

## **RFQ24-11 REQUEST FOR QUOTE**



**Project Location:** Roof Replacement at Pump House, Gander Lake

**Scope of Work:**

- removal and disposal of the existing roof to expose metal deck.
- Remove and replace defective metal decking (Approximate area 4'x4'} around the SE center drain.
- Disconnect two center drains and cap over.
- Combination of adhesive and mechanical fasteners to be used as required (areas of conduit exist tight under the roof deck).
- supply and installation ½" thermal barrier vapor barrier, base insulation, 2% tapered insulation sloped to the two side walls, recovery board, 3 mm base membrane, cap membrane and metal flashing.
- supply and installation of eavestrough and downspouts on both sidewalls (minimum 4"}
- Two drains at the center area of the roof to be disconnected immediately below roof deck and holes repairs.
- See attached sketch #24-501 and specifications.
- Prices to be held firm for 30 days from closing date.

1. Any questions or queries about the project or to arrange a viewing to be directed to Merv Reid [mreid@gandercanada.com](mailto:mreid@gandercanada.com) or cell 709-422-1392.
2. Site visit is recommended.

### **Requirements: Health, Safety and Environment**

- Successful bidder must be trained in fall arrest and or fall restraint systems, The Town reserves the right to request proof of training prior to the start of work.
- Workers Compensation clearance letter must be submitted prior to start of work.
- Proof of Commercial General liability Insurance with a min of \$2,000,000 coverage must be submitted prior to start of work.
- Company must be core certified, qualified, and equipped to safely carry out roof repair.
- This is an active work site must be always kept clean and tidy, debris material kept in a bin/dump trailer, with minimal disruption to users.
- Town of Gander's Occupational Health and Safety Program forms to be completed.
- A pre-construction meeting must be arranged.
- Bid deposit in the amount of 10% of bid before taxes Certified cheque or Money order will be accepted. We will hold this deposit until the 30-day inspection is complete.

**TOWN OF GANDER**

**Roof Replacement – Pump House**

**Quoted price \$** \_\_\_\_\_

**H.S.T. 15% \$** \_\_\_\_\_

**Total \$** \_\_\_\_\_ **Cdn Dollars**

The undersigned hereby agrees to complete the shingle replacement work, compliant with all specifications at the above quoted prices. The undersigned also agrees to all terms and conditions.

**Name of Bidder:** \_\_\_\_\_

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

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

**Telephone Number:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Authorized Signature**

**Date**

Bids may be couriered, mailed or hand delivered in a sealed envelope with the words clearly marked on front of envelope "Roof Replacement -Pump House, Gander Lake and must be received by the below noted deadline addressed to:

Suzanne White  
Procurement Officer  
Town of Gander  
Town Hall, 100 Elizabeth Drive  
Gander, NL A1V 1G7  
Phone: 709-800-4543

Deadline for Bid Submissions: Thursday, May 14<sup>th</sup>, 2024 @2:00 p.m. local time

The Town of Gander does not bind itself to accept the lowest or any bid.

**NOTES**

1. REMOVE ALL ROOF MOUNTED EQUIPMENT AND PENETRATIONS, INCLUDING #1Y ASSOCIATED CURBS, DOWN TO ROOF DECK. CONSTRUCT NEW CURBS TO SUIT EQUIPMENT USING PT WOOD AS REQUIRED. REINSTALL OR REPLACE AN ROOF VENTS IS NECESSARY
2. REMOVE ROOF DRAINS TO U/S OF ROOF DECK. REPAIR ROOF DECK W/1<1< SIMILAR MATERIAL AS REQUIRED
- J. REMOVE ROOF DRAIN TO U/S OF ROOF DECK. REMOVE DETERIORATED ROOF DECK AS REQUIRED (APPROXIMATE A-EA 1. m')



**TOWN OF GANDER**

PLANNING AND MUNICIPAL SERVICES  
 1001 1st Street, Gander, NL A1V 1Y1

P.O.J. c:

**GANDER LAKE PUMP HOUSE  
 ROOF REPLACEMENT**

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**ROOF PLAN**

Drawn By  
**JUSTIN COLLINS**

Scale  
**AS SHOWN**

Date:  
**APRIL 5 2024**

Sheet Number:  
**1 OF**

Drawing Number **24-501**

**OGI** SITSITTS,

REMOVE ROOF DRAIN  
 (TYP.) SEE NOTE 2

[8J

**EXISTING ROOF**

SCALE - 1:100

SUPPLY AND INSTALL  
 EAVESTROUGH

**ALL ITEMS INDICATED ON  
 SURFACE OF ROOF IN  
 APPROXIMATE LOCATION(S).  
 CONTRACTOR TO CONFIRM  
 EXACT LOCATIONS AND  
 QUANTITY OF EACH PRIOR TO  
 COMMENCEMENT OF WORK**

ROOF AREA - ± 225m<sup>2</sup>

SUPPLY AND INSTALL  
 EAVESTROUGH

24.38

**NEW ROOF**

SCALE - 1:100

**PART 1      PRODUCTS**

**1.1            THERMAL BARRIER AND AIR/VAPOUR BARRIER**

- .1 Thermal Barrier: Pre-primed glass mat faced gypsum panel non-asphaltic, highly filled proprietary heat-cured coating on one side, to ASTM C1177, 12.7 mm thick.
- .2 AirNapour Barrier: Self adhering peel and stick air/vapour barrier composed of Styrene-Butadiene-Styrene (SBS) modified bitumen reinforced with high density polyethylene film, anti slip surface, minimum thickness 1.0 mm.

**1.2            INSULATION AND COVER BOARD COMPONENTS**

- .1 For flat roof decks or roof structures, provide custom designed tapered insulation with minimum slope of 2.0 mm in 100 mm (2%). Taper insulation to roof edges, minimum RSI value at drain to be 1.3.
- .2 Expanded Polystyrene Insulation (EPS), Cover Board and Asphalt Recover Board:
  - .1 Expanded Polystyrene Insulation (EPS):
    - .1 To CAN/ULC-S701, Type 1, square edged.
    - .2 Insulation value thickness per cm based on values listed in the latest edition of NRC - Evaluation Listings.
    - .3 Provide two layers of insulation installed with staggered joints.
  - .2 Cover Board Non-structural, glass mat faced gypsum panel with water-resistant core to ASTM C1177, 6.35 mm thick.
  - .3 Asphalt Recover Board: Semi-rigid asphalt roofing substrate composed of mineral core between glass fibre mats, 1200 x 1500mm sheets, minimum thickness 3.0 mm.
- .3 Extruded Polystyrene Insulation (XPS) and two layers of Asphalt Recover Board:
  - .1 Extruded Polystyrene Insulation (XPS):
    - .1 To CAN/ULC-S701, Type 2, square edged.
    - .2 Insulation value thickness per cm based on values listed in the latest edition of NRC - Evaluation Listings.

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**Town of Gander**  
**Gander Lake Pump House Roof Replacement**

Modified Bituminous  
Membrane Roofing

2024/03/04

Page 2 of 8

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- .3 Provide two layers of insulation installed with staggered joints.
- .4 One (1) layer of Asphalt Recover Board: Semi-rigid asphalt roofing substrate composed of mineral core between glass fibre mats, 1200 x 1500mm sheets, minimum thickness 3.0 mm each.

- .4 Total assembly RSI value:
  - .1 Minimum average RSI value of assembly insulation components to be 5.02. Insulation assembly components to consist of thermal barrier, insulation and cover board.

**1.3 BASE SHEET**

- .1 Base Sheet: Base sheet: to CGSB-37.56-M, Styrene-Butadiene-Styrene (SBS) elastomeric polymer, prefabricated sheet, non woven, polyester reinforcement, weighing 180 g/m<sup>2</sup>.
  - .1 Type 2, fully adhered.
  - .2 Class P-plain surfaced.
  - .3 Grade 2.
  - .4 Top and bottom surfaces:
    - .1 Polyethylene/polyethylene.
  - .5 Base sheet membrane properties:
    - .1 Strain energy (longitudinal/transversal): 9.0/7.0 kN/m.
    - .2 Breaking strength (longitudinal/transversal): 17.0/12.5 N/5 cm.
    - .3 Ultimate elongation (longitudinal/transversal): 60/65 %.
    - .4 Tear resistance: 60 N.
    - .5 Cold bending at -30 degrees C: no cracking.
    - .6 Static puncture resistance: > 400.
    - .7 Dimensional Stability -0.3 / 0.3 %.

**1.4 CAP SHEET**

- .1 Cap sheet to CGSB-37.56-M, Styrene-Butadiene-Styrene (SBS) elastomeric polymer, prefabricated sheet, glass, polyester reinforcement, weighing 250 g/m<sup>2</sup>.
  - .1 Type 2, fully adhered.
  - .2 Class G-granule surfaced
  - .3 Grade 2.

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**Town of Gander**  
**Gander Lake Pump House Roof Replacement**  
Modified Bituminous  
Membrane Roofing

---

2024/03/04

Page 3 of 8

- .4 Bottom surface polyethylene.
- .5 Colour to be light (grey)
- .6 Cap sheet membrane properties:
  - .1 Strain energy (longitudinal/transversal) 10 0/10 0 kN/m.
  - .2 Breaking strength (longitudinal/transversal): 18.0/10.0 kN/m.
  - .3 Ultimate elongation (longitudinal/transversal): 60/65 %.
  - .4 Tear resistance: 75 N.
  - .5 Cold bending at -30 degrees C: No cracking.
  - .6 Static puncture resistance: > 420.
  - .7 Dimensional Stability: -0.8 / -0.2 %.
- .2 Minimum total thickness if base sheet and cap sheet combined to be 5.8 mm. Cap sheet and base sheet to be of same manufacturer.

**1.5 BASE SHEET FLASHING**

- .1 To CGSB-37.56-M, Type 2, Class C, Grade 2, non-woven polyester reinforced 180g/m<sup>2</sup>, self-adhesive membrane with polyethylene top face and release film under face.

**1.6 SEALERS**

- .1 Mastic made of synthetic rubbers, plasticized with bitumen and solvents with aluminum pigments to provide greater resistance to U.V.

**1.7 PRIMERS**

- .1 For self-adhesive membranes: A blend of elastomeric bitumen, volatile solvents and adhesive enhancing resins used to prime porous and non-porous substrates such as gypsum board, wood, concrete or metal to enhance the adhesion of self-adhesive membranes at temperatures above -10° C.
- .2 For heat welded membranes: A blend of elastomeric bitumen, volatile solvents and adhesive enhancing additives used to prime concrete or metal substrates to enhance the adhesion of torch-applied membranes.

**1.8 FASTENERS**

- .1 Fasteners minimum #14 mechanical fasteners made of case-hardened carbon steel with corrosion resistance coating, complying with FM standards. 75 mm diameter round or hexagon stress plates complying with CSA B35.3 and FM 4470 approval standards, diameter and lengths

as required to suit total assembly thickness. Ensure fasteners have the following deck penetration:

- .1 For metal decks: minimum 19 mm and maximum 25 mm longer than assembly being secured. Fasteners to engage metal deck top flange..
- .2 Roofing adhesive: single-component, moisture cured, solvent free polyurethane adhesive, dispensed from a portable disposable pre-pressurized container.

## **PART 2      EXECUTION**

### **2.1      WORKMANSHIP**

- .1 Do roofing work in accordance with applicable, standard in Canadian Roofing Contractors Association (CRCA) Roofing Specifications Manual, except where specified otherwise.

### **2.2      PROTECTION**

- .1 Cover walls and adjacent work where materials hoisted or used.
- .2 Use warning signs and barriers. Maintain in good order until completion of work.
- .3 Clean *off* drips and smears of bituminous material immediately.
- 4 Dispose of rain water off roof and away from face of building until roof drains or hoppers installed and connected..
- .5 Protect roof from traffic and damage.
- .6 At end of each day's work or when stoppage occurs due to inclement weather, provide protection for completed work and materials out of storage.
- .7 Install insulation promptly to avoid possibility of condensation beneath vapour retarder.
- .8 Take necessary measures ensuring no penetration of the elements will occur to the building after commencement of work, including but not limited to water.
- .9 Only remove quantities of existing roofing material and install quantities of new roofing materials per day that can be covered with waterproofing membranes.

## 2.3

### **EXAMINATION OF ROOF DECKS**

- .1 Examine roof decks and immediately inform of Owner in writing of defects.
- .2 Prior to commencement of work ensure:
  - .1 Decks are firm, straight, smooth, dry, and free of snow, ice or frost, and swept clean of dust and debris.
  - .2 Curbs have been built. Coordinate height of roof curbs with.
  - .3 Plywood and lumber nailer plates have been installed to deck, walls and parapets as indicated.
- .3 Do not install roofing materials during rain or snowfall.

## 2.4

### **EXPOSED MEMBRANE ROOFING APPLICATION (METAL ROOF DECK)**

- .1 Thermal Barrier and AirNapour Barrier:
  - .1 Place thermal barrier with long axis of each sheet transverse to steel deck ribs, with end joints staggered and fully supported on ribs.
  - .2 Secure thermal barrier to metal deck using one (1) fastener per board, located at the centre of the board, fasteners to be FMRC approved. **OR**, apply beads of roofing adhesive to metal deck in accordance with manufacturer's written instructions. Adhere thermal barrier in adhesive and walk-in thermal barrier to insure maximum contact with adhesive.
  - .3 Fit butt edge joints **in** firm contact with one another.
  - .4 Prime all surfaces of thermal barrier to receive modified bituminous sheet air/vapour barrier as per manufacturer's instructions.
  - .5 Apply modified bituminous sheet air/vapour barrier to thermal barrier in an overlapping shingle fashion. Stagger all vertical joints.
  - .6 Align modified bituminous sheet air/vapour barrier, remove protective film and press firmly into place. Ensure minimum 50 mm overlap at all ends and side laps. Roll membrane, including seams, with counter top roller to ensure full contact.



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**Town of Gander**  
**Gander Lake Pump House Roof Replacement**  
Modified Bituminous  
Membrane Roofing

2024/03/04

Page 6 of 8

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.2 Insulation

- .1 Loosely lay layer of insulation over thermal barrier and air/vapour barrier. **OR** apply beads of roofing adhesive to air/vapour barrier in accordance with manufacturer's written instructions. Adhere insulation in adhesive and walk-in insulation boards to ensure maximum contact with adhesive.
- .2 Place boards in parallel rows with ends staggered, and in firm contact with one another.
- .3 Cut end boards to suit.
- .4 Install tapered insulation in accordance with shop drawings.

.2 Cover Board Components (Expanded Polystyrene (EPS)):

- .1 Loosely lay cover board over EPS insulation. **OR**, apply beads of roofing adhesive to insulation in accordance with manufacturer's written instructions. Adhere cover board in adhesive and walk-in cover boards to insure maximum contact with adhesive.
- .2 Place boards in parallel rows with ends staggered and in firm contact with one another.
- .3 Cut end boards to suit.
- .4 Mechanically fasten asphalt recover board over cover board with plates and fasteners. **OR**, apply beads of roofing adhesive to cover board in accordance with manufacturer's written instructions. Adhere asphalt recover board in adhesive and walk-in asphalt recover boards to insure maximum contact with adhesive.
- .5 Fit boards tight together. Stagger joints between asphalt recover board and cover board. Install fasteners/adhesive based on design wind uplift securement requirements, for the building site location, for insulation and cover board, in accordance with manufacturer's recommendations.

**OR**

Cover Board Components (Extruded Polystyrene (XPS)):

- .1 Cover XPS insulation with two layers of asphalt recover board.
- .2 Place boards in parallel rows with ends staggered and in firm contact with one another.
- .3 Cut end boards to suit.

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**Town of Gander**  
**Gander Lake Pump House Roof Replacement**  
Modified Bituminous  
Membrane Roofing

2024/03/04

Page 7 of 8

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- .4 Mechanically fasten asphalt recover board with plates and fasteners. **OR**, apply beads of roofing adhesive for each layer of asphalt recover board in accordance with manufacturer's written instructions. Adhere each layer of asphalt recover board in adhesive and walk-in asphalt recover boards to insure maximum contact with adhesive.
- .5 Fit boards tight together. Stagger joints between layers of asphalt recover board. Install fasteners/adhesive based on design wind uplift securement requirements, for the building site location, for insulation and cover board, in accordance with manufacturer's recommendations.
- .3 Base Sheet Application:
  - .1 Starting at low point of roof, perpendicular to slope, unroll base sheet, align and reroll from both ends.
  - .2 Unroll and torch base sheet onto recover board taking care not to burn membrane or its reinforcement.
  - .3 Lap sheets 75 mm minimum for side and 150 mm minimum for end laps.
  - .4 Application to be free of blisters, wrinkles and fishmouths.
- .4 Cap Sheet Application:
  - .1 Starting at low point on roof, perpendicular to slope, unroll cap sheet, align and reroll from both ends.
  - .2 Unroll and torch cap sheet onto base sheet taking care not to burn membrane or its reinforcement.
  - .3 Lap sheets 75 mm minimum for side laps and 150 mm minimum for end laps. Offset joints in cap sheet 300 mm minimum from those in base sheet.
  - .4 Application to be free of blisters, fishmouths and wrinkles.
  - .5 Do membrane application in accordance with manufacturer's recommendations.
- .5 Flashings:
  - .1 Complete installation of flashing base sheet stripping prior to installing membrane cap sheet.
  - .2 Torch, base and cap sheet onto substrate in 1 metre wide strips.
  - .3 Lap flashing base sheet to membrane base sheet minimum 150 mm and seal by torch welding.

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**Town of Gander**  
**Gander Lake Pump House Roof Replacement**  
Modified Bituminous  
Membrane Roofing

2024/03/04

Page 8 of 8

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- .4 Lap flashing cap sheet to membrane cap sheet 250 mm minimum and torch weld.
- .5 Provide 75 mm minimum side lap and seal.
- .6 Properly secure flashings to their support, without sags, blisters, fishmouths or wrinkles.
- .7 Do work in accordance with manufacturer's recommendations.

**2.5 ROOF PENETRATIONS**

- .1 Install vent stack covers, curbs and other roof penetration.
- .2 Flashings and seal to membrane in accordance with the manufacturer's recommendations and details.