Coquitlam

City of Coquitlam

Request for Proposals

RFP No. 23-035

Mackin House Museum - Cedar Shingle Roof Replacement

Issue Date: May 25, 2023

TABLE OF CONTENTS

SUMMARY OF KEY INFORMATION

RFP Reference	**RFP No. 23-035** **Mackin House Museum - Cedar Shingle Roof Replacement**
Overview of the Opportunity	The City requests Proposals from experienced qualified firms for the provision of **Mackin House Museum - Cedar Shingle Roof Replacement.**
Closing Date and Time	**2:00 pm local time** **Monday, June 19, 2023**
Instructions for Proposal Submission	Proposal submissions are to be returned in Microsoft Word and any other supporting documents to be consolidated into one PDF file and uploaded through QFile, the City's file transfer service accessed at website: qfile.coquitlam.ca/bid 1. **In the "Subject Field" enter:** RFP Number and Name 2. **Add files in .pdf format and Send** (Ensure your web browser remains open until you receive 2 emails from QFile to confirm receipt.) Phone 604-927-3037 should assistance be required. The City reserves the right to accept Proposals received after the Closing Date and Time.
Obtaining RFP Documents	RFP Documents are available for download from the City of Coquitlam's website: https://www.coquitlam.ca/Bid-Opportunities Printing of RFP documents is the sole responsibility of the Proponents.
Instructions to Proponents	The guidelines for participation that will apply to this RFP are posted on the City's website: Instructions to Proponents
Questions	Questions are to be submitted in writing quoting the RFP number and name up to 3 business days before the Closing Date sent to email: bid@coquitlam.ca Questions received after that time may not receive a response.
Addenda	Proponents are required to check the City's website for any updated information and addenda issued, before the Closing Date at the following website: https://www.coquitlam.ca/Bid-Opportunities
Withdrawal of Submission	Proposals may be withdrawn by written notice only, made by an authorized representative of the Proponent sent to email: bid@coquitlam.ca prior to the Closing Date and Time.
Terms and Conditions of Contract	City of Coquitlam Standard Terms and Conditions - Purchase of Goods and Services are posted on the City's website and will apply to the Contract awarded as a result of this RFP.

DEFINITIONS

"Agreement" "Contract" means the contract for services or City Purchase Order that will be issued to formalize with the successful Proponent through negotiation process with the City based on the proposal submitted and will incorporate by reference the Request for Proposals, Specifications, Drawings, any additional subsequent information, any addenda issued, the Proponent's response and acceptance by the City.

"City" "Owner" means City of Coquitlam;

"Contractor" means the person(s) firm(s) or corporation(s) appointed by the City to carry out all duties, obligations, work and services described in the Request for Proposal and all associated documentation, which may also include mutually agreed revisions subsequent to submission of a Proposal. Both "Contractor" and "Proponent" are complementary in terms of duties, obligations and responsibilities contemplated at the Request for Proposals stage, through evaluation process, execution and performance of the services and works;

"Price" means the amount that will be paid by the City to the Contractor for delivery and acceptance of goods and Services;

"Project Manager" means the City staff member appointed to coordinate the work;

"Proponent" means responder to this Request for Proposals;

"Proposal" means the submission by the Proponent;

"Request for Proposals" "RFP" shall mean and include the complete set of documents, specifications and addenda incorporated herein, and included in this Request for Proposals;

"Services" "Work" "Works" means and includes the provision by the successful Proponent of all services, duties, and expectations as further described in this RFP. This will also mean the whole of the work, tools, materials, labour, equipment, travel, and all that is required to be done, furnished and performed by the Contractor;

"Shall" "Must" "Will" "Mandatory" means a requirement that must be met;

"Site" means the place or places where the Services are to be performed;

"Supply" "Provide" shall mean supply and pay for and provide and pay for.

1 INSTRUCTIONS TO PROPONENTS

1.1 Acknowledgement

The City acknowledges with gratitude and respect that the name Coquitlam was derived from the hən̓q̓əmin̓əm̓ word kʷikʷəƛ̓əm (kwee-kwuh-tlum) meaning "Red Fish Up the River". The City is honoured to be located on the kʷikʷəƛ̓əm (Kwikwetlem) traditional and ancestral lands, including those parts that were historically shared with the sq̓əc̓iy̓aʔɬ təməxʷ (Katzie), and other Coast Salish Peoples.

1.2 Purpose

The City requests Proposals from qualified, experienced companies for the provision of **Mackin House Museum - Cedar Shingle Roof Replacement** located at:

1116 Brunette Ave, Coquitlam, BC V3K 1G2

1.3 Proposal Submission

Proponents should complete and submit the information requested in this RFP document on the Proposal Submission Form or in a format that has been approved and is acceptable to the City.

1.4 Non-Mandatory Site Visit

There will be no roof access but Proponents are encourage to view the site to determine overhead obstacles, roof access and a general understanding of the building.

A non-mandatory site visit is scheduled for:

NON-MANDATORY SITE VISIT	
DATES:	**Thursday, June 01, 2023.**
LOCATION:	1116 Brunette Ave, Coquitlam, BC V3K 1G2Coquitlam, BC **Proponents are to meet onsite **
TIME:	10:00 AM PST

1.5 Instructions to Proponents

Proponents are advised that the rules for participation that will apply to this RFP are located: Instructions to Proponents.

By submission of a Proposal, the Proponent agrees and accepts the rules by which the RFP and selection process will be conducted.

The City will not be responsible for any delay or for any submission not received for any reason, including technological delays or issues by either party's network or email program, and the City will not be liable for any damages associated with submissions not received.

a) Proponents are responsible to inspect the existing site and shall fully understand the difficulties and restrictions for execution of the work under this Contract. Interpretations by the Proponent of the meaning of any section of the Contract drawings and specifications herein prior to submitting a price for the Work shall not remove the responsibility of completing the Work as per the directions of the City,

including all costs associated with that Work, should the Proponent's interpretation be incorrect.

b) Prior to submitting a price for the Work, the Proponent must seek clarification from the City for any items within the drawings and specifications that may appear to be unclear or conflicting.

c) Prior to bidding, Proponents should visit, inspect, and familiarize themselves with the site, and of everything and of every condition potentially affecting the works to be executed, so that the execution of the Contract by the successful Proponent is founded and based upon the Proponent's own examination, information, and judgment. Failure to visit the site prior to the Proposal Closing Date will in no way relieve the successful Proponent from the necessity of furnishing any material or performing any work that may be required to complete the work in accordance with the conditions and specifications without additional cost to the City.

d) It shall be the responsibility of the Proponent, by personal inspection of the site of the works, examination of the Contract documents, calculations, tests, and by requesting any required clarifications from the City, to become satisfied with respect to the quantities, quality, and practicability of the work. The Proponent must be aware that any information from the City was and is approximate and speculative only and cannot in any manner be warranted or guaranteed. If the Proponent fails to make a proper investigation and examination of the site and the work they shall signify by entering into the Contract that they are willing to assume all risk of the work proving more onerous than was contemplated and/or assumed when the Contract was signed.

   A complete set of RFP and Contract documents will include:

   i. Request for Proposals Documents
   ii. Proposal Submission Form
   iii. **Appendix A – Project Specifications**
   iv. **Appendix B – Project Diagrams**
   v. **Appendix C – Site Photographs**
   vi. Addendums as issued

e) Figure dimensions of a drawing shall take precedence over measurements scaled from the drawing and large-scale drawings take precedence over those of a smaller scale. Supplementary drawings and specifications supersede their antecedents. Addenda drawings take precedent over all drawings. Addenda specifications take precedent over all specifications. In case of conflict between figured dimensions on a drawing and the dimensions of a specified product, the dimensions of the specified product will govern. The drawings and specifications complement each other and anything called for by one will be as binding as if called for by both.

f) All information requested for the Proposal is to be completed by the Proponent on the supplied forms only and shall be based upon the whole of the specifications and Contract documents, without reservation. A Proposal that does not include all of the above sections, completed as specified herein, may be rejected.

g) The selected Proposal shall supply all materials, equipment, installation, commissioning, and construction necessary for the successful starting and completion

of the project in accordance with the drawings and specifications herein. It shall be the responsibility of the Proponent to include in the submitted Proposal sufficient amounts to cover the cost of the work and materials required to complete the Work but not specifically noted in the drawings and/or specifications. It is assumed that all taxes, duties and levies have been included in the Proposal amount.

h) Complete sub-contracting of works will not be approved; however, segments of work involving special skills may be sub-contracted.

i) The Proponent must indicate the names of the Proponent's senior staff for the project, specifically identifying the project superintendent, and the names of the major sub-contractors and the work they will be performing.

j) The Proponent must carefully examine the Proposal Documents and worksite. The Proponent may not claim, after the submission of a Proposal, that there was any misunderstanding with respect to the requirements and conditions imposed by the City.

k) There will be no opportunity to make any additional claim for compensation or invoice for additional charges that were not considered and included in the Proposal price submitted, unless the City, at its sole discretion, deems that it would be unreasonable to do so, or there are additional work requirements due to unforeseen circumstances.

l) All information in this RFP Document, Drawings, Specifications, Site Visit and Investigation, and any resulting Addenda will be incorporated into any Contract between the City and the successful Proponent, and therefore must be considered by the Proponent in preparing their Proposal.

1.6 Prices

All Prices shall be all inclusive in Lump Sum Form (Canadian Funds) exclude GST and shall remain **FIRM** for the completion of the Services.

Prices shall include the provision of all tools, materials, equipment, labour, transportation, fuel, supervision, management, overhead, traffic control, services, all necessary packing and crating (where applicable), Canadian Customs import and export duties, freight, handling, insurance, all other associated or related charges, foreign, federal, provincial and municipal taxes, bonding costs, all licences, permits, inspections and all other requirements necessary for the commencement, performance and completion of Services as described.

1.7 Requested Departures

The Proponent acknowledges that the departures requested in the Proposal Submission Form will not form part of the Contract unless and until the City specifically consents in writing to any of them. The City may not consider any departures not stated in the Proponent's Proposal Submission.

1.8 Evaluation Criteria

Evaluation Criteria of each Proposal will be determined in accordance with the following:

Proposal Evaluation Summary	Maximum Points to be Awarded
Corporate	25
Sustainable Benefits and Social Responsibility	10
Technical	35
Financial	30
Total	100

The criteria for evaluation of the Proposals may include, but is not limited to:

Corporate Experience, Reputation, Capacity and Resources

- Proponent's qualifications, experience, and demonstrated performance providing services of similar size, scope and complexity
- References
- Sub-contractors
- Staff qualifications and experience
- Value added benefits

Sustainable Benefits and Social Responsibility

- Sustainable benefits
- Reconciliation
- Social Responsibility

Technical

- Methodology, set-up and execution of the work
- Quality Assurance and Safety
- Risk factors
- Disposal and reuse
- Schedule and Completion Date
- Associations in good standing
- Warranty

Financial

- Price
- Labour Rates and Equipment Rates

These criteria will be used to determine best overall value to the City. Proposals will be compared to select one or more that are most advantageous.

And, upon selection of one or more lead Proponent(s):

- References may be contacted
- Interviews may be conducted

The City reserves the right to check references on other projects even if they are not specifically listed. Information obtained from references will be confidential and will not be disclosed to any Proponents.

These criteria will be used to determine best overall value to the City as well as any other criteria that may become evident during the evaluation process.

The City may, at its discretion, request clarification or additional information from a Proponent with respect to any Proposal and the City may make such requests to only selected Proponents. The City may consider such clarifications or additional information in evaluating a Proposal.

Incomplete Proposals or Proposals submitted on forms other than the Proposal Form may be rejected.

Proponents agree the City may disclose names of Proponents and total award amount, however, unevaluated results, unit prices, rates or scores will not be provided to any Proponents.

The City reserves the right to reject without further consideration any Proposal which in its opinion does not meet the criteria it considers essential for the work outlined in this RFP.

Where only one Proposal is received, the City may reject such and re-issue the RFP on a selected basis.

1.9 Eligibility

For eligibility, and as a condition of award, the successful Proponent would be required to meet or provide the equivalent:

a) Commercial General Liability (CGL) insurance $5M coverage provided on the City's Standard Insurance Form
b) Prime Contractor Designation Form and be responsible for all the work at the site in accordance with WCB regulations
c) Be registered and provide WorkSafeBC clearance
d) Accept the City's standard Terms and Conditions posted on the City's website: Standard Terms and Conditions - Purchase of Goods and Services
e) A City of Coquitlam or Tri Cities Intermunicipal Business License
f) A **CONSENT OF SURETY SHOULD BE SUBMITTED WITH THIS PROPOSAL** confirming agreement to Bond and to verify the Proponent will provide, at time of award:
    i. **A PERFORMANCE BOND IN THE AMOUNT OF 50% OF THE BID PRICE;**
    ii. **A LABOUR & MATERIALS PAYMENT BOND IN THE AMOUNT OF 50% OF THE BID PRICE.**

These items are not required as part of this Proposal Submission but will be required prior to entering into an agreement with the City for Services.

****A BID BOND IS NOT REQUIRED for this Project****

1.10 Alternate Products

Requests for any proposed alternate product to be **submitted and approved seven days prior** to the Closing Date.

1.11 Project Timeline

Estimated timelines for the project are:
Estimated Construction Start: July 31, 2023 and **Final Completion: September 15, 2023**
Upon award, the work on this project shall progress until fully completed.

2 GENERAL CONDITIONS OF CONTRACT

2.1 Terms and Conditions of Contract

The City's Standard Terms and Conditions - Purchase of Goods and Services, as published on the City's website, the Conditions listed in this RFP, along with the accepted Proposal, addenda and any subsequent clarifications, correspondence, the totality of which will constitute the Contract.

PROJECT SPECIFIC TERMS AND CONDITIONS

2.2 Five Year Guarantee/Warranty

The Contractor shall provide a five (5) year corporate guarantee on company letterhead covering workmanship, leakage, and materials on 100% of this project.

2.3 Hours of Work

Unless otherwise specified the Contractor shall carry out the work during regular business hours, and in compliance with the City's Noise Bylaw. Permits will be required for work outside of normal working hours. The Contractor shall be responsible for obtaining any such permits.

3 SCOPE OF SERVICES

3.1 Scope of Work

The City is seeking Proposals from accredited roofing Contractors of Roofing Contractors Association of British Columbia (RCABC) and/or National Roofing Contractors Association (NRCA) accredited to provide labour, equipment, materials, fuel, transportation, overhead and all that is necessary for **Mackin House Museum - Cedar Shingle Roof Replacement** specified in this RFP and **Appendix A – Project Specifications** and **Appendix B – Project Diagrams**

Note: the interior fireplace mortar is non-asbestos containing but further testing is required on the exterior to confirm. The City will update the Contractor once the testing is complete.

3.2 Operations and Coordination of the Services

The Contractor shall agree to coordinate the execution of the Services with the City such that disruption of the work of all involved is minimized.

3.3 Protection of Public

The Contractor shall take adequate measures to protect the public, City staff, and all others on site from injury, damage, or other loss resulting from maintenance operations and related activities.

The Contractor shall promptly report to the City any safety incidents as they occur.

3.4 Delivery, Storage, and Handling

All materials to be new. Deliver and store materials in original, unopened packaging. Assume all packing, transportation, and insurance costs.

All packaging material must be removed from site at the Contractor's expense.

Store materials in a safe and secure location, and protect against damage. City is not responsible for loss, damage or theft of material or equipment.

3.5 Work Schedule and Hours of Work

The Contractor is to submit a schedule for City approval.

All Services are to be performed in compliance with City Bylaws.

The Contractor may apply for exemptions to the noise by-laws to work weekends. The City does not guarantee exemptions will be granted. No shift premiums will be paid for weekend work.

3.6 Contractor Parking

Contractor parking is off-site only. City of Coquitlam parking lots shall not be used for Contractor or sub-contractor parking.

3.7 Clean Up

At the end of each day and at the conclusion of work, the Contractor shall promptly remove any of their equipment, refuse and materials and leave the site in a clean and cleared condition.

Appendix A
Project Specifications

TRI-TECH PINNACLE
ROOF & BUILDING ENVELOPE CONSULTANTS

Specifications
~ Roof Replacement ~

1116 Brunette Avenue (Mackin House)
Coquitlam, BC
Project #23-0213

PREPARED FOR:
CITY OF COQUITLAM

Coquitlam

CONTACT: Krystal Law
SECTION: Sloped Cedar Shake Roof Areas
ISSUE DATE: May 2023

TABLE OF CONTENTS

01 11 00 - Scope of Work

PART 1 GENERAL

1.1 GENERAL CONDITIONS

1.1.1 Conform to all sections in this document and to the requirements of Roofing Contractors Association of British Columbia (RCABC), and Canadian Roofing Contractors Association Roofing Manual Specifications (CRCA) as referred to herein.

1.1.2 Abide by all Federal, Provincial, Municipal and Local Laws or Codes, rules, and regulations that in any way affect work including all amendments up to the project date. No plea of misunderstanding will be considered on account of ignorance thereof. Notify the Owner and Consultant immediately in writing of any provisions in drawings, specifications, or Contract, which are contrary to or inconsistent with any law, rule, or regulation.

1.1.3 Where documents differ, the most stringent interpretation will apply.

1.2 TYPE OF FACILITY

1.2.1 This Contract will be carried out on the premises of a historic building.

1.2.2 Exercise appropriate care and keep construction noise and disruption to an absolute minimum and to the satisfaction of the Owner.

1.2.3 Take special precautions where alterations are required above and, in all areas, occupied by staff, or pedestrians.

PART 2 ROOF REPLACEMENT – SLOPED CEDAR SHAKE ROOF AREAS

2.1 DEMOLITION PHASE

2.1.1 Remove and dispose of all the following existing components and assemblies within the scope of work, including but not limited to:

2.1.2 Sheet metal flashings and associated materials within the scope of work.

2.1.3 Cedar shakes, roofing overlay, and all other accessories to the level of the existing wood strapping.

2.1.4 Once observed, the roofer shall inform the Owner's Representative of the deteriorated decking and/or wood components.

2.2 EXISTING ASSEMBLY

2.2.1 It is the Contractor's choice to cut and confirm the roof assembly. No additional costs will be accepted or approved for/or by the Owner. The existing roofing assembly is:

.1 Sloped Cedar Shake Roof System:

(a) Cedar Shake

(b) underlayment

(c) Wood strapping

2.3 NEW ROOF ASSEMBLY:

2.3.1 Cedar Shake Roof System:

.1 Supply and install the new roofing system comprised of the following (from the top down):

(a) Cedar shake

(b) Ventilated Underlayment

(c) Ice and water shield at perimeters and valleys

(d) Wood strapping (existing)

.2 Conform to Section 07 31 29 – Cedar Shake Roofing

2.4 ADDITIONAL REQUIREMENTS

2.4.1 Remove and dispose of the existing roofing components that are not required to remain as part of the new roofing system.

2.4.2 Full renovation, retooling and tuck-pointing of existing chimney stack and indoor fireplace is required within the base bid. All repairs must comply with Heritage Requirements as per The City of Coquitlam. The new components are to match the existing components as close as possible.

2.4.3 Supply and install new colonial gutters and downspouts (aluminum, round and paintable - to match existing) at all locations.

2.4.4 Contractors are to remove, reinstall and/or replace all necessary siding required for the roof replacement and flashing installation. The siding will need to be repainted to match the existing colour as required.

2.4.5 Supply and install the new roofing components in accordance with the Contract Documents.

2.4.6 Utilize a single source supplier of membrane and related primary materials.

2.4.7 Supply and install all new metal flashings and fascia at all perimeter details and projections.

2.4.8 Provide the membrane manufacturer's warranty as specified.

2.4.9 Dispose of all debris/waste in approved containers and transfer to an approved municipal and/or provincial disposal site(s).

END OF SECTION 01 11

04 00 00 - Masonry

PART 1 GENERAL

1.1 GENERAL CONDITIONS

1.1.1 All conditions of the Contract and Divisions 00 and 01 apply to this section.

1.1.2 Abide by all Federal, Provincial, Municipal and Local Laws or Codes, rules and regulations that in any way affect the work, including all amendments up to the project date.

1.1.3 All standards, regulations and specifications listed herein are the latest edition.

1.2 CO-ORDINATION

1.2.1 Co-ordinate work of this Section with work of:

.1 Section07 11 00 Scope of Work

.2 Section 06 10 00 – Rough Carpentry

.3 Section 07 62 00 Sheet Metal Flashing and Trim.

.4 Section 07 92 00 Joint Sealants.

1.3 STANDARDS

1.3.1 CSA A165 – Standards on Concrete Masonry Units

1.3.2 CSA A179 – Mortar and Grout for Unit Masonry

1.3.3 CSA A370 – Connectors for Masonry

1.3.4 CAN/CSA A371 – Masonry Construction for Buildings

1.3.5 ASTM C270 – Standard Specification for Mortar for Unit Masonry

1.4 QUALIFICATIONS

1.4.1 The contractor must have a minimum of 5 years' experience in the application of the materials and systems specified, on projects of similar size and scope and be approved by the material manufacturer.

1.5 SUBMITTALS

1.5.1 Upon the request of the Consultant, Property Manager, and/or Building Owner, the Contractor is to provide the following,

a) Submit manufacturer's printed product literature, specification and data sheets. Manufacturer's product date and installation instructions for all materials including and not limited to masonry and mortar.

b) Certification that material complies with the specification requirements and is suitable for the intended use.

c) Material manufacturer's warranties.

d) Submit samples of proposed masonry block (to match existing profile & size), mortar, accessories, reinforcing type, etc.

1.6 QUALITY CONTROL

1.6.1 Mock-up:

a) Complete a portion of the exterior wall repairs, including the masonry block unit, insulation, air/vapour barrier, brick ties, through wall flashings and reinforcement to establish a standard of construction, workmanship and appearance.

b) Mock-up is to be reviewed and approved by the Consultant and the Property Manager/Owner before proceeding with any other work. Once mock-up has been approved it can be left as part of the finished work.

c) If mock-up is not approved, it is the contractor's responsibility to remove the mock-up and construct a new mock-up for approval, at his own costs.

d) Contractor is to provide the Consultant and the Property Manager/Owner with 24 to 48 hours notice to schedule an inspection of the mock-up.

1.7 DELIVERY, STORAGE, AND HANDLING

1.7.1 An authorized representative of the Contractor must be on site to receive all materials. The Owner will not accept delivery or supervise unloading or designate placement location of any delivered materials. Materials are to be delivered and stored in appropriate locations indicated by the Owner/Property Manager.

1.7.2 Storage areas are to be fully protected from damage. Any damage to storage areas will be the responsibility of the Contractor.

1.7.3 Materials are to be stored in their original wrapping/containers with the manufacturer's labels intact, indicating the material manufacturer, material name, etc. Materials are to be fully tarped and protected from the weather, vandalism, theft, open flame and any ignition sources at all times.

1.7.4 Materials are not to be stored in direct contact with the ground , road surface or landscaped areas. Place skids under the materials to protect them from absorbing moisture. Materials are to be kept dry at all times.

1.8 PRE-START MEETING

1.8.1 A pre-start meeting is to be scheduled one week prior to any work commencing. The general contractor, masonry contractor, consultant, the on-site contact and/or owner's representative should be present.

1.8.2 The following items will be discussed at the pre-start meeting,
1. methods and procedures relating to the material installations
2. on-site procedures
3. on-site material storage
4. on-site setup and protection
5. the construction schedule

PART 2 PRODUCTS

2.1 COMPATIBILITY

2.1.1 Compatibility between materials is an essential requirement of the Contract.

2.2 MATERIALS

2.2.1 Masonry

.1 Masonry Block: masonry block units conforming to the requirements of CSA-A82. Profile to match existing. The Contractor is responsible to provide the Property Manager/Owner with samples of the proposed masonry block, the Contractor is to obtain written confirmation from the Property Manager/Owner, prior to ordering any materials/products. The size of the masonry block units is to suit the installation. Provide special shapes, as required for lintels, corners, jambs, sash, control joints, headers, bonding and other required conditions.

.2 Masonry Block at grade level: precast masonry block units conforming to the requirements of CSA-A165, normal weight 90mm block. The Contractor is responsible to provide the Property Manager/Owner with samples of the proposed masonry block, the Contractor is to obtain

written confirmation from the Property Manager/Owner, prior to ordering any materials/products. The size of the masonry block units is to suit the installation. Provide special shapes, as required for lintels, corners, jambs, sash, control joints, headers, bonding and other required conditions.

2.2.2 Mortar, Cement, Sand & Water

.1 Colored Mortar: mortar color is to match the existing mortar color. The new mortar is to have water repellent admixture integrated into the mortar on-site. Contractor is responsible to obtain water repellent admixture for mortar from masonry manufacturer. Samples of the proposed mortar color are to be submitted to Owner/Property manager for approval.

2. Mortar: conforming to the requirements of CSA A179. Type S mortar, comprised of Portland Cement/Hydrated Lime and Sand.

3. Cement: normal type Portland Cement

4. Hydrated Lime: Type S

5. Sand: masonry sand conforming to requirements of CSA A82.56M, clean and dry, protected from dampness, freezing and foreign matter.

6. Water: potable, clean, free from ice, oils, acid, organics and sediments. Conforming to the requirements of CSA A179

7. Grout: conforming to requirements of CSA A179

2.2.3 Masonry Anchors, Ties and Accessories

.1 Masonry Anchors & Ties: wire tie and plate combination system which provides adjustability, minimal free-play, strength, stiffness, positive connection and corrosion-resistance. To be stainless steel type 304 as per ASTM 167. Fasteners to be supplied and approved by masonry anchor manufacturer, written confirmation of approved fasteners is to be provided to the Consultant prior to the installation of masonry anchors.
Acceptable product: BL-5407 by Blok-Lok

.2 Mortar Dropping Protection: to capture and permanently suspend mortar droppings in masonry cavity walls.
Acceptable product: Mortar Trap by Blok-Lok

.3 Weep Hole Vents: flexible polypropylene-copolymer plastic. Honeycomb design restricting ingress of insects and other debris.
Acceptable product: CellVent by Blok-Lok or Weep Holes 343 by Blok-Lok
Acceptable size: to suit full height of mortar joint
Available colors: grey, clear, almond, tan or cocoa. Contractor is to obtain written approval for the color from the Owner/Property Manager.

PART 3 EXECUTION

3.1 PREPARATION

3.1.1 All areas where materials and equipment are being stored are to be fully protected. The adjacent roof area, where work is being completed is to be protected. Extruded polystyrene insulation and plywood are to be laid on the roof, prior to any work being completed. Should any areas be damaged during any phase of the project, the masonry contractor will be responsible to repair all damaged at his own costs with no additional charges to the owner and to the satisfaction of the owner.

3.1.2 Remove masonry bricks above the height of the newly specified roofing assembly for thru wall flashing assembly. If required, remove the existing insulation, existing through wall membranes and air/vapour retarders down to the back-up wall.

3.1.3 Remove all sharp protrusions, spalling areas and strike masonry joints flush. Ensure surfaces is

smooth, sound, dry, clean and free from any contaminants which may affect the installation of the new brick.

3.1.4 As the courses of masonry are being removed, support the remaining masonry walls as required to avoid any damage to the masonry left in place. Should any damage, cracks in existing mortar and/or falling masonry occur, it is to be repaired to match existing, at no additional costs to the owner.

3.1.5 Along the base of the wall, remove the existing sealant applied between the metal flashings (at the roof) and the wall. The new air/vapour retarder membrane is to be extended over top of the membrane flashing from the roof, as per detail. The new metal through wall flashings are to be extended overtop of the existing metal flashings.

3.2 MASONRY ANCHORS & TIES

3.2.1 Install masonry anchors & ties as required, where masonry blocks have been removed.

3.2.2 Pre-drill two holes in the existing block, to allow for fastening of the return flange. Secure the return flange with Tapcons penetrating the existing block a minimum of 38.1mm(1.5”). Do not use the centre hole in the return flange, the two outside holes are to be used.

3.2.3 Once masonry anchors & ties have been installed continuously seal around them using the air/vapour retarder mastic/sealant. Apply continuous seal around all penetrations/protrusions.

3.3 WEEP HOLES

3.3.1 Install pre-manufactured weep holes in the vertical joints at a maximum spacing of 609.6mm (24”). Weep holes are to be placed along the bottom of the walls.

3.3.2 Ensure the weep holes are completely open with no mortar restricting the flow of air, water or moisture out of the wall.

3.4 MORTAR DROPPING PROTECTION

3.4.1 Mortar dropping protection is to be installed continuously along the base of the wall in front of the insulation. The mortar dropping protection is to be full width of the air space.

3.4.2 The joints in the mortar dropping protection are to be butted tight as per manufacturer’s written instructions.

3.5 MASONRY

3.5.1 Construct masonry plumb, level and true to line. Masonry block courses, vertical and horizontal joints are to be uniform height and thickness, matching the existing.

3.5.2 Laying coursing and bond to achieve correct coursing heights and continuity of bond above and below all openings, with minimal cutting of masonry. Avoid the use of less than half size units.

3.5.3 Broken, chipped, cracked and/or damaged masonry block units are not to be installed. Should they be installed they will be deemed unacceptable by the consultant and will be removed at the contractor’s own expense. Do not wet masonry units prior to installation.

3.5.4 Masonry block units are not to be cut with a wet saw, dry cutting is permitted. Cuts are to be straight, clean and with even edges.

3.5.5 Mortar joints are to match existing thickness, all joints are to be filled solid with mortar, except where weepers are to be installed. Mortar joints are to be tooled to match existing. Use sufficient force to press mortar firmly against the masonry units. Remove any access mortar immediately.

3.6 PROTECTION

3.6.1 Protect the installed products and components from damage during construction.

3.6.2 Repair damage to adjacent materials caused by masonry work.

3.7 CLEANING

3.7.1 Remove all surplus materials and debris resulting from the foregoing work daily as the Work proceeds and upon completion.

END OF SECTION 04 00 00

06 10 00 - Rough Carpentry

PART 1 GENERAL

1.1 GENERAL CONDITIONS

1.1.1 All conditions of the Contract and Divisions 00 and 01 apply to this section and to the requirements of the Canadian Roofing Contractors Association Roofing Manual Specifications as referred to herein.

1.1.2 Abide by all Federal, Provincial, Municipal and Local Laws or Codes, rules, and Regulations that in any way affect the Work, including all amendments up to the Project date.

1.1.3 All Standards, Regulations and Specifications listed herein are the latest edition.

1.2 CO-ORDINATION

1.2.1 Co-ordinate Work of this Section with Work of:

.1 Section 01 11 00 Summary of Work.

.2 Section 07 31 29 Cedar Shake Roofing.

.3 Section 07 62 00 Sheet Metal Flashing and Trim.

.4 Section 07 92 00 Joint Sealants.

1.3 REFERENCE STANDARDS

1.3.1 Carpentry materials, products, and accessories shall be in accordance with the most current applicable industry standards including but not limited to:

.1 ASTM INTERNATIONAL

(a) ASTM A123/A123M Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

(b) ASTM A307, Carbon Steel Bolts & Studs.

(c) ASTM A653/A653M Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvanealled) by Hot-Dip Process.

(d) ASTM-D1037 – Wood Based Fiber & Particle Panels (Hardboard, OSB)

(e) ASTM D1761 Mechanical Fasteners in Wood.

(f) ASTM D5456 Evaluation of Structural Composite Lumber Products.

(g) ASTM F1667, Nails, Spikes & Staples

.2 ANSI/ASME

(a) ANSI/ASME B18.6.1 – Wood Fasteners

(b) ANSI/ASME B18.6.3 – Steel Fasteners

.3 CSA INTERNATIONAL

(a) CAN/CSA Asphalt Coated Roofing Sheets

(b) CSA B111 - Wire Nails, Spikes and Staples.

(c) CSA 080 – Preservative Treatment of Timber by Pressure Process.

(d) CSA O112 Series - CSA Standards for Wood Adhesives.

(e) CSA O121 - Douglas Fir Plywood.

(f) CAN/CSA O122 - Structural Glued-Laminated Timber.

(g) CSA O141 - Softwood Lumber.

(h) CSA O151 - Canadian Softwood Plywood.

(i) CSA O153 - Poplar Plywood.

(j) CSA O325 - Construction Sheathing.

(k) CSA O437 Series - Standards on OSB and Waferboard.

.4 FOREST STEWARDSHIP COUNCIL (FSC)

(a) FSC-STD-01-001 - FSC Principle and Criteria for Forest Stewardship.

(b) FSC-STD-20-002 - Structure and Content of Forest Stewardship Standards V2-1.

(c) FSC Accredited Certified Bodies.

.5 NATIONAL LUMBER GRADES AUTHORITY (NLGA)

(a) Standard Grading Rules for Canadian Lumber.

.6 UNDERWRITERS' LABORATORIES OF CANADA (ULC)

(a) CAN/ULC-S706 - Standard for Wood Fibre Insulating Boards for Buildings.

1.4 QUALITY ASSURANCE

1.4.1 Lumber by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.

1.4.2 Plywood, particleboard, OSB and wood based composite panels in accordance with CSA and ASTM standards.

PART 2 PRODUCTS

2.1 COMPATIBILITY

2.1.1 Compatibility between materials is an essential requirement of the Contract.

2.2 WOOD

2.2.1 BLOCKING AND ROUGH FRAMING

.1 Grade No. 2, Northern Softwood in accordance with “Standard Grading Rules for Canadian Lumber” as issued by National Lumber Grades Authority (N.L.G.A.).

.2 Spruce, #1Softwood, conforming to CSA 0151.

.3 Wood Cants: 89mm x 89mm (3.5” x 3.5”, 2x4 nominal).

.4 Wood Blocking: 38mm x 38mm (1.5” x 1.5”, 2x2 nominal), 38mm x 89mm (1.5” x 3.5”, 2x4 nominal), 38mm x 140mm (1.5” x 5.5”, 2x6 nominal) 38 x 184mm (1.5” x 7.25”, 2x8 nominal), 38mm x 254mm (1.5” x 9.25”, 2x10 nominal)), 38mm x 286.35mm (1.5” x 11.25” (2x12 nominal).

2.2.2 PLYWOOD SHEATHING

.1 Exterior, Spruce #1, conforming to CSA 0151 or O121, exterior grade, G1S. Thickness of 12.7mm (1/2”) and/or 19.05mm (3/4”) as noted on the Drawings.

2.2.3 WOOD PRESERVATIVE

.1 Copper or Zinc Naphthenate of 5% Pentachlorophenol solution, water repellent preservative to CSA Series 080, green or clear colour or approved alternate. If preservative is Ammonium Copper Quaternary (ACQ), then stainless steel 300 fasteners are to be used. FASTENERS

2.2.4 NAILS

.1 Ardox spiral, to CSA Standard B111, length to give 25.4mm (1") minimum penetration into the materials being fastened.

2.2.5 SCREWS

.1 Fasteners for wood: Galvanized steel wood screws with countersunk heads of size and length to provide a minimum 38mm (1.5") penetration into the underlying member.

.2 Fasteners for steel substrates: Flat head, self-tapping steel screw with galvanized finish as supplied by Fastening House, or Approved Alternate. Length: to suit. Penetrate through the member a minimum of 19.05mm (3/4").

.3 Fasteners for masonry and concrete substrates: Tapcon fasteners with "ClimaSeal" corrosion resistant finish, as manufactured by Buildex/Red Head, or Approved Alternate. Screw to be of sufficient length to penetrate into the substrate a minimum of 38mm (1.5").

.4 Bolts, Washers and Nuts: to ASTM A307. Size as indicated on the Drawings. Hot dipped galvanized or an approved equivalent corrosion resistant finish.

PART 3 EXECUTION

3.1 GENERAL

3.1.1 All carpentry Work is to comply with the best practices of trade and by skilled carpenters.

3.1.2 Provide carpentry alterations and comply with best trade practices. Anchor all wood blocking securely to the existing surfaces and to each other.

3.1.3 Make adjustments to the specified procedures caused by weather and site conditions only with the Owner's approval.

3.1.4 Maintain all equipment in good Working order to ensure the control of roofing operations and the protection of the Work. Equipment and laying techniques are to meet the approval of the Consultant.

3.2 EXAMINATION

3.2.1 Ensure that existing wood blocking to be incorporated with the Work is in good condition and is permanently and properly secured to the existing surfaces.

3.2.2 Inform the Consultant of any unacceptable conditions immediately upon discovery.

3.2.3 Proceed with installation only after the unacceptable conditions have been remedied.

3.2.4 Replace all damaged material and re-seal masonry anchors as required to conform to the design intent herein described.

3.2.5 Remove all sharp edges that would otherwise damage materials that come in contact.

3.3 INSTALLATION

3.3.1 Cut, align, plumb, and secure the wood to conform to the full intent of the Details. Shim the new wood assembly where required in order to obtain true to line levels.

3.3.2 Construct continuous members from pieces of the longest practical length. Treat all saw cuts with wood preservative.

3.3.3 Countersink bolts where necessary to provide clearance for other Work.

3.3.4 Install spanning members with "crown-edge" up.

3.3.5 Install cant strips and blocking as indicated on the Drawings, secured permanently to the structure trimmed and levelled to accommodate chamfers and slopes. Install to

accommodate insulation, roofing, and flashing materials.

3.3.6 Frame, anchor, fasten, tie and brace members to provide necessary strength and rigidity.

3.3.7 Use nailing disks for soft sheathing as recommended by sheathing manufacturer.

3.3.8 Fabricate sleepers, expansion joints, perimeters, and walls as detailed. Maintain a minimum height of 304.8mm (12") above the finished roof surface for sleepers and curbs and where permitted at walls.

3.3.9 Securely the anchor wood blocking, cant strips, nailers and shims in place at 304.8mm (12") on centre in a staggered pattern. Fasten studs to the top and bottom plates with two screw fasteners. Fasten wood blocking, wood cant strips, nailers and shims to existing substrate with appropriate screw fasteners.

3.3.10 Re-fasten any loose existing wood blocking, cants, shims and plywood with screw fasteners where permitted to remain as part of the finished Work and to the satisfaction of the Consultant.

3.3.11 Coordinate Work to keep cutting and remedial Work to a minimum. Fasteners are to be of size and spacing required to assure secure anchorage. Fastener spacing of the wood blocking to the substrate and to each other is not to exceed 304.8mm (12") o.c. unless otherwise accepted in writing by the Consultant.

3.3.12 Offset blocking layers 304.8mm (12") and weave corners.

3.3.13 Assemble blocking using two staggered rows of nailing. Space nails in any row a maximum of 609.6.35mm (24") on centre. Within 2440mm (8') of outside corners, reduce maximum spacing to 304.8mm (12") on centre.

3.3.14 Install asphalt protection board along the perimeters/curbs/walls, from the top of the existing strapping/deck to the top edge of the wood blocking along the perimeters/curbs/walls. The asphalt protection board is to be secured 152.4mm (6") on centre horizontally with fasteners spaced no more than 304.8mm (12") on centre vertically.

3.4 PROTECTION

3.4.1 Protect the installed products and components from damage during construction.

3.4.2 Repair damage to adjacent materials caused by rough carpentry installation.

3.5 CLEANING

3.5.1 Clean in accordance with 01 10 00 General Requirements.

3.5.2 Remove all surplus materials and debris resulting from the foregoing work daily as the Work proceeds and upon completion.

END OF SECTION 06 10 00

07 31 29 – Cedar Shake Roofing

PART 1 GENERAL

1.1 GENERAL CONDITIONS

1.1.1 All conditions of Contract and Divisions 0 and 1 apply to this section and to requirements of Canadian Roofing Contractors Association Roofing Manual Specifications as referred to herein.

1.1.2 Abide by all Federal, Provincial, Municipal and Local Laws or Codes, rules and regulations that in any way affect work including all amendments up to project date.

1.2 SECTION INCLUDES

1.2.1 Sloped Cedar Shake Roof Areas

Cedar Shake Roofing: self-adhering underlayment over existing wood deck, cedar breather ventilated underlayment and cedar shake nailed in place. New metal flashings, gutters, eaves troughs, down spouts and vents.

1.3 CO-ORDINATION

1.3.1 Co-ordinate work of this Section with work of:

.1 Section 01 11 00 Scope of Work.

.2 Section 06 10 00 Rough Carpentry.

.3 Section 07 62 00 Sheet Metal Flashing and Trim.

.4 Section 07 92 00 Joint Sealants.

1.4 STANDARDS

.1 ASTM D412, Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension

.2 ASTM D7349/D7349M, Standard Test Method for Determining the Capability of Roofing and Waterproofing Materials to Seal around Fasteners

.3 ASTM E-108/CAN/ULC-S107, Fire Tests of Roof Coverings

.4 CGSB-37.58-M86, Membrane, Elastomeric, Cold-Applied Liquid, for Non-Exposed Use in Roofing and Waterproofing.

.5 CAN/CSA A123.3, Asphalt Saturated Organic Roofing Felt

.6 CAN/CSA A123.22/ASTM D1970, Self-adhering Underlayment for Ice Dam Protection

.7 CAN/CSA A123.16, Asphalt Coated Glass Base Sheets

.8 CSA B-111, Nails, Spikes and Staples.

.9 CRCA Roofing Specifications Manual-[1997]

.10 Material Safety Data Sheets (MSDS)

1.5 QUALIFICATIONS

1.5.1 Contractor qualifications are listed in the GENERAL CONDITIONS under section 01 43 23 CONTRACTOR QUALIFICATIONS.

1.6 QUALITY CONTROL

1.6.1 Quality controls are listed in the GENERAL CONDITIONS under section 01 45 00 QUALITY CONTROL – GOOD ROOFING PRACTICES

1.7 PRE-START MEETING

1.7.1 A pre-start meeting is to be scheduled one week prior to any work commencing. The Contractor, the Consultant, the on-site contact and/or owner's representative should be present.

1.7.2 The following items will be discussed at the pre-start meeting:

.1 methods and procedures relating to the roof assembly installation

.2 on-site procedures

.3 on-site material storage

.4 the construction schedule

1.8 DELIVERY, STORAGE & HANDLING

1.8.1 Delivery, storage, and handling are listed in the GENERAL CONDITIONS under section 01 66 00 STORAGE & DELIVERY OF MATERIALS.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Cedar Shakes: Grade 1, 0.75" – 1.0" thick shake at butt end, 18" in length, taper sawn, edge grain, premium heavy shake. Certi-guard Red Label, Class B fire rated perfection shakes, pressure impregnated with fire retardant.

2.1.2 Nails (Shakes): Stainless Steel, 12 gauge, 10mm(3/8") diameter head long enough to penetrate through the underside of the wood strapping/deck 19mm(3/4"). As approved and supplied by cedar shake manufacturer.

2.1.3 Cedar Breather: Cedar breather ventilated underlayment as recommended by Supplier/Manufacturer.

2.1.4 Underlayment: breathable, UV-stabilized polypropylene underlayment meeting the requirements of ASTM D226 and ASTM D4869.

Acceptable Product: DeckArmor Premium Breathable Roof Deck Protection by GAF or approved alternate.

2.1.5 Nails (Underlayment): plastic cap nails as supplied and recommended, in writing by underlayment manufacturer.

2.1.6 Perimeter Protection (Ice & Water Shield): Self-adhering, self-sealing, conforming to ASTM D1970. Acceptable Product: StormGuard Film-Surfaced Leak Barrier by GAF or approved alternate.

2.1.7 Roof Vents: For attic venting on steep roof applications. Colour to be selected by owner. Acceptable Product: Duraflo 6065 SlantBack Roof Vent by Canplas Industries Ltd. or approved alternate.

2.1.8 Underlayment: Asphalt saturated, non-perforated #15 roofing felt conforming to CSA Standard A123.3-M1979 – Amended November 1985.

2.1.9 Elastomeric Sealant: 870-07 by Bakor Inc., Polyroof by Tremco, or Garlaflex by Garland Canada or approved alternate

2.1.10 Mastic: Conforming to CGSB 37-GP-63M

2.1.11 Membrane Flashing Nails: 3/8" head diameter roofing nails, 11 gauge minimum, galvanized steel.

2.1.12 Masonry Fasteners: to penetrate concrete 38.1mm(1.5"). Tapcon, Permagrip, or approved alternate.

2.1.13 Asphalt Protection Board: 6.35mm(1/4") thick (4'x4') boards, torch safe, semi-rigid protection board. Acceptable Product: IKO Protectoboard by IKO Canada, Sopraboard by Soprema Inc. or approved alternate.

2.1.14 Wood Decking: to match existing dimensions, treated on all sides with a clear wood preservative.

2.1.15 Wood Preservative: Copper napthenate pentachlorophenol solution to CSA Std. 080.

NOTE: The contractor must supply all primers, mastics, and membranes from a single source Manufacturer. No alternates will be accepted without written approval from the Consultant

PART 3 EXECUTION

3.1 PREPARATION

3.1.1 Supply and install perimeter safety warning as prescribed by the Provincial Occupational Health and Safety Code and all local codes before starting any other work.

3.1.2 It is the Contractor's responsibility to obtain all required permits for this project and must carry this cost in their bid price.

3.1.3 The ground areas around the building are to be protected as much as possible. All disposal boxes must be placed on planks. The interior areas of the building, where the Contractor has access, are to be protected.

3.1.4 It is the responsibility of the Contractor to contact the Owner and Consultant to mark the exact location of buried utilities.

3.1.5 Remove the existing roofing down to the strapping/deck and dispose of all debris at an appropriate licensed dump site. Remove all metal flashings and shingle flashings down to the existing substrates. No debris is to be left on the deck and between the joints of the deck. No garbage is to be stored on the roof.

3.1.6 Should the existing wood strapping/deck be found to be rotted, wet and requiring replacement, the Contractor is responsible to document all areas with photographs and measurements indicated on a roof plan, on a daily basis and provide them to both the Consultant and Owner. Wood strapping/deck replacement quantities proposed for replacement are to be approved in writing by the Consultant and Owner prior to any area being replaced. Should the Contractor proceed to install any wood strapping/deck without photos, measurements and written approval, no additional funds will be paid for these areas. All pricing for strapping/deck replacement will be taken from the unit price provided in the tender form. Should approval not be obtained the same day, the Contractor will be responsible for temporarily waterproofing the area.

3.1.7 Inspect the strapping/deck and report any deficiencies to the Owner and Consultant. Do not apply any new roofing over deficiencies, other than temporary waterproofing, until all deficiencies have been corrected.

3.1.8 Do not remove more of the existing roofing than can be completely waterproofed in one day.

3.1.9 The Contractor shall be responsible for all roof leaks (both on the existing roofing assembly and the new roofing assembly) at the building once they begin to set-up and load materials onto the roof at the beginning of the project.

3.1.10 The Contractor is responsible to disconnect and reconnect any mechanical, electrical conduit, cabling, and/or gas lines which are affecting the roof installation. The roofing contractor is responsible for all satellites. The satellites are to be moved and put back in the approximate same location. Roofing contractor is responsible for repositioning satellites to obtain proper

signal.

3.1.11 Remove all designated redundant equipment, pipes, cones, pitch pans, conduits, and equipment as identified by the Owner. Install new wood decking matching the existing thickness. Wood to be fully supported on joists and screwed down with stainless steel self-tapping screws a minimum of 152.4mm(6") on centre around the perimeter.

3.1.12 Phasing of the roof assembly is not acceptable. Therefore, the underlayment/eave protection and shakes are to be installed on a daily basis.

3.1.13 If any heat tracing cables are present, they are to be re-installed up completion of the project, unless otherwise directed by the Owner and Consultant.

3.2 PERIMETER & PROJECTION MEMBRANE

3.2.1 Apply one layer of perimeter protection membrane (ice & water shield) a minimum of a full roll width, continuously around the perimeter of the building and all projections including all valleys, hips and ridges. At valleys, hips and ridges the perimeter protection membrane is to be installed full roll width and centered over the valley, hip and ridge.

3.2.2 All laps must be a minimum of 152.4mm(6"). All membrane must be applied starting from the lowest point of the roof and lapped to shed water.

3.3 UNDERLAYMENT

3.3.1 Install breathable underlayment/ice and water shield over the entire roof surface. Apply horizontally to the roof slope. Overlap horizontal plies of minimum of 50.8mm(2"). End laps must be a minimum of 101.6mm(4"). Secure underlayment to the strapping/deck with roofing nails one inch from the edge and 457.2mm(18") on centre. Staples are not permitted.

3.3.2 Install cedar breather ventilated underlayment over breathable underlayment/ice and water shield, tacked in place every 3 Sq. Ft. with nails that will allow for 0.75" penetration into wood sheathing. Side and end laps are to be butt together. Avoid walking on breather mat once tacked in place.

3.4 METAL FLASHINGS

3.4.1 Supply and install new 24-gauge metal drip edge around the perimeter of the roof. Flashing must extend a minimum of 76.2mm(3") onto the roof deck. On the eave, secure the drip edge of the top of the strapping/deck with nails 203.2mm(8") on centre.

3.4.2 Install new pre-painted galvanized metal flashing in all valleys and step flashings at all wall locations.

3.5 VENTS, STACKS & EAVESTROUGHS

3.5.1 Supply and install new vents as per the Manufacturer's written instructions. New stacks, eavestroughs, downspouts, gutters, vents, step flashings and all roofing accessories are required.

3.5.2 Metal downpipe to be a minimum of 2.25"-2.5" diameter 24-gauge paintable round metal downpipe. Downpipe to be secured with straps at the ends of each section and in the middle of each section, therefore each section of downpipe will have three straps. Downpipe to kick out away from the building, where possible.

3.6 CEDAR SHAKES

3.6.1 Install starter row of cedar shakes with a minimum gap of 3/8" between shakes and protrusions or curbs and achieve a ¾" overhang of the eave.

3.6.2 Lay first course of cedar shakes directly over the starter strip with the ends flush with the starter strip at the eaves. Off set first course one half shake from starter course.

3.6.3 Ensure vertical alignment by running a line down the roof. Ensure horizontal alignment by

snapping a chalk line horizontally at least every fifth course.

3.6.4 A minimum gap of 3/8" must be maintained between all cedar shakes and roof protrusions and/or curbs. Cedar shakes may not be narrower than 3" when cut.

3.6.5 Use a minimum of 2 nails per cedar shake or as recommended by material manufacturer, installed in position. Nails must be of sufficient length to penetrate the wood strapping/deck as required and approved by the cedar shake manufacturer for the existing deck.

3.6.6 Where the shakes meet adjacent vertical surfaces, install metal step flashings. Ensure a minimum head lap of 76.2mm (3") in both lower flashing and metal counterflashing.

3.6.7 Vent flanges must be a minimum of 152.4mm (6"). Fit cedar shakes under lower edge and over sides and upper edge. Apply asphalt cement under shakes around vent stacks.

3.6.8 Run courses true to line. Ensure that all shakes lie flat.

3.7 FLASHING DETAILS

3.7.1 Membrane flashings: Apply all membrane flashings according to the manufacturer's written instructions. Ensure that all membranes are compatible with each other.

3.7.2 Metal flashings: Supply and install new metal. Any scratched, bent or otherwise damaged metal will not be acceptable.

3.7.3 All flashings must be installed straight and true with no distortions. No irregular or poorly installed metalwork will be accepted.

3.7.4 Install sheet metal by S-lock seams. Hem all raw edges 12.7mm (1/2"). Mitre and seal all corners.

3.7.5 Flashing must be fastened securely to prevent movement or stripping by wind.

3.7.6 Ensure that no dissimilar metals are in contact with each other to avoid corrosion.

3.7.7 Replace all eaves troughs and downspouts. Metal downpipe to be a minimum of 2.25"-2.5" diameter 24-gauge paintable round metal downpipe.

3.8 MEMBRANE FLASHINGS

3.8.1 Provide membrane flashings in accordance with the manufacturer's written installation guidelines.

3.8.2 Install all flashings to ensure that the roof is watertight at the end of each working day.

3.8.3 Contractor is responsible to disconnect and reconnect any electrical conduit, cabling, and/or gas lines which are affecting the roof installation.

3.9 CLEANING

3.9.1 Progress Cleaning: clean in accordance with Section 01 74 11 – Cleaning.

.1 Leave work area clean at end of each day

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

3.9.3 The roofing contractor is to use a magnetic broom at the end of each day of work to pick up all pieces of metal and nails falling to the ground during the roof replacement project.

3.10 PROTECTION

3.10.1 Protect installed products and components from damage during construction.

3.10.2 Repair damage to adjacent materials caused by shake installation.

3.10.3 The roofing contractor is to trim back any/all overhanging trees so they do not scrape the

surface of the roof.

END OF SECTION 07 31 29

07 62 00 - Sheet Metal Flashing & Trim

PART 1 GENERAL

1.1 GENERAL CONDITIONS

1.1.1 All conditions of the Contract and Divisions 0 and 1 apply to this section and to the requirements of the Canadian Roofing Contractors Association Roofing Manual Specifications as referred to herein.

1.1.2 Abide by all Federal, Provincial, Municipal and Local Laws or Codes, rules and regulations that in any way affect the Work including all amendments up to the Project date.

1.2 CO-ORDINATION

1.2.1 Co-ordinate the Work of this Section with the Work of:

.1 Section 01 11 00 Scope of Work.

.2 Section 07 31 29 Cedar Shake Roofing

.3 Section 07 62 00 Sheet Metal Flashing and Trim.

.4 Section 07 92 00 Joint Sealants.

1.3 REFERENCE STANDARDS

1.3.1 Sheet metal work, products and accessories shall be in accordance with the most current applicable industry standards including but not limited to:

1.3.2 THE ALUMINUM ASSOCIATION INC. (AAI)

.1 AAI-Aluminum Sheet Metal Work in Building Construction

.2 AAI DAF45-[03]; Designation System for Aluminum Finishes.

1.3.3 AMERICAN SOCIETY FOR TESTING AND MATERIALS INTERNATIONAL (ASTM)

.1 ASTM A167: Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.

.2 ASTM A240/A240M: Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.

.3 ASTM A606: Steel, Sheet and Strip, High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, with Improved Atmospheric Corrosion Resistance.

.4 ASTM A653/A653M: Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by Hot-Dip Process.

.5 ASTM A792/A792M: Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by Hot-Dip Process.

.6 ASTM B32:Solder Metal.

.7 ASTM B370:Copper Sheet and Strip for Building Construction.

.8 ASTM B813; Flux

.9 ASTM D41; Asphalt Primer

.10 ASTM D226; Asphalt or Tar Saturated Roofing felt.

.11 ASTM D1970; Self-Adhering Ice Dam Protection

.12 ASTM D523:Test Method for Specular Gloss.

.13 ASTM D822:Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings.

.14 ASTM F1667; Nails, Spikes and Staples

1.3.4 CANADIAN ROOFING CONTRACTORS ASSOCIATION (CRCA)

.1 Roofing Specifications Manual, latest edition.

1.3.5 CANADIAN SHEET STEEL BUILDING INSTITUTE (CSSBI)

.1 CSSBI Bulletin SSF-3; Care & Maintenance of Prefinished Sheet Steel Building Products.

.2 CSSBI Technical Bulletin S-8; Quality & Performance Specification for Prefinished Sheet metal Used for Building Products.

1.3.6 CANADIAN STANDARDS ASSOCIATION (CSA INTERNATIONAL)

.1 CSA A123.3: Asphalt Saturated Organic Roofing Felt.

.2 AAMA/WDMA/CSA 101/I.S.2/A440-[2008], Standard/Specification for Windows, Doors, and Unit Skylights.

.3 CSA A123.22; Self-Adhering Polymer Modified Eave Protection

.4 CSA B111: Wire Nails, Spikes and Staples.

1.3.7 GREEN SEAL ENVIRONMENTAL STANDARDS

.1 Standard GS-03-[93]; Anti-Corrosive Paints.

.2 Standard GS-11-[97]; Architectural Paints.

.3 Standard GS-36-[00]; Commercial Adhesives.

1.3.8 HEALTH CANADA/WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

.1 Safety Data Sheets (SDS).

1.3.9 SHEET METAL & AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA)

.1 SMACNA Manual, latest Edition

1.4 APPROVAL

1.4.1 Do not install any metal work until the membrane flashings have been inspected and accepted by the Owner's Representative. The colour is to be determined by the Owner.

1.4.2 In all cases and prior to the fabrication of the finished product, supply and install a sample for approval by the Owner's representative.

1.5 SCHEDULE

1.5.1 Schedule the Work so that the membrane flashings are not left exposed for more than thirty (30) days.

1.6 WARRANTY

1.6.1 Guarantee the metal flashing in conjunction with the membrane roofing for TWO (2) year. Submit on the same form as for the membrane roofing, CRCA Warranty.

1.7 QUALITY CONTROL

1.7.1 Quality control for Work of this Section is to be performed by the Consultant under the work of and as specified in Section 01 10 10 General Requirements.

1.7.2 Work of this Section is to be carried out by a specialist having a minimum of five (5) years of related experience.

1.7.3 Work is to be performed in accordance with the practices and details of SMACNA Architectural Manual – 6th Edition (Sheet Metal and Air Conditioning Contractors National Association Inc.), unless otherwise required in the Contract Documents.

PART 2 PRODUCTS

2.1 COMPATIBILITY

2.1.1 Compatibility between roofing materials is an essential requirement of the Contract.

2.2 METAL COUNTERFLASHINGS

2.2.1 PREFINISHED STEEL METAL:

.1 Pre-painted galvanized steel, 0.46.35mm (26 ga.) core nominal thickness, Series 8000 with a baked enamel finish to ASTM A653.

.2 The finish is to be Dofasco Perspectra Series, Valspar WeatherX factory baked finish, or an approved alternate.

.3 The colour is to be approved by the Owner.

2.2.2 GALVANIZED STEEL:

.1 Galvanized sheet steel, Z275 (G90) zinc coating. Thickness as specified or shown on the Drawings.

2.2.3 HOOK, STARTER, LOCK STRIP / CLEAT:

.1 Fabricated from pre-finished steel, 0.56.35mm (24 ga.) core nominal thickness, Z275 (G90) zinc coating to ASTM A653. Width minimally 102mm (4”). Colour to match prefinished sheet metal where exposed. Starter strips are to be continuous.

2.2.4 COPPER:

.1 Copper to be 0.8mm (16 oz.) cold rolled to ASTM B370.

2.2.5 SOLDER & FLUX:

.1 Solder to be lead-free.

.2 Flux is a rosin, cut hydrochloric acid or commercial preparation suitable for materials to be soldered.

2.2.6 WEDGES:

.1 Rolled Plumber sheet lead.

2.2.7 ISOLATION COATING:

.1 Asphalt based back paint for application to sheet metal in contact with masonry. Use asphalt primer to ASTM D41.

2.2.8 PITCH PAN:

.1 Size as specified in the Summary of Work or as shown in the Detail. One piece pre-fabricated aluminium of fabricated from 26 ga. pre-painted steel or 16 oz. Copper.

2.2.9 PITCH PAN FILLER:

.1 One (1) or two (2) part elastomer such as ChemLink M-1 Sealant, Sopramastic SP-2 or approved alternate.

2.2.10 TOUCH-UP PAINT:

.1 As recommended by the prefinished sheet metal Manufacturer.

2.2.11 FASTENERS:

.1 Nails: Hot dipped galvanized steel flat head roofing nails of length and thickness to suit the application.

.2 Where exposed, use Hex Head screws with 12.7mm (1/2") dome and neoprene

washers as supplied by Weather Guard, or equal.

.3 Fasteners for masonry and concrete: Tapcon fasteners with “Climaseal” corrosion resistant finish, or an approved equivalent, of sufficient length to provide a minimum 38mm (1.5”) penetration into the substrate.

.4 Expansion Fasteners: A tamper-proof nail drive anchor which has a body formed from Zamac alloy. Zamac Nail-in.

PART 3 EXECUTION

3.1 GENERAL

3.1.1 Apply in accordance with the Drawings, Specifications and the requirements of the jurisdictional authorities and the Canadian Roofing Contractors Association’s Roofing Manual.

3.1.2 Regard the Manufacturer's printed recommendations and Specifications as a minimum requirement for materials, methods and quality of Work not otherwise specified herein.

3.1.3 Make adjustments to the specified procedures caused by weather and site conditions only with the Owner's approval.

3.1.4 Maintain all the equipment in good working order to ensure control of roofing operations and protection of the Work. Equipment and laying techniques are to meet the approval of the Consultant.

3.2 FABRICATION

3.2.1 Shop fabricate the flashings and trims in accordance with the applicable requirements of SMACNA Architectural Manual and in accordance with the Contract Documents. Form sheet metal on a bending brake. Shaping, trimming and seaming on a bench.

3.2.2 Form sections square, true, and accurate to size, free from distortion, oil canning and other defects detrimental to the appearance and performance, and to the dimensions as indicated/required.

3.2.3 Fabricate the cap flashings, starter strips, and base counter flashings less than 304.8mm (12”) in height in 2440mm (96”) maximum lengths. Form the counter flashings between 304.8mm and 609.6.35mm (12” and 24”) in height in 1219.2mm (48”) maximum lengths.

3.2.4 Provide a counter flashing and an intermediate vertical flashing where the cap flashing is greater than 610 m (24”) above the top of the roofing membrane. Form the vertical flashings in 1220 mm (48”) maximum lengths.

3.2.5 Provide an "S-Lock" joint at all end joints and at all horizontal joints between the cap flashing and the vertical flashing and between the vertical flashing and the base counter flashing.

3.2.6 Hem all exposed edges at least 12.7mm (1/2”) for appearance and stiffness.

3.2.7 Provide a horizontal stiffening “V” or “X” break on all face metal exceeding 228.6mm (9”) in girth. Centre the V or X break in mid-span of the panel. Cross break the metal face flashing on all parapet flashings exceeding 457.2mm (18”) in girth.

3.2.8 Mitre and form the standing seams at all corners. Make allowances for movement at the joints.

3.2.9 Apply an isolation coating to the metal surfaces to be embedded in concrete or mortar joints.

3.3 PITCH PAN FABRICATION / INSTALLATION

3.3.1 All boxes shall be minimum 152 mm (6.0") high above finished roof surface, with 125 mm (5.0") roof flange as approved by the Consultant. Make all seams continuous and soldered. Tapered rain collars to be included

3.3.2 Install new pitch pans where required

3.3.3 Apply asphalt primer on the underside of flange. Embed flange in a layer of mastic on to the modified roof membrane.

3.3.4 Modified Bitumen: Flash in with one ply base sheet membrane to manufacturer's recommendations.

3.3.5 Fill the bottom two-thirds (2/3) of the pitch pan with polyurethane foam . Apply polyurethane pitch pocket sealant on the exposed interior face and fill the top third of the pitch pan with the pourable sealer. The pourable sealer is to extend 13 mm (1/2") above the pitch pan at the centre and cove it to shed water.

3.3.6 Once the sealant has cured, apply the specified storm collar and clamp to existing protrusion to provide complete protection over the pitch pan. Apply sealant if required.

3.4 SCUPPER FABRICATION AND INSTALLATION – IF REQUIRED

3.4.1 Fabricate scuppers from copper. Fabricate scuppers to suit a 102 mm (4") diameter down spout and in general accordance with CRCA standard flashing detail FL 9. Solder all joints in the scupper. Ensure flange is continuous by filling in outside corners.

3.4.2 Fabricate deck flange to provide a 152 mm (6") wide apron. Ensure flange is continuous by filling in outside corners. Apply isolation coating on deck flange. Provide a gravel stop soldered in place across scupper opening.

3.4.3 Provide copper or stainless steel strainers for outlet.

3.4.4 Install new scuppers at existing and/or new scupper locations, where applicable. Set pre-primed flange in a full bed of rubberized mastic for BUR and Modified bitumen membranes.

3.4.5 Install scuppers in general accordance with CRCA standard flashing detail FL. 9 or to Detail.

3.5 COPPER SLEEVE FABRICATION AND INSTALLATION- IF REQUIRED

3.5.1 Fabricate sleeve flashing for existing penetrations from copper.

3.5.2 Provide a two piece or split sleeve with a minimum height of 305 mm (12").

3.5.3 Fabricate deck flange to provide a 152 mm (6") wide apron. Ensure flange is continuous by filling in outside corners.

3.5.4 Fabricate sleeve and flange with flat lock joints suitable for field soldering.

3.5.5 Apply isolation coating on surface of penetration.

3.5.6 Install copper sleeve flashing around penetrations.

3.5.7 Close and solder all joints and seams. Clean copper on joint surfaces to receive solder with steel wool. Flux and fill joints with molten solder.

3.5.8 Wipe and wash clean all traces of acid from the flux immediately after the joints are made.

3.5.9 Install split storm collar in strict accordance with Manufacturer's recommendations. Apply silicone sealant, as specified in Section 07 92 00 - Joint Sealants, at joint between storm collar and gas line penetration.

3.5.10 Install rain collar with sealant bead.

3.6 SHEET METAL UNDERLAYMENT INSTALLATION- IF REQUIRED

3.6.1 Install self-adhesive bituminous membrane as per the Detail Drawings, according to Manufacturer's instructions.

3.6.2 Provide membrane underlayment beneath sheet metal flashings at all locations, except where membrane flashings are present.

3.6.3 Ensure all surface areas are free from frost, dust, grease, oil, loose or spalled material.

3.6.4 Apply primer as per Manufacturer's printed instructions. Allow the primer to dry and install underlayment membrane on the same day as priming.

3.6.5 Proceed only when weather is favourable. Should installation be undertaken at temperature below 4°C (40°F), consult Manufacturer regarding special procedures.

3.6.6 Maintain the recommended minimum side lap and end lap as per the Manufacturer's printed instructions.

3.6.7 Roll the membrane underlayment immediately after placement to ensure continuous adhesion. The roller to be of the type and size recommended by the Manufacturer.

3.6.8 Ensure the continuity of the membrane underlayment is maintained at all penetrations and terminations. Apply membrane sealant as required to fill inaccessible gaps following the Manufacturer's instructions.

3.6.9 Do not cover the membrane underlayment until it is reviewed and approved by the *Consultant*.

3.7 TERMINATION BAR INSTALLATION

3.7.1 Provide continuous termination bar along top of membrane flashings where indicated on Drawings and at locations and where membrane flashings terminate at the base of a wall and no other means of mechanical securement is specified or indicated.

3.7.2 Install the termination bar 3 mm (⅛") below the top edge of the base flashing membrane and mechanically secure to the masonry wall using 38 mm (1½") 'Tapcon fasteners, or Zamac Nail-ins at 152 mm (6") o.c.

3.7.3 Seal the top of the termination bar with rubberized mastic or polyurethane based sealant.

3.8 METAL DRIP EDGE FLASHING INSTALLATION- IF REQUIRED

3.8.1 Install new pre-finished aluminum metal drip edge along eaves at area of work.

3.8.2 Metal is to extend onto perimeter wood substrate 52 mm (2") minimum. Fasten metal to wood substrate with roofing nails installed every 152 mm (6") on-centre, along edge. Nails are to be set in 25 mm (1") and parallel from edge of metal.

3.8.3 Metal drip flashings to be fabricated up to 3048 mm (10') lengths and overlapped at joints 76.2mm (3") minimum. Apply sealant within joints prior to securement.

3.9 SHEET METAL INSTALLATION

3.9.1 Install the cap flashings, counter flashings, starter strips, and other miscellaneous sheet metal Work in accordance with the Contract Documents.

3.9.2 Provide a continuous starter (hook) strip where detailed or required to present a true, non-waving, leading edge. Fasten the starter strip to the substrate at a minimum of 304.8mm (12") on centre in a "Z" pattern using roofing nails of at least 25.4mm (1") length.

3.9.3 Ensure the parapet cap flashings are installed with a minimum positive slope of 2% toward the roof area. The slope is to be provided by the installation of continuous wood shims, plywood or wood blockings as detailed in accordance with Section 00 61 00 – Rough Carpentry.

3.9.4 Install cross-broken flat stock metal to entire parapet wall over 304.8mm (12") in height.

3.9.5 Caulk all horizontal joints less than 1:100 slope (1%).

3.9.6 Join all sheet metal with evenly spaced flat lock seams 25.4mm (1") wide to allow for thermal movement.

3.9.7 Counter flash bituminous flashing membranes at roof joints, walls, perimeters, parapets and curbs. Flash joints in metal flashings using S-locks and standing seams forming tight fit over hook strips. Construct internal and external mitres.

3.9.8 End joints where adjacent lengths of metal flashing meet to be made using an "S-lock" joint. This is to be executed by inserting the end of one length in a 25.4mm (1”) deep "S" lock formed in the end of the adjacent length. The concealed portion of the "S" lock is to extend 25.4mm (1”) outwards and is to be nailed to the substrate. Face nailing of joints will not be permitted.

3.9.9 Insert the top edge of the sheet metal flashing under the cap flashings to form weather tight junctions.

3.9.10 Turn the top edge of the flashings into recessed reglets or mortar joints a minimum of 25.4mm (1”). Fasten the sheet metal flashing into the reglet joint at a maximum spacing of 457.2mm (18”) or more often if required.

3.9.11 Ensure all fasteners are located a minimum of 304.8mm (12″) above the surface of the roofing membrane, unless otherwise detailed.

3.9.12 Where detailed or required, saw cut existing/new reglets into the masonry surfaces to receive metal flashings. The reglet is to be a minimum 19.05mm wide x 13 mm deep (3/4” x 1/2”).

3.9.13 Lock seam corners. Do not use pop rivets.

3.9.14 Install the sheet metal with concealed fasteners. Exposed fastening is permitted only upon the Consultant's approval.

3.9.15 Use lead plugs or an approved expansion shield and screw in place with rubber washers where metal is installed over concrete or masonry.

3.9.16 Do not secure metal work to cant strips.

3.9.17 Install sheet metal in a uniform manner, level, true to line, free of warp or distortions.

3.9.18 Install metal flashings under cap flashings and behind other claddings a minimum of 38mm (1.5”) to form a weather tight junction.

3.9.19 All outside perimeter cap flashings are to completely cover all fascia, or otherwise extend a minimum of 76.2mm (3”) below strapping/deck or wood blocking level.

3.9.20 Properly cover the area to be protected with the metal flashings lightly touching the gravel pour and firmly secured to prevent movement or stripping by the wind.

3.9.21 No irregular or badly fitted metal work will be accepted. Provide metal strips, cleats, as required.

3.9.22 Install self-adhering modified bituminous membrane over all exposed masonry, concrete or wood to be flashed with metal. Secure in place.

3.9.23 At walls or junctions, re-cut the reglet joint, wedge the flashings with lead wedge at 304.8mm (12") o.c. Turn top edge of flashing into reglet or mortar joint a minimum of 25.4mm (1”).

3.10 SEALANTS

3.10.1 Apply sealant at the junction between the sheet metal counterflashing and the reglet joint in accordance with Section 07 92 00 – Joint Sealants.

3.11 CLEANING

3.11.1 Remove completely from surfaces and crevices the flux residue, other deposits, stains and protections and wash the visible metal left unpainted

END OF SECTION 07 62 00

07 92 00 - Joint Sealants

GENERAL

1.1 GENERAL CONDITIONS

1.1.1 All conditions of the Contract and Divisions 0 and 1 apply to this Section and to the requirements of the Canadian Roofing Contractors Association Roofing Manual Specifications as referred to herein.

1.1.2 Abide by all Federal, Provincial, Municipal and Local Laws or Codes, rules and regulations that in any way affect the Work including all amendments up to the Project date.

1.2 CO-ORDINATION

1.2.1 Co-ordinate Work of this Section with Work of:

.1 Section 01 11 00 Scope of Work.

.2 Section 06 10 00 Rough Carpentry.

.3 Section 07 31 29 Cedar Shake Roofing

.4 Section 07 62 00 Sheet Metal Flashing and Trim.

1.3 REFERENCE STANDARDS

1.3.1 Sealant work, materials, products and accessories shall be in accordance with the most current applicable industry standards including but not limited to:

1.3.2 AMERICAN SOCIETY FOR TESTING AND MATERIALS INTERNATIONAL, (ASTM)

.1 ASTM C919:-Use of Sealants in Acoustical Applications.

.2 ASTM C920; Elastomeric Joint Sealants, Type S, grade NS.

.3 ASTM C1311; Solvent Release Sealants

1.3.3 DEPARTMENT OF JUSTICE CANADA (JUS)

.1 Canadian Environmental Protection Act, 1999 (CEPA).

1.3.4 GENERAL SERVICES ADMINISTRATION (GSA) - FEDERAL SPECIFICATIONS (FS)

.1 TT-S-00227E; Sealing Compound Elastomeric Type- Multi-Component, Class A, Type 2.

.2 TT-S-00230C; Sealing Compound elastomeric Type- Single component, Class A, Type 2.

1.3.5 HEALTH CANADA/WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

.1 Safety Data Sheets (SDS).

1.3.6 TRANSPORT CANADA (TC)

.1 Transportation of Dangerous Goods Act, 1992 (TDGA).

1.4 CLIMATE CONDITIONS

1.4.1 ENVIRONMENTAL LIMITATIONS

.1 Do not proceed with the installation of joint sealants under the following conditions:

(a) When ambient and substrate temperature conditions are outside the limits permitted by the joint sealant manufacturer.

(b) When joint substrates are wet.

.2 Joint-Width Conditions:

(a) Do not proceed with the installation of joint sealants where the joint widths are less than those allowed by the joint sealant manufacturer for the applications indicated.

.3 Joint-Substrate Conditions:

(a) Do not proceed with the installation of joint sealants until contaminants capable of interfering with adhesion are removed from the joint substrates.

1.5 ENVIRONMENTAL REQUIREMENTS

1.5.1 Comply with the requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and provision of Safety Data Sheets (SDS) acceptable to Labour Canada.

1.5.2 Conform to the manufacturer's recommended temperatures, relative humidity, and substrate moisture content for the application and curing of sealants including special conditions governing use.

1.6 WARRANTY

1.6.1 Provide all applicable material and labour Warranties offered by the material Manufacturer for a minimum of two (2) years.

1.6.2 Defective joint sealant installation covered under Warranty is to include but not be limited to:

.1 joint leakage, hardening, craze cracking, crumbling, melting, bubbling, shrinkage, runs, sags, change of colour, loss of adhesion, loss of cohesion and staining of adjoining or adjacent material surfaces.

1.6.3 Carry out all replacement and repair Work during the Warranty period as directed by the Consultant and at no additional cost to the Owner.

1.7 QUALITY CONTROL

1.7.1 Quality control for Work of this Section is to be performed by the Consultant under the Work of and as specified in Section 01 10 10 General Requirements.

PART 2 PRODUCTS

2.1 COMPATIBILITY

2.1.1 All materials in a sealant system are to be compatible with each other and with the substrate.

2.1.2 Colour or colours of the sealants are to be selected are to match existing substrate and are to be approved by the Consultant.

2.2 SEALANT MATERIALS

2.2.1 Exterior Metal To Wood, Masonry, Stone Or Porous Surfaces:

.1 One-part elastomeric, non-sag urethane based sealant. Accepted products:

(a) “Dymonic” as manufactured by Tremco

(b) “Sikaflex 1-A” as manufactured by Sika Canada

(c) “Vulkem 931” by Mameco as manufactured by Tremco

(d) “SK-1 Structural Sealant” as supplied by Chemlink.

2.2.2 Exterior And Interior Metal To Metal And Metal To Glass Joints:

.1 One-part Silicone based sealant. Accepted Products:

(a) “Spectrum 2” as manufactured by Tremco

(b) "Contractors SCS 1000 Sealant" as manufactured by GE Silicones Canada

(c) "DC 999-A Silicone Building & Glazing Sealant" as manufactured by DowCorning Canada.

2.3 JOINT BACKING

2.3.1 Extruded polyethylene, urethane, neoprene or vinyl foam recommended by sealant Manufacturer. Extruded closed-cell foam, Shore "A" Hardness 20, Tensile Strength of 140-200 Kpa.

2.3.2 Circular shape with a diameter 25% greater than the joint width before installation.

2.4 VOID FILLER

2.4.1 Glass fibre or Rockwool insulation with a nominal density of 14 kg/m^3 (2.86 lbs. / cu. ft.) Sized for 25% compression.

2.5 BOND BREAKER TAPE

2.5.1 Pressure sensitive plastic tape which will not bond to sealants. Supplied or recommended by the sealant Manufacturer.

2.6 PRIMER

2.6.1 As recommended by the sealant Manufacturer to assure adhesion of the compound and to prevent staining of the substrate.

2.7 CLEANING AGENTS

2.7.1 Joint cleaning compounds as recommended by the sealant Manufacturer. Xylol (Xylene), Methyl Ethyl Ketone (MEK) or non-corrosive type compatible with joint forming materials.

PART 3 EXECUTION

3.1 EXAMINATION

3.1.1 Inspect existing conditions, and substrates upon which Work of this Section is dependent. Report to the *Consultant* in writing any defects or discrepancies. Commencement of Work implies acceptance of existing conditions and assuming full responsibility for the finished condition of the Work.

3.1.2 Verify, before commencing Work, that the joint size, depth and substrate will not adversely affect execution, performance or quality of completed Work; and that the joints can be sealed in an acceptable condition by means of preparation specified in this Section. Verify site conditions together with sealant Manufacturer's representative.

3.1.3 Defective Work resulting from application to unsatisfactory joint conditions will be considered the responsibility of those performing the Work of this Section.

3.2 GENERAL

3.2.1 Apply in accordance with the Drawings, Specifications and requirements of the jurisdictional authorities and the Canadian Roofing Contractors Association's Roofing Manual.

3.2.2 Regard the Manufacturer's printed recommendations and Specifications as a minimum requirement for materials, methods and quality of Work not otherwise specified herein.

3.2.3 Make adjustments to the specified procedures caused by weather and site conditions only with the Consultants approval.

3.2.4 Conform to the Details.

3.2.5 Examine joints before caulking to ensure that the configuration, surface and widths are suitable for the sealant and service, and that the execution of caulking and performance of

sealants will not be adversely affected.

3.2.6 Verify, before commencing the Work, that the joint size, depth and substrate will not adversely affect the execution, performance or quality of the completed Work; and that joint can be sealed in an acceptable condition by means of the preparation specified in this Section. Verify the site conditions together with the sealant Manufacturer's representative.

3.2.7 Defective Work resulting from the application to unsatisfactory joint conditions will be rejected.

3.3 REMOVAL & PREPARATION

3.3.1 Remove the existing sealant and backing material and all deleterious material from the joint. Use the method of surface preparation suitable for substrate that does not damage adjacent surfaces, as recommended by the sealant Manufacturer.

3.3.2 Rake out joints, cracks and crevices to receive sealant to a depth measuring half (1/2) the joint width.

3.3.3 Brush, scrub, scrape or grind the inner face surfaces to remove loose mortar, dust, oil, grease, oxidation, mill scale, and other materials which will affect the adhesion and integrity of the sealant.

3.3.4 Wipe down metal surfaces with clean cellulose sponges or rags soaked in solvent compatible with the sealant, and dry with clean cloths. Ensure solvents do not damage painted surfaces.

3.3.5 Ensure that surfaces have not been coated with release agents, coating or other treatments, or that, if present, they are entirely removed.

3.3.6 Examine joint sizes and correct to achieve width to depth ratio of 1:2 with joint size no less than 12.7mm (1/2") width and 25.4mm (1") depth.

3.3.7 Install joint filler to achieve correct depth, if required.

3.3.8 Where necessary to prevent staining, mask adjacent surfaces prior to priming and sealant application.

3.3.9 Apply bond breaker tape where required to sealant Manufacturer's printed instructions.

3.4 JOINT DEPTH

3.4.1 Provide the following Depth To Width Ratios:

.1 Masonry:

(a) 6.35mm (1/4") deep, up to 12.7mm (1/2") wide

(b) 9.53.16mm (3/8") deep, up to 19.05mm (3/4") wide

(c) 12.7mm (1/2") deep, up to 25.4mm (1") wide

(d) 19.05mm (3/4") deep, up to 50.8mm (2") wide.

.2 Non Porous Materials:

(a) Joint depth and width to be not be less than 6.35mm (1/4").

(b) Maintain a minimum of a 2:1 width to depth ratio or what is listed above in 3.3.1.1 and 3.3.1.2, whichever is more stringent.

3.5 PRIMING

3.5.1 Prime the inner face surfaces of joints as necessary for the substrate, in accordance with the sealant Manufacturer's Specification, to provide full adhesion and to prevent staining of the face surface at the joint.

3.5.2 Prime surfaces prior to installing the joint backing rod.

3.6 JOINT FILLING AND BACKING

3.6.1 Install joint backing where required to maintain the joint depth.

3.6.2 Pack joints tightly with sealant in accordance with the Manufacturer's Specifications using pressure guns. Fill joints completely to the required depths with sealant compound. Use sufficient pressure to fill all voids and joints. Sealant is to bond to both sides of the joint.

3.6.3 Apply bond breaker tape, prior to applying sealant, where joints are of insufficient size to install backer rod or at 90° junctions or where recommended by the sealant Manufacturer or *Consultant.* Ensure bond surface area meets the minimum required size recommended by the sealant Manufacturer.

3.6.4 Mask, with masking tape, all surfaces adjacent to joints which are likely to become coated with sealant during sealant application.

3.6.5 Apply sealant using gun dispenser with proper size nozzle for joint to be sealed to leave a weather tight, airtight installation.

3.6.6 Fill joints completely to required depths with sealant compound. Use sufficient pressure to fill all voids and joints solid. Sealant shall bond to both sides of the joints but not to backing material. ***Superficial pointing with skin bead is not acceptable***.

3.6.7 Form surface of sealant with full bead, smooth, free from ridges, wrinkles, sags, air pockets or embedded impurities. Neatly tool surface to create a slightly concave joint.

3.6.8 Slope sealant surface at top of surface reglet flashings to create positive water shed.

3.6.9 Finish joints smooth, free of wrinkles, ridges, air pockets and imbedded foreign materials. Tool joints to a slight concave surface using a soap/water mixture.

3.6.10 Cure sealants in accordance with the sealant Manufacturer's instructions.

3.6.11 Do not cover up sealants until proper curing has taken place.

3.6.12 Do not allow sealants to cover or spot surfaces outside of joints. Use masking tape on all surfaces adjacent to joints which may become coated with sealant during the caulking process.

3.7 CLEAN UP

3.7.1 Remove from surfaces of other work sealant smears, droppings and masking tape immediately after caulking. Use recommended cleaners as required.

3.7.2 Clean surfaces soiled by Work of this Section. Do not use chemicals, scrapers, or other tools in cleaning which will damage surfaces. Make good other Work.

3.7.3 Clean up and remove from the job site on a daily basis, all rubbish and surplus materials resulting from this Work.

3.7.4 Joint sealants shall be protected from physical damage and the elements until such time as the sealant will not be affected by same.

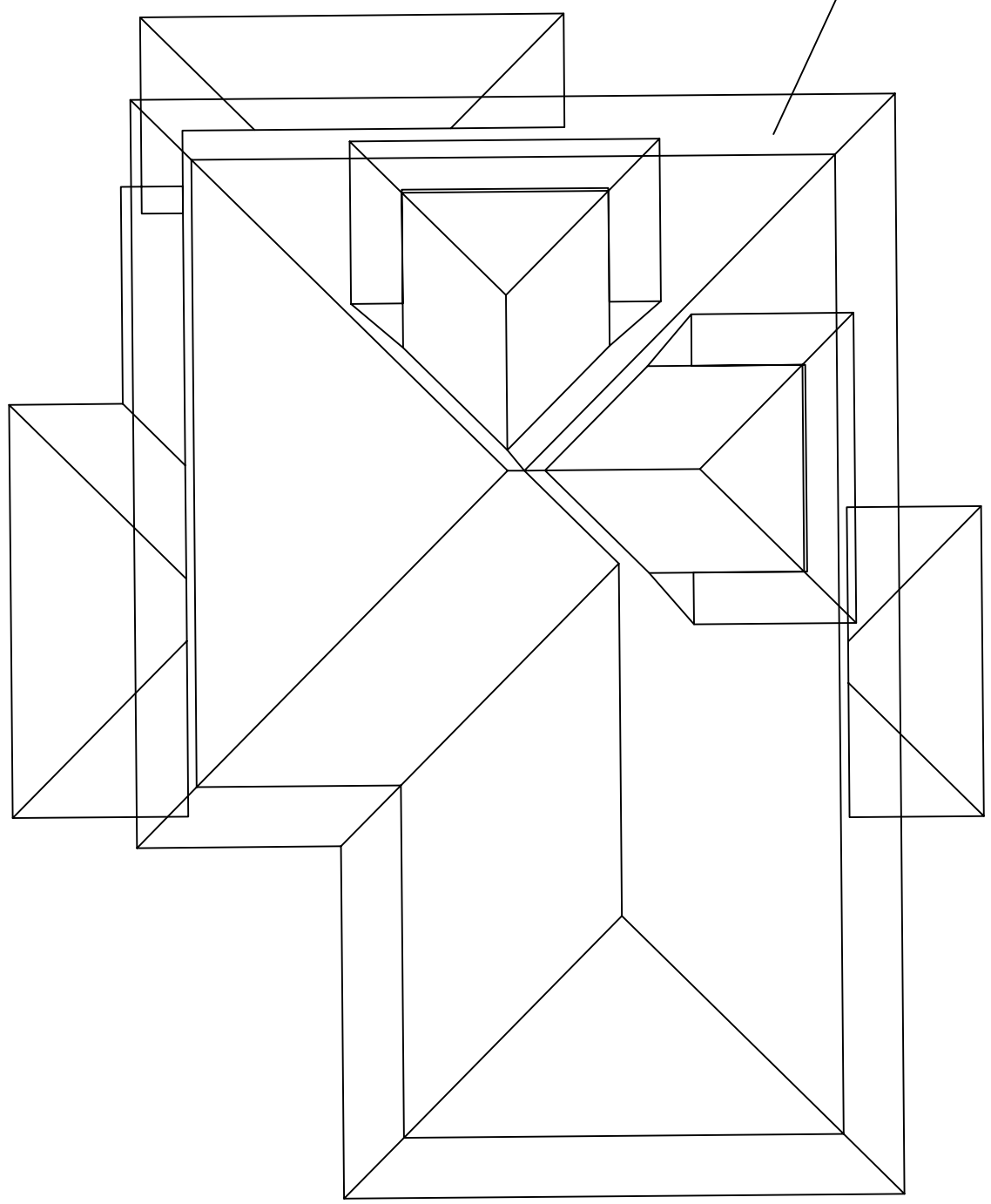
END OF SECTION 07 92 00

SCHEDULE A – LIST OF PLANS & DETAILS

Dwg #	Drawing Title	Issued/Revised	Date
1	Roof Plan	For BID	May 2023
2	Perimeter Detail	For BID	May 2023
3	Rake Detail	For BID	May 2023
4	Ridge Detail	For BID	May 2023
5	Inside Wall Flashing Detail	For BID	May 2023
6	Stack Detail	For BID	May 2023
7	Valley Detail	For BID	May 2023

END OF LIST OF PLANS AND DETAILS

2023 CEDAR ROOF REPLACEMENT PROJECT
ALL SLOPED CEDAR ROOF AREAS



N

LEGEND

CONTROL JOINT — EXPANSION JOINT

ROOF TOP UNITS

- HVAC ON CURB
- FAN ON CURB
- SKYLIGHT
- HVAC ON SLEEPERS
- ROOF HATCH
- UNIT ON SLEEPERS

PROJECTIONS

- FURNACE STACK
- PITCH PAN
- SOIL STACK
- VENT STACK

DRAINAGE

- DRAIN (EXISTING)
- DRAIN (NEW)
- SCUPPER (NEW)

MISCELLANEOUS

- GAS LINE
- SATELLITE DISH
- PAVER WALKWAY
- ROOF ANCHOR
- WALKWAY
- CORE TEST

TRI-TECH PINNACLE
ROOF & BUILDING ENVELOPE CONSULTANTS

73 INDUSTRIAL PARKWAY NORTH - UNIT #3
AURORA - ONTARIO - L4G 4C4
TEL (905) 503-1300 - FAX (905) 503-2002

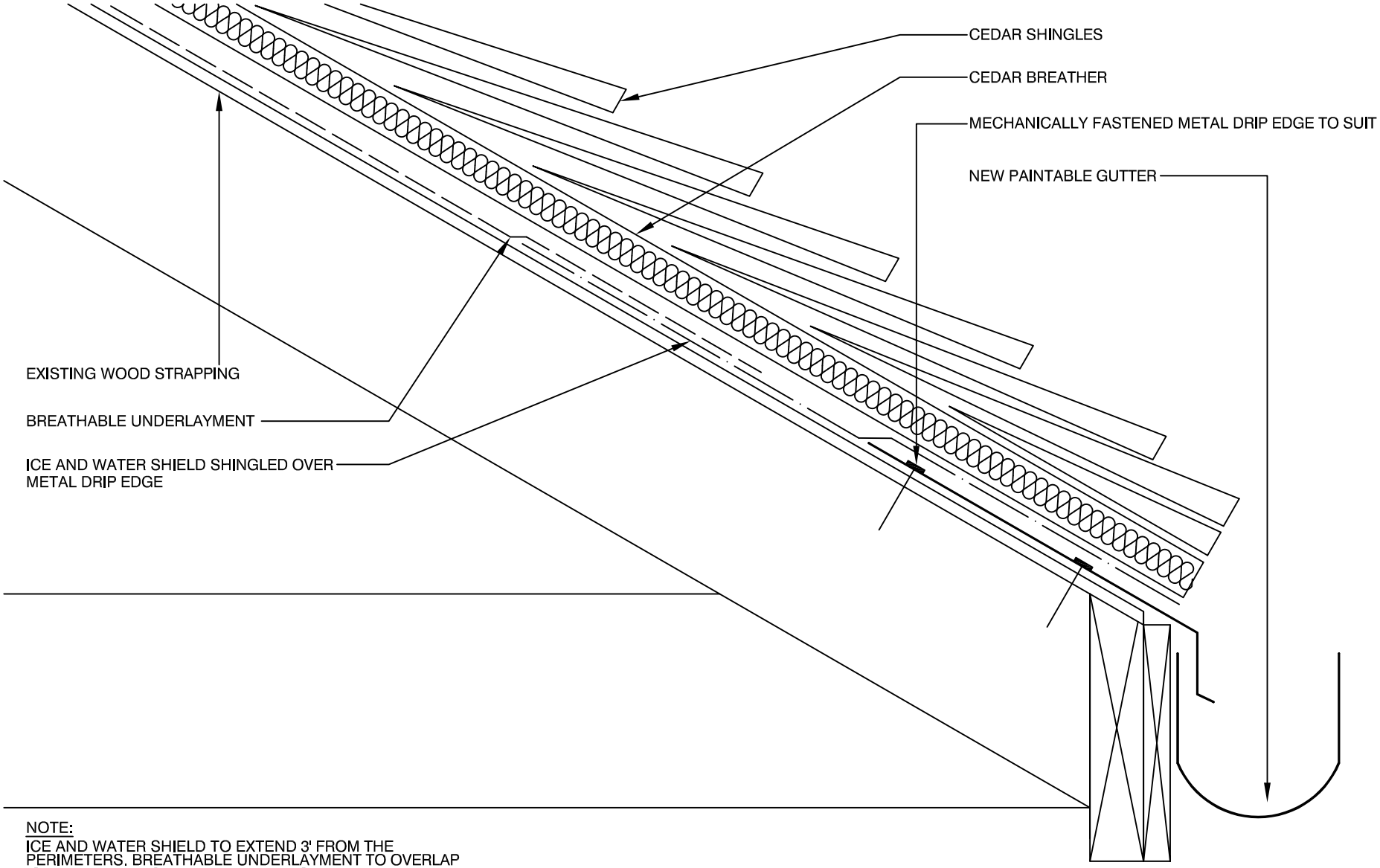
CLIENT
CITY OF COQUITLAM

PROJECT ADDRESS/NAME
1116 BRUNETTE AVENUE
COQUITLAM, BC

DRAWING TITLE
ROOF PLAN

FILE NO.	SCALE	DRAWING NUMBER
23-0213	N.T.S.	1

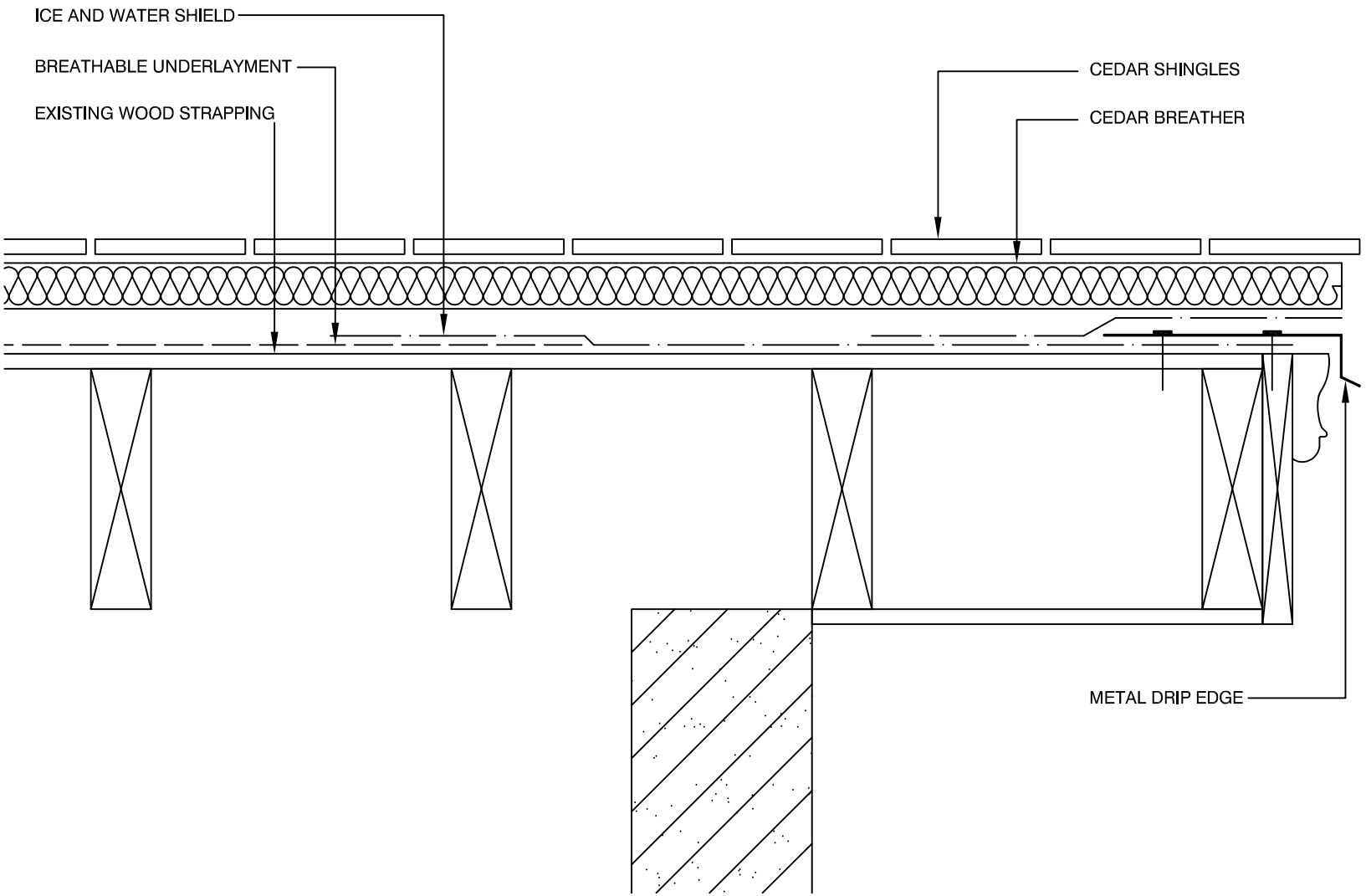
DATE
APRIL 2023



NOTE:
ICE AND WATER SHIELD TO EXTEND 3' FROM THE PERIMETERS. BREATHABLE UNDERLAYMENT TO OVERLAP ICE AND WATER SHIELD A MINIMUM OF 4.0".

TRI-TECH PINNACLE
ROOF & BUILDING ENVELOPE CONSULTANTS
73 INDUSTRIAL PARKWAY NORTH - UNIT #3
AURORA - ONTARIO - L4G 4C4
TEL (905) 503-1300 - FAX (905) 503-2002

CLIENT: CITY OF COQUITLAM	FILE NO.: 23-0213	SCALE: N.T.S.	DRAWING NUMBER: 2
PROJECT ADDRESS: 1116 BRUNETTE AVENUE COQUITLAM, BC	DATE: APRIL 2023		
DRAWING TITLE: PERIMETER DETAIL			



TRI-TECH PINNACLE
ROOF & BUILDING ENVELOPE CONSULTANTS

73 INDUSTRIAL PARKWAY NORTH - UNIT #3
AURORA - ONTARIO - L4G 4C4
TEL (905) 503-1300 - FAX (905) 503-2002

CLIENT
CITY OF COQUITLAM

FILE NO.
23-0213

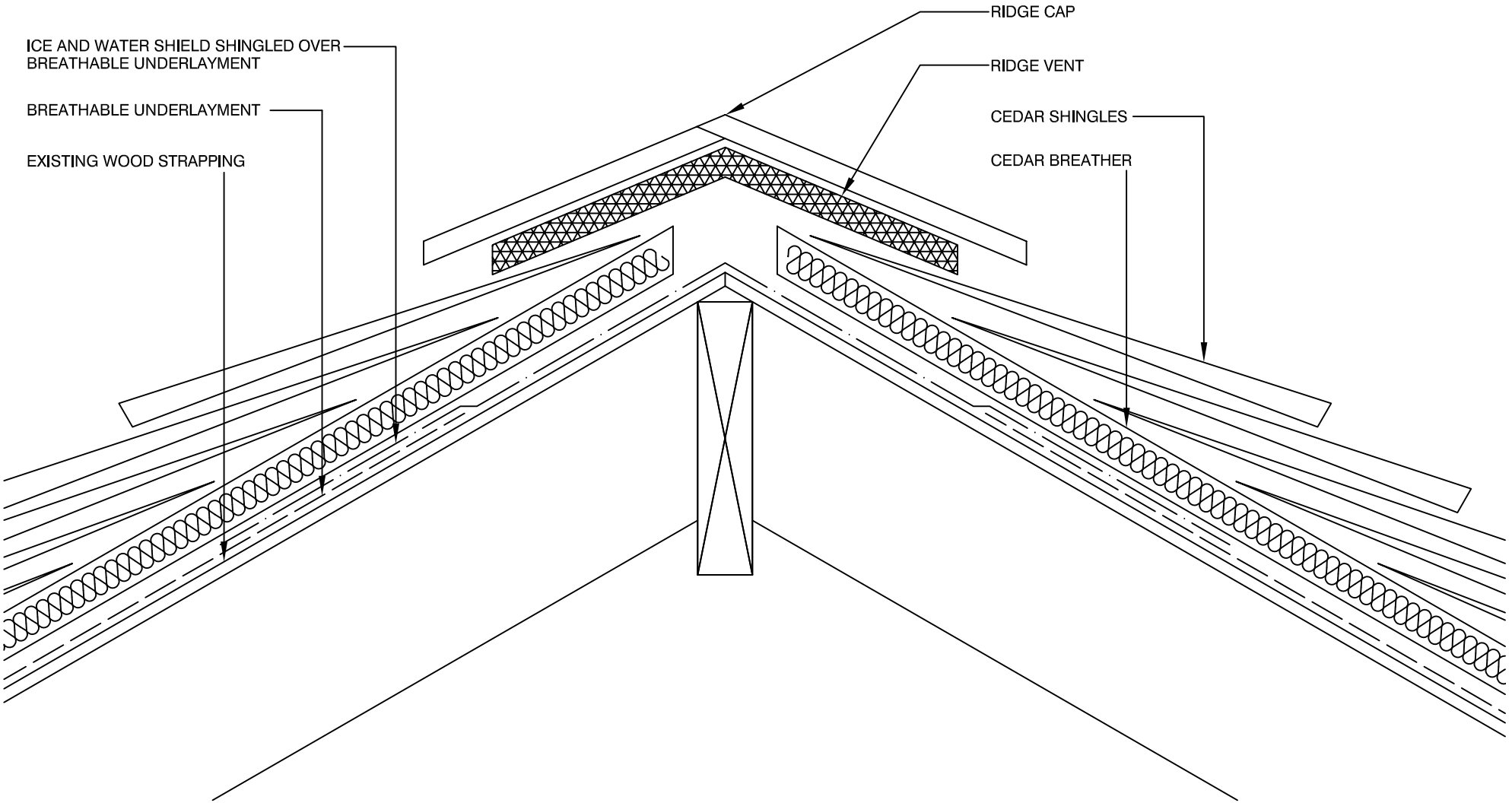
SCALE
N.T.S.

DRAWING NUMBER
3

PROJECT ADDRESS
1116 BRUNETTE AVENUE
COQUITLAM, BC

DATE
APRIL 2023

DRAWING TITLE
RAKE DETAIL



TRI-TECH PINNACLE
ROOF & BUILDING ENVELOPE CONSULTANTS

73 INDUSTRIAL PARKWAY NORTH - UNIT #3
AURORA - ONTARIO - L4G 4C4
TEL (905) 503-1300 - FAX (905) 503-2002

CLIENT
CITY OF COQUITLAM

FILE NO.
23-0213

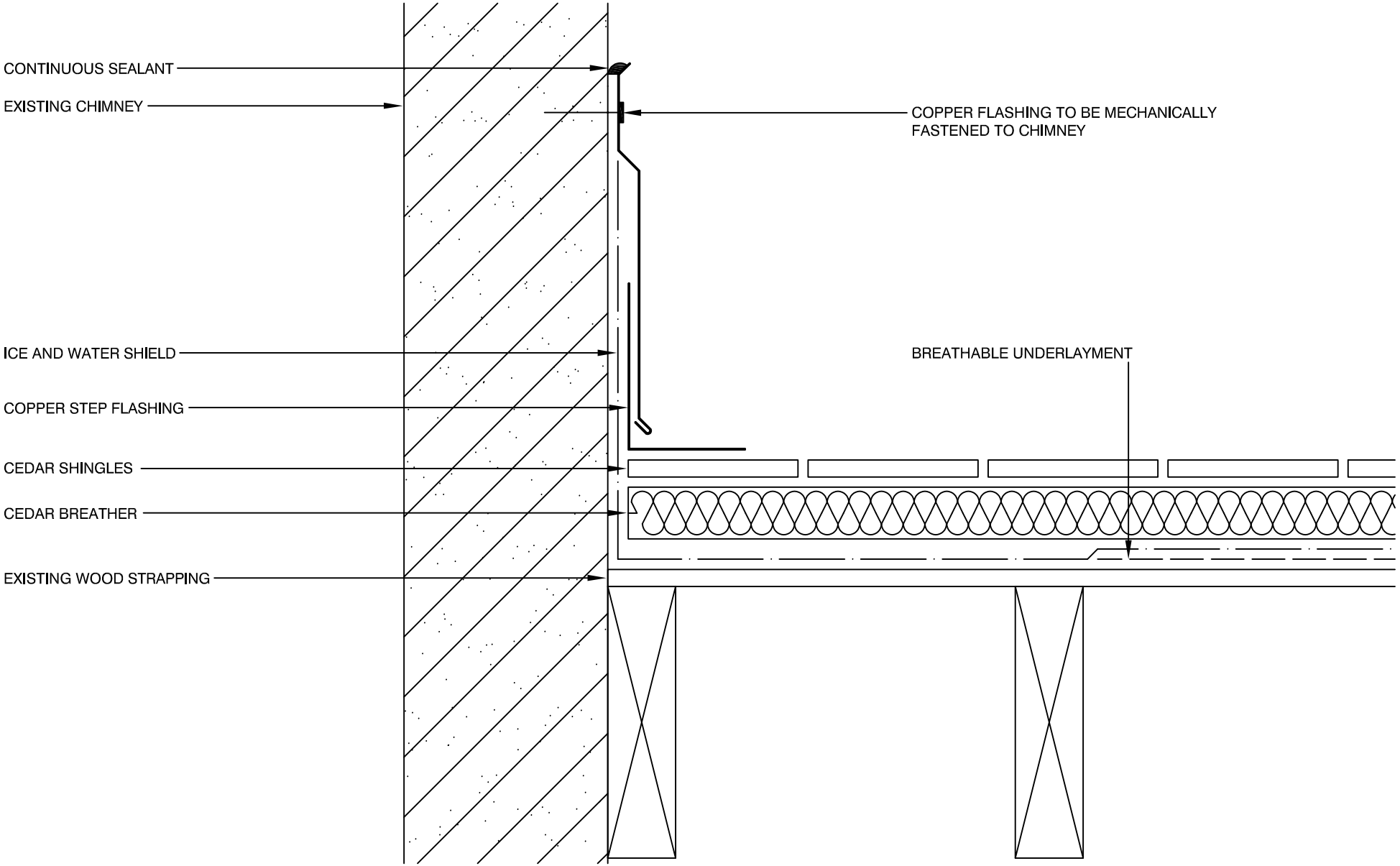
SCALE
N.T.S.

DRAWING NUMBER
4

PROJECT ADDRESS
1116 BRUNETTE AVENUE
COQUITLAM, BC

DATE
APRIL 2023

DRAWING TITLE
RIDGE DETAIL



TRI-TECH PINNACLE
ROOF & BUILDING ENVELOPE CONSULTANTS

73 INDUSTRIAL PARKWAY NORTH - UNIT #3
AURORA - ONTARIO - L4G 4C4
TEL (905) 503-1300 - FAX (905) 503-2002

CLIENT
CITY OF COQUITLAM

FILE NO.
23-0213

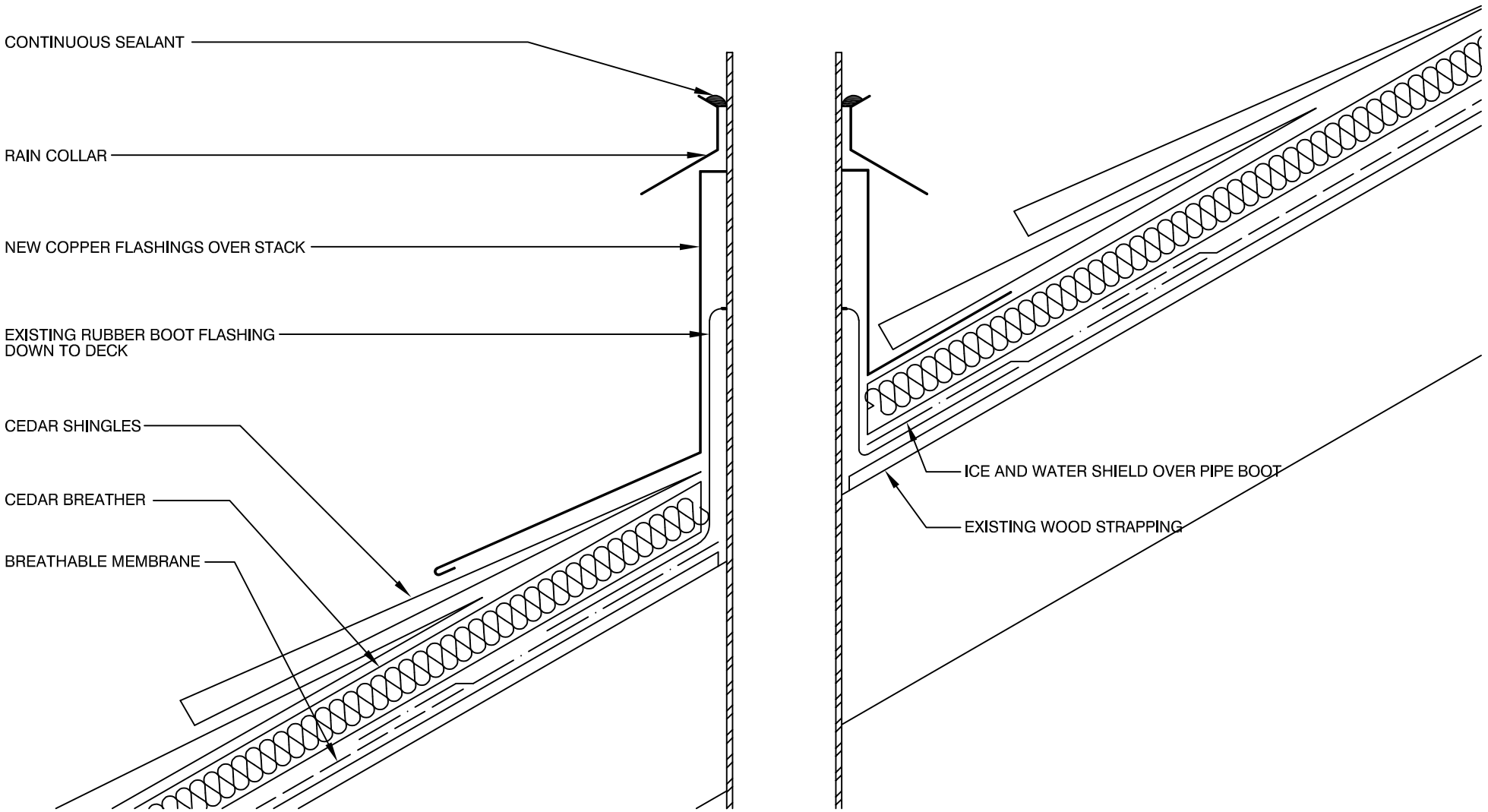
SCALE
N.T.S.

DRAWING NUMBER
5

PROJECT ADDRESS
1116 BRUNETTE AVENUE
COQUITLAM, BC

DATE
APRIL 2023

DRAWING TITLE
INSIDE FLASHING DETAIL



TRI-TECH PINNACLE
ROOF & BUILDING ENVELOPE CONSULTANTS

73 INDUSTRIAL PARKWAY NORTH - UNIT #3
AURORA - ONTARIO - L4G 4C4
TEL (905) 503-1300 - FAX (905) 503-2002

CLIENT
CITY OF COQUITLAM

FILE NO.
23-0213

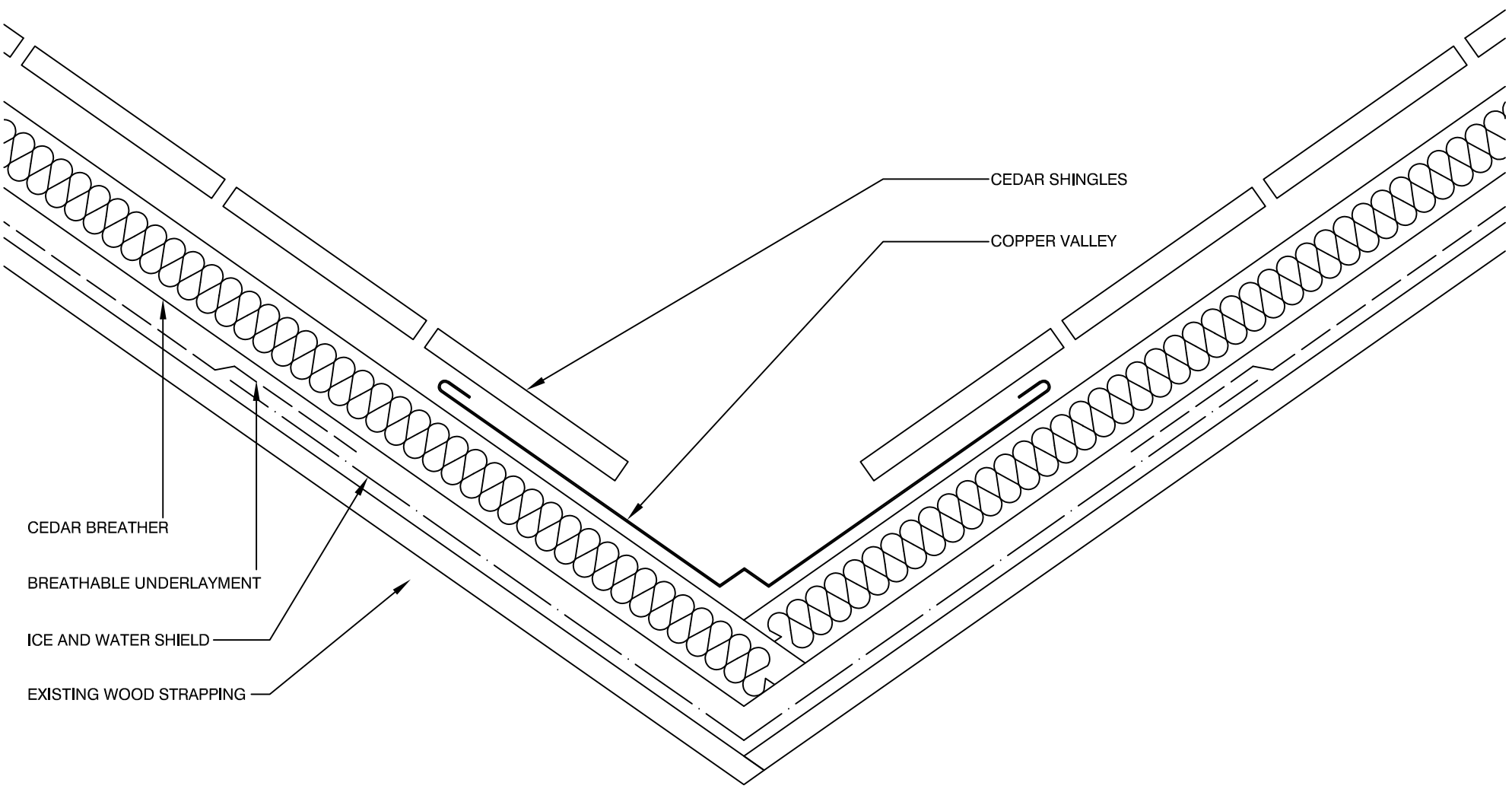
SCALE
N.T.S.

DRAWING NUMBER
6

PROJECT ADDRESS
1116 BRUNETTE AVENUE
COQUITLAM, BC

DATE
APRIL 2023

DRAWING TITLE
STACK DETAIL



TRI-TECH PINNACLE
ROOF & BUILDING ENVELOPE CONSULTANTS

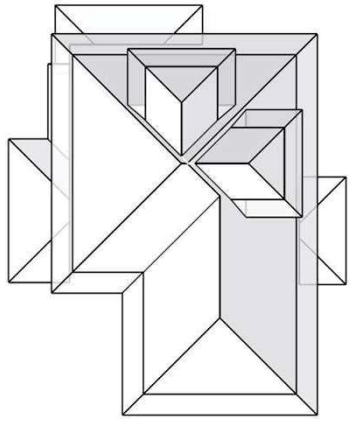
73 INDUSTRIAL PARKWAY NORTH - UNIT #3
AURORA - ONTARIO - L4G 4C4
TEL (905) 503-1300 - FAX (905) 503-2002

CLIENT: CITY OF COQUITLAM	FILE NO.: 23-0213	SCALE: N.T.S.	DRAWING NUMBER: 7
PROJECT ADDRESS: 1116 BRUNETTE AVENUE COQUITLAM, BC	DATE: APRIL 2023		
DRAWING TITLE: VALLEY DETAIL			

Appendix B
Project Diagrams

Premium Report
3/31/2023

1116 Brunette Ave, COQUITLAM, BC V3K1G2 Report: 51434048



In this 3D model, facets appear as semi-transparent to reveal overhangs.

PREPARED FOR

Contact:	Todd Palmer
Company:	Inter-Provincial Roof Consultants Ltd.
Address:	933 Hornby St Unit 1126 Vancouver, ON V6Z3G4
Phone:	236-339-1777

TABLE OF CONTENTS

MEASUREMENTS

Total Roof Area =2,650 sq ft
Total Roof Facets =34
Predominant Pitch =7/12
Number of Stories >1
Total Ridges/Hips =269 ft
Total Valleys =70 ft
Total Rakes =4 ft
Total Eaves =351 ft
Total Penetrations =17
Total Penetrations Perimeter = 74 ft
Total Penetrations Area = 21 sq ft

Measurements provided by www.eagleview.com

Certified Accurate

www.eagleview.com/Guarantee.aspx

1116 Brunette Ave, COQUITLAM, BC V3K1G2 Report: 51434048

IMAGES

The following aerial images show different angles of this structure for your reference.

Top View

IMAGES

North Side

South Side

1116 Brunette Ave, COQUITLAM, BC V3K1G2 Report: 51434048

IMAGES

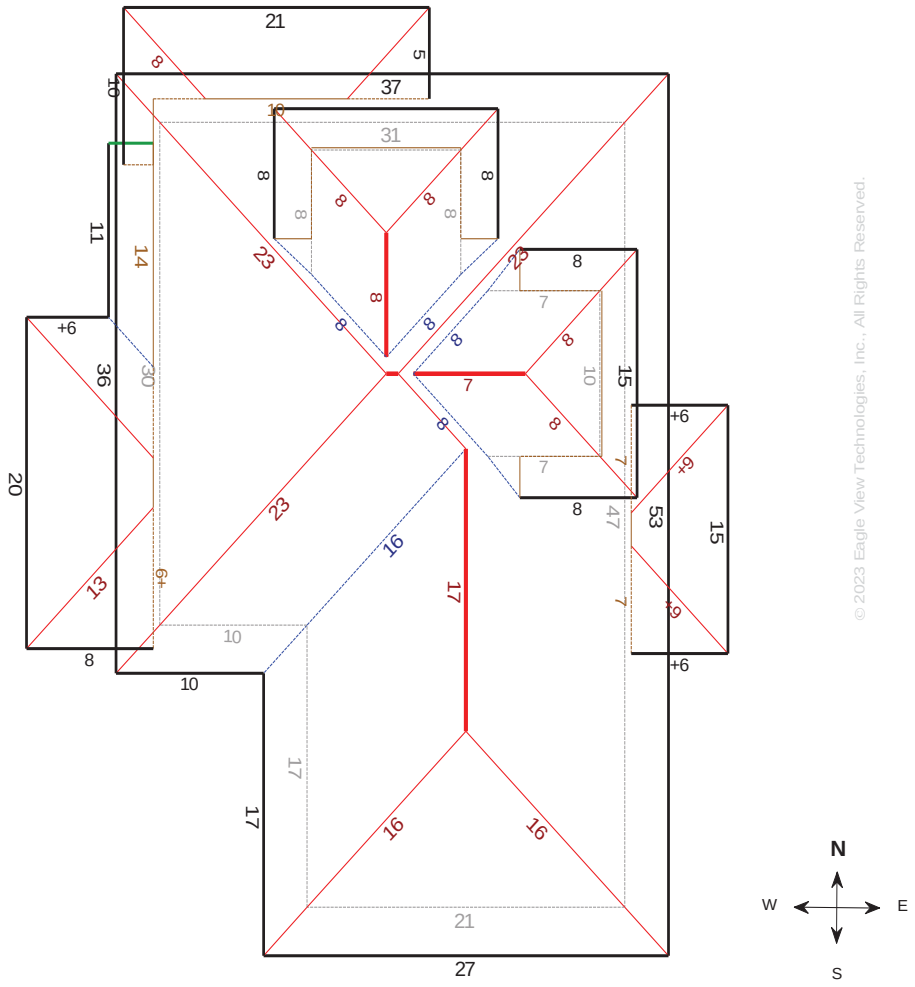
East Side

West Side

1116 Brunette Ave, COQUITLAM, BC V3K1G2 Report: 51434048

LENGTH DIAGRAM

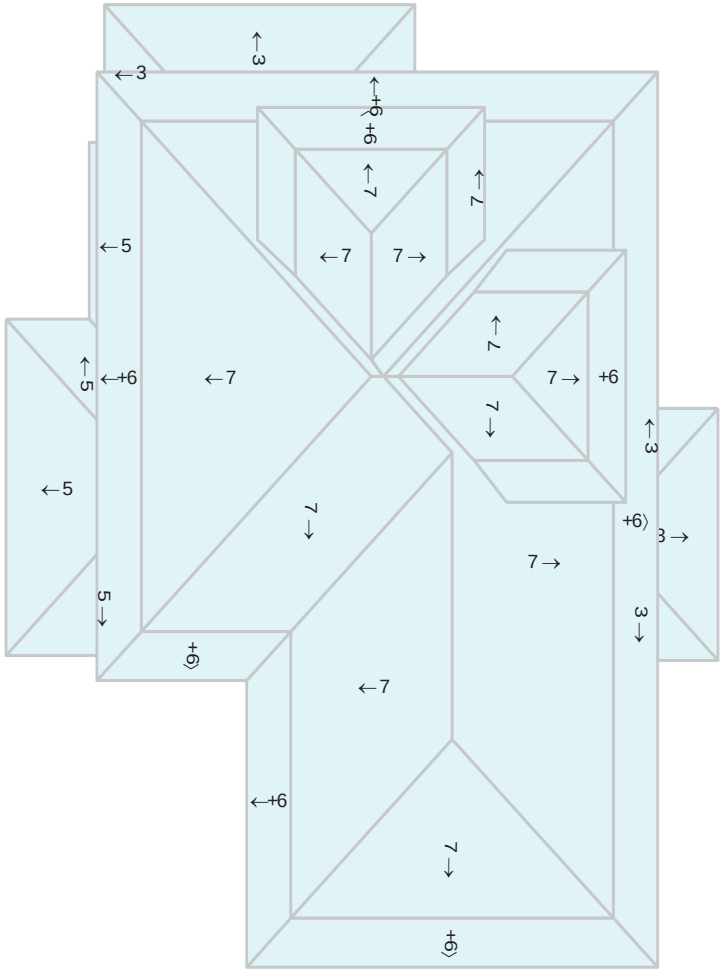
Total Line Lengths:
Ridges = 33 ft
Hips = 236 ft
Valleys = 70 ft
Rakes = 4 ft
Eaves = 351 ft
Flashing = 62 ft
Step flashing = 66 ft
Parapets = 0 ft



Note: This diagram contains segment lengths (rounded to the nearest whole number) over 5.0 Feet. In some cases, segment labels have been removed for readability. Plus signs preface some numbers to avoid confusion when rotated (e.g. +6 and +9).

PITCH DIAGRAM

Pitch values are shown in inches per foot, and arrows indicate slope direction. The predominant pitch on this roof is 7/12

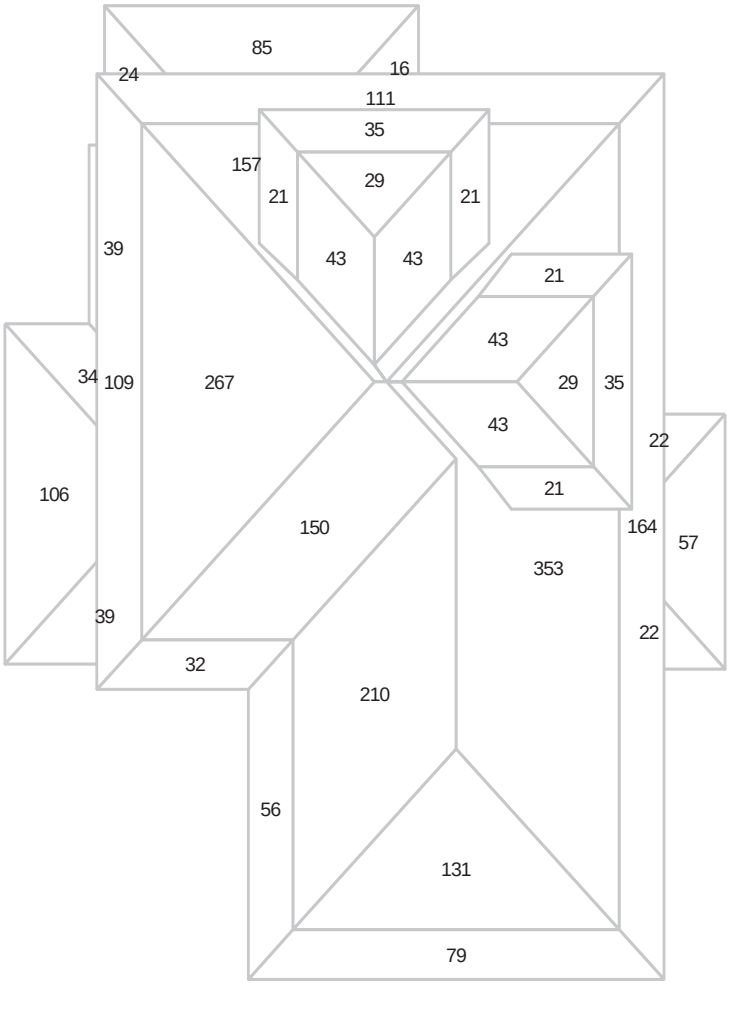


Note: This diagram contains labeled pitches for facet areas larger than 20.0 square feet. In some cases, pitch labels have been removed for readability. Blue shading indicates a pitch of 3/12 and greater.

1116 Brunette Ave, COQUITLAM, BC V3K1G2 Report: 51434048

AREA DIAGRAM

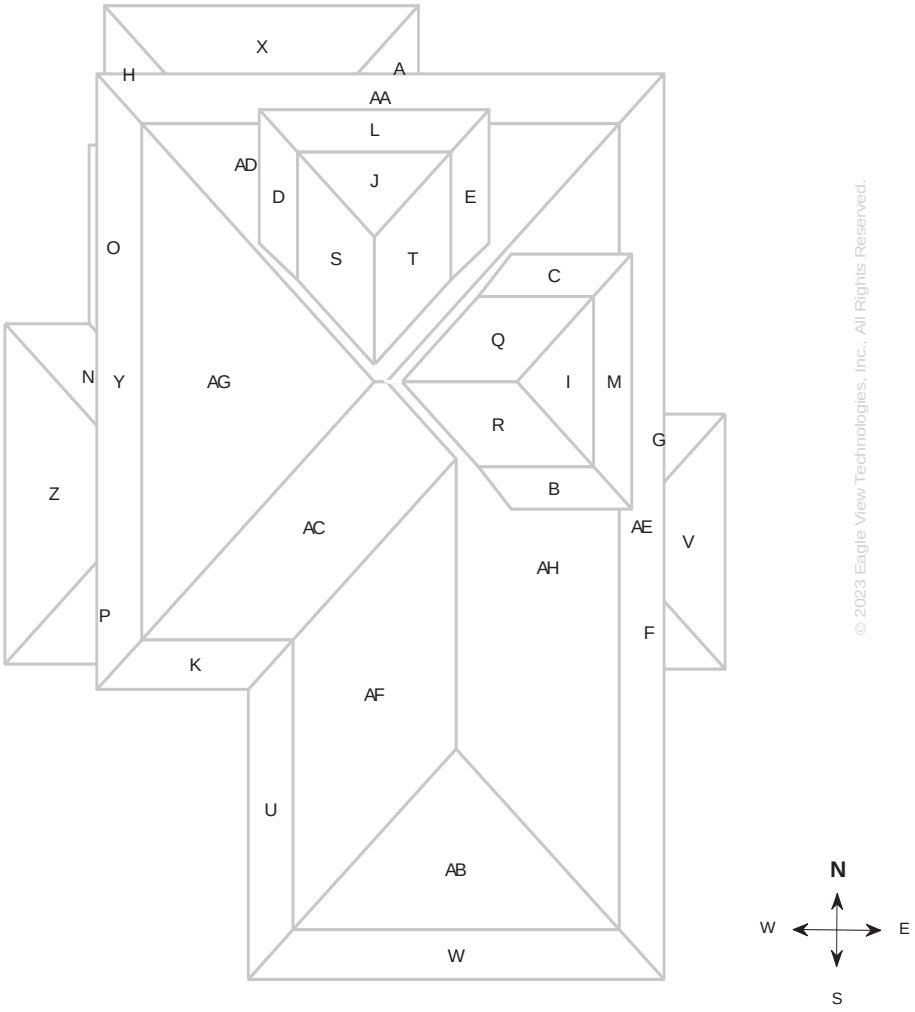
Total Area = 2,650 sq ft, with 34 facets.



Note: This diagram shows the square feet of each roof facet (rounded to the nearest Foot). The total area in square feet, at the top of this page, is based on the non-rounded values of each roof facet (rounded to the nearest square foot after being totaled).

NOTES DIAGRAM

Roof facets are labeled from smallest to largest (A to Z) for easy reference.

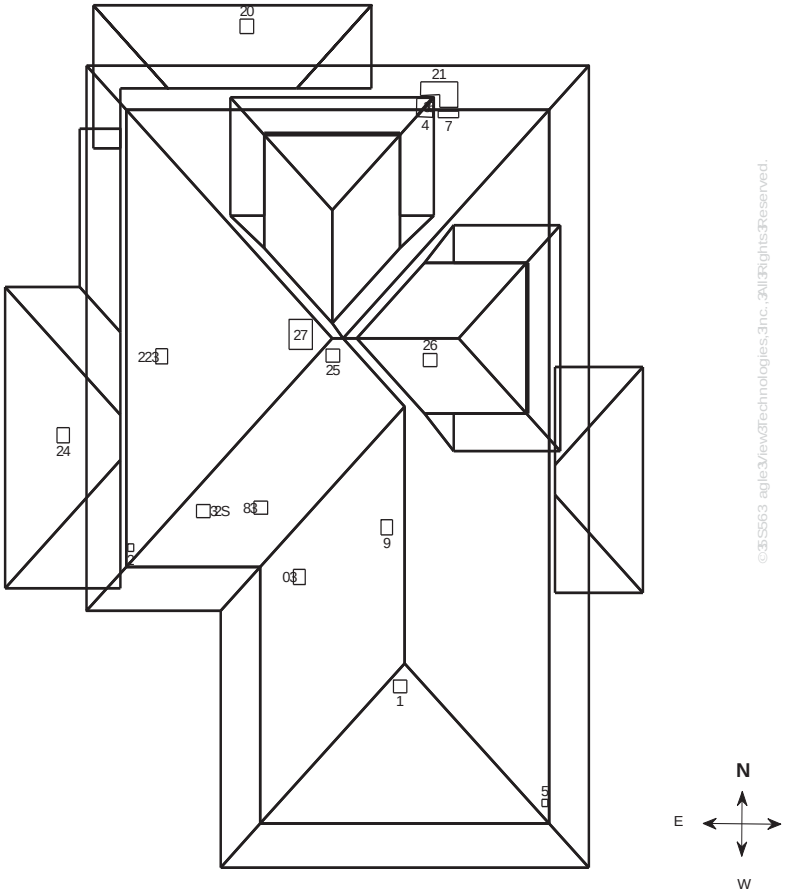


1116 Brunette Ave, COQUITLAM, BC V3K1G2 Report: 51434048

PENETRATIONS NOTES DIAGRAM

Penetrations are labeled from smallest to largest for easy reference.

Total Penetrations = 17
Total Penetrations Perimeter = 74 ft
Total Penetrations Area = 21 sq ft
Total Roof Area Less Penetrations = 2,629 sq ft



REPORT SUMMARY

All Structures

Areas per Pitch				
Roof Pitches	3/12	5/12	6/12	7/12
Area (sq ft)	225.0	218.3	707.4	1499.0
% of Roof	8.5%	8.2%	26.7%	56.6%

The table above lists each pitch on this roof and the total area and percent (both rounded) of the roof with that pitch.

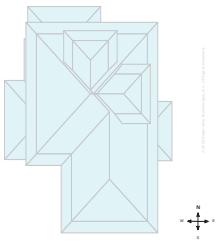
Waste Calculation Table							
Waste %	**0%**	**10%**	**12%**	**15%**	**17%**	**20%**	**22%**
Area (sq ft)	2,650	2,915	2,968	3047.5	3100.5	3,180	3,233
Squares	26.5	29.2	29.7	30.5	31.0	31.8	32.3

This table shows the total roof area and squares (rounded up to the nearest decimal) based upon different waste percentages. The waste factor is subject to the complexity of the roof, individual roofing techniques and your experience. Please consider this when calculating appropriate waste percentages. Note that only roof area is included in these waste calculations. Additional materials needed for ridge, hip, valley, and starter lengths are not included.

Penetrations	1-2	3	4	5-14	15	16	17			
Area (sq ft)	0.3	0.6	0.8	1	0.7	4	3.9			
Perimeter (ft)	2	3.8	4	4	4.1	8	9.2			

Any measured penetration smaller than 3.0x3.0 Feet may need field verification. Accuracy is not guaranteed. The total penetration area is not subtracted from the total roof area.

All Structures Totals



Total Roof Facets = 34
Total Penetrations =17

Lengths, Areas and Pitches

Ridges = 33 ft (4 Ridges)
Hips = 236 ft (25 Hips).
Valleys = 70 ft (11 Valleys)
Rakes† = 4 ft (1 Rakes)
Eaves/Starter‡ = 351 ft (22 Eaves)
Drip Edge (Eaves + Rakes) = 355 ft (23 Lengths)
Parapet Walls = 0 (0 Lengths).
Flashing = 62 ft (11 Lengths)
Step flashing = 66 ft (11 Lengths)
Total Penetrations Area = 21 sq ft
Total Roof Area Less Penetrations = 2,629 sq ft
Total Penetrations Perimeter = 74 ft
Predominant Pitch = 7/12
Total Area (All Pitches) = 2,650 sq ft

Property Location

Longitude = -122.8619251
Latitude = 49.2385860

Notes

This was ordered as a commercial property. There were no changes to the structure in the past four years.

† Rakes are defined as roof edges that are sloped (not level).
‡ Eaves are defined as roof edges that are not sloped and level.

1116 Brunette Ave, COQUITLAM, BC V3K1G2 Report: 51434048

IMPORTANT LEGAL NOTICE AND DISCLAIMER

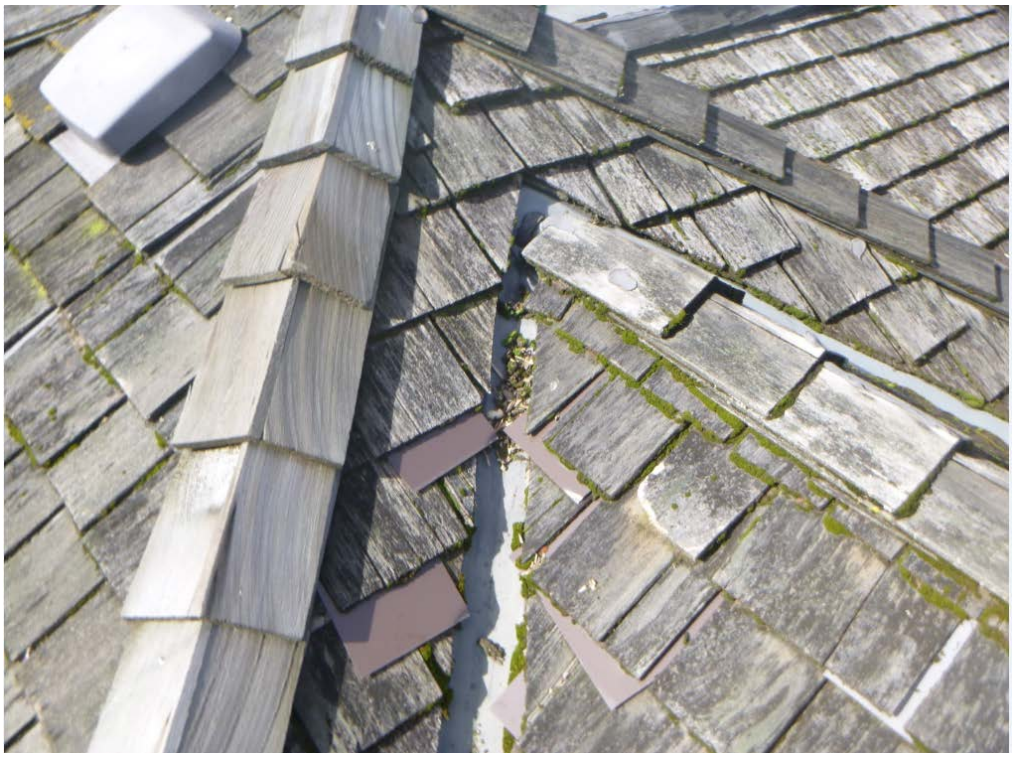
Notice and Disclaimer

No Warranty: The Copyrighted Materials are provided to you "as is," and you agree to use it at your own risk.

EagleView Technologies makes no guarantees, representations or warranties of any kind, express or implied, arising by law or otherwise, including but not limited to, content, quality, accuracy, completeness, effectiveness, reliability, fitness for a particular purpose, usefulness, use or results to be obtained from the Copyrighted Materials.

Contractors agree to always conduct a preliminary site survey to verify Roof Report ordered. In the event of an error in a Report, your sole remedy will be a refund of the fees paid by you to obtain this Report.

Appendix C
Site Photographs




WESTERN LUMBER CO. LTD.
CP Rail


PURITY FLOUR

City of Coquitlam

PROPOSAL SUBMISSION FORM

RFP No. 23-035

Mackin House Museum - Cedar Shingle Roof Replacement

Proposals will be received on or before 2:00 pm local time on

Monday, June 19, 2023

(Closing Date and Time)

INSTRUCTIONS FOR PROPOSAL SUBMISSION

Proposal submissions are to be returned in Microsoft Word and any other supporting documents to be consolidated into one PDF file and uploaded through QFile, the City's file transfer service accessed at website: qfile.coquitlam.ca/bid

1. **In the "Subject Field" enter:** RFP Number and Name
2. **Add files in .pdf format and "Send"**

   (Ensure your web browser remains open until you receive 2 emails from QFile to confirm upload is complete.)

Proponents are responsible to allow ample time to complete the Proposal Submission process. If assistance is required phone 604-927-3037.

Legal Name of Proponent	
Contact Person and Title	
Business Address	
Telephone	
Email Address	

1. DEPARTURES AND AWARD

a) CONTRACT - I/We have reviewed the City's Standard Terms and Conditions - Purchase of Goods and Services and would be prepared to enter into in an agreement that incorporates the City's Stand Terms and Conditions, amended by the following departures (list, if any):	
Section	**Requested Departure(s) / Alternative(s)**

b) SERVICES - I/We have reviewed the Scope of Services as descibed in this RFP and are prepared to meet those requirements, amended by the following departures and additions (list, if any):
Requirements – Requested Departure(s) / Alternate(s) / Addition(s)

c) AWARD - For eligibility of award, the City requires the succesful Proponent to complete and have the following in place before providing the Goods and Services.	
i. **WCB** - WorkSafe BC coverage in goodstanding and further, if an "Owner Operator" is involved, personal operator protection (P.O.P.) will be provided:	WCB Registration Number:
ii. **Prime Contractor** - Acceptance of Prime Contractror Designation for the Services: Prime Contractor Designation Form	Qualified Coordinator: Contact Number:
iii. **Insurance** – Provide Insurance coverage as per the City's Standard Insurance Form	
iv. **Vendor Info** - Complete and return the City's Vendor Profile and Electronic Funds Transfer Application (PDF)	
v. **Business License** - A City of Coquitlam or Tri Cities Intermunicipal Business License	
vi. **Consent of Surety** - Performance Bond in the amount of 50% of the Contract Price	
As of the date of this Proposal, we advise that we have the ability to meet all of the above requirements except as follows (list, if any):	

2. CORPORATE

a) CAPABILITIES, CAPACITY AND RESOURCES - Proponents to provide information on the following (use the spaces provided and/or attach additional pages, if necessary)**:**
i. Structure of the Proponent, background, how many years they have been in business and organizational history (e.g. mission, vision, corporate directions, years in business, etc.):
ii. Proponent is to state relevant experience and qualifications as to the Services requested in the RFP:
iii. Proponent is to state any value added benefits and activities they can provide in delivering the Services. Provide details:
iv. Proponent is to describe their capabilities, resources and capacities, as relevant to the Services requested in the RFP: This includes their capacity to take on this project in regards to other work the Proponent may have ongoing:

b) REFERENCES – Proponent shall be competent and capable of performing the Services requested and successfully delivered service contracts of similar size, scope and complexity. The City reserves the right to contact any person(s), agency(ies) or firm(s) not listed as part of an independent review (use the spaces provided and/or attach additional pages, if necessary):	
Reference No. 1	
Description of Contract	
Size and Scope	
Work Performed	
Start Date	
End Date	
Contract Value	
Project completed on budget	

Project completed on schedule	
Reference Information	Company:
	Name:
	Phone Number:
	Email Address:

Reference No. 2	
Description of Contract	
Size and Scope	
Work Performed	
Start Date	
End Date	
Contract Value	
Project completed on budget	
Project completed on schedule	
Reference Information	Company:
	Name:
	Phone Number:
	Email Address:

Reference No. 3	
Description of Contract	
Size and Scope	
Work Performed	
Start Date	
End Date	
Contract Value	
Project completed on budget	
Project completed on schedule	
Reference Information	Company:
	Name:
	Phone Number:
	Email Address:

c) KEY PERSONNEL – Proponent proposes the following key personnel for the Services stated in the RFP. No changes, additions or deletions are to be made to these Key Personnel without the City's written approval. (use the spaces provided and/or attach additional pages, if necessary)

LINE ITEM	NAME	TITLE/POSITION	EXPERIENCE AND QUALIFICATIONS	YEARS WITH YOUR ORGANIZATION
i.	State:			
ii.	State:			
iii.	State:			
iv.	Safety Officer			

d) SUB-CONTRACTORS - The following Sub-contractors will be utilized in provision of the Services and will comply with all the terms and conditions of this RFP. No changes, additions or deletions are to be made to these subcontractors without the City's written approval:

Sub-Contractor No. 1	
Legal Name	
Trade/Services Performed	
Background and Experience	
Contact Information	Name:
	Phone Number:
	Email Address:

e) HEALTH AND SAFETY

I. Proponent to attach current Work Safe BC Employer Report

☐ **Yes**	☐ **No**

If no, explain:

II. Confirm the Proponent has a written safety program in place that meets the requirements of WorkSafeBC?

☐ **Yes**	☐ **No**

III. Is your company COR (Certificate of Recognition) certified with respect to WorkSafeBC?

☐ **Yes**	☐ **No**

We are registered with one or more of these Safety Management System/Program: OHSAS 18001, CAN/CSA Z1000, ANSI Z10 or other. Please specify:

3. Sustainable Benefits and Social Responsibility

a) Describe all initiatives, policies, programs and product choices that illustrate your firm's efforts towards sustainable practices and environment responsibility in providing the services that would benefit the City:
b) What policies does your organization have for hiring apprentices, indigenous peoples, recent immigrants, veterans, young people, women, people with disabilities and any other groups:
c) What policies does your organization have for the procurement of goods and services from local small and medium sized business or social enterprises or Indigenous owned businesses:
d) What policies does your organization have to support reconciliation with Indigenous peoples:

4. TECHNICAL

a) APPROACH and METHODOLOGY Summarize the key features of your Proposal and the Technical Approach to be used. Provide a brief description the various components required for successful completion of the work.
i. **Delivery, Set-Up and Execution -** Proposals should address the plan for the delivery, set up and execution of the work; as well as the disposal, recycle or reuse for the surplus materials. Include any safety and pedestrian control measures.
ii. **Quality Assurance -** Provide the measures the Proponent will use to maintain quality control for the Services being performed.
iii. **Risk Factors -** Describe the risk factors anticipated and how the Proponent intends to mitigate these.
iv. **Safety -** Proponent is to state how they will address safety on the work site.
v. **Disposal and Recycling -** Provide details on all disposal and recycling locations.

b) Proponent is to state if it is a member in good standing of the Roofing Contractors association of British Columbia and/or the National Roofing Contractors Association	
Member in Good Standing	**Yes/No**
Roofing Contractors Association of BC	
National Roofing Contractors Association	

c) Completion Date	
I. The Proponent states that they are available and ready to start this work and confirms the work shall be completed on or before **September 15, 2023**. This date will be an important consideration in the evaluation.	
☐ **Yes**	☐ **No**
II. If Proponent has stated NO, please state date and explanation as to proposed completion date:	

d) WARRANTY Proponent is to state:	
I. Response time for non-warranty calls:	
II. Response time for warranty calls:	
III. Warranty duration:	
IV. State warranty terms (use space below and/or attach additional information to your Proposal):	
V. We are prepared to provide if successful the five (5) year corporate guarantee on company letterhead covering workmanship, leakage, and materials.	
☐ **Yes**	☐ **No**

5. FINANCIAL

a) PRICE - Prices proposed are to be all inclusive; therefore, include all labour, material, tools, equipment, transportation, fuel, supervision, disposal fees, permit fees and any other items required for provision of the services (exclude GST):

ITEM	SCOPE OF WORK	Unit of Measure	PRICE (exclude GST)
i.	Mobilization, removal, disposal and demobilization	Lump Sum	$
ii.	New roof, flashing and rainwater management installation	Lump Sum	$
iii.	Exterior chimney and interior fireplace masonry retooling	Lump Sum	$
iv.	Other not Listed:		$
v.	Other not Listed:		
	TOTAL		**$**

b) OPTIONAL ITEMS – PRICE - The following is a list of Optional Prices and forms part of this Contract, upon the acceptance of any or all of the Optional Prices by the City.

ITEM	SCOPE OF WORK	Unit of Measure	PRICE (exclude GST)
i.	New plywood on main roof (optional scope)		$
ii.	Other not Listed:		$
iii.	Other not Listed:		$

Attention Purchasing Manager:

6. **I/We, the undersigned duly authorized representative of the Proponent**, having received and carefully reviewed all of the Proposal documents, including the RFP and any issued addenda posted on the City's website www.coquitlam.ca/Bid-Opportunities , and having full knowledge of the Site, and having fully informed ourselves as to the intent, difficulties, facilities and local conditions connected to performing the Services, submit this Proposal in response to the RFP.
7. **I/We** agree to the rules of participation outlined in the Instructions to Proponents and should our Proposal be selected, agree to the City's Standard Terms and Conditions - Purchase of Goods and Services and will accept the City's Contract as defined within this RFP document.
8. **I/We confirm** that, if I/we am/are awarded the Agreement, I/we will at all times be the "Prime Contractor" as provided by the Worker's Compensation Act (British Columbia) with respect to the Services. I/we further confirm that if I/we become aware that another contractor at the place(s) of the Services has been designated as the "Prime Contractor", I/we will notify the City immediately, and I/we will indemnify and hold the City harmless against any claims, demands, losses, damages, costs, liabilities or expenses suffered by the City in connection with any failure to so notify the City.
9. **I/We acknowledge** receipt of the following Addenda related to this Request for Proposals and have incorporated the information received in preparing this Proposal.

Addendum No.	Date Issued

This Proposal is submitted this ____day of _____, 20_____.

I/We have the authority to sign on behalf of the Proponent and have duly read all documents.

Name of Proponent	
Signature(s) of Authorized Signatory(ies)	**1.**
	2.
Print Name(s) and Position(s) of Authorized Signatory(ies)	**1.**
	2.