



## **REQUEST FOR TENDERS No. 21-039**

### **Wastewater Services Roof Replacements**

**ISSUED:** April 21, 2021

#### **CLOSING DATE AND TIME:**

Tenders are required to be received on or before 3:00 PM (15:00 hrs), Pacific Time, **May 13, 2021.**

#### **Submissions and Questions are to be directed to:**

Robert Skwarczynski

Greater Nanaimo Water Pollution Control Centre Chief Operator, Wastewater Services

Email: [rskwarczynski@rdn.bc.ca](mailto:rskwarczynski@rdn.bc.ca)

Questions are requested to be received at least 5 calendar days prior to closing

#### **Non-Mandatory Site Meeting:**

A non-mandatory site meeting is scheduled for **9:30 a.m., April 29, 2021** starting at the **Chase River Pump Station, 1174 Island Highway South, Nanaimo, BC** and then will continue onto the Greater Nanaimo Pollution Control Centre, 4600 Hammond Bay Road, Nanaimo, BC. Hi-vis vests, steel toed boots, hard hats and COVID masks are required.

**Only RCABC member contractors in good standing can bid on this Project because of the warranty and guarantees.**

## Project Introduction

Tenders are invited from RCABC member firms only to replace the identified roof areas at the following locations:

1. Chase River Pump Station, 1174 Island Highway South, Nanaimo, BC.  
Contractors are responsible for providing their own power, fresh water, washrooms and any other services required at this site.
2. Greater Nanaimo Pollution Control Centre Dewatering Building, 4600 Hammond Bay Road, Nanaimo, BC.  
Power, fresh water and washrooms are available for Contractors at this site.

The enclosed written specifications and drawings for this work have been developed by Westcoast Roof Inspections and are provided herein. The Regional District will pay the construction inspection fees directly to Westcoast Roof Inspections. Do not include construction inspection fees in your pricing. The Regional District will be responsible for obtaining any Building Permits if required.

Work is to be totally completed on or before October 1, 2021.

Any award is subject to pricing being within the available budget for this work and approval from RDN Senior Management.

## Instructions to Bidders

### Article 1. Closing Date/Time/Method

Tenders are required to be received on or before 3:00 PM (15:00 hrs), Pacific Time, **May 13, 2021**.

### Submission Method:

**By Email Only: In PDF format with “21-039 Roof Replacements” as the subject line at the only acceptable electronic address:**

[rskwarczynski@rdn.bc.ca](mailto:rskwarczynski@rdn.bc.ca)

The RDN will not be responsible for any technological delays. Tenderers are advised to allow themselves enough time to submit their Tender according to these instructions.

Tenders received in any other manner will not be accepted. Tenders will not be opened in public. Unverified tender results will be sent to Tenderers and posted the RDN and BC Bid websites as soon as practical.

## **ARTICLE 2. Examine Documents and Site**

It is the responsibility of the potential contractors to be familiar with the site to determine the existing conditions, layouts and limitations and ask any questions. In submitting a tender, the contractor confirms that he/she has viewed the site and the tender includes any equipment, materials, and labour necessary for this project. The contractor will rely entirely upon his/her own judgment in submitting a tender and include a sum sufficient to cover all items required for the contract. The Tenderer must carefully examine the Contract Documents, and should a Tenderer find discrepancies in, or omissions from the drawings or other documents, or should he be in doubt as to their meaning, he should, prior to submitting his tender, notify the REGIONAL DISTRICT in writing. The Tenderer may not claim, after the submission of a tender, that there was any misunderstanding with respect to the conditions imposed by the documents. No verbal agreement or conversation made or had at any time with any officer, agency or employee of the Owner shall affect or modify any of the terms or obligations herein stated or deemed to be any representation of warranty.

## **Article 3. Addenda**

If the REGIONAL DISTRICT determines that an amendment is required to this TENDER, the REGIONAL DISTRICT will post an addendum on the RDN (<https://www.rdn.bc.ca/current-bid-opportunities>) and BC Bid websites. Each addendum will be incorporated into and become part of the TENDER. No amendment of any kind to the TENDER is effective unless it is contained in a written addendum issued by the REGIONAL DISTRICT. It is the sole responsibility of the Proponent to check and ensure all addendums are included prior to submitting their final Tender submission.

## **ARTICLE 4. Tender Price**

All pricing is to be in Canadian Dollars. Prices shall be filled in as indicated on the Tender Form. In the event of a price extension discrepancy when calculating the total contract value, the REGIONAL DISTRICT reserves the right to correct the totals.

## **ARTICLE 5. Federal and Provincial Sales Taxes**

Prices shall include provincial sales tax payable on all applicable materials and equipment incorporated in the work. GST is not to be included in the price. GST shall be shown separately on the Tender Form based on the total contract value.

## **ARTICLE 6. Tender Signing**

The tender must be executed by an authorized signatory in a position to legally bind their Company to the information contained in the Tender Form.

## **ARTICLE 7. Revisions to Tenders**

Any revision to the tender by the Tenderer must be in writing properly executed and received prior to the posted closing date and time as per the submission instructions outlined in Article 1.

### **Multiple Revisions**

Where a Tenderer submits multiple revisions to the original tender price, each revision should be numbered sequentially by the Tenderer. Unless the Tenderer clearly stipulates to the contrary on the face of the revision, each successive revision will nullify and replace any previous revision to the identified item or tender price.

### **Unclear or Ambiguous Revisions**

If in the opinion of the REGIONAL DISTRICT, any revision is unclear, ambiguous as to meaning or intent, or does not comply with the requirements of this article, that revision will be disregarded and the original tender price, or the tender price determined by consideration of any other revisions will prevail. The REGIONAL DISTRICT, its employees and agents will not assume any responsibility for timely receipt of any revisions.

### **ARTICLE 8. Tender Withdrawal**

A Tenderer may, without prejudice to himself, withdraw his tender on written request received prior to the posted closing date and time as per the submission instructions outlined in Article 1.

### **ARTICLE 9. Tender Rejection**

- .1 The REGIONAL DISTRICT reserves the right to reject any or all tenders or accept other than the lowest tender and to accept the tender which it deems most advantageous.
- .2 The REGIONAL DISTRICT may reject a tender if:
  - a) After investigation and consideration, the REGIONAL DISTRICT concludes that the Tenderer is not a RCABC member firm in good standing.
  - b) A tender contains qualifying conditions or otherwise fails to conform to these Instructions to Tenderers.
  - c) A tender is incomplete, is considered incomplete in the Instructions to Tenderers, is obscure or irregular, which has erasures or corrections in the Tender Form.
  - d) The REGIONAL DISTRICT may, in its absolute discretion, reject a Tender submitted by Tenderer if the Tenderer, or any officer or director of the Tenderer is or has been engaged either directly or indirectly through another corporation in a legal action against the REGIONAL DISTRICT, its elected or appointed officers and employees in relation to:
    - any other contract for works or services; or
    - any matter arising from the REGIONAL DISTRICT's exercise of its powers, duties, or functions under the Local Government Act or another enactment within five years of the date of this Call for Tenders.

In determining whether to reject a tender under this clause, the REGIONAL DISTRICT will consider whether the litigation is likely to affect the Tenderer's ability to work with the REGIONAL DISTRICT, its consultants, and representatives and whether the REGIONAL DISTRICT's experience with the Tenderer indicates that the REGIONAL DISTRICT is likely to incur increased staff and legal costs in the administration of this contract if it is awarded to the Tenderer.

- .3 The REGIONAL DISTRICT may reject all tenders if for any reason the REGIONAL DISTRICT considers to be in its best interest to do so, including without limitation for any of the following reasons;
  - a) the lowest tender that the REGIONAL DISTRICT considers otherwise acceptable is higher than the funds budgeted or otherwise available for the project;
  - b) the REGIONAL DISTRICT decides not to proceed with the project or to defer the project;



c) the REGIONAL DISTRICT is delayed in obtaining, or is unable to obtain, all approvals or consents it considers necessary, whether required by law or otherwise.

.4 The REGIONAL DISTRICT reserves the right to consider and to reject any tender or all tenders without notice to a Tenderer or Tenderers and without permitting a Tenderer to provide additional information.

.5 In no event will the REGIONAL DISTRICT be responsible for a Tenderer's costs of preparing or submitting a tender.

**ARTICLE 10. Award**

Based on the budgeted funds for this project, the REGIONAL DISTRICT reserves the right to award:

- both sites to the overall lowest compliant bidder, or
- each individual site to the lowest compliant bidder for each site, or
- only one site based on the site with the greatest need as determined by the REGIONAL DISTRICT in its sole discretion.

The REGIONAL DISTRICT will, following receipt of an acceptable tender, issue in writing a Notice of Intent to Award to the successful Tenderer.

**ARTICLE 11. Form of Agreement**

The Agreement and General Conditions of the contract are enclosed at the end of this document. Tenderers may (but are not required to) request that RDN consider revisions to the Agreement and General Conditions. Tenderers should submit such requests to the RDN well before the Closing Date and Time. If the REGIONAL DISTRICT agrees to a request received prior to the Time, then REGIONAL DISTRICT will issue an Addendum to modify the Agreement and General Conditions. Failure to do so means acceptance of the agreement as presented.

**ARTICLE 12. No Claim for Compensation**

Except as expressly and specifically permitted in these Instructions to Tenderers, no Tenderer shall have any claim for any compensation of any kind whatsoever, because of participating in the Tender, and by submitting a Tender each Tenderer shall be deemed to have agreed that it has no claim.

**ARTICLE 13. Solicitation of Board Members**

"If a member of the Board, or a person who was a member of the Board in the previous six months has a direct or indirect interest in the contract, then the Tenderer shall report this to the REGIONAL DISTRICT in accordance with Section 107 of the *Community Charter* upon being notified of the award of the contract.

The Tenderer warrants and represents that it has not received any information or a record from any Board member or former Board member contrary to Section 108 of the *Community Charter*." The successful Tenderer will be required to direct all communications related to their contract through the staff members responsible for the project.



**ARTICLE 14. WorkSafe BC Prime Contractor**

The successful Tenderer is designated as the Prime Contractor and shall fulfill the Prime Contractor responsibilities as defined in:

- a) WorkSafeBC *Occupational Health and Safety Regulation*, Notice of project, Section 20.2, and Coordination of multiple employer workplaces, Section 20.3;
- b) *Workers Compensation Act* (BC), Coordination at multiple-employer workplaces, Section 118, Subsections (1) & (2); and
- c) General Requirements, Section 3.10 WorkSafe BC.

The Prime Contractor will be required to coordinate the safety of all workers on the work site, including their employees, their subcontractors, REGIONAL DISTRICT work crews and their contractors, and private utilities, (such as BC Hydro, Telus, Shaw and FortisBC) if required.

Prior to commencing work, the successful Tenderer will be required to provide the REGIONAL DISTRICT with its latest WorkSafeBC Clearance Letter demonstrating it is a member in good standing and its remittance is up to date. Otherwise, no work can commence until the Tenderer is either reinstated in good standing or if the REGIONAL DISTRICT decides to cancel the agreement because this would result in an unacceptable time delay.

**ARTICLE 15. Freedom of Information and Protection of Privacy Act**

All documents submitted to the REGIONAL DISTRICT will be held in confidence by the REGIONAL DISTRICT, subject to the provisions of the Province of British Columbia's *Freedom of Information and Protection of Privacy Act*.

**ARTICLE 16. HOURS OF WORK**

Tenderers are advised that no work will be permitted outside the hours defined below:

*Before 7:00 a.m. or after 6:00 p.m., Monday to Friday. Work on weekends and holidays only with prior written permission from the REGIONAL DISTRICT.*

**ARTICLE 17. CONFLICT OF INTEREST**

The Tenderer declares that it has no financial interest, directly or indirectly in the business of any third party that would be or be seen to be a conflict of interest in carrying out the services. It warrants that neither it nor any of its officers or directors, or any employee with authority to bind the Bidder, has any financial or personal relationship or affiliation with any elected official or employee of the REGIONAL DISTRICT or their immediate families which might in any way be seen to create a conflict.

**ARTICLE 18. COLLUSION**

The Tenderer shall not engage in collusion of any sort and shall ensure that no person or other legal entity, other than the Bidder has an interest in the Bidder's submission and prepare the submission without any knowledge of, comparison of figures with, or arrangement with any other person or firm preparing a Tender for the same work.

**ARTICLE 19. BONDING**

Bonding is not required for this project.



**TENDER FORM**  
**Wastewater Services Roof Replacements**  
**Page 1 of 2**

Date: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Email: \_\_\_\_\_

To: Robert Skwarczynski, Chief Operator  
[rskwarczynski@rdn.bc.ca](mailto:rskwarczynski@rdn.bc.ca)

Having examined the Project sites and having carefully examined all the tender documents including any addenda issued as supplements thereto and having complied with Instructions to Bidders, we hereby offer to perform the Work set forth in the aforesaid documents for the Stipulated Contract Prices. Prices include the Contractor's labour, equipment, material costs, overhead and profit, all taxes, and duties, and shall represent the cost to the Owner of such charges excluding GST which shall be shown separately.

**Individual Site Pricing**

**Location No. 1: Chase River Pump Station**

Lump Sum Total \$ \_\_\_\_\_

GST (5%) \$ \_\_\_\_\_

Total Stipulated Contract Price \$ \_\_\_\_\_

**Location No. 2: Greater Nanaimo Pollution Control Centre Dewatering Building**

Lump Sum Total \$ \_\_\_\_\_

GST (5%) \$ \_\_\_\_\_

Total Stipulated Contract Price \$ \_\_\_\_\_



**Combined Site Pricing**

**Combined Pricing Both Sites (Locations No. 1 & Location No. 2)**

Lump Sum Total        \$ \_\_\_\_\_

GST (5%)                \$ \_\_\_\_\_

Total Stipulated Contract Price    \$ \_\_\_\_\_

**ACCEPTANCE**

- .1        The tender is open to acceptance for a period of sixty (60) calendar days from the date of bid closing.
- .2        Submission of this Bid implies acceptance of the existing conditions at the site.
- .3        We understand that the lowest or any Bid will not necessarily be accepted.
- .4        We understand, based on the available budget, the RDN reserves the right to award both sites to one vendor, split the award on a lowest price per site basis, award only one site or not to proceed with the Project.
- .5        The Owner reserves the right to waive minor defects or irregularities in the bid.
- .6        We agree to be designated as the Prime Contractor for this project per WorkSafe BC OH&S Regulations and have the necessary qualifications and are willing to accept the responsibilities as Prime Contractor for the project.
- .7        We can complete the work on or before October 1, 2021.

Company: \_\_\_\_\_

Signature: \_\_\_\_\_  
(Authorized Officer)

Printed: \_\_\_\_\_  
(Authorized Officer)



## TECHNICAL SPECIFICATION

### 1.0 GENERAL

1.1 It is required to replace the existing roofing on the Main Roof and the Well Roof at the Chase River Pumping Station, 1174 Island Highway South, Nanaimo, BC.

1.1.1 See Roof Plans for identification of roof areas.

1.2 The Roofing Contractor shall provide all permits, materials, equipment, supervision and labour necessary to execute the contract.

1.3 Adhere to Regional District of Nanaimo Terms and Conditions, and site specific conditions (parking, access, hours of work, acceptable noise levels, phasing, scheduling and coordination). Locations for cranes, trucks, bins, and portable toilet facilities shall be as designated by the Project Manager.

1.4 Roofing materials were tested for hazardous materials by Lewkowich Engineering Associates Ltd. No hazardous materials were found. Their report is included with the tender documents.

### 1.5 The Scope of Work

1.5.1 The existing roofing assemblies are as follows:

#### 1.5.1.1 Main Roof:

- 1.5.1.1.1 Plywood Deck.
- 1.5.1.1.2 Poly Vapour Retarder.
- 1.5.1.1.3 2.7" Polyisocyanurate Insulation.
- 1.5.1.1.4 EPDM Membrane, loose laid.
- 1.5.1.1.5 Gravel Ballast.

#### 1.5.1.2 Well Roof:

- 1.5.1.2.1 Concrete Deck.
- 1.5.1.2.2 1.5 EPS Insulation
- 1.5.1.2.3 Tar & Gravel

1.5.2 Removal and disposal of the existing sheet metal flashings, vent flashings, plumbing jack flashings, drains and roof related flashings.

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- 1.5.3 Remove and dispose of the existing roofing assembly to expose the steel Q-Deck and the concrete deck. Ensure Q-Deck Flutes are vacuumed clean prior to proceeding.
- 1.5.4 Vapour retarder on the Main Roof Section will be self-adhering membrane with sanded surface.
- 1.5.5 Vapour retarder on the Well Roof Section will be torch applied membrane with sanded surface (2.2mm SP).
- 1.5.6 Extend vapour retarder membranes above the height of the top layer of insulation.
- 1.5.7 Insulation Assembly:
  - 1.5.7.1 4” Polyisocyanurate insulation will be installed in two layers, 2” each layer.
  - 1.5.7.2 Sump insulation 3’x3’ at roof drains and scupper drains.
  - 1.5.7.3 Attach all insulation using two-part low-rise urethane adhesive.
- 1.5.8 Install 1 layer of 3/16” Asphaltic Overlay Board.
  - 1.5.8.1 Attach using two-part low-rise urethane adhesive.
- 1.5.9 Install self-adhering Fireguard membrane over all wood surfaces and gaps. Extend up and over parapets.
- 1.5.10 A two ply Composite SBS membrane assembly will be torch applied.
  - 1.5.10.1 Base and cap sheet stripping plies will also be torch applied.
  - 1.5.10.2 See Materials List for accepted membranes.
- 1.5.11 Safety zone membrane will be installed on the outside perimeter edges of the Main Roof only.
  - 1.5.11.1 Colour to be red.
  - 1.5.11.2 Install half roll widths in 6 foot lengths with 6” gaps between sections.
  - 1.5.11.3 Start membrane 2 meters from the inside of parapets.

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- 1.5.11.4 Multi component PMMA roof coatings tinted red will also be acceptable.
- 1.5.12 Replace the existing copper roof drains with new spun copper roof drains, sized to match existing.
  - 1.5.12.1 Connect to plumbing using MJ Clamps, specific for use with roof drains (Marked RD).
  - 1.5.12.2 Sump insulation at roof drains and scupper drains.
  - 1.5.12.3 Liquid applied flashing is to be applied over the cap sheet membrane in drain sumps, with mesh on inside corners. Extend to top of sumps. Use tape to ensure application is neat and tidy.
- 1.5.13 Replace the existing scupper drains with new copper scupper drains with fully welded seams. Fabricate to fit existing openings in the concrete block wall.
- 1.5.14 Refurbish the cast drain on the Well Roof section using new 3lb. lead flashing and new stainless steel hardware (bolts, nuts and washers).
  - 1.5.14.1 Sump insulation at drain.
  - 1.5.14.2 Liquid applied flashing is to be applied over the cap sheet membrane in the drain sump, with mesh on inside corners. Extend to top of sumps. Use tape to ensure application is neat and tidy.
- 1.5.15 It will be necessary to remove the hatch lid off the curb on the Well Roof section.
  - 1.5.15.1 Remove and save the safety railing for re-use once new membrane stripping and sheet metal base flashing have been installed.
  - 1.5.15.2 The existing bolts, nuts and washers for the hatch lid may be re-used.
  - 1.5.15.3 Use new bolts, washers and nuts for re-attaching the safety railing mounts.
  - 1.5.15.4 Seal around bolts for the hatch cover and safety railing mounts using polyurethane caulking.
- 1.5.16 Install new aluminum flashing (Menzies) for the plumbing vent pipe, use MJ Clamp

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to seal aluminum flashing to ABS pipe.

1.5.17 For the 2 goose neck vent pipes:

1.5.17.1 Cut off the goose neck portion and dispose.

1.5.17.2 Install new aluminum flashings (Menzies).

1.5.17.3 Install new PVC goose neck fitting that extend over the aluminum flashings, attach using MJ Clamps.

1.5.18 For the steel goose neck vent pipe on the Well Roof Section:

1.5.18.1 Sock membrane stripping around vent pipe.

1.5.18.2 Strip vent pipe using 2 component PMMA flashing with mesh. Ensure surfaces are clean and prepared and applied as per Manufacturer's written application instructions.

1.5.19 Install new 24 ga. pre-finished sheet metal base and cap flashing on parapets. Sheet metal colour to be selected by the Owner from standard colour selection (SMP).

1.5.19.1 See Project Drawings for details.

1.5.19.2 Sheet metal base and cap flashing on Well Roof section to be evenly segmented on the circular concrete parapet.

### 1.6 Reference Standards

1.6.1 Conform to RGC 10 year warranty standards and to the appropriate CSA, CGSB and ASTM standards for the materials used in the roofing system specified. The roofing materials are to be listed on the R.C.A.B.C. accepted materials list F-061.

1.6.2 Conform to membrane Manufacturer's printed literature. Submit Manufacturer's published data showing instructions for surface preparation and application.

1.6.3 Construct all sheet metal work to meet or exceed RGC 10 year warranty standards.

### 1.7 Quality Assurance

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- 1.7.1 Qualifications: Applicator shall have a minimum of five years experience installing these types of waterproofing materials and shall be approved by the materials Manufacturer.
- 1.7.2 Inspection of the work shall be provided by **Westcoast Roof Inspection Services Ltd.** Inspection fees will be paid for directly by the Owner.
- 1.7.3 The Inspection agency shall have right of access to the work areas at all times.

### **1.8 Project Delivery and Storage**

- 1.8.1 Products shall be delivered to the job site in the original, unopened containers bearing the Manufacturer's name, product designation, batch number and applicable precaution labels. Store so as to prevent damage in a cool dry environment. Store roofing material on pallets with rolls on end.

### **1.9 Environmental Requirements**

- 1.9.1 Do not install waterproofing membrane to a surface that is wet, damp, frosty or covered with ice or snow.

### **1.10 Pre-Installation Conference**

- 1.10.1 Convene a conference prior to commencing work. Attendance of all parties directly affecting work of this section is required. Review conditions, procedures, schedules and coordination with related work.

### **1.11 Guarantees**

- 1.11.1 The Contractor shall provide a written warranty agreeing, for a period of five years, after completion of the work, to promptly make repairs or replace defective materials or workmanship without additional cost to the Owner.
- 1.11.2 The membrane manufacturer shall provide a 10 Year Written Warranty for the membranes used on the project.
- 1.11.3 The Contractor shall provide a Ten (10) Year RGC Roof Star Warranty and include that cost with the contract price.
  - 1.11.3.1 Inspection fees will be paid by the Owners and are not to be included.

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1.11.3.2 Reinspection fees are to be included.

1.11.4 The following types of failures shall be adjudged as defective:

1.11.4.1 Loss of waterproof integrity or leakage.

1.11.4.2 Adhesive or cohesive failure of the roof system to the building.

### 1.12 **Safety**

1.12.1 All WCB requirements are to be met. At least one person trained in first aid is to be on site during working hours.

1.12.2 The Roofing Contractor is to act as the Prime Contractor. Therefore, section 118 of the WCB Act & 20.3 of the WCB Regulations are to be complied to. The Owners are not to be held responsible for WCB Acts & regulations.

### 1.13 **Fire Protection: Torch Applied Roof Membranes**

1.13.1 The Contractor is not to rely solely on these specifications for the fire hazard assessment and appropriate work procedures. The Contractor is to use this section as a guide for the development of a risk assessment evaluation and a Fire Safety Plan. The Contractor shall make himself familiar with the construction of the building prior to and during the Work, as well as with the actual use and occupancy of the building in determining appropriate Fire Safety Plans. Consultation with the Owner, their designate and tenants shall form an integral part of the Fire Safety Plan.

1.13.2 A Fire Safety Plan based on the Contractors safety knowledge, familiarity with the building and the building use, and documented consultation with the Owner shall form part of a plan to be supplied by the successful bidder prior to beginning work. A copy of this plan is to be submitted to the Owner and the Consultant at the pre job site meeting and be available upon request thereafter.

1.13.3 Comply with or exceed RCABC Fire Safety Requirements: Torching for Modified Bituminous Systems, as described in the RCABC Roofing Practices manual.

1.13.4 A minimum of One (1) 4A40BC Fire Extinguisher with current charge tags intact is required for each torch being used. The Fire Extinguisher is to be within six (6) Metres of the torch in use. The worker shall be able to demonstrate verbal

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competence in the use of a Fire Extinguisher.

- 1.13.5 All work involving propane torch application of roofing materials shall conform to the British Columbia Fire Codes latest version.
- 1.13.6 Fire safety watch personnel are to have a hand held infra-red non contact thermometer to aid in identifying hot spots and must be used as part of the fire safety watch personnel duties. Use 'ROOFMASTER HST-2' or equivalent.
- 1.13.7 **A Safety Fire watch is to be provided for a minimum of two hours following the extinguishing of the last torch.** The Safety Fire watch person is to be qualified to hold the position of Safety Officer, and must be employed by the Roofing Contractor. He or she is to remain on the roof during that two hour span, unless he/she feels it necessary to view the roofing assembly from the underside.

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**2.0 MATERIALS**

2.1 Modified SBS roofing membrane assembly shall be one of the following approved systems:

<b>.1 MANUFACTURER – IKO INDUSTRIES</b>	<b>MATERIALS</b>
MAIN ROOF VAPOUR RETARDER	Armourbond Flash Sand
WELL ROOF VAPOUR RETARDER	Torchflex TF-95-SF-Base
POLYISOCYANURATE INSULATION	2” IKO Therm III
ASPHALTIC OVERLAY BOARD	2” TopRock DD Plus
ADHESIVES	Millennium Adhesive
PRIMERS	S.A.M Adhesive
MEMBRANES:	3/16” Protectoboard
FIREGUARD MEMBRANE	Armourguard
BASE SHEET MEMBRANE	TP HD FF Base
BASE SHEET STRIPPING MEMBRANE	Armourbond Flash (self adhered)
CAP SHEET MEMBRANE	TP HD Cap
CAP SHEET STRIPPING MEMBRANE	TP HD Cap
SAFETY ZONE MEMBRANE	To be approved
<b>.2 MANUFACTURER – SIPLAST CANADA</b>	<b>MATERIALS</b>
MAIN ROOF VAPOUR RETARDER	Paridiene 20 SA / Armourbond Flash Sand
WELL ROOF VAPOUR RETARDER	To Be Approved
POLYISOCYANURATE INSULATION	2” Paratherm
ASPHALTIC OVERLAY BOARD	3/16” Protectoboard
ADHESIVES	Para-Stik
PRIMERS	Pa 917 LS
MEMBRANES:	
FIREGUARD MEMBRANE	Armourguard (by IKO)
BASE SHEET MEMBRANE	Paradiene 20 TG
BASE SHEET STRIPPING MEMBRANE	Paradiene 20 SA
CAP SHEET MEMBRANE	Parafor 30 TG
CAP SHEET STRIPPING MEMBRANE	Parafor 30TG
SAFETY ZONE MEMBRANE	Paracoat (Tinted Red)
<b>.3 MANUFACTURER – SOPREMA</b>	<b>MATERIALS</b>
MAIN ROOF VAPOUR RETARDER	Sopraflash Stick 40
WELL ROOF VAPOUR RETARDER	Elastophene SP (2.2mm)



**TECHNICAL SPECIFICATION**

POLYISOCYANURATE INSULATION	2" Sopra-ISO
ASPHALTIC OVERLAY BOARD	3/16" Sopraboard
ADHESIVES	Duotack
PRIMERS	Elastocol Stick
MEMBRANES:	
FIREGUARD MEMBRANE	Lastobond 195
BASE SHEET MEMBRANE	Sopraply Base-520
BASE SHEET STRIPPING MEMBRANE	Sopralene Flam Stick
CAP SHEET MEMBRANE	Sopraply Traffic Cap-560
CAP SHEET STRIPPING MEMBRANE	Sopraply Traffic Cap-560
SAFETY ZONE MEMBRANE	SOPRASAF'T (Red)

**2.2 Drains**

- 2.2.1 Spun Copper Drains suited for torch application, sized to match plumping.
- 2.2.2 The existing cast drain on the Well Roof will be converted to a spun copper drain. Connect to plumbing using a Max-Flow clamp.
- 2.2.3 Use MJ Clamps for connection to plumbing for the Main Roof drains, marked RD for use with roof drains.

**2.3 Plumbing Vent Pipe Flashings**

- 2.3.1 To be aluminum.
- 2.3.2 Use MJ Clamps to seal pipe to flashing.

**2.4 2.7 Sheet Metal Flashing**

- 2.7.1 Carbon Steel: G90 galvanized steel sheet to ASTM A653/A653M, commercial quality with Z275 designation zinc coating. Thickness of sheet metal to be 24 gauge unless otherwise noted.
- 2.7.2 Finish: Prefinished steel with factory applied silicone modified polyester (SMP) on primer, both paint and primer back cured. Include paint system coating to reverse side of coil stock to prevent corrosion of backside surfaces and uniform colour.

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- 2.7.3 Performance Level: “Dofasco/Stelco 8000 Series” paint. Coating thickness not less than 25 micrometres +/- 5 micrometres (1.0 mils +/- 0.2 mils).
- 2.7.4 Colour: To be selected by Owner.

### 3.0 EXECUTION

#### 3.0 Removal

- 3.0.1 Remove and dispose of the existing roofing membrane to expose the plywood deck and the concrete deck.
- 3.0.2 *No removal is to be transported over finished roof areas.*
- 3.0.3 Remove and dispose of existing sheet metal flashings and related flashings.
- 3.0.4 Protect gardens, decks, driveway and sidewalks from falling debris during removal.
- 3.0.5 **Ensure debris does not enter drains during removal.**
- 3.0.6 Dumpsters shall be located in area(s) designated by the Owner. Protective plywood is to be installed below dumpsters and hydraulic machinery.

#### 3.1 Surface Inspection and Preparation

- 3.1.1 Before commencing roofing application, the Inspection Agency (Westcoast Roof Inspection Services Ltd.) and the Contractor shall inspect the existing surfaces. If required, the Contractor shall repair the existing surface to produce a suitable substrate for adhering the insulation and membranes. The Inspection Agency shall document the quantity of preparation that is required if needed.
- 3.1.2 All unforeseen work is to be identified by the Inspection Agency during roof replacement.
- 3.1.3 The contractor is to keep a log of extra time and materials used. Hours and materials will be monitored and confirmed by the Consultant. Costs for materials and labour (charged at the contractors’ hourly rate) will be charged extra to the contract.

## TECHNICAL SPECIFICATION

### 3.2 Vapour Retarder

- .1 Main Roof:
  - .1 Install the self-adhering vapour retarder by removing the protective paper on the underside and allowing the sheet to self adhere to the primed plywood deck.
  - .2 Lap side joints 75 mm and end joints 150 mm. Stagger end joints a minimum of 300 mm.
  - .3 Remove the protective strip on side joints and allow the joints to adhere. Seal end joints by heat welding or cover strip and surface heat and roll all side joints.
- .2 Well Roof:
  - .1 Prime the concrete deck and parapet using asphaltic based primer.
  - .2 Torch apply sanded surface membrane.
  - .3 Lap side joints 75 mm and end joints 150 mm. Stagger end joints a minimum of 300 mm.
  - .4 Check all laps with torch and trowel to ensure sealed.

### 3.3 Insulation & Overlay Board

- 3.3.1 Secure all insulation panels (4'x4' panels) using low-rise two-part urethane adhesive in accordance with Manufacturers' minimum requirements and RCABC minimum Guarantee Standards.
- 3.3.2 Stagger i joints from insulation, and end joints.
- 3.3.3 Sump Insulation at roof drains.
- 3.3.4 End joints are to be staggered, stagger end joints and joints between the insulation layers and the overlay board.
- 3.3.5 All insulation panels are to be cut precise. Gaps of any size are to be filled.

### 3.4 Base Sheet Membrane Application

- 3.4.1 Base sheet shall be unrolled dry for alignment and allowed to relax.

## TECHNICAL SPECIFICATION

- 3.4.2 All fire safety regulations must be met before the ignition of torches.
- 3.4.3 Ensure power fan units adjacent to work are shut down prior to applying membrane (check with facilities management and Terms and Conditions first).
- 3.4.4 Do not torch directly to wood surfaces and ensure all cracks and crevices are thoroughly sealed using fireguard membrane.
- 3.4.5 Start with a half roll at drains to ensure stagger with cap sheet.
- 3.4.6 Minimize head laps. Side laps shall be 3 in (75 mm) and end laps shall be 6 in (150mm) minimum.
- 3.4.7 Check all seams and melt finished edge with a torch and heated trowel prior to proceeding.

### 3.5 **Base Sheet Stripping Application**

- 3.5.1 Base sheet stripping shall be laid in strips one metre wide to the vertical surface, starting 4 in. (100 mm) on the deck and up vertical walls a minimum of 8 in. (200 mm), and 3 in. (75 mm.) beyond the top of cant strips. Stagger a minimum of 8 in. (200 mm) with laps of base sheet. Side laps shall be 3 in. (75 mm) minimum.
- 3.5.2 Check and seal all seam edges and upper terminations with a heated trowel.
- 3.5.3 Strip-in drains and vents as work progresses.
- 3.5.4 Ensure protection is laid on the roof under cutting of stripping pieces.
- 3.5.5 Gussets will be used on all inside corners.

### 3.6 **Cap Sheet Application**

- 3.6.1 Subsequent to base sheet and base sheet stripping application has been applied and all seams checked, the cap sheet may be applied.
- 3.6.2 Cap sheet shall be unrolled, relaxed and re-rolled as base sheet. Take care to align sheet parallel with base sheet. Cap Sheet will be torch welded.

## TECHNICAL SPECIFICATION

- 3.6.3 Stagger cap sheet and base sheet seams a minimum of 12 in (300 mm).
- 3.6.4 Minimize end laps. Side laps shall be minimum 3 in (75 mm) and end laps shall be minimum 6 in (150 mm).
- 3.6.5 Check all seams after application.

### 3.7 Cap Sheet Stripping Application

- 3.7.1 Cap sheet stripping shall be laid in strips 1 metre (1000 mm) wide to the vertical surface. Side laps and head laps shall be to Manufacturer's specifications.
- 3.7.2 Use a chalk line to lay out straight alignment of cap sheet stripping.
- 3.7.3 Suppress/embed the granules of the cap sheet to be overlain with cap stripping and at all head laps.
- 3.7.4 Torch weld cap sheet from bottom to top ensuring a uniform weld.
- 3.7.5 Cap sheet stripping shall extend 10 in up parapet walls and extend on to the flat surface of the roof a minimum of 6 in (150 mm).
- 3.7.6 Stagger a minimum of 8 in (200 mm) with laps of base sheet. Side laps shall not have bleed out in excess of ½" (12.5 mm). Heat and trowel leading edge on curbs and parapet walls.
- 3.7.7 Ensure that pieces are cut straight by using a T-Square.
- 3.7.8 Ensure protection is laid on the roof prior to cutting stripping pieces.

### 3.8 Sheet Metal Flashing Installation

- 3.8.1 Install base and cap flashings in lengths of 10 feet using standing seams and S-cleats. Install to RCABC guarantee standards.
  - 3.8.1.1 Use short length segments for base and cap flashing on the circular wall on the Well Roof.
- 3.8.2 Make good all building surfaces during flashing construction.

### TECHNICAL SPECIFICATION

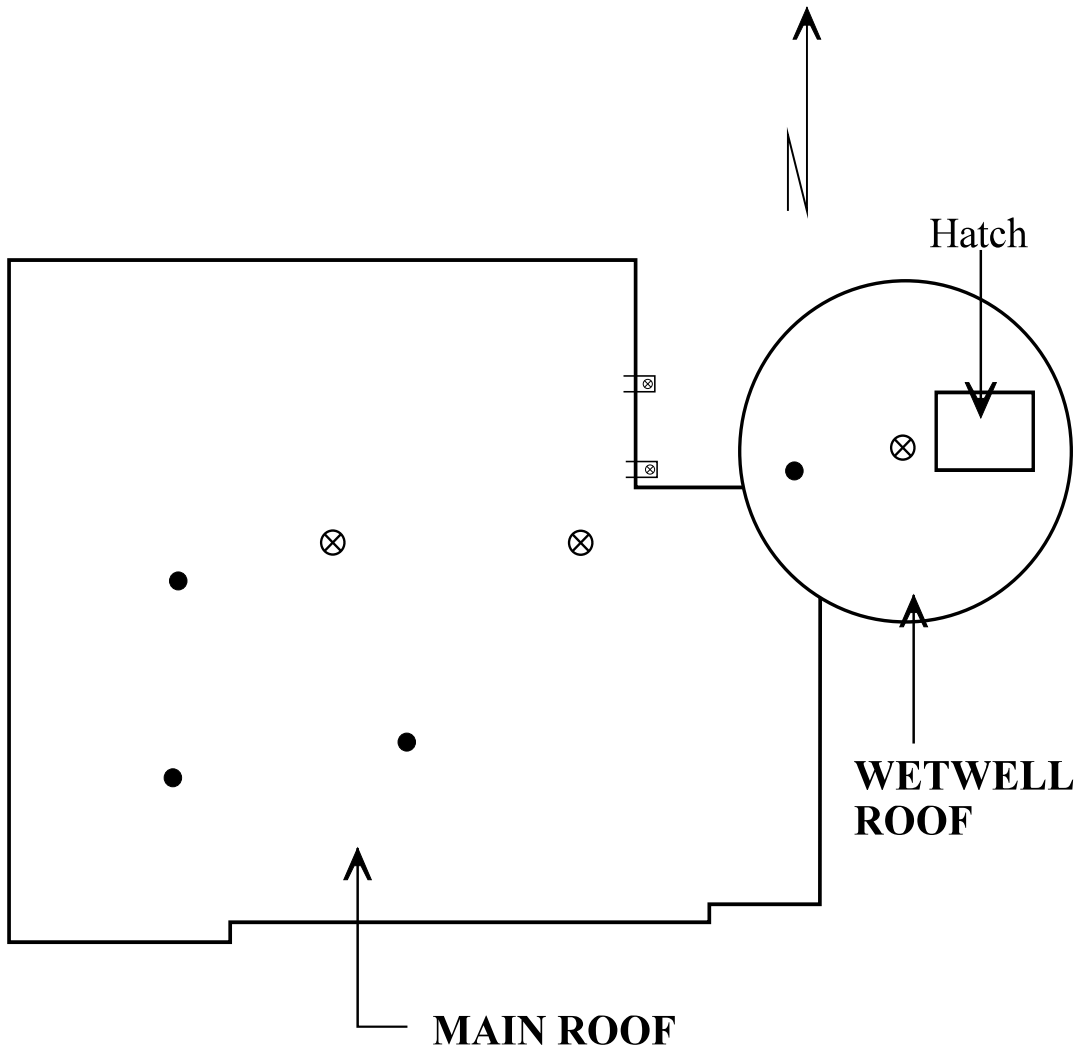
- 3.8.3 Hem all edges.
- 3.8.4 Form sections square, true and accurate to size, free from distortions and other defects detrimental to appearance or performance.
- 3.8.5 Minimize scratches while handling. Scratched sheet metal flashing brought to site will not be accepted.
- 3.8.6 Refer to Project Drawings for details.

### 3.9 Clean Up


- 3.9.1 Tarps are to be removed from grounds at the end of each day.
- 3.9.2 Clean up is to be conducted on a daily basis.
- 3.9.3 Promptly remove all materials, fasteners, tools and equipment from previous work areas and thoroughly clean adjacent surfaces as work progresses.

**End of Section**

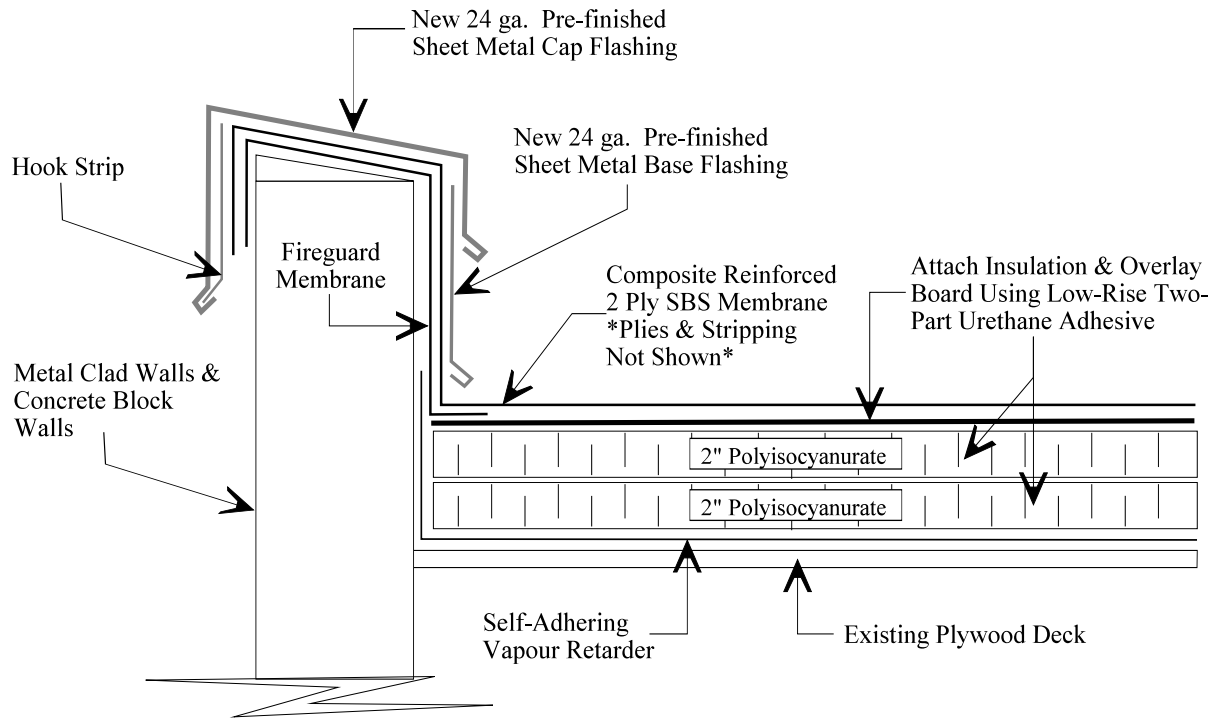
# CHASE RIVER PUMPING STATION ROOF PLAN




\* Not to Scale \*

DWN: DBT	DATE: April 2021	Roof Plan	SCALE: NTS
PROJECT: Chase River Pumping Station - 2020 Roof Replacement			
CLIENT: Regional District of Nanaimo - Water Pollution Control Center			
	WESTCOAST ROOF INSPECTION SERVICES LIMITED	DWG. NO. <b>RP-1</b>	REV.

# MAIN ROOF PARAPET DETAIL

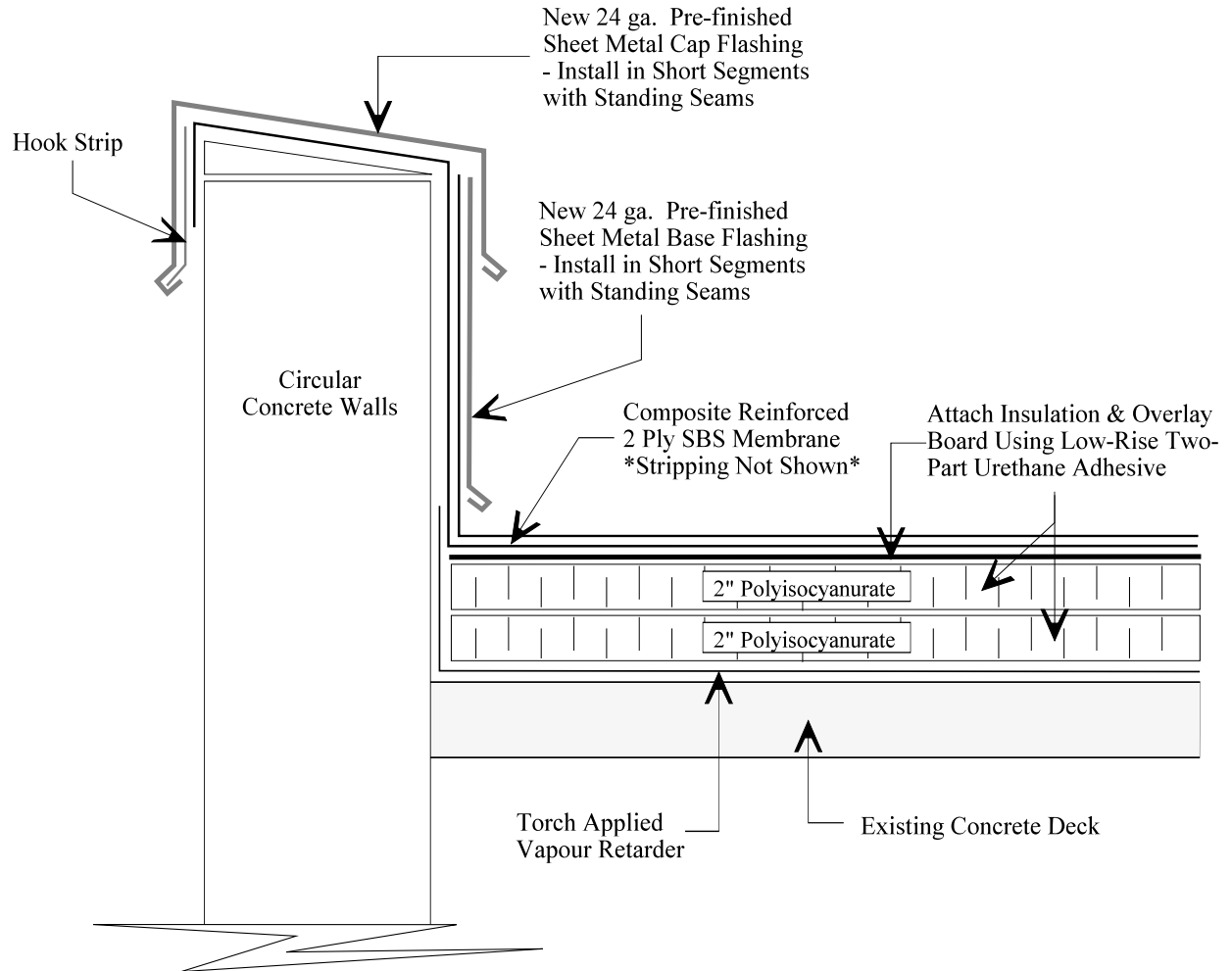


\* Not to Scale \*


DWN: DBT	DATE: April 2021	Main Roof - Parapet Detail	SCALE: NTS
PROJECT: Chase River Pumping Station - 2020 Roof Replacement			
CLIENT: Regional District of Nanaimo - Water Pollution Control Center			
	<b>WESTCOAST ROOF INSPECTION SERVICES LIMITED</b>	DWG. NO. <b>SK-1</b>	REV.



# WELL ROOF PARAPET DETAIL



\* Not to Scale \*

DWN: DBT	DATE: April 2021	Well Roof - Parapet Detail	SCALE: NTS
PROJECT: Chase River Pumping Station - 2020 Roof Replacement			
CLIENT: Regional District of Nanaimo - Water Pollution Control Center			
 <b>WESTCOAST ROOF INSPECTION SERVICES LIMITED</b>		DWG. NO. <b>SK-2</b>	REV.

Westcoast Roof Inspection Services Ltd.  
665 Butterfield Road  
Mill Bay, BC  
V0R 2P4

File Number: F2412-394  
Date: May 5, 2020

Attention: Ms. Jesse Parisien

**PROJECT: CHASE RIVER PUMPING STATION - 1174 ISLAND HIGHWAY SOUTH, NANAIMO, BC**

**SUBJECT: BULK ASBESTOS SAMPLE ANALYSIS**

Dear Sir,

Please find attached our laboratory's results for analysis of material submitted for identification of Asbestos.

Sample examination was conducted in accordance with the NIOSH 9002 analytical method using polarized light microscopy and dispersion staining techniques. The detection limit of this method is listed as <1%.

This report relates only to material tested and any extrapolation of the results by the client is the responsibility of the client. Samples will be disposed of after one month, unless otherwise instructed by you.

If Asbestos containing materials (ACM – defined by WorkSafe BC as containing at least 0.5% Asbestos and >0% for Vermiculite insulation) are identified in this report and remediation is indicated, the requirements of the B. C. Occupational Health & Safety Regulation Part 6.0 and related Guidelines should be met. This will require completion of a Risk Assessment by a 'Qualified Person' as described in Section 6.6.4. of the Regulations.

*This report is not a 'Hazardous Materials Assessment' (Report), as defined in Section 20.112. In addition to this report, WorkSafe BC may require Section 20.112 to be met prior to commencement of work.*

If further clarification is required, please contact the undersigned. Thank you for the opportunity to be of service to you.

Yours truly,

**LEA ENVIRONMENTAL HEALTH & SAFETY**



Johanne Picard, B.Sc., RPIH  
Supervising Analyst  
EPA-AHERA Building Inspector #13-0407  
Email: [jpicaard@lewkowich.com](mailto:jpicaard@lewkowich.com)

Attachments (2): Certificate of Analysis  
ACM Sample Log

# Lewkovich Engineering Associates Ltd.

5/05/20

## Bulk Asbestos Certificate of Analysis

**Project #:** F2412-394 **Client:** Westcoast Roof Inspection Services Ltd. **Site Address:** 1174 Island Highway South, Nanaimo, BC **Sampled By:** LEA (JP)

Analyzed in accordance with NIOSH 9002 Asbestos (Bulk) by PLIM  
(Note: Estimated Limit of Detection (LOD) is <1% asbestos)

**Legend:**  
ND Not Detected

Lab Sample #	Sample Description	Location	Phase Description	Phase %	Asbestos / Type	Asbestos %	Other Material Type	Other Material %	Analyst
F2412-394-1	Roofing	Main Roof	Black Mix	20	NO	ND	Non-Fibrous	100	JP
			Fibrous Black Mix	10	NO	ND	Fibrous(Cellulose)/Non-Fibrous(80/20)	100	JP
			Styrofoam	60	NO	ND	Non-Fibrous	100	JP
F2412-394-2	Roofing	Round Roof	Fibrous Black Mix	10	NO	ND	Fibrous(Cellulose)/Non-Fibrous(80/20)	100	JP
			Black Mix	40	NO	ND	Fibrous(Cellulose)/Non-Fibrous(50/50)	100	JP
			Styrofoam	60	NO	ND	Non-Fibrous	100	JP
F2412-394-3	Mastic, Black	Main Roof Parapet Wall	Black Mix	100	NO	ND	Non-Fibrous	100	JP
F2412-394-4	Mastic, Brown	Flashing	Black Mix	100	NO	ND	Non-Fibrous	100	JP
F2412-394-5	Mastic, Brittle	Round Roof Vent	Black Mix	100	NO	ND	Non-Fibrous	100	JP



AIHA Proficiency Analytical Testing Programs

1900 Boxwood Road, Nanaimo, BC V9S 5Y2 (250) 756-0355

Page 1 of 1

BAPAT Laboratory No.: 200065



**ACM SAMPLE LOG**

Site Address:	1174 ISLAND HIGHWAY SOUTH, NANAIMO, BC	
Date Sampled:	5 MAY 2020	LEA Project No.: F2412-394
Sampled By:	JP	Received By:

	Sample Type	Sample Location	Other Locations
1	ROOFING	MAIN ROOF	
2	ROOFING	ROUND ROOF	
3	MASTIC	PARAPET WALL	
4	"	FLASHING	
5	"	ROUND ROOF VENT	
6			
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## TECHNICAL SPECIFICATION

### 1.0 GENERAL

1.1 It is required to replace the existing roofing on the Dewatering Building at the Greater Nanaimo Pollution Control Centre, 4800 McGuffie Road, Nanaimo, BC.

1.1.1 See SM-1 Site Map for identification of building location on the site.

1.2 The Roofing Contractor shall provide all permits, materials, equipment, supervision and labour necessary to execute the contract.

1.3 Adhere to Regional District of Nanaimo Terms and Conditions, and site specific conditions (parking, access, hours of work, acceptable noise levels, phasing, scheduling and coordination). Locations for cranes, trucks, bins, and portable toilet facilities shall be as designated by the Project Manager.

1.4 Roofing materials were tested for hazardous materials by Lewkowich Engineering Associates Ltd. No hazardous materials were found. Their report is included with the tender documents.

### 1.5 The Scope of Work

1.5.1 The existing roofing assembly is as follows:

- 1.5.1.1 Concrete Deck.
- 1.5.1.2 Poly Vapour Retarder
- 1.5.1.3 2" Type 4 Insulation
- 1.5.1.4 Sarnafil G Membrane

1.5.2 Removal and disposal of the existing sheet metal flashings, vent flashings, plumbing jack flashings, drains and roof related flashings.

1.5.3 Remove and dispose of the existing roofing assembly to expose the concrete deck.

1.5.4 Vapour retarder will be torch applied membrane (2.2mm) with sanded surface. Ensure wood surfaces are protected with self-adhered Fireguard membrane prior to application.

1.5.5 Extend vapour retarder membranes above the height of the top layer of insulation.

1.5.6 Install a total of 3" Polyisocyanurate insulation, installed in two 1.5" layers.

## TECHNICAL SPECIFICATION

- 1.5.6.1 Sump insulation at roof drains.
- 1.5.6.2 Stagger end joints and joints between layers.
- 1.5.6.3 Attach all insulation using two-part low-rise urethane adhesive.
- 1.5.7 Install 1 layer of Asphaltic Overlay Board.
  - 1.5.7.1 Stagger end joints and joints between insulation.
  - 1.5.7.2 Attach using two-part low-rise urethane adhesive.
- 1.5.8 Install self-adhering Fireguard membrane over all wood surfaces and gaps. Extend up and over parapets.
- 1.5.9 A two ply Composite SBS membrane assembly will be torch applied.
  - 1.5.9.1 See Materials List for accepted membranes.
- 1.5.10 The existing cast roof drains will be refurbished using new 3 lb. lead flashing and stainless steel hardware (bolts, nuts and washers).
  - 1.5.10.1 Sump insulation at roof drains and scupper drains.
  - 1.5.10.2 Liquid applied flashing is to be applied over the cap sheet membrane in drain sumps, with mesh on inside corners. Extend to top of sumps. Use tape to ensure application is neat and tidy.
- 1.5.11 Replace the existing overflow drains with new copper scuppers, sized to match existing.
  - 1.5.11.1 Caulk outside stems using polyurethane caulking.
- 1.5.12 Install new aluminum flashing (Menzies) for the plumbing vents, with Econo Caps. Attach caps using aluminum rivets or screws.
- 1.5.13 HVAC Units:
  - 1.5.13.1 It will be necessary to disconnect and reconnect supply lines.

### TECHNICAL SPECIFICATION

1.5.13.2 Shut down time for Units is to be as short as possible, only one unit may be shut down at a time.

1.5.13.3 This work is to be done by the Districts Mechanical Contractor:

**Archie Johnstone Plumbing & Heating Ltd.**

113 Gava Pl., Nanaimo, BC

Phone: 250-754-2232

Email: [info@ajph.com](mailto:info@ajph.com)

1.5.13.4 Also remove and save cable trays (and mounting hardware) on sides of curbs and reinstall once roofing and sheet metal flashing are completed.

1.5.13.5 Allow for all costs for this work.

1.5.13.6 The existing Sarnafil membrane stripping will remain in place on the sides of curbs.

1.5.13.6.1 Cut Sarnafil membrane as necessary at corners to temporarily fold the membrane up to accommodate application of new membrane stripping.

1.5.13.6.2 New SBS membrane stripping will be self-adhering membrane, for both the base and cap stripping.

1.5.13.6.3 Once new membrane stripping has been applied, fold Sarnafil membrane down over the new membrane and patch corner cuts using Sarnafil patches.

1.5.13.6.4 Install new sheet metal base flashing on curbs.

1.5.13.6.5 Reinstall cable trays using save mounting hardware.

1.5.13.6.6 Reattach supply lines to original configuration, use new cable ties as necessary for attachment.

1.5.14 Replace the existing skylights with new Acrylic Domed Skylights (bronze tinted) as manufactured by Columbia Skylights.

1.5.14.1 Install new membrane stripping, extend onto top of curbs to the inside edge.

## TECHNICAL SPECIFICATION

1.5.14.2 Install sheet metal base flashing and counter flashing.

1.5.14.3 Install foam gasket on the top of curbs.

1.5.15 Install new 24 ga. pre-finished sheet metal base and cap flashing on parapets. Sheet metal colour to be selected by the Owner from standard colour selection (SMP).

1.5.15.1 See Project Drawings for details.

### 1.6 Reference Standards

1.6.1 Conform to RGC 10 year warranty standards and to the appropriate CSA, CGSB and ASTM standards for the materials used in the roofing system specified. The roofing materials are to be listed on the R.C.A.B.C. accepted materials list F-061.

1.6.2 Conform to membrane Manufacturer's printed literature. Submit Manufacturer's published data showing instructions for surface preparation and application.

1.6.3 Construct all sheet metal work to meet or exceed RGC 10 year warranty standards.

### 1.7 Quality Assurance

1.7.1 Qualifications: Applicator shall have a minimum of five years experience installing these types of waterproofing materials and shall be approved by the materials Manufacturer.

1.7.2 Inspection of the work shall be provided by **Westcoast Roof Inspection Services Ltd.** Inspection fees will be paid for directly by the Owner.

1.7.3 The Inspection agency shall have right of access to the work areas at all times.

### 1.8 Project Delivery and Storage

1.8.1 Products shall be delivered to the job site in the original, unopened containers bearing the Manufacturer's name, product designation, batch number and applicable precaution labels. Store so as to prevent damage in a cool dry environment. Store roofing material on pallets with rolls on end.

### 1.9 Environmental Requirements



## TECHNICAL SPECIFICATION

1.9.1 Do not install waterproofing membrane to a surface that is wet, damp, frosty or covered with ice or snow.

### 1.10 Pre-Installation Conference

1.10.1 Convene a conference prior to commencing work. Attendance of all parties directly affecting work of this section is required. Review conditions, procedures, schedules and coordination with related work.

### 1.11 Guarantees

1.11.1 The Contractor shall provide a written warranty agreeing, for a period of five years, after completion of the work, to promptly make repairs or replace defective materials or workmanship without additional cost to the Owner.

1.11.2 The membrane manufacturer shall provide a 10 Year Written Warranty for the membranes used on the project.

1.11.3 The Contractor shall provide a Ten (10) Year RGC Roof Star Warranty and include that cost with the contract price.

1.11.3.1 Inspection fees will be paid by the Owners and are not to be included.

1.11.3.2 Reinspection fees are to be included.

1.11.4 The following types of failures shall be adjudged as defective:

1.11.4.1 Loss of waterproof integrity or leakage.

1.11.4.2 Adhesive or cohesive failure of the roof system to the building.

### 1.12 Safety

1.12.1 All WCB requirements are to be met. At least one person trained in first aid is to be on site during working hours.

1.12.2 The Roofing Contractor is to act as the Prime Contractor. Therefore, section 118 of the WCB Act & 20.3 of the WCB Regulations are to be complied to. The Owners are not to be held responsible for WCB Acts & regulations.

## TECHNICAL SPECIFICATION

### 1.13 Fire Protection: Torch Applied Roof Membranes

- 1.13.1 The Contractor is not to rely solely on these specifications for the fire hazard assessment and appropriate work procedures. The Contractor is to use this section as a guide for the development of a risk assessment evaluation and a Fire Safety Plan. The Contractor shall make himself familiar with the construction of the building prior to and during the Work, as well as with the actual use and occupancy of the building in determining appropriate Fire Safety Plans. Consultation with the Owner, their designate and tenants shall form an integral part of the Fire Safety Plan.
- 1.13.2 A Fire Safety Plan based on the Contractors safety knowledge, familiarity with the building and the building use, and documented consultation with the Owner shall form part of a plan to be supplied by the successful bidder prior to beginning work. A copy of this plan is to be submitted to the Owner and the Consultant at the pre job site meeting and be available upon request thereafter.
- 1.13.3 Comply with or exceed RCABC Fire Safety Requirements: Torching for Modified Bituminous Systems, as described in the RCABC Roofing Practices manual.
- 1.13.4 A minimum of One (1) 4A40BC Fire Extinguisher with current charge tags intact is required for each torch being used. The Fire Extinguisher is to be within six (6) Metres of the torch in use. The worker shall be able to demonstrate verbal competence in the use of a Fire Extinguisher.
- 1.13.5 All work involving propane torch application of roofing materials shall conform to the British Columbia Fire Codes latest version.
- 1.13.6 Fire safety watch personnel are to have a hand held infra-red non contact thermometer to aid in identifying hot spots and must be used as part of the fire safety watch personnel duties. Use 'ROOFMASTER HST-2' or equivalent.
- 1.13.7 **A Safety Fire watch is to be provided for a minimum of two hours following the extinguishing of the last torch.** The Safety Fire watch person is to be qualified to hold the position of Safety Officer, and must be employed by the Roofing Contractor. He or she is to remain on the roof during that two hour span, unless he/she feels it necessary to view the roofing assembly from the underside.

**TECHNICAL SPECIFICATION**

**2.0 MATERIALS**

2.1 Modified SBS roofing membrane assembly shall be one of the following approved systems:

<b>.1 MANUFACTURER – IKO INDUSTRIES</b>	<b>MATERIALS</b>
VAPOUR RETARDER	Torchflex TF-95-SF-Base (2.2mm)
POLYISOCYANURATE INSULATION	IKO Therm III
ASPHALTIC OVERLAY BOARD	3/16” Protectoboard
ADHESIVES	Millennium Adhesive
PRIMERS	S.A.M Adhesive
MEMBRANES:	
FIREGUARD MEMBRANE	Armourguard
BASE SHEET MEMBRANE	TP HD FF Base
BASE SHEET STRIPPING MEMBRANE	TP HD FF Base
CAP SHEET MEMBRANE	TP HD Cap
CAP SHEET STRIPPING MEMBRANE	TP HD Cap
COLD APPLIED BASE STRIPPING	Armourbond Flash Sand HD
COLD APPLIED CAP STRIPPING	To Be Approved
<b>.2 MANUFACTURER – SIPLAST CANADA</b>	<b>MATERIALS</b>
VAPOUR RETARDER	To Be Approved
POLYISOCYANURATE INSULATION	Paratherm
ASPHALTIC OVERLAY BOARD	3/16” Protectoboard
ADHESIVES	Para-Stik
PRIMERS	Pa 917 LS
MEMBRANES:	
FIREGUARD MEMBRANE	Armourguard (by IKO)
BASE SHEET MEMBRANE	Paradiene 20 TG
BASE SHEET STRIPPING MEMBRANE	Paradiene 20 TG
CAP SHEET MEMBRANE	Parafor 30 TG
CAP SHEET STRIPPING MEMBRANE	Parafor 30TG
COLD APPLIED BASE STRIPPING	Paradiene 20 ED SA
COLD APPLIED CAP STRIPPING	To Be Approved
<b>.3 MANUFACTURER – SOPREMA</b>	<b>MATERIALS</b>
VAPOUR RETARDER	Elastophene SP (2.2mm)
POLYISOCYANURATE INSULATION	Sopra-ISO

**TECHNICAL SPECIFICATION**

ASPHALTIC OVERLAY BOARD	3/16" Protectoboard
ADHESIVES	Duotack
PRIMERS	Elastocol Stick
MEMBRANES:	
FIREGUARD MEMBRANE	Lastobond 195
BASE SHEET MEMBRANE	Sopraply Base 520
BASE SHEET STRIPPING MEMBRANE	Sopraply Base 520
CAP SHEET MEMBRANE	Sopraply Traffic Cap
CAP SHEET STRIPPING MEMBRANE	Sopraply Traffic Cap
COLD APPLIED BASE STRIPPING	Sopraply Stick Duo
COLD APPLIED CAP STRIPPING	Sopraply Stick Traffic Cap

**2.2 Drains**

- 2.2.1 Spun Copper Drains suited for torch application, sized to match plumbing.
- 2.2.2 Use MJ Clamps for connection to plumbing for the Main Roof drains, marked RD for use with roof drains.

**2.3 Plumbing Vent Pipe Flashings**

- 2.3.1 To be aluminum Menzies flashing.
- 2.3.2 Econo Caps, attach using aluminum rivets or screws.

**2.4 Skylights**

- 2.4.1 Acrylic domed skylights with bronze tint as manufactured by Columbia Skylights.
- 2.4.2 Medium density foam gaskets for top of curbs.

**2.5 Sheet Metal Flashing**

- 2.7.1 Carbon Steel: G90 galvanized steel sheet to ASTM A653/A653M, commercial quality with Z275 designation zinc coating. Thickness of sheet metal to be 24 gauge unless otherwise noted.
- 2.7.2 Finish: Prefinished steel with factory applied silicone modified polyester (SMP) on primer, both paint and primer back cured. Include paint system coating to

## TECHNICAL SPECIFICATION

reverse side of coil stock to prevent corrosion of backside surfaces and uniform colour.

2.7.3 Performance Level: “Dofasco/Stelco 8000 Series” paint. Coating thickness not less than 25 micrometres +/- 5 micrometres (1.0 mils +/- 0.2 mils).

2.7.4 Colour: To be selected by Owner.

### 3.0 EXECUTION

#### 3.0 Removal

3.0.1 Remove and dispose of the existing roofing membrane to expose the plywood deck and the concrete deck.

3.0.2 *No removal is to be transported over finished roof areas.*

3.0.3 Remove and dispose of existing sheet metal flashings and related flashings.

3.0.4 Protect gardens, decks, driveway and sidewalks from falling debris during removal.

3.0.5 **Ensure debris does not enter drains during removal.**

3.0.6 Dumpsters shall be located in area(s) designated by the Owner. Protective plywood is to be installed below dumpsters and hydraulic machinery.

#### 3.1 Surface Inspection and Preparation

3.1.1 Before commencing roofing application, the Inspection Agency (Westcoast Roof Inspection Services Ltd.) and the Contractor shall inspect the existing surfaces. If required, the Contractor shall repair the existing surface to produce a suitable substrate for adhering the insulation and membranes. The Inspection Agency shall document the quantity of preparation that is required if needed.

3.1.2 All unforeseen work is to be identified by the Inspection Agency during roof replacement.

3.1.3 The contractor is to keep a log of extra time and materials used. Hours and materials will be monitored and confirmed by the Consultant. Costs for materials and labour

## TECHNICAL SPECIFICATION

(charged at the contractors' hourly rate) will be charged extra to the contract.

### **3.2 Vapour Retarder**

- 3.2.1 Prime wood surfaces for fireguard membrane using manufacturer's self-adhering membrane primer.
- 3.2.2 Prime the concrete deck using asphaltic based primer.
- 3.2.3 Torch apply the sanded surface vapour retarder membrane.
- 3.2.4 Lap side joints 75 mm and end joints 150 mm. Stagger end joints a minimum of 300 mm.
- 3.2.5 Check all laps with torch and trowel to ensure sealed.

### **3.3 Insulation**

- 3.3.1 Install the Polyisocyanurate insulation in panels 4'x4' panels.
- 3.3.2 Attach using low-rise two-part urethane adhesive in accordance with Manufacturers' minimum requirements and RCABC minimum Guarantee Standards.
- 3.3.3 Sump Insulation at roof drains.
- 3.3.4 End joints are to be staggered, stagger end joints and side joints between layers.
- 3.3.5 All insulation panels are to be cut precise. Gaps of any size are to be filled.

### **3.4 Overlay Board**

- 3.4.1 Stagger joints from insulation, and end joints.
- 3.4.2 Attach using low-rise two-part urethane adhesive.

### **3.5 Base Sheet Membrane Application**

- 3.5.1 Base sheet shall be unrolled dry for alignment and allowed to relax.
- 3.5.2 All fire safety regulations must be met before the ignition of torches.
- 3.5.3 Ensure power fan units adjacent to work are shut down prior to applying membrane

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## TECHNICAL SPECIFICATION

(check with facilities management and Terms and Conditions first).

- 3.5.4 Do not torch directly to wood surfaces and ensure all cracks and crevices are thoroughly sealed using fireguard membrane.
- 3.5.5 Start with a half roll at drains to ensure stagger with cap sheet.
- 3.5.6 Minimize head laps. Side laps shall be 3 in (75 mm) and end laps shall be 6 in (150mm) minimum.
- 3.5.7 Check all seams and melt finished edge with a torch and heated trowel prior to proceeding.

### **3.6 Base Sheet Stripping Application**

- 3.6.1 Base sheet stripping shall be laid in strips one metre wide to the vertical surface, starting 4 in. (100 mm) on the deck and up vertical walls a minimum of 8 in. (200 mm), and 3 in. (75 mm.) beyond the top of cant strips. Stagger a minimum of 8 in. (200 mm) with laps of base sheet. Side laps shall be 3 in. (75 mm) minimum.
- 3.6.2 Check and seal all seam edges and upper terminations with a heated trowel.
- 3.6.3 Strip-in drains and vents as work progresses.
- 3.6.4 Ensure protection is laid on the roof under cutting of stripping pieces.
- 3.6.5 Gussets will be used on all inside corners.

### **3.7 Cap Sheet Application**

- 3.7.1 Subsequent to base sheet and base sheet stripping application has been applied and all seams checked, the cap sheet may be applied.
- 3.7.2 Cap sheet shall be unrolled, relaxed and re-rolled as base sheet. Take care to align sheet parallel with base sheet. Cap Sheet will be torch welded.
- 3.7.3 Stagger cap sheet and base sheet seams a minimum of 12 in (300 mm).
- 3.7.4 Minimize end laps. Side laps shall be minimum 3 in (75 mm) and end laps shall be minimum 6 in (150 mm).

## TECHNICAL SPECIFICATION

3.7.5 Check all seams after application.

### **3.8 Cap Sheet Stripping Application**

3.8.1 Cap sheet stripping shall be laid in strips 1 metre (1000 mm) wide to the vertical surface. Side laps and head laps shall be to Manufacturer's specifications.

3.8.2 Use a chalk line to lay out straight alignment of cap sheet stripping.

3.8.3 Suppress/embed the granules of the cap sheet to be overlain with cap stripping and at all head laps.

3.8.4 Torch weld cap sheet from bottom to top ensuring a uniform weld.

3.8.5 Cap sheet stripping shall extend to the top of parapet walls and extend on to the flat surface of the roof a minimum of 6 in (150 mm).

3.8.6 Stagger a minimum of 8 in (200 mm) with laps of base sheet. Side laps shall not have bleed out in excess of ½" (12.5 mm). Heat and trowel leading edge on curbs and parapet walls.

3.8.7 Ensure that pieces are cut straight by using a T-Square.

3.8.8 Ensure protection is laid on the roof prior to cutting stripping pieces.

### **3.9 Sheet Metal Flashing Installation**

3.9.1 Install base and cap flashing on parapets in lengths of 10 feet using standing seams and S-cleats. Install to RCABC guarantee standards.

3.9.2 Install sheet metal base flashing and counter flashing on curbs for skylights.

3.9.3 Install sheet metal base flashing on curbs for HVAC Units.

3.9.4 Make good all building surfaces during flashing construction.

3.9.5 Hem all edges.

3.9.6 Form sections square, true and accurate to size, free from distortions and other



## TECHNICAL SPECIFICATION

defects detrimental to appearance or performance.

3.9.7 Minimize scratches while handling. Scratched sheet metal flashing brought to site will not be accepted.

3.9.8 Refer to Project Drawings for details.

### 3.10 Clean Up

3.10.1 Tarps are to be removed from grounds at the end of each day.


3.10.2 Clean up is to be conducted on a daily basis.

3.10.3 Promptly remove all materials, fasteners, tools and equipment from previous work areas and thoroughly clean adjacent surfaces as work progresses.

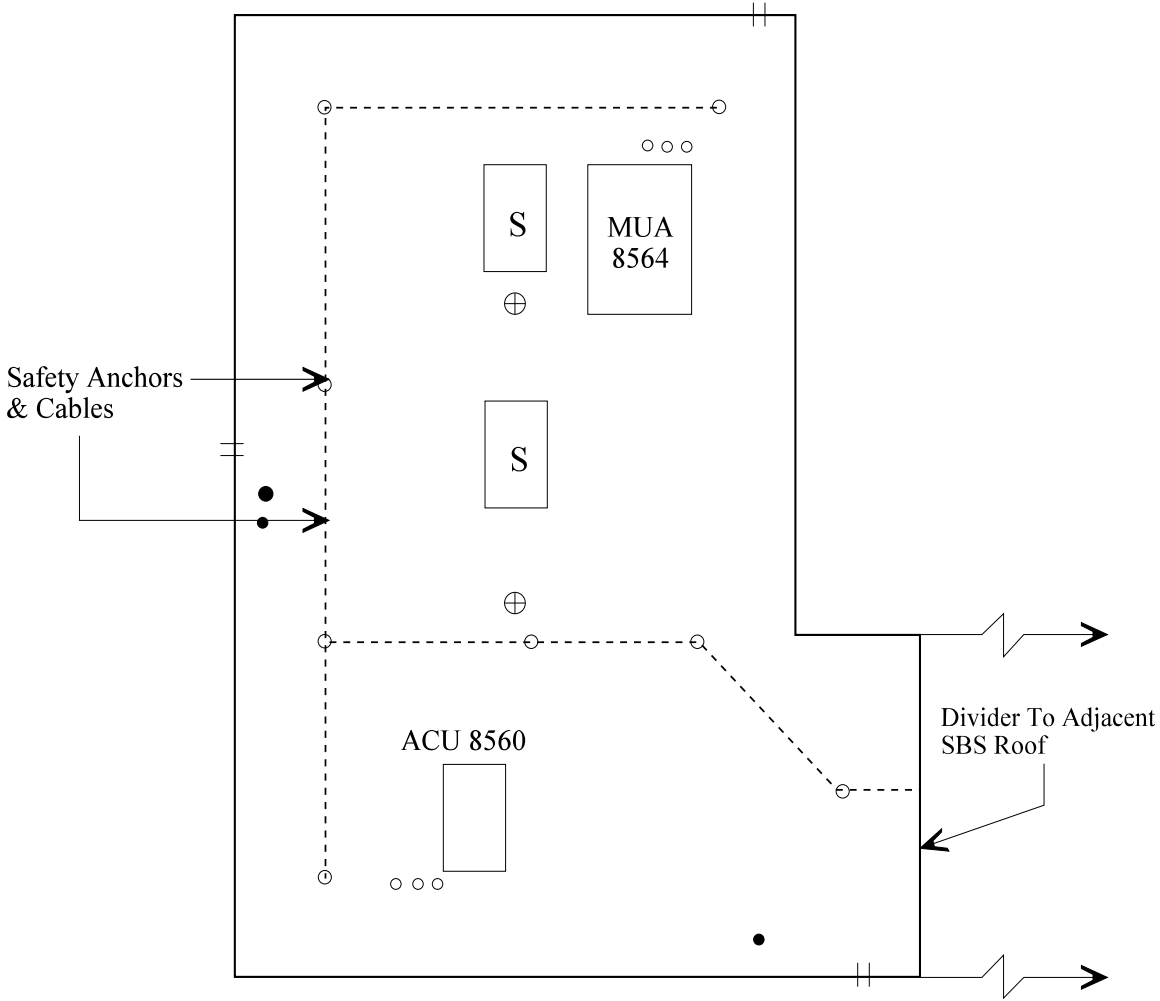
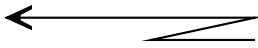
**End of Section**

# GNPCC DEWATERING BUILDING SITE MAP




DWN: DBT	DATE: April 2021	Site Map	SCALE: NTS
PROJECT: GNPCC Dewatering Building - 2021 Roof Replacement			
CLIENT: Regional District of Nanaimo - Water Pollution Control Center			
	WESTCOAST ROOF INSPECTION SERVICES LIMITED	DWG. NO. <b>SM-1</b>	REV.

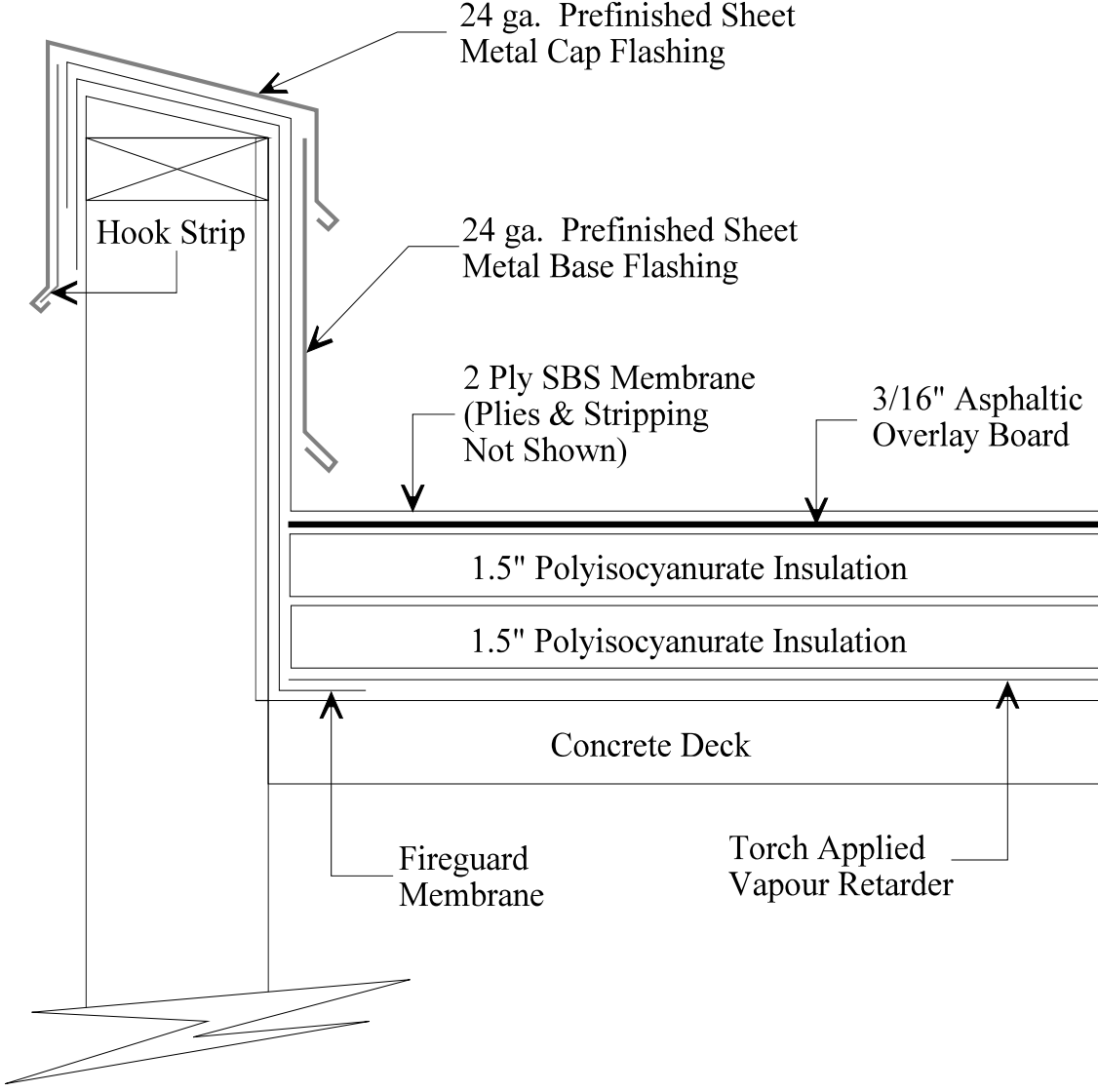
# GNPCC DEWATERING BUILDING ROOF PLAN




\* Not to Scale \*

DWN: DBT	DATE: April 2021	Roof Plan	SCALE: NTS
PROJECT: GNPCC Dewatering Building - 2021 Roof Replacement			
CLIENT: Regional District of Nanaimo - Water Pollution Control Center			
	<b>WESTCOAST ROOF INSPECTION SERVICES LIMITED</b>	DWG. NO. <b>RP-1</b>	REV.

# GNPCC DEWATERING BUILDING PARAPET DETAIL



\* Not to Scale \*

DWN: DBT	DATE: April 2021	Parapet Detail	SCALE: NTS
PROJECT: GNPCC Dewatering Building - 2021 Roof Replacement			
CLIENT: Regional District of Nanaimo - Water Pollution Control Center			
	<b>WESTCOAST ROOF INSPECTION SERVICES LIMITED</b>	DWG. NO. <b>SK-1</b>	REV.

**LEA** Lewkowich Engineering Associates Ltd.  
geotechnical • environmental health & safety • materials testing

Regional District of Nanaimo (Water Pollution Control Center)  
4600 Hammond Bay Road  
Nanaimo, BC  
V9T 5A8

File Number: F2412-457  
Date: April 19, 2021

Attention: GNPCC – Dewatering Building

**PROJECT: 4600 HAMMOND BAY ROAD, NANAIMO, BC**

**SUBJECT: BULK ASBESTOS SAMPLE ANALYSIS**

Please find attached our laboratory's results for analysis of material submitted for identification of Asbestos.

Sample examination was conducted in accordance with the NIOSH 9002 analytical method using polarized light microscopy and dispersion staining techniques. The detection limit of this method is listed as <1%.

This report relates only to material tested and any extrapolation of the results by the client is the responsibility of the client. Samples will be disposed of after one month, unless otherwise instructed by you.

If Asbestos containing materials (ACM – defined by WorkSafe BC as containing at least 0.5% Asbestos and >0% for Vermiculite insulation) are identified in this report and remediation is indicated, the requirements of the B. C. Occupational Health & Safety Regulation Part 6.0 and related Guidelines should be met. This will require completion of a Risk Assessment by a 'Qualified Person' as described in Section 6.6.4. of the Regulations.

*This report is not a 'Hazardous Materials Assessment' (Report), as defined in Section 20.112. In addition to this report, WorkSafe BC may require Section 20.112 to be met prior to commencement of work.*

If further clarification is required, please contact the undersigned. Thank you for the opportunity to be of service to you.

Yours truly,

**LEA ENVIRONMENTAL HEALTH & SAFETY**



Heather Skipper, B.Sc., ASCT  
EPA-AHERA Building Inspector #R20-1356-AI-O  
E-mail: [hskipper@lewkowich.com](mailto:hskipper@lewkowich.com)



Johanne Picard, B.Sc., RPIH  
EPA-AHERA Building Inspector #13-0407  
E-mail: [jpocard@lewkowich.com](mailto:jpocard@lewkowich.com)

Attachments (2): Certificate of Analysis  
ACM Sample Log

1900 Boxwood Road, Nanaimo, BC, Canada V9S 5Y2 • Tel (250) 756-0355 Fax (250) 756-3831  
[www.lewkowich.com](http://www.lewkowich.com)

# Lewkowich Engineering Associates Ltd.

2021-04-19

## Bulk Asbestos Certificate of Analysis

**Project #:** F2412-457 **Client:** Regional District of Nanaimo **Site Address:** 4600 Hammond Bay Road, Nanaimo, BC **Sampled By:** LEA (JP)

Analyzed in accordance with NIOSH 9002 Asbestos (Bulk) by PLM  
 (Note: Estimated Limit of Detection (LOD) is <1% asbestos)

**Legend:**  
 ND Not Detected

Lab Sample #	Sample Description	Location	Phase Description	Phase %	Asbestos Type	Asbestos %	Other Material Type	Other Material	Analyst
F2412-457-1	Roof Core	Watering Building Roof	Plastic - White	6	NO	ND	Non-Fibrous	100	HS
			Vinyl - Grey	25	NO	ND	Fibrous (Glass)/Non-Fibrous (25/75)	100	HS
			Plastic Mesh	4	NO	ND	Non-Fibrous	100	HS
			Foam Core - Blue	65	NO	ND	Non-Fibrous	100	HS
F2412-457-2	Mastic - Black	Roof at Fall Protection Anchor	Mastic - Black	100	NO	ND	Non-Fibrous	100	HS





**ACM SAMPLE LOG**

\* NOT IN VISION YET

**LEA Collected Samples**

Site Address:	GNPCC 4600 HAMMOND BAY ROAD, NANAIMO, BC		
Client:	RDN	Email Address:	
Client Address:			
Date Sampled:	15 APR 2021	LEA Project No.:	F2412-457
Sampled By: LEA	JP	Received By:	

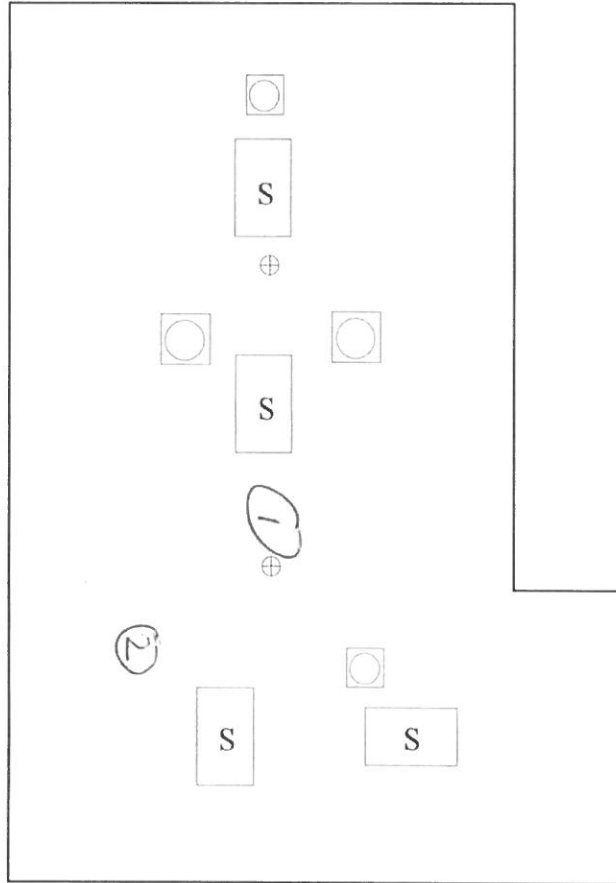
	Sample Type	Sample Location	Other Locations
1	ROOF CORE	DEWATERING BUILDING ROOF	
2	MASTIC - BLACK	ROOF @ FALL PROTECTION ANCHOR	
3			
4			
5			
6			
7			
8			
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Turnaround Time: AB / ABM / ABS


F2412-457

4600 HAMMOND BAY ROAD, NANAIMO, BC

# GNPCC DEWATERING BUILDING ROOF PLAN



*\* Not to Scale \**

DWN: DBT	DATE: April 2021	Roof Plan	SCALE: NTS
PROJECT:	GNPCC Dewatering Building - 2021 Roof Replacement		
CLIENT:	Regional District of Nanaimo - Water Pollution Control Center		
	WESTCOAST ROOF INSPECTION SERVICES LIMITED	DWG. NO. <b>RP-1</b>	REV.

DAN 250-883-9563



BETWEEN: \_\_\_\_\_ (the "Contractor")

AND: The Regional District of Nanaimo (the "Regional District")

THIS AGREEMENT WITNESSES that the Contractor and the REGIONAL DISTRICT agree as follows:

1. The Contractor shall provide all labour, Contractor's Plant and Equipment and materials required to perform the Work within the required time, as required by the Contract Documents.
2. The REGIONAL DISTRICT shall pay the Contractor the Contract Price, as required by the Contract Documents.
3. The Contract Price shall be the sum in Canadian Dollars of the following:
  - (a) Up to the Tender Price set out in the accepted Tender Form and;
  - (b) Payments made on account of change orders, as may be required by the Contract Documents.

The Contract Price shall be the entire compensation owing to the Contractor by the REGIONAL DISTRICT for the Work and shall cover and include all supervision, labour, materials, Contractor's Plant and Equipment, overhead, profit, financing costs and all other costs and expenses whatsoever incurred in performing the Contract.

4. The Contractor shall commence the Work within 7 Days after issuance of the Notice to Proceed from the REGIONAL DISTRICT, unless the Notice to Proceed states otherwise, and shall attain completion of the Work by [\_\_\_\_].
5. The Contract Documents shall form a part of this Agreement as though recited in full.
6. The Contract supersedes all prior negotiations, representations, or agreements, whether written or oral and is the entire agreement between REGIONAL DISTRICT and the Contractor with respect to the subject matter of this Agreement.
7. Defined terms in this Agreement shall have the same meanings as set out in the General Conditions, except where the contrary is expressed.
8. In entering and executing this Agreement, the Contractor has relied on its own examination of the Site, access to the Site, and on all other data, matters and things requisite to the fulfilment of the Work, and on its own knowledge of existing services or utilities along or crossing or in the vicinity of the route or facility to be installed or

constructed under this Contract, and not on any representation or warranty of the REGIONAL DISTRICT.

9. The Contractor shall not assign the Contract, or any portion of the Contract, or any payments due or to become due under the Contract, without the express written consent of the REGIONAL DISTRICT.
10. No action or failure to act by the REGIONAL DISTRICT or an authorized representative of the REGIONAL DISTRICT shall constitute a waiver of any right or duty afforded any of them under the Contract or constitute an approval or acquiescence in any breach thereunder, except as may be specifically agreed in writing.
11. This Agreement shall enure to the benefit of and be binding upon the REGIONAL DISTRICT and the Contractor and their respective heirs, executors, legal representatives, successors and permitted assigns. In the event of more than one person being the Contractor, the grants, covenants, provisos and claims, rights, powers, privileges, and liabilities shall be construed and held to be several as well as joint.
12. Time shall be of the essence of this Agreement.
13. This Agreement may be executed in any number of counterparts, each of which will be deemed to be an original and all of which taken together will be deemed to constitute one and the same instrument. Delivery by electronic transmission in portable document format (PDF) of an executed counterpart of this Agreement is as effective as delivery of an originally executed counterpart of this Agreement.

IN WITNESS WHEREOF the parties hereto have executed this Agreement as follows:

The Regional District of Nanaimo by its authorized signatory on \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ (the date of Agreement):

SIGNED on behalf of the REGIONAL DISTRICT by:

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

[CONTRACTOR'S NAME]

by its authorized signatory on \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_:

SIGNED on behalf of the Contractor by:

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**END OF SECTION**



## **GENERAL TERMS & CONDITIONS OF CONTRACT**

### **PART 1 LAW APPLICABLE**

This Contract shall be construed under and according to the laws of the Province of British Columbia, Canada.

### **PART 2 PRIME CONTRACTOR DESIGNATION**

The Contractor must be registered with WorkSafe BC and be in good standing with remittance up to date throughout the agreement and is designated as the Prime Contractor and shall fulfill the Prime Contractor responsibilities as defined in:

- a) *WorkSafeBC Occupational Health and Safety Regulation*, Notice of Project, Section 20.2, and Coordination of multiple employer workplaces, Section 20.3;
- b) *Workers Compensation Act (BC)*, Coordination at multiple-employer workplaces, Section 118, Subsections (1) & (2); and
- c) General Requirements, Section 3.10 WorkSafe BC.

### **PART 3 QUALITY OF WORK AND MATERIALS**

The whole of the materials and/or the work, whether or not so stated herein, shall be done in the most substantial and professional manner with new materials, articles, equipment and work of the best quality and description and by employment of properly skilled trades and in strict conformity with and as required by this contract to the satisfaction of the REGIONAL DISTRICT whether or not so stated herein. Materials and equipment shall be the products of suppliers or manufacturers of established reputation engaged in the supply or manufacture of such materials or equipment.

Materials are to be installed or incorporated into the Work applied in accordance with the manufacturer's directions. Use the techniques and application best suited for the type of material being used.

### **PART 4 JUDGE OF WORK AND MATERIALS**

The REGIONAL DISTRICT shall be the final judge of all work, materials, and plants in respect of both quality and quantity and their decisions of all questions in dispute with regard thereto will be final.

All materials shall be subject to inspection and test by and shall meet the approval of the REGIONAL DISTRICT.



In case any materials, equipment and supplies are defective in material or quality or otherwise not in conformity with the specifications of the contract, the REGIONAL DISTRICT shall have the right either to reject them or to require their correction.

Acceptance or rejection of the materials, equipment, supplies, etc. shall be made as promptly as practicable after delivery, but failure to inspect and accept or reject supplies shall not relieve the contractor from responsibility for such supplies as are not in accordance with the specifications.

#### **PART 5 RECTIFICATION OF DAMAGE AND DEFECTS**

The Contractor shall rectify any loss or damage for which, in the opinion of the REGIONAL DISTRICT, the Contractor is responsible, at no charge to the REGIONAL DISTRICT and to the satisfaction of the REGIONAL DISTRICT. In the alternative, the REGIONAL DISTRICT may repair the loss or damage and the Contractor shall pay to the REGIONAL DISTRICT the costs of repairing the loss or damage forthwith upon demand from the REGIONAL DISTRICT. Where, in the opinion of the REGIONAL DISTRICT, it is not practical or desirable to repair the loss or damage, the REGIONAL DISTRICT may estimate the cost of the loss or damage and deduct such estimated amount from the amount owing to the Contractor hereunder.

#### **PART 6 WARRANTY AND GUARANTEE**

The Contractor shall provide a written warranty agreeing, for a period of five years, after completion of the work, to promptly make repairs or replace defective materials or workmanship without additional cost to the Owner.

The membrane manufacturer shall provide a 10 Year Written Warranty for the membranes used on the project. The Contractor shall provide a Ten (10) Year RGC Roof Star Warranty and include that cost with the contract price. Inspection fees will be paid by the Owners and are not to be included. Reinspection fees are to be included. The following types of failures shall be adjudged as defective:

- Loss of waterproof integrity or leakage.
- Adhesive or cohesive failure of the roof system to the building.

#### **PART 7 ASSIGNMENT**

Unless already included as part of the original Tender submission, the Contractor shall not assign, sub-contract or let out as task work any part of the work, and shall not assign any interest herein or any right to payment hereunder without first having had and obtained the consent in writing of the REGIONAL DISTRICT; which consent the REGIONAL DISTRICT may withhold in its absolute discretion. If the REGIONAL DISTRICT should consent to any such assignment, sub-contracting or letting out as task work of all or any part of the work, the Contractor shall by reason thereof be in no ways relieved from his responsibility for the fulfillment of the work, but shall continue to be responsible for the same in the same manner as if all the work had been performed by the Contractor himself.

## **PART 8    TERMINATION**

The REGIONAL DISTRICT may by written notice to the Contractor terminate the whole or any part of this contract in any one of the following circumstances:

- a) If the Contractor fails to perform the work within the time specified herein or any extension thereof.
- b) If the Contractor fails to perform any of the other provisions of this contract, or so fails to make progress as to endanger performance of this contract in accordance with its terms and in any of these circumstances, does not cure such failure within a period of ten (10) days, or such longer period as the REGIONAL DISTRICT may authorize, in writing, after receipt of notice from the REGIONAL DISTRICT specifying any such failure.
- d) In the event that the Contractor performs any act or does anything by which the REGIONAL DISTRICT shall incur any liability whatsoever.
- e) The REGIONAL DISTRICT may terminate the Agreement, without any cost or penalty or consequence whatsoever, if it concludes, acting reasonably on the information available to it, that the Contractor is in material non-compliance with, or has been convicted of a material offence or violation of, health, safety, labour or environmental laws.
- f) In the event that any creditor of the Contractor causes a writ of execution or similar writ or court order to be served upon the REGIONAL DISTRICT requiring the REGIONAL DISTRICT to pay to such creditor or to a sheriff or other public official or to the Court any portion of the consideration due to the Contractor under this Contract.
- g) In the event that the Contractor shall be adjudged bankrupt or if it should make a general assignment for the benefit of creditors or if it becomes insolvent or is appointed by a creditor or if it should take the benefit of any Act that may be in force for bankrupt or insolvent debtors.

Upon termination of the Contract as aforesaid, the REGIONAL DISTRICT shall have no obligation to the Contractor except for such labour and materials as have been supplied or performed up to the date of the termination of the Contract.



## **PART 9 STATUTES, MUNICIPAL BY-LAWS, AND PERMITS**

Unless otherwise noted, the Contractor shall take out all necessary permits and licenses required to permit the Contractor to perform its obligations under the Contract. The Contractor shall give all notices and comply with all REGIONAL DISTRICT regulations, all laws, by-laws, ordinances, rules and regulations, whether federal, provincial or municipal, relating to the business it carries on and the services provided pursuant to the Contract, including the Workers' Compensation Act and the Employment Standards Act.

## **PART 10 SITE INSPECTION**

The Contractor shall make site inspections of all appropriate areas to determine their general condition and to ensure the fulfillment of the contract requirements.

## **PART 11 USE OF PREMISES**

The Contractor shall abide by, and shall ensure its employees abide by, all appropriate regulations, including but not limited to regulations relating to fire, safety, parking, traffic control and health. The Contractor will ensure that all of its employees are aware of the applicable regulations. Contractor will make their own provisions for power, water and washrooms if required.

## **PART 12 DAMAGE TO PERSON AND PROPERTY**

The Contractor shall use due care that no persons are injured, no property damaged or lost, and no rights are infringed in the performance of the Work, and the Contractor shall be solely responsible for all loss, damages, costs and expenses in respect of any injury to persons, damage of property, or infringement of the rights of others incurred in the performance of the Work or caused in any other manner whatsoever by the Contractor, or its employees.

## **PART 13 CLEAN UP**

The Contractor shall at all times conduct the work in an orderly and reasonably tidy manner and shall at suitable intervals remove any accumulation of rubbish or refuse materials. At no time shall any person employed by the Contractor or by any of his Subcontractors discard any litter or garbage on or adjacent to the site, except into a suitable container. Upon completion and before final acceptance of the work, the Contractor shall remove all rubbish, surplus, or discarded materials and equipment and shall leave the site in a clean and neat condition.

## **PART 14 CURRENCY OF PAYMENT**

All reference to money in this Contract shall refer to and mean lawful money of Canada.



## **PART 15 DAMAGES FOR DELAY**

If the work is not completed and/or the materials delivered before or upon the expiration of the time limited therefore all costs which the REGIONAL DISTRICT shall be put to by reason thereof shall be charged to the Contractor.

## **PART 16 PAYMENTS**

The Contractor will be solely responsible for invoicing the REGIONAL DISTRICT ensuring to include the REGIONAL DISTRICT's Purchase Order number on all invoices to assure timely payment.

All invoices are subject to prior review and approval by the REGIONAL DISTRICT and approved invoices will be paid on a net 30 day basis unless otherwise negotiated and agreed to in writing.

If the REGIONAL DISTRICT does not approve of the services or part of them which are the subject of the invoice, the REGIONAL DISTRICT shall advise the Contractor in writing of the reasons for non-approval and the Contractor shall remedy at no additional cost to the REGIONAL DISTRICT before the REGIONAL DISTRICT shall be obliged to pay the invoice or any part of it, as the case may be.

## **PART 17 CHANGE ORDERS**

If for any reason it may become desirable during the course of the work to change the alignment, dimensions or design, or to add to or to omit portions thereof, the REGIONAL DISTRICT reserves the right to issue change orders to give effect to such changes as may, in the opinion of the REGIONAL DISTRICT be necessary or desirable.

The change may or may not result in a change in the amount of the work or the schedule. If the changes do, in the opinion of the REGIONAL DISTRICT, change the amount of the work or the schedule or both, the contract price and schedule shall be adjusted as mutually agreed between the Contractor and the REGIONAL DISTRICT.

## **PART 18 PROTECTION OF REGIONAL DISTRICT AGAINST CLAIMS**

The Contractor shall assume the defense of, and indemnify and hold harmless the REGIONAL DISTRICT and its officers, employees and agents, from and against all claims relating to materials furnished and to inventions, copyrights, trademarks, or patents and rights thereto used by the Contractor in the execution of this contract and in subsequent use and/or operation by the REGIONAL DISTRICT.

## **PART 19 INSURANCE**

Insurance Obtained by Contractor





The Contractor shall itself and cause each subcontractor to obtain and maintain, at its own expense, the insurance set out below until all conditions of the Contract have been fully complied with.

#### Commercial General Liability Insurance

Commercial General Liability Insurance providing third party bodily injury, death, and property damage coverage in an amount of not less than \$5,000,000 per occurrence, indicating that the REGIONAL DISTRICT is added as Additional Insureds. The policy shall include Premises and Operations Liability; Contractor's Protective Liability with respect to the Operations of sub-contractors; Completed Operations Liability; Contractual Liability; Non-Owned Automobile Liability; and a Cross Liability and/or Severability of Interest clause protecting each insured to the same extent as if they separately insured.

The policy shall also contain a clause providing that the REGIONAL DISTRICT will receive 30 days' notice of cancellation or of any material change in coverage which will reduce the extent of coverage provided to the REGIONAL DISTRICT.

The Contractor shall file with the REGIONAL DISTRICT, prior to the commencement of work, a certificate of insurance in a form acceptable to the REGIONAL DISTRICT evidencing this policy. The Contractor shall also file with the REGIONAL DISTRICT evidence of the renewal on this policy. The Contractor is responsible for paying all deductibles.

#### Automobile Third Party Liability Insurance

A Standard Owner's Form Automobile Policy for each vehicle used in the performance of the Contract and regulated by the Insurance (Motor Vehicle) Act or similar legislation. The Third-Party Legal Liability Limits are to be in an amount not less than \$2,000,000 per occurrence.

#### Contractor's Equipment Insurance

The Contractor shall maintain an All Risk insurance policy covering all construction equipment, mobile equipment, miscellaneous equipment, tools, office contents and other miscellaneous property whether owned, leased or rented or for which the Contractor may be responsible, that is used in any way in connection with this Contract.

#### Other Insurance

The Contractor and subcontractors shall provide at their own cost any additional insurance which they are required by law to provide or which they consider necessary.

#### Waiver of Subrogation

Each insurance policy obtained by the Contractor or any subcontractor shall include the following clause:

“Waiver of Subrogation

It is understood and agreed that in the event of a loss and upon payment of any claim hereunder, the insurer will waive its right of subrogation against the REGIONAL DISTRICT and any of their servants, agents, employees, parent, subsidiary, affiliated or related firms.”

## **PART 20 FORCE MAJEURE**

Neither party shall be responsible for any delay or failure to perform its obligations under this agreement where such a delay or failure is due to fire, flood, explosion, war, embargo, governmental action, pandemic, epidemic, act of public authority, act of god or to any other cause beyond its control, except labour disruption. In the event force majeure occurs, the party who is delayed or fails to perform shall give prompt notice to the other party and shall take all reasonable steps to eliminate the cause. Should the force majeure event last longer than 30 calendar days, the REGIONAL DISTRICT may terminate this agreement immediately by written notice to the contractor without further liability, expense, or cost of any kind.

## **PART 21 DISPUTE RESOLUTION**

21.1 If the parties to this Agreement are unable to agree on the interpretation or application of any provision in the Agreement, or are unable to resolve any other issue relating to this Agreement, the parties agree to the following process in the order it is set out:

- (a) the party initiating the process will send written notice to the other party (the “Dispute Notice”); and
- (b) the parties will promptly, diligently and in good faith, including the senior management of both parties, take all reasonable measures to negotiate an acceptable resolution to the disagreement or dispute.

21.2 If the parties are unable to negotiate a resolution within 30 days of the Dispute Notice, the parties may request the assistance of a mediator agreed to by the parties within 30 days written notice of a request to appoint a mediator by any party, failing which the mediator will be appointed by the B.C. International Commercial Arbitration Centre (BCICAC), and unless the parties agree otherwise, this mediation will follow BCICAC rules and will terminate 60 days after the appointment of the mediator.

21.3 The parties will be responsible for their own costs under the dispute resolution process set out in this part 21.0.

## **PART 22 INDEPENDENT CONTRACTOR**

The Contractor shall be, and in all respects be deemed to be, an independent contractor and nothing in this *Agreement* shall be construed to mean that the Contractor is an employee of the REGIONAL DISTRICT or that any agency, joint venture or partnership exists between the *Contractor* and the *REGIONAL DISTRICT*.

## **PART 23 HOURS OF WORK**

No work will be permitted outside the hours defined below:

Before 7:00 a.m. or after 6:00 p.m., Monday to Friday. Work on weekends and holidays only with prior written permission from the REGIONAL DISTRICT.

## **PART 24 CONTRACT DOCUMENTS**

“Contract Documents” consist of the following documents:

- (1) The duly executed Agreement
- (2) The General Conditions
- (3) The duly executed Tender Form
- (4) Addenda
- (5) Drawings
- (6) Specifications
- (7) Appendices
- (8) The Tender Documents
- (9) Other relevant documents such as but not limited to letters of clarification and any reports, standards or the like included by reference