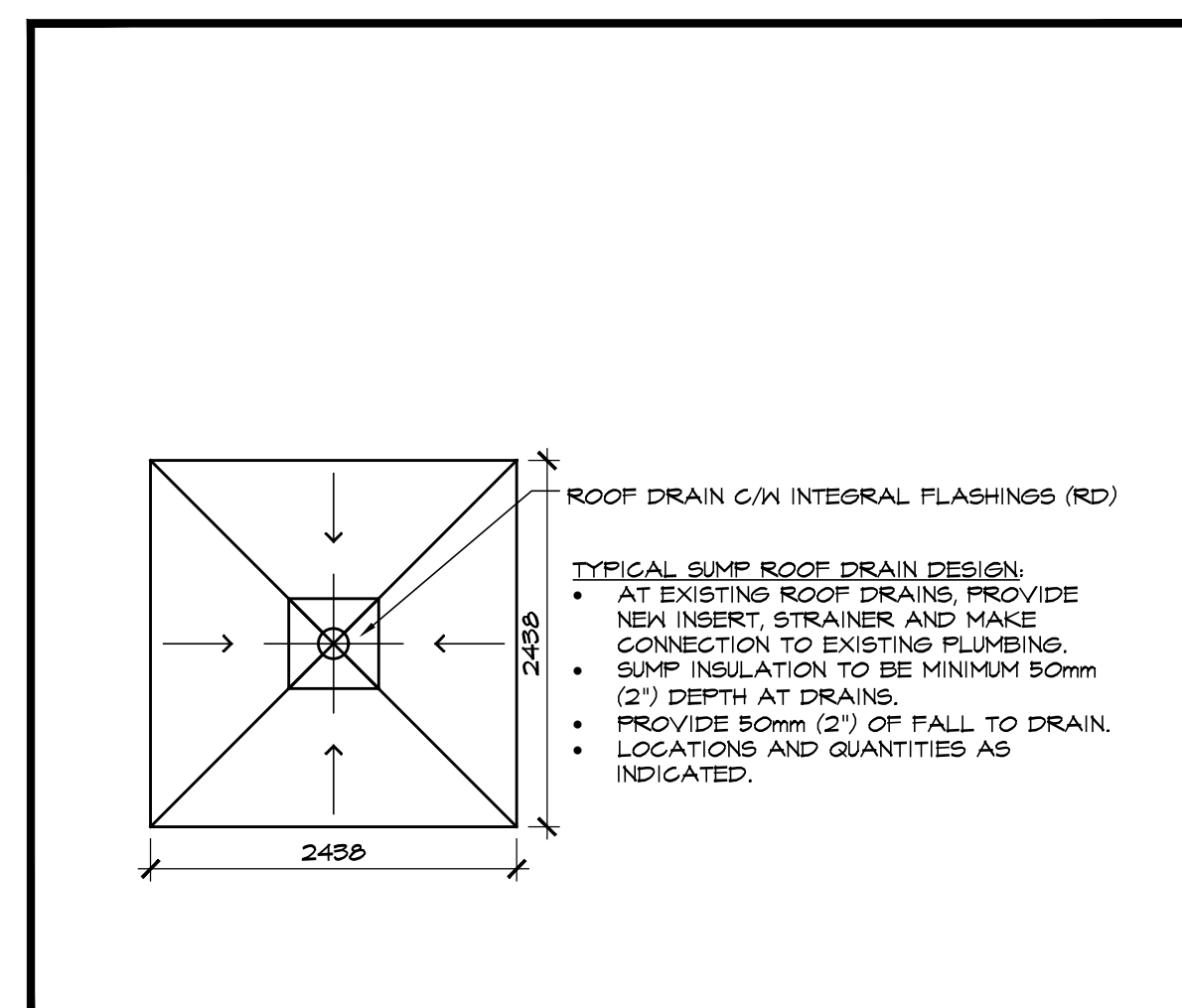
5 PARAPET DETAIL
A2 SCALE 1:10



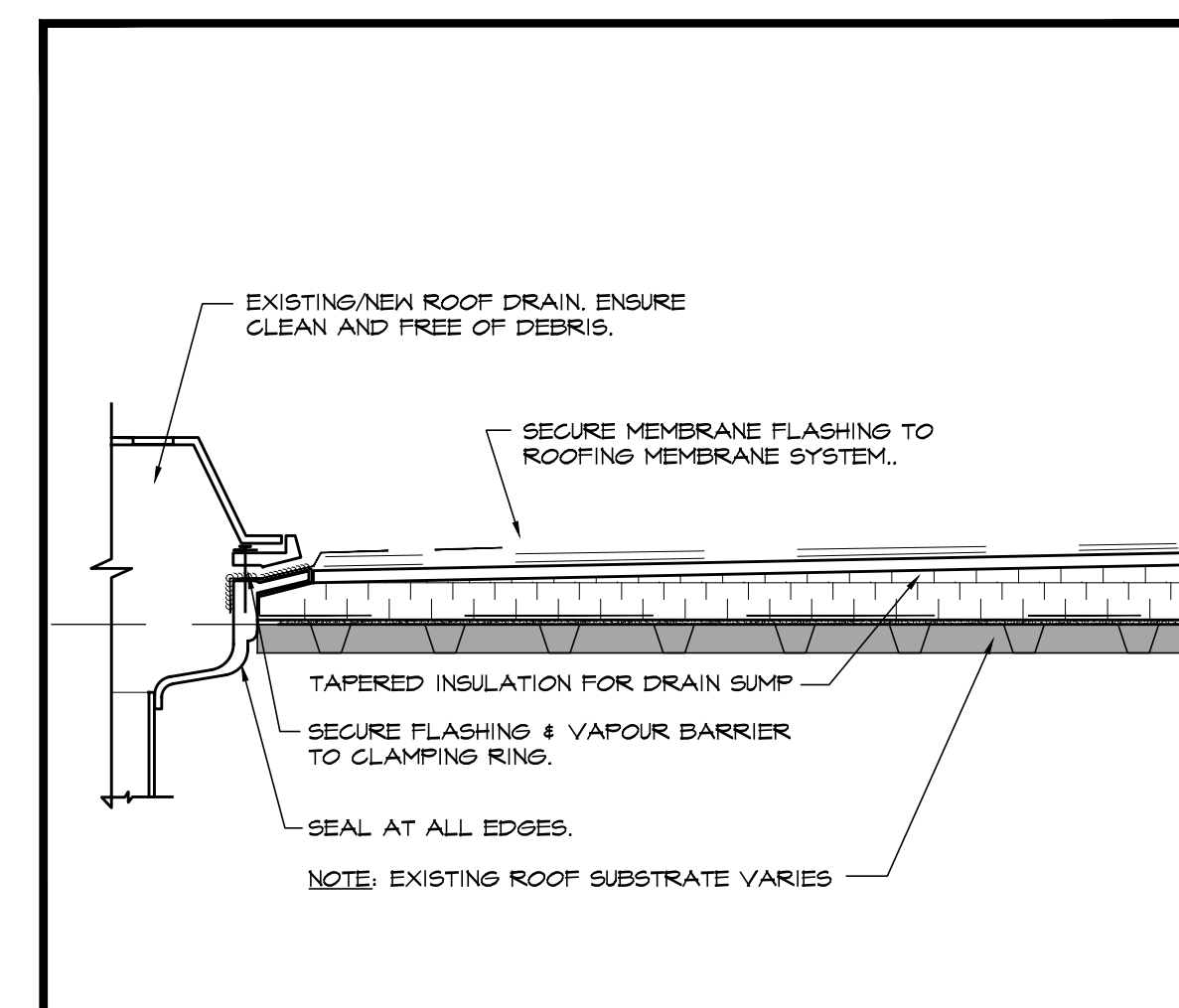
6 PARAPET DETAIL
A2 SCALE 1:10



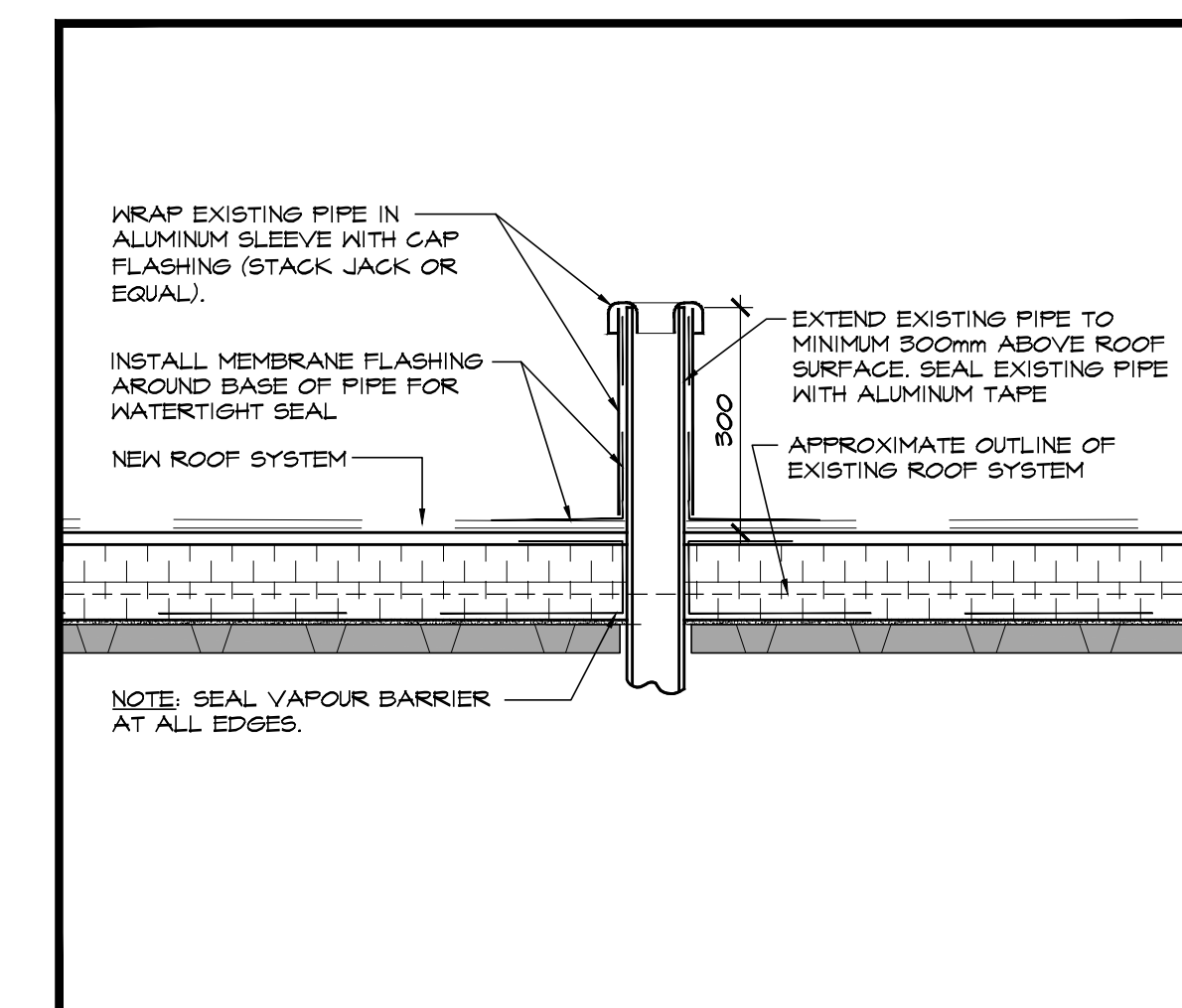
7 TYPICAL VENTILATOR DETAIL
A2 SCALE 1:10



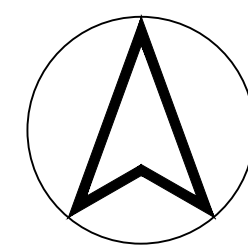
8 TYPICAL ROOF DRAIN PLAN DETAIL
A2 SCALE 1:50



9 TYPICAL ROOF DRAIN DETAIL
A2 SCALE 1:10



10 TYPICAL VENT & PIPE PENETRATION DETAIL
A2 SCALE 1:10



ISSUED FOR TENDER, PERMIT & CONSTRUCTION
FEB 02/2022



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project: SELECTIVE ROOF REPLACEMENT
CHILDREN'S AID SOCIETY OF NIPISSING & PARRY SD
140 ELMWOOD AVENUE
NORTH BAY, ONTARIO
title: ROOF DETAILS

drawn by: MBW	checked by: MBW
scale: AS NOTED	project no: 2165
date plotted: Feb 02, 2022	revision date: Feb 02, 2022

dwg no: **A2**