TOWN OF
PEACE RIVER
ALBERTA

Peace River Museum
2023
Re-Roof Project

Mandatory Site Meeting: June 14, 2023 at 10:00 Hours

Bid Closing: June 21, 2023, at 2:00 p.m.

Completion Date: July 30, 2023

Reference #: TPR2023011

Consultant: All Peace Roof Inspections Ltd.
Box 1791, Fairview
Alberta, T0H 1L0
Phone: 780-618-7790

1. LIST OF SPECIFICATION SECTIONS

Division	Section Number	Section Name
DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS		
Instructions for Procurement	00 01 16	List of Drawing Sheets
	00 21 14	Instructions to Bidders
	00 25 14	Mandatory Attendance Pre-Bid Meeting
Procurement Forms and Supplements	00 41 14	Stipulated Price Bid and Contract Form
	00 43 13	Bid Security
	00 72 14	General Conditions
DIVISION 01 – GENERAL REQUIREMENTS		
General Requirements	01 00 15	General Requirements
	01 21 16	Contingency Allowance
DIVISION 02 – EXISTING CONDITIONS		
Demolition and Structure Moving	02 41 19	Selective Building Demolition
DIVISION 06 – WOOD PLASTICS AND COMPOSITES		
Rough Carpentry	06 10 00	Rough Carpentry
DIVISION 07 – THERMAL AND MOISTURE PROTECTION		
Membrane Roofing	07 54 23	Thermoplastic Membrane Roofing
Flashing and Sheet Metal	07 62 00	Metal Flashings for Membrane Roofing
DIVISION 20 – COMMON MECHANICAL REQUIREMENTS		
Roof Top Equipment	20 00 13	Mechanical General Requirements

END OF TABLE OF CONTENTS

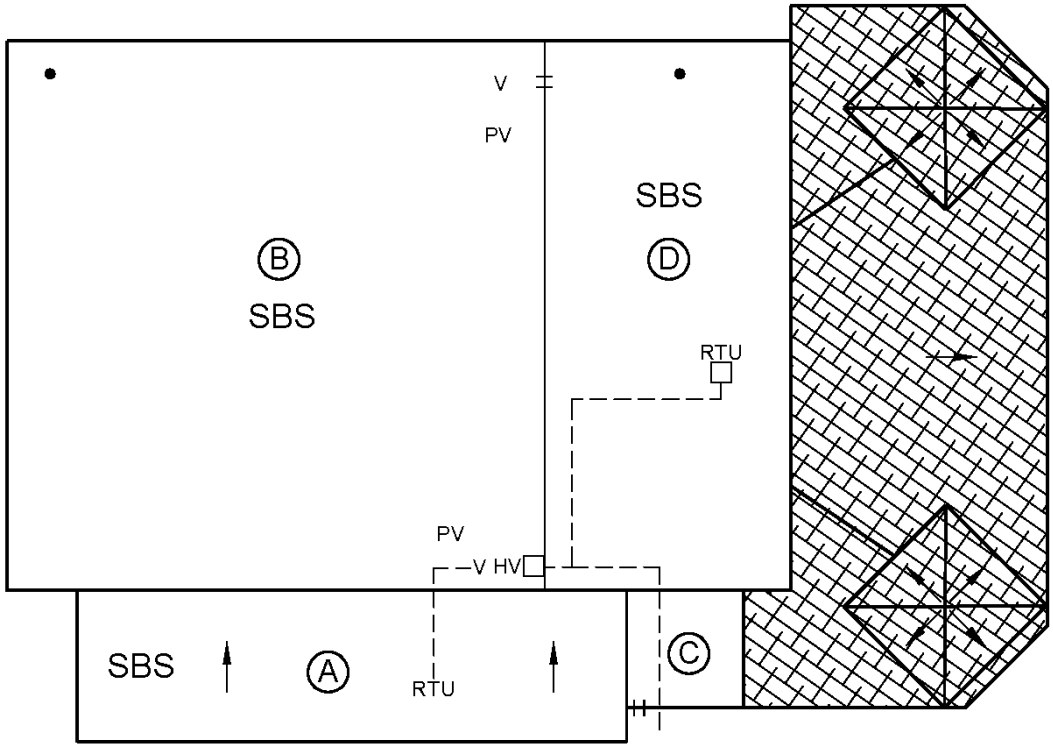
1. GENERAL

.1 Drawings listed below and appended to this Section apply to work of the Contract generally and form part of the Contract Documents.

DRAWINGS – PEACE RIVER MUSEUM

Number	Name/Title	Date
Drawing -1	Roof Plan	June 2023
Drawing -2	Detail Locations	June 2023
Drawing -3	Parapet Wall	June 2023
Drawing -4	Inside Wall	June 2023
Drawing -5	Inside Wall (SBS Tie-In)	June 2023
Drawing -6	Typical Drain	June 2023

END OF SECTION



Legend

- • Drain
- □ Gum Box
- = Scupper
- PV Plumbing Vent
- V Vent
- RTU Roof Top Unit
- ← Slope
- — — Gas Line
- Ⓐ Roof Area
- ▨ Fire Treated Cedar Shingles

ALL PEACE ROOF INSPECTIONS LTD.
BOX 1791 Fairview, Alberta T0H 1L0
PH: (780)618-7790

CLIENT

TOWN OF PEACE RIVER

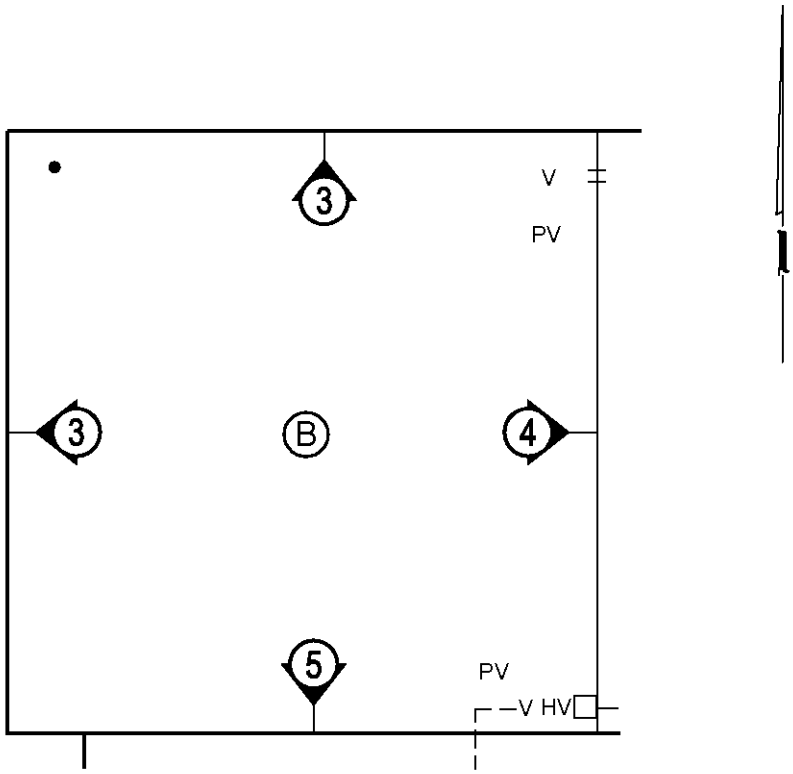
PROJECT

PEACE RIVER MUSEUM
PEACE RIVER, ALBERTA

DRAWING TITLE

DRAWING No. 1
ROOF PLAN - N.T.S.

JUNE 2023



Legend

- Drain
- Gum Box
- Scupper
- PV Plumbing Vent
- V Vent
- Gas Line
- (A) Roof Area

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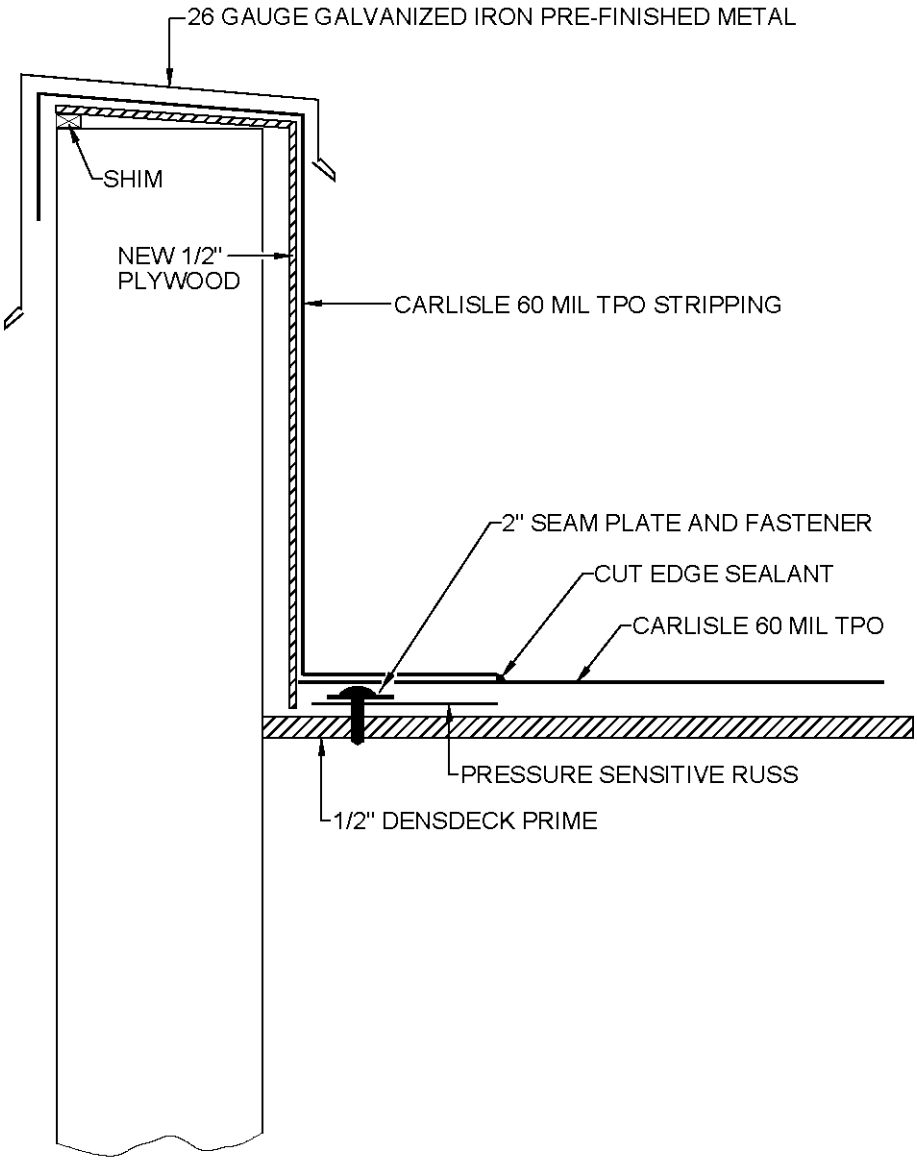
PROJECT

PEACE RIVER MUSEUM
PEACE RIVER, ALBERTA

DRAWING TITLE

DRAWING No. 1
ROOF DETAILS - N.T.S.

JUNE 2023



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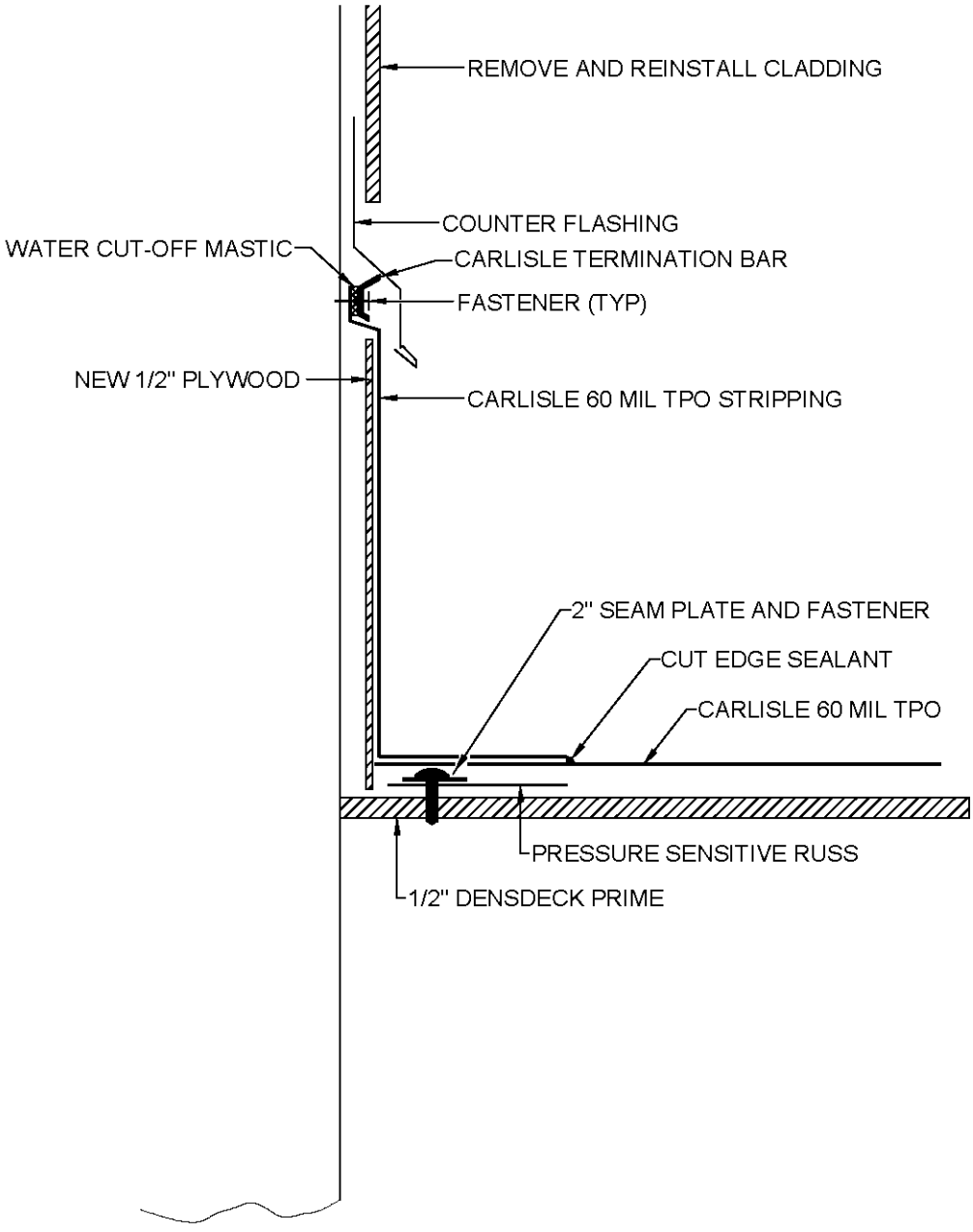
THE TOWN OF PEACE RIVER
PROJECT

PEACE RIVER MUSEUM
PEACE RIVER, ALBERTA

DRAWING TITLE

DRAWING No. 3
PARAPET WALL - N.T.S.

JUNE 2023



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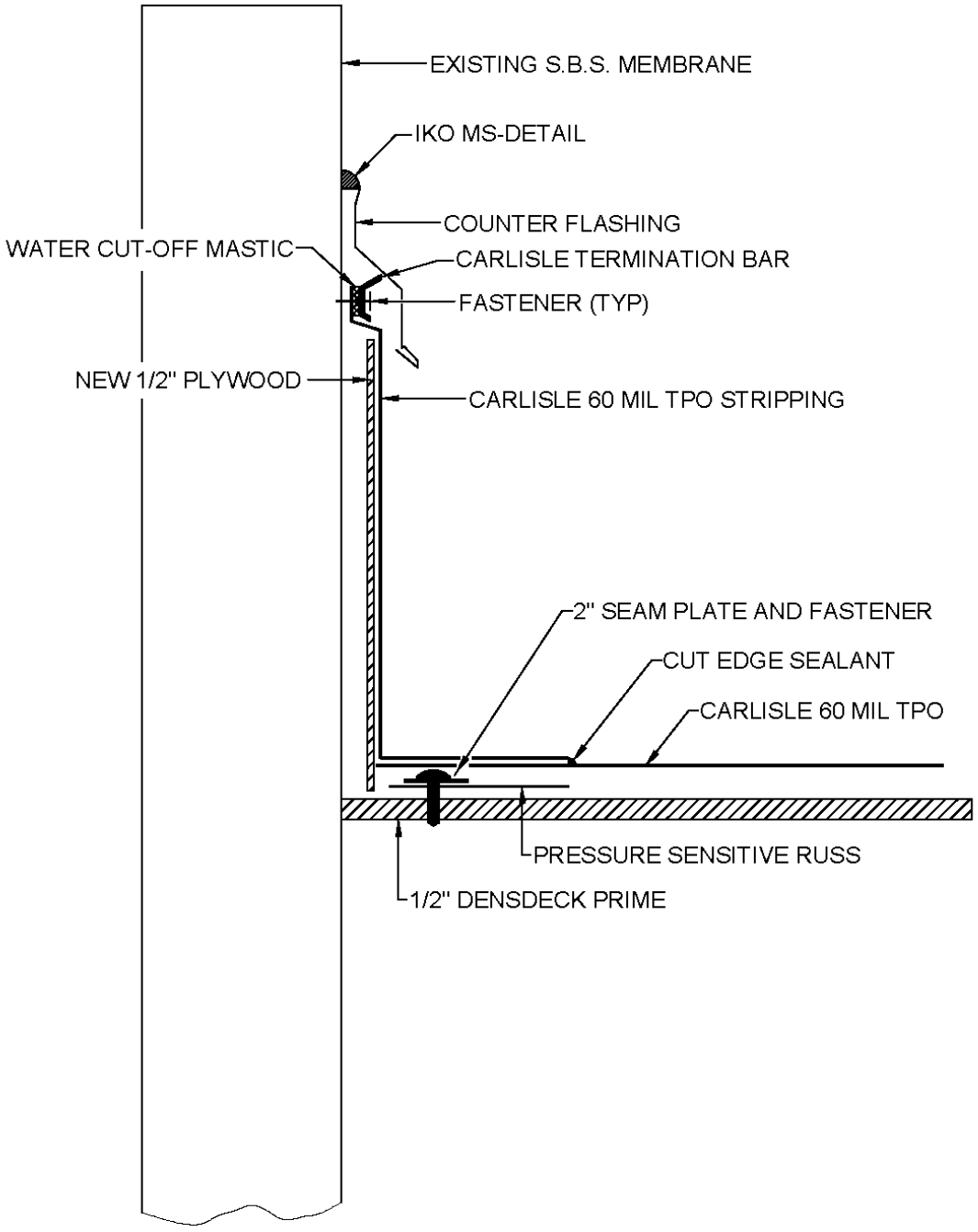
CLIENT
THE TOWN OF PEACE RIVER
PROJECT

PEACE RIVER MUSEUM
PEACE RIVER, ALBERTA

DRAWING TITLE

DRAWING No. 4
INSIDE WALL - N.T.S.

JUNE 2023



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PH: (780)618-7790

CLIENT
THE TOWN OF PEACE RIVER

PROJECT
PEACE RIVER MUSEUM
PEACE RIVER, ALBERTA

DRAWING TITLE

DRAWING No. 5
INSIDE WALL (SBS TIE-IN) - N.T.S.

JUNE 2023

1. SUMMARY

.1 The intent of this bid call is to solicit and receive formal offers to perform the following Work:

.1 Replacement of the S.B.S. roof system on:
Peace River Museum (Area-B) with a T.P.O. roof system.
10302-99 Street, Peace River, Alberta

2. BID SUBMISSION

.1 Bids will be received before 14:00 Hours local time on June 21, 2023 by:
Ms. Tanya Bell – Director of Community Services
Town of Peace River
P.O. Box 6600
9911-100 Street
Peace River, Alberta T8S 1S4
Telephone: (780) 624-1000

.2 For bid closing purposes, the official time of receipt of bids shall be as determined by the time recorder clock used to time and date stamp bids upon submission to the above location.

.3 Submit bids on forms provided in the Bid Documents.

.4 When a pre-addressed envelope is not available, include the following information on a Bidder supplied envelope:

.1 Labeled as a "Bid".
.2 Name of the Project/Work specified in 1.1.
.3 Address for receipt of bids, as specified in 2.1.
.4 Bidder's Name

.5 Seal envelope and deliver to address specified in 2.1.

.6 Emailed or Faxed Bids will not be accepted.

3. BID DOCUMENTS

.1 The Bid Documents consist of these Specifications, the Drawings, if any, information documents, if any, and addenda, if any.

4. BID AND CONTRACT FORM

.1 Complete Bid and Contract Form by typing or legibly printing, and signing, in spaces provided.

.2 Any required information that is omitted or illegible, any alterations to the text, or any conditions added on or submitted with the Bid and Contract Form may cause the bid to be declared invalid and rejected.

5. BID AND CONTRACT FORM SUPPLEMENTS

.1 Prepare and submit each required supplement to the Bid Form as specified below.

.2 Enclose the following Bid and Contract Form supplement[s] together with the Bid and Contract Form in a single envelope and submit before the bid closing time:

.1 Bid security, as specified in Section 00 43 13.

6. BID MODIFICATION

.1 A submitted bid may be modified, provided the modification:

.1 is submitted before the bid closing time, and

.2 states the project title, plan number, name of the Bidder, the nature of the modification, and is signed by an authorized person.

.2 Bid modifications will not be accepted by e-mail or fax.

.3 When submitting a modification directing a change in a bid amount, do not reveal the original amount nor the revised amount. State only the amount to be added to or deducted from an original bid amount.

.4 When submitting a second or more modifications related to a single bid amount, ensure that there is no ambiguity as to the intended bid price.

.5 The Owner will assume no responsibility or liability for the content of modifications, or for modifications that are, for any reason, delayed, illegible, unclear as to intent, ambiguous, contrary to these instructions, or otherwise improperly received. The Owner may disregard improperly received modifications.

7. BID WITHDRAWAL AND ACCEPTANCE

.1 At Bidder's request, a bid may be withdrawn at any time before the bid closing time.

.2 A bid may not be withdrawn at or after bid closing time and shall be open to acceptance by the Owner until:

.1 some other Bidder has entered into a contract with the Owner for performance of the Work, or

.2 35 days after the bid closing time,

whichever occurs first.

.3 The lowest or any bid will not necessarily be accepted and the Owner may reject any and all bids.

.4 The Owner may negotiate contract terms with the Bidder submitting the lowest valid bid, provided that the negotiated changes to the Bid Documents result in either no change to the bid price or a reduced bid price. Such changes may be formalized in the form of a Post-Bid Addendum that, upon written acceptance by the Bidder, shall form part of the Contract Documents.

8. BID OPENING

.1 Bids will be opened in public immediately after the bid closing time.

.2 The name of each Bidder and the bid price stated on the Bid and Contract Form will be read aloud. The reading aloud of a bid price shall not be considered a representation or warranty that the price is correct or that the bid is valid.

9. IRREGULARITIES

.1 A bid that is informal, incomplete, qualified, non-compliant with the requirements of the Bid Documents, or otherwise irregular in any way, may be declared invalid and rejected.

.2 The Owner may accept or waive a minor and inconsequential irregularity, or where practicable to do so, the Owner may, as a condition of bid acceptance, request a Bidder to correct a minor and inconsequential irregularity with no change in bid price.

.3 The determination of what is, or is not, a minor and inconsequential irregularity, the determination of whether to accept, waive, or require correction of an irregularity, and the final determination of the validity of a bid, shall be at the Owner sole discretion.

.4 Discrepancies between words and figures will be resolved in favour of words.

10. AVAILABILITY OF BID DOCUMENTS

.1 Bid Documents are available, at no charge: Contact Mr. Sean Lucas 780-618-7790

11. GST EXCLUDED

.1 Bidders shall not include GST in their bid prices.

12. EXAMINATION OF BID DOCUMENTS AND SITE

.1 Bidder shall, before submitting a bid:

.1 examine and read the Bid Documents thoroughly,

.2 visit site and its surroundings and other locations to become familiar with local and other conditions affecting the Work,

.3 consider the effect of regulatory requirements applicable to the Work,

.4 study and correlate Bidder's observations with the Bid Documents,

.5 immediately notify Owner of all perceived omissions and discovered conflicts, errors and discrepancies in the Bid Documents, and

.6 be satisfied that Bidder understands the Bid Documents and is competent to undertake and complete the Work.

13. BID SECURITY

.1 Provide and submit the bid security specified in Section 00 43 13 - Bid Security.

14. PRODUCT SUBSTITUTIONS

.1 Where products are specified by a proprietary specification, and substitutions are permitted, Bidders may base their bids on a named product or manufacturer or on unnamed substitutions, subject to the requirements specified for substitutions in the General Conditions.

.2 During the bid period, it is the sole responsibility of each Bidder to determine whether a substitution meets the requirements specified in the General Conditions.

.3 The Owner will not consider requests for approval of substitutions from Bidders during bid period. Substitutions will be evaluated and approved or rejected by the Owner after contract award.

15. INTERPRETATION AND MODIFICATION OF BID DOCUMENTS

.1 Submit questions about the meaning and intent of the Bid Documents to the person identified under "Inquiries".

.2 If an inquiry requires an interpretation or modification of the Bid Documents, the response to that inquiry will be issued in the form of a written Addendum only.

.3 Submit inquiries as early as possible in the bid period. If an inquiry requires an interpretation or modification of the Bid Documents, but is received too close to the bid closing time to permit issuance of an Addendum, the Owner may be unable to respond to that inquiry.

.4 Any replies to inquiries or interpretations or modifications of the Bid Documents made verbally, by e-mail, or by any manner other than in the form of a written Addendum, shall not be binding.

16. ADDENDA

.1 During the bid period, Addenda will be issued via email to all parties recorded by the Owner as attending Mandatory site meeting.

.2 Addenda shall become part of the Bid and Contract Documents.

.3 Each Bidder shall ascertain before bid submission that it has received or read all Addenda issued by the Owner.

END OF SECTION

1. MANDATORY ATTENDANCE PRE-BID MEETING

.1 A pre-bid meeting will be held at the time and place specified on the cover of this Specification.

.2 Purpose is to:
- .1 Provide Bidders an opportunity to familiarize themselves with the Work.
- .2 Provide Bidders an opportunity to familiarize themselves with existing conditions.

.3 Owner's representative(s) will be present.

.4 This will be Bidders' only opportunity to inspect the site.

.5 Attendance at the time and place specified is mandatory for all prime contract Bidders and is a condition of contract award.

.6 No information provided by the Owner or his representatives at the mandatory pre-bid meeting and site inspection shall be binding, unless such information is included in an Addendum.

END OF SECTION

1. FROM (Bidder): _____
(Name)

_____
(Company Representing)

2. FROM (Bidder): _____
(Name)

_____
(Company Representing)

3. FROM (Bidder): _____
(Name)

_____
(Company Representing)

4. FROM (Bidder): _____
(Name)

_____
(Company Representing)

5. FROM (Bidder): _____
(Name)

_____
(Company Representing)

6. FROM (Bidder): _____
(Name)

_____
(Company Representing)

7. FROM (Bidder): _____
(Name)

_____
(Company Representing)

8. FROM (Bidder): _____
(Name)

_____
(Company Representing)

9. FROM (Bidder): _____
(Name)

_____
(Company Representing)

10. FROM (Bidder): _____
(Name)

_____
(Company Representing)

It is understood that attendance at the pre-bid meeting is mandatory, signed by both the Bidder's representative and the Owner's representative. The undersigned hereby confirm that a representative of the above named Bidder attended the pre-bid meeting for the above name project, held on:

_____

_____ _____

SIGNATURE OF
OWNER'S REPRESENTATIVE:

NAME OF PERSON SIGNING BESIDE:

_____ _____

TO: Ms. Tanya Bell- Director of Community services
The Town of Peace River
P.O. Box 6600
9911-100 Street
Peace River, Aberta
T8S 1S4

PROJECT NAME: The Town of Peace River
Peace River Museum 2023 Re-Roof Project

We, the undersigned, hereby agree to carry out the Work of the Contract in accordance with the Bid Documents, including Addendum Number(s) _____, for the stipulated price of:

_____ Dollars ($_____)
total in words total in figures

and agree to complete the work by July 30, 2023.

This tender does not include the Federal G.S.T. but does include any other Federal or Provincial Taxes or Duties.
This bid is open to acceptance by the Owner until 35 days after the bid closing time.
This tender includes provisions of all Addenda issued during the tender period.
Executed this_____day of _____ 20_____.

BIDDER: _____
business name (print or type)

_____
address

_____
signature of Bidder's authorized representative

_____ _____
name and status of person signing above witness's signature or
(print or type) corporate seal

Accepted and executed this _____ day of _____ 20___,
by the Owners authorized representative.

_____ _____
signature witness's signature

_____ _____
name and title

1. TYPE AND AMOUNT OF BID SECURITY

.1 Provide bid security in the form of a bid bond, a certified cheque or bank draft in an amount not less than the lesser of:

.1 10% of the bid price.

.2 Bids not accompanied by bid security will be rejected as non-compliant.

2. BID BOND

.1 Bid bond shall be based on the Canadian Construction Documents Committee (CCDC) standard form of bid bond, CCDC 220, 2002 edition.

.2 Consign bid bond to The Town of Peace River. Ensure that bid bond is properly executed by both Bidder and surety.

.3 A bid bond that is improperly completed or executed may cause the bid to be rejected as non-compliant if, in The Town of Peace River's judgment, such improper completion or execution of the bid bond potentially renders the bid bond unenforceable.

.4 Bid bond may, upon request and at The Town of Peace River's sole discretion, be returned to unsuccessful bidders.

3. CERTIFIED CHEQUE OR BANK DRAFT

.1 Make certified cheque or bank draft payable to The Town of Peace River.

.2 The Town of Peace River will return certified cheques and bank drafts to unsuccessful bidders promptly upon expiry of the bid acceptance period or, at The Town of Peace River's sole discretion, before expiry of the bid acceptance period.

4. BIDDER DEFAULT

.1 If a Bidder provides bid security in the form of a certified cheque or bank draft, and fails to submit a Consent of Surety or Agreement to Bond as specified in 3.2, the Bidder shall be liable to The Town of Peace River for the difference in money between the amount of its bid and the greater amount for which a contract for the Work is entered into with some other Bidder, up to the maximum amount of the bid security provided.

END OF SECTION

1. GENERAL

1.1 CONTRACT DOCUMENTS

.1 The Contract Documents shall be signed and sealed by The Town of Peace River and the Contractor.

.2 The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all.

.3 The intent of the Contract Documents is to include the labour, Products and services necessary for the performance of the Work in accordance with these documents. It is not intended, however, that the Contractor shall supply Products or perform work not consistent with, covered by or properly inferable from the Contract Documents.

.4 Nothing contained in the Contract Documents shall create any contractual relationship between the Consultant and the Contractor or other person, agent performing any of the work.

1.2 REPORTING OF CONFLICTS, ERRORS AND DISCREPANCIES

.1 If, during the performance of the Work, the Contractor finds a conflict, error or discrepancy in the Contract Documents, the Contractor shall report to The Town of Peace River in writing at once and, before proceeding with the Work affected thereby, shall obtain written interpretation or clarification from The Town of Peace River; however, the Contractor shall not be liable to The Town of Peace River for failure to report any conflict, error or discrepancy in the Contract Documents unless the Contractor had actual knowledge therof or should reasonably have known thereof.

The Town of Peace River

2.1 CHANGES IN THE WORK

.1 The Town of Peace River, without invalidating the Contract, may make changes in the Work consisting of additions, deletions or other modifications, the Contract Price and Contract Time being adjusted if required.

.2 Changes in the Work shall be authorized in writing by The Town of Peace River.

2.2 VALUATION OF CHANGES

.1 The value of any change shall be determined by one of the following methods:

.1 By unit prices agreed upon.

.2 By cost plus percentage or fixed fee.

2. CONTRACTOR

3.1 CONTRACTOR RESPONSIBILITYS FOR CONTROL OF WORK

.1 The Contractor shall supervise and direct the Work competently and efficiently.
The Contractor shall be solely responsible for:

.1 The means, methods, techniques, sequences and procedures of construction and for coordinating all parts of the Work under the Contract.

.2 The design, erection, operation, maintenance and removal of temporary structural and other temporary facilities.

.3 Construction safety at the Place of the Work and for compliance with the regulatory requirements required by the applicable legislation.

.4 The Contractor shall be responsible for seeing that the finished Work complies accurately with the Contract Documents.

3.2 WORKERS COMPENSTION ACT AND OCCUPATIONAL HEALTH AND SAFETY ACT

.1 The Contractor shall pay all fees in connection with Worker's Compensation and comply with all requirements of the latest edition of the Worker's Compensation Act.

.2 The Contractor shall comply with all safety requirements as contained in the Regulations as issued under the authority of the latest edition of the Occupational Health and Safety Act.

3.3 LABOUR

.1 The Contractor shall maintain good order and discipline among persons employed at the Work site.

.2 Persons employed in performing the Work shall be skilled in and competent to properly perform the tasks assigned to them.

3.4 USE OF PREMISES, PROTECTION OF WORK AND PROPERTY

.1 The Contractor shall confine construction machinery and equipment, the storage of products, and the operations of workers to the Place of Work.

.2 The Contractor shall protect the Work and The Town of Peace River property and property adjacent to the Place of Work from damage and shall be responsible for damage which may arise as a result of his operations under the Contract.

.3 Should the Contractor in the performance of the Contract, damage the Work, The Town of Peace River property, or property adjacent to the Place of Work, the Contractor shall be responsible for the making good of such damage at the Contractors expense.

3.5 INSPECTION OF WORK

.1 There will be regular and/or periodic inspection by All Peace Roof Inspections Ltd. during the roof system removal and replacement.

.2 Roof inspection and testing does not relax the Roofing Contractor's responsibility to perform work in accordance with the Contract Documents.

3.6 GUARANTEE

.1 Roofer shall supply a two year maintenance insurance bond, for the roofing and sheet metal, from a reputable bonding company, issued in favor of the Owner.

3.7 EXTENDED WARRANTY

.1 Provide an extended warranty stating that the roofing system has been constructed in accordance with the Contract Documents.

.2 Provide an extended warranty stating that the Contractor shall at no additional expense to the Owner repair any actual leaks or deficiencies in the roofing system occurring within the two years of the A.R.C.A 10 Year Warranty Certificate.

3.8 SECURITY FOR EXTENDED WARRANTY

.1 If the roofing system has been constructed by a member of the A.R.C.A. the Contractor shall obtain, on behalf of the Owner, the A.R.C.A. 10 Year Warranty Certificate, for the performance of the Contractors obligations under the extended warranty. Owner will not accept other roofing certificates.

.2 If the roofing system is constructed by a non-member of the A.R.C.A. the Contractor shall obtain a maintenance bond for the performance of the Contractor's obligations under the extended warranty. Maintenance bond shall be 10 Years duration (1 Year and 2 Year and Two annual renewals) in the amount of 100% of the cost of materials and labour associated with the roofing and roofing related work performed under this contract.

Maintenance bond shall be in a form acceptable to The Town of Peace River and consigned to The Town of Peace River.

.3 Submit Warranty Certificate or Maintenance Bond prior to Interim Acceptance of the Work.

END OF SECTION

1. WORK OF THIS CONTRACT

.1 The intent of this bid call is to solicit and receive formal offers to perform the following Work:

.1 Replacement of the S.B.S. roof system on:
Peace River Museum (Area-B) with a T.P.O. roof system.
10302-99 Street, Peace River, Alberta

2. CONTRACT TIME

.1 Complete the Work within the time specified in Section 00 41 14 - Stipulated Price Bid and Contract Form.

3. RESTRICTIONS ON CONTRACTOR'S USE OF PREMISES

.1 Cooperate and coordinate Work with the Owner and facility users to minimize conflict and facilitate usage.

.2 The owners representative shall review the set up location with the contractor and allow the contractor to have partial use of the premises till completion of the work.

4. COORDINATION

.1 Where installation of one part of the Work is dependent on installation of other components, either before or after its own installation, schedule and coordinate construction activities in the sequence required to obtain the best results.

.2 Comply with manufacturer's installation instructions and recommendations, to the extent that those instructions and recommendations are more explicit or stringent than requirements contained in Contract Documents.

.3 Provide attachment and connection devices and methods necessary for securing Work. Secure Work true to line and level. Allow for expansion and building movement.

5. PROJECT MEETINGS

.1 Prior to start of any work, a pre-construction meeting shall be held by the Owner and the Contractor to examine and discuss the Work of the Contract.

6. CERTIFICATE OF RECOGNITION (COR)

.1 Safety certification as specified in Section 00 21 14 – Instruction to Bidders, is a condition of contract award.

.2 The contractor shall maintain a valid standard COR or TLC for the duration of the work.

7. WORK SITE SAFETY - OTHER CONTRACTOR IS "PRIME CONTRACTOR"

.1 For the purposes of the Occupational Health and Safety Act (Alberta), and for the duration of the Work of this Contract:

1. Be the "prime contractor" for the "work site".

.2 Comply with the Act and its regulations, as required to ensure the health and safety of all persons at the "work site".

8. WORK SITE SAFETY - THIS CONTRACTOR

.1 The Contractor shall direct all subcontractors, sub-subcontractors, other contractors, employers, workers and any other persons at the "work site" on safety related matters, to the extent required to fulfill its responsibilities pursuant to the Act, regardless of:

.1 whether or not any contractual relationship exists between the Contractor and any of these entities, and

.2 whether or not such entities have been specifically identified in this Contract.

9. SUBMITTALS

.1 W.C.B. Submittals: Submit certificate of an account with Workers' Compensation Board prior to commencement of Work. Submit letter of clearance with application for payment of holdback, if applicable, and with application for final payment.

.2 Work Schedule: Prior to start of work, submit a schedule indicating scheduled start and completion dates for each construction activity.

10. QUALITY CONTROL

.1 Owner will employ services of independent testing agencies to establish if work complies with Contract Documents. Owner will appoint and pay for services of such testing agency.

.2 Where tests or inspections, by Owner appointed testing agency, indicate work is not in accordance with the Contract Documents, additional tests or inspections, as Owner may require, to verify acceptability of corrected work, shall be paid for by Contractor.

11. TEMPORARY FACILITIES AND CONTROLS

.1 Owner will supply water and power at the job site.

.2 Contractor will be responsible for own telephone, portable site office if required, and portable washroom facilities for workers.

.3 Do the following when work generating vibration, noise or safety concerns may affect user or user operations.

.1 Coordinate with Owner and user representative.

.2 Schedule and coordinate hours of work with user representative.

.3 Stop operations generating vibration, noise or safety concerns when instructed verbally or in writing by Owner. Do not resume such operations until authorized by the Owner.

12. OVERLOADING AND CLEANING OF STREETS

.1 Vehicles employed for cartage of demolition material not be loaded beyond rated limits, nor in such manner as to cause spillage.

.2 Clean up immediately spillage or tire tracking occurring upon public or private property.

END OF SECTION

1. CONTINGENCY ALLOWANCE AMOUNT

.1 Include in the Contract Price a contingency allowance in the amount of $5,000.00.

2. EXPENDITURE OF CONTINGENCY ALLOWANCE

.1 The Owner anticipates using the contingency allowance to pay for some or all extra cost changes in the Work.

.2 Expenditures from the contingency allowance, if any, are authorized and valued as changes in the Work, as specified in the General Conditions of Contract. The Owner determines which changes in the Work are paid for from the contingency allowance.

3. ADJUSTMENT OF CONTRACT PRICE

.1 Upon completion of the Work, the Contract Price is adjusted by credit change order to provide for the difference, if any, between the total amount of authorized expenditures from the contingency allowance and the original amount of the contingency allowance. The Contractor is not entitled to all or any part of an unexpended balance of the contingency allowance.

END OF SECTION

1. General

1.1 RELATED WORK SPECIFIED IN OTHER SECTIONS

.1	Rough Carpentry:	Section 06 10 00
.2	Thermoplastic Membrane Roofing:	Section 07 54 23
.3	Metal Flashing for Membrane Roofing:	Section 07 62 00
.4	Mechanical General Requirements:	Section 20 00 13

1.2 REFERENCE DOCUMENTS

.1 CSA S350-M1980 Code of Practice for Safety in Demolition of Structures

1.3 EXISTING CONDITIONS

.1 Visit and examine the site and note all characteristics and irregularities that may affect the work of this Section.

1.4 SUBMITTALS

.1 Where required by authorities having jurisdiction, submit for approval, drawings, diagrams, details and supporting data clearly showing sequence of demolition and removal work of building supporting structures and underpinning. Provide Owner with copy of such drawings.

.2 Drawings for structural elements shall be designed by and bear signature and stamp of qualified professional engineer registered in the Province of Alberta.

1.5 PROTECTION

.1 Prevent movement or settlement of adjacent work. Provide and place bracing or shoring and be responsible for safety and support of such work. Be liable for any such movement or settlement, and any damage or injury caused.

.2 Cease operations and notify Owner if safety of any adjacent work or structure appears to be endangered. Take all precautions to support the structure. Do not resume operations until reviewed with the Owner.

.3 Ensure safe passage of building occupants around area of demolition.

.4 Cease operations and notify the Owner immediately for special protective and disposal instructions when asbestos materials, lead, or other hazardous materials, other than those identified, are uncovered during the work of this project.

.5 Prevailing weather conditions and weather forecasts shall be considered. Demolition work shall not proceed when weather conditions constitute a hazard to the workers and site.

.6 Prevent debris from blocking surface drainage inlets and mechanical and electrical systems which remain in operation.

.7 Temporarily suspended work that is without continuous supervision, shall be closed to prevent entrance of unauthorized persons.

1.6 TEMPORARY PARTITIONS

.1 Erect and maintain dustproof partitions, seal off ducts as required to prevent spread of dust and fumes to other parts of the building. On completion, remove partitions and make good surfaces to match adjacent surfaces.

1.7 SALVAGEABLE AND RECYCLABLE MATERIALS

.1 Except where otherwise specified, all materials indicated or specified to be permanently removed from the Place of the Work shall become Contractor's property. Maximize to the fullest extent possible, salvage and recycling of such materials, consistent with proper economy and expeditious performance of the Work.

.2 To reduce the quantity of material otherwise destined for disposal at a landfill, the Contractor is encouraged to consider utilizing the services of businesses and non-profit organizations that specialize in salvage and recycling of used building materials, but does so at his own option and risk.

.3 A current listing of recyclers specializing in specific categories of materials may be obtained during normal office hours from:

Alberta Environment
Recycling Branch
Recycle Info Line
Phone: (780) 427-6982 or 1-800-463-6326

2. Products

2.1 MATERIALS AND EQUIPMENT

.1 Provide materials and equipment as required to perform work of this section.

3. Execution

3.1 MATERIALS TO BE REUSED

.1 No demolition material is to be retained by Owner

3.2 EXISTING SERVICES

.1 Disconnect all electrical and telephone service lines in the areas to be demolished. Post warning signs on all electrical lines and equipment that must remain energized to serve other areas during period of demolition. Disconnect electrical and telephone service lines in demolition areas to the requirements of local authority having jurisdiction.

.2 Disconnect and cap all mechanical services in accordance with requirements of local authority having jurisdiction. Natural gas supply lines shall be removed by the gas company or by a qualified tradesman in accordance with gas company instructions.

.3 Notify the affected utility company in advance and obtain approval where required, before commencing with the work on main services.

3.3 APPLICATION

.1 Remove from the site all materials indicated to be removed.

.2 Carry out demolition in a manner to minimize inconvenience to adjacent occupied space.

.3 Carry out demolition in an orderly and careful manner.

.4 Sprinkle exterior debris with water to prevent dust. Do not cause flooding, contaminated runoff or icing. Do not allow waste material, rubbish, and windblown debris to reach and contaminate adjacent properties.

.5 Lower waste materials in a controlled manner; do not drop or throw materials from heights.

.6 Burning of materials on site is not permitted.

3.4 RESTORATION

.1 Restore to its original condition any portion of the building demolished unnecessarily, at no expense to the Owner.

.2 Immediately as the work progresses, repair all vibration and excavation damages to existing adjacent properties and active underground services.

3.5 CLEAN-UP

.1 For clean-up during demolition and for final cleaning, comply with requirements of Division 01.

END OF SECTION

1. General

1.1 RELATED SECTIONS

.1 Thermoplastic Membrane Roofing Section 07 54 23

1.2 REFERENCE DOCUMENTS

.1 CSA O80 Series – 08-Wood Preservation.

.2 CSA O121 -08- Douglas Fir Plywood.

.3 CAN/CSA O141 - 05 - Softwood Lumber.

.4 CSA O151 – 04- Canadian Softwood Plywood

.5 CSA O153 – M1980 (R2008), Poplar Plywood

.6 CSA B111- (1974) - Wire Nails, Spikes and Staples

.7 National Lumber Grading Authority (NGLA), Standard Grading Rules for Canadian Lumber, Latest edition.

.8 Alberta Roofing Contractors Association (ARCA)

1.3 REGULATORY REQUIREMENTS

.1 Comply with applicable requirements of Alberta Building Code (ABC).

1.4 SOURCE QUALITY CONTROL

.1 Supply lumber graded and stamped by an agency certified by Canadian Lumber Standards Administrative Board.

.2 Supply plywood graded and stamped in accordance with applicable CSA standards.

.3 Supply other panel products marked with a recognized, visible grade stamp.

1.5 PRODUCT DELIVERY AND STORAGE

.1 Protect materials from weather upon delivery to job site.

.2 Store materials on raised supports. Cover materials with waterproof covering. Provide adequate air circulation and ventilation.

.3 Do not store seasoned materials in wet or damp areas.

2. Products

2.1 LUMBER

.1 Lumber: to CAN/CSA 0141, softwood, S-P-F, S4S, surface-dry, graded and stamped in accordance with current National Lumber Grades Authority (NLGA) Standard Grading Rules for Canadian Lumber.

.1 Moisture Content: maximum 19% at time of installation.
.2 Finger jointed lumber is not acceptable.

.2 Framing and Board Lumber: in accordance with ABC and as specified in schedules.

.3 Furring, Blocking, Nailing Strips, Grounds, Rough Bucks, Cants, Curbs Fascia Backing and Sleepers: S4S, "Standard" or better grade for board, post and timber sizes, "Standard" light framing or better for dimension sizes.

2.2 PANEL PRODUCTS

.1 Provide panel products manufactured with phenol-formaldehyde or formaldehyde-free adhesives.

.2 Canadian Softwood Plywood: to CSA 0151.

.3 Douglas Fir Plywood: to CSA 0121.

.4 Poplar Plywood: to CSA 0153, standard construction.

2.3 FASTENING DEVICES AND HARDWARE

.1 Nails and Spikes:

.1 Use common spiral nails and spiral spikes except where indicated otherwise.

.2 Use hot dip galvanized finished steel for exposed exterior work, highly humid interior areas and for pressure - preservative and fire-retardant treated lumber.

.2 Bolt, nut, washer, screw and pin type fasteners: hot dip galvanized finish to CSA G164-M92.

2.4 PRESSURE PRESERVATIVE TREATED WOOD

.1 Pressure Preservative Treated Wood: in accordance with CSA O80 Series and as follows:

.2 Water-borne preservative treated wood shall have maximum moisture content of 19% after treatment.

3. Execution

3.1 APPLICATION OF SURFACE APPLIED WOOD PRESERVATIVE

.1 Re-treat surfaces exposed by cutting, trimming or boring with liberal brush application of surface applied wood preservative before installation.

3.2 ERECTION OF FRAMING MEMBERS

.1 Install members true to line, levels and elevations. Space uniformly.

.2 Construct continuous members from pieces of longest practicable length.

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

.4 Install blocking to facilitate installation of finishing materials, fixtures, specialty items and trim.

3.3 BUILDING IN OF POLYETHYLENE SHEET

.1 Not used

3.4 WOOD FURRING AND BLOCKING

.1 Provide wood furring and blocking at locations indicated on drawings and as specified.

3.5 ROOF AND WALL SHEATHING

.1 Install roof and wall sheathing in accordance with requirements of the Alberta Building Code except as follows:

.1 Install roof and wall sheathing with panel end-joints located on solid bearing, staggered at least 800 mm.

.2 Fasten roof and wall sheathing panels using common-spiral, annular-grooved nails, or screws spaced 150 mm O.C. along edges and 300 mm O.C. along intermediate supports. Use of staples is not acceptable.

3.6 CARPENTRY IN CONNECTION WITH ROOFING

.1 Construct wood curbs for roof mounted equipment, anchors and for roof penetrations, except drains.

.1 Curb heights measured roof membrane from highest point of roof adjacent to curb.

.1 200 mm for plumbing vents.
.2 250 mm for other curbs.

.2 Mechanically fasten plywood facing to parapets, and walls at roof-wall/parapet junctions.

.3 Screw top 38 x 89 mm plates of building control joint box to plywood sides. For roofing control joint box use nails. Leave 25 mm gap between top plate ends every 2.4 m.

.4 Support edges of plywood backslope sheets. Bevel edge of sheets that meet structural deck.

.5 Attach curbs, control joint boxes, blocking and framing directly to structure.

3.7 SCHEDULE OF DIMENSION LUMBER

Description	Species	Grade
Non-structural wall components	Spruce-Pine-Fir	Construction

3.8 SCHEDULE OF PANEL PRODUCTS

Location/Panel Type	Thickness	Grade	Type	Edge
Curb/ Parapet Sheathing				
Douglas Fir Plywood	12.7 mm	Sheathing		Square
Canadian Softwood Plywood	12.7 mm	Sheathing		Square
Masonry Wall				
Douglas Fir Plywood	19 mm	Sheathing		Square
Canadian Softwood Plywood	19 mm	Sheathing		Square

Note: Where more than one panel type is specified for a single location, provide any one of the types specified for that location.

3.9 SCHEDULE OF PRESSURE PRESERVATIVE TREATED WOOD

.1 Use pressure preservative treated PWF wood for following components:

.1 Wooden Sleepers.
.2 Wood in direct contact with concrete or masonry.

.2 Before installation, provide liberal brush application of surface applied wood preservative to surfaces of pressure preservative treated wood exposed by cutting, trimming or boring.

END OF SECTION

1. General

1.1 INTENT

.1 This Section specifies requirements common to bituminous membrane roofing work. Read in conjunction with the following related Sections:

.1	Rough Carpentry:	Section 06 10 00.
.2	Metal Flashings for Membrane Roofing:	Section 07 62 00.

1.2 REFERENCE DOCUMENTS

.1 Except where specified otherwise, meet or exceed the Alberta Roofing Contractors Association Ltd. (ARCA) requirements. These requirements are published in the ARCA "Roofing Application Standard Manual" and "Accepted Roofing Systems", current edition.

1.3 SHOP DRAWINGS

.1 Comply with requirements of Division 01. Clearly indicate, with large scale details, flashings and control joints, plus details of the roofing which may be considered by the Owner as special.

.2 For slopes 2:12 and greater, provide a plan layout of insulation cover sheathing fastener locations. Attach comparable Factory Mutual tested assembly fastener description and layout.

1.4 PROJECT RECORD DOCUMENTS

.1 Comply with requirements of Division 01.

.2 Include following information on project record documents:

.1 Date of completion of the roof membrane.

.2 List of materials, by manufacturer's product name, used in the roof assembly.

.3 Provide schematic roof plan on 8 1/2 x 11 drawing. Indicate changes from Contract drawings. Supplement with letter size detail drawings if applicable.

1.5 MAINTENANCE DATA

.1 Comply with requirements of Division 01.

.2 Submit maintenance data indicating frequency and type of maintenance required, including protection from damage.

1.6 QUALITY ASSURANCE

.1 **Qualifications:**

.1 Installer Qualifications:

.1 The foreman and at least one other roofer shall hold a three year Apprenticeship Certificate or a Journeyman Certificate.

.2 The rest of the roofing crew shall have at least partly completed the roofer apprenticeship program, and shall have submitted application to the appropriate provincial authority for certification as "Roofer".

.3 The applicators

.4 Sheet metal installer shall hold a three year Apprenticeship Certificate or a Journeyman Certificate.

1.7 TESTING AND INSPECTION BY OWNER

.1 Inspection of work of this Section will be performed and paid for by Owner.

.2 Notify Owner of commencement of the work and provide a schedule of roofing work.

1.8 DELIVERY, STORAGE AND HANDLING

.1 Deliver materials, handle and store in original packages and containers with manufacturer's seals and labels intact. The manufacturer's name, brand, mass, specification number and lot number shall be shown on the labels.

.2 Do not store materials on roof in concentrations which exceed design live loads.

.3 Comply with the manufacturers written instructions for material storage

1.9 COORDINATION

.1 Coordinate work of this Section with the following:

.1 Membranes connecting to roofing membranes.
.2 Construction at roof perimeters and penetrations.
.3 Plumbing vents and drains.
.4 Metal cladding matching colour of roof flashing.

1.10 EXTENDED WARRANTY

.1 Provide an extended warranty stating:

.1 that the roofing system has been constructed in accordance with the Contract Documents, and

.2 that the Contractor shall, at no additional expense to the Owner, repair any actual leaks or deficiencies in the roofing system, occurring within ten years after the date of Interim Acceptance of the Work, and which have resulted from faulty or improper workmanship.

.2 For the purpose of this extended warranty, the roofing system includes the roofing assembly and related sheet metal work.

.3 The Owner will inspect the roofing system in the last three months of extended warranty period and will promptly inform Contractor of deficiencies.

.4 Stop leaks which have resulted from a deficiency, within a time reasonably determined by the Owner.

.5 Correct deficiencies within 15 working days of notification by the Owner, or as otherwise determined by the Owner.

3.8 SECURITY FOR EXTENDED WARRANTY

.1 If the roofing system has been constructed by a member of the A.R.C.A. the Contractor shall obtain, on behalf of the Owner, the A.R.C.A. 10 Year Warranty Certificate, for the performance of the Contractors obligations under the extended warranty. Owner will not accept other roofing certificates.

.2 If the roofing system is constructed by a non-member of the A.R.C.A. the Contractor shall obtain a maintenance bond for the performance of the Contractor's obligations under the extended warranty. Maintenance bond shall be 10 Years duration (1 Year and 2 Year and Two annual renewals) in the amount of 100% of the cost of materials and labour associated with the roofing and roofing related work performed under this contract.
Maintenance bond shall be in a form acceptable to The Town of Peace River and consigned to The Town of Peace River.

.3 Submit Warranty Certificate or Maintenance Bond prior to Interim Acceptance of the Work.

1.12 DESCRIPTION OF NEW ROOFING SYSTEM

.1 **Roofing Assembly Area-B**: Provide roofing assembly over existing Wood deck consisting of:

.1 ½" Densdeck Prime
.2 Carlisle VapAir Seal 725 TR
.3 Sloped MEPS Package 2" Minimum Thickness
.4 TPO Manufacturers Polyiso One Layer 2 ½" (Flexible Fast Adhered)
.5 TPO Manufacturers Sloped Polyiso 2 ½"- ½" (12' x 12' Drain Sump)
.6 ½" Densdeck Prime
.7 Fully Adhered Carlisle Sure-Weld 60-mil TPO Membrane or Fully Adhered Firestone Ultraply 60-mil TPO Membrane
.8 Accessories

1.13 DESCRIPTION OF EXISTING ROOFING SYSTEM

Roofing Assembly:

.1 Wood Deck
.2 2-ply 15# Felt
.3 3" Polyiso
.4 1/2" FR Board
.5 1-Ply SBS Granular Cap Sheet

2. Products

2.1 PRODUCTS, GENERALLY

.1 Provide all products from the same membrane manufacturer (Carlisle or Firestone) for Thermoplastic Roofing Membrane systems.

2.2 VAPOUR RETARDER

.1 Provide a SBS modified bitumen pre-manufactured sheet, with manufacturer's standard internal reinforcement, compatible with substrates and adjoining membranes.

.2 Carlisle VapAir Seal 725TR or Firestone V-Force

2.3 INSULATION

.1 Provide the following:

.1 1% Sloped Molded Expanded Polystyrene (MEPS) Board: certified for conformance with CAN/ULC S701, Thermal Insulation, Polystyrene, Boards and Pipe Covering, Type 2, and as follows:

.1 Thermal Conductivity (kSI): 0.036 W/m°C maximum.

.2 Board Size, Nominal: 610 mm x 1220 mm.

.3 Dimensional Stability: 0.3% max. linear change.

.4 Certification: third party, in accordance with CGSB, ULC, or other certification programs accredited by the Standards Council of Canada.

.2 Isocyanurate Insulation: conforming to CAN/ULC-S704, rigid roof insulation board consisting of a polyisocyanurate foam core bonded chemically in the manufacturing process to glass fibre and other facings which are compatible to roofing membrane, aged RSI value of 0.99 per 25.4 mm thickness; thickness as indicated. Install in maximum 50 mm thick layers and maximum board size of 1200 mm x 1200 mm, to achieve RSI value as indicated on the drawings. Ensure that insulation is date stamp on date of manufacture, and that the insulation is not installed until 3 months after it has been manufactured.

.3 Extruded-Polystyrene Board Insulation: ASTM C 578, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively, per ASTM E 84.

1. Rigid closed cell extruded polystyrene foam insulation.

2. Comply with ASTM C 578-95, Type IV, density 1.6 lb/cu. ft. min. compressive resistance 25 psi (ASTM D 1621-94)

3. Thermal resistance: R-values of 6.0 and 5.6 min. per inch °F-ft2-h/Btu2/inch at 40 °F and 75 °F respectively (ASTM C 518-98).

4. Water absorption: Max. 0.1% by volume (ASTM C 272-91 (96)).

5. Surface Burning Characteristics (ASTM C 578-95)
a. Flame spread 0.

.2 **Provide insulation for double layer installation.**

.1 1% Sloped Molded Expanded Polystyrene (MEPS) Board 2" minimum thickness

.2 Isocyanurate Panel: 2 ½"

.3 Isocyanurate Transition Panel: 2 ½"- ½" (12' x 12' Drain Sumps)

2.3 INSULATION COVER SHEATHING

.1 ½" Densdeck Prime

2.4 PRIMARY MEMBRANE AND MEMBRANE FLASHING

.1 Shall comply with ASTM D-678 and all materials from the same manufacturer.

.2 Carlisle Sure-Weld 60 mil TPO reinforced or Firestone Ultraply TPO 60-mil. Rolls width 12' 10'or 8'.

2.5 ACCESSORIES

.1 Use auxiliary materials recommended by the membrane manufacturer.

.1 Bonding Adhesive
.2 Cut Edge Sealant
.3 Water Cut-Off Mastic and Sealant
.4 Moulded Pocket Sealant
.5 Weathered Membrane Cleaner

.2 Manufacturers Metal termination Bars, Manufacturers Metal Battens.

.3 Fastener Discs: sheet steel, hot dip galvanized, minimum 75 mm diameter.

3. Execution

3.1 VERIFICATION OF CONDITIONS

.1 Examine all surfaces to receive work of this Section. Notify Owner of unacceptable surfaces.

.2 Verify that all roof openings, except roof drains and self-flashing plumbing vents, are curbed, as follows:

.1 Mounted on and attached directly to structural deck.
.2 Curb Height: 200 mm, measured from top of membrane.

.3 Verify that roof drains are installed at proper elevation relative to finished roof surface.

.4 Verify that control joints, and plywood and lumber nailing plates to walls and parapets are located and installed as detailed.

.5 Verify that cladding anchors are minimum 300 mm above finished roof membrane.

3.2 PROTECTION OF EXISTING WORK AND POLLUTION CONTROL

.1 Protect surrounding surfaces against damage from roofing work.

.2 Place plywood runways over the work for the movement of materials and other traffic during roofing installation.

.3 Where hoisting is necessary, hang tarpaulins to protect walls during delivery of materials.

.4 Where disposing of demolition and debris hang tarpaulins to protect walls.

3.3 FIRE SAFETY

.1 Inform Owner of unforeseen fire hazards.

.2 Keep suitable fire extinguishers on roof near work locations..

.3 Take additional precautions against fire as needed to provide adequate fire safety.

.4 Check the roofing with a hand held infrared thermometer at the end of each day.

3.4 INSTALLATION, GENERALLY

.1 Install materials to manufacturers' printed recommendations.

.2 Whenever practicable, complete sections of roofing on same day started.

.3 Perform moisture checks using an electronic moisture meter if work underway has become wet. Do not continue roofing until moisture content is reduced to levels acceptable to Owner.

3.5 INSTALLATION OF VAPOUR RETARDER

.1 Fully Adhered

3.6 FLEXIBLE FLASHING AND AIR SEAL MEMBRANE INSTALLATION

.1 Install flexible flashing as indicated on detail drawings.

.2 Fully adhere air seal membrane and flexible flashings to substrates and seal laps with adjoining roof vapour retarder assemblies and wall sheet membrane air and vapour seals.

.3 Lap joints minimum 150 mm and seal laps.

3.7 INSTALLATION OF WATER CUT-OFFS

.1 Install temporary water cut-offs to all insulation edges exposed at the end of each day's work.

.2 Construct permanent water cut-offs by end wrapping edge of insulation with a self-adhering membrane.

.3 Provide permanent water cut-offs at roof area perimeters and at curbs.

3.8 INSTALLATION OF INSULATION

.1 Before application of insulation, ensure vapour retarder is not damaged, repair if necessary.

.2 Install Two Part Adhesive as per the manufacturers specifications.

.3 Install all layers of insulation staggered from one another and each layer stagger 1'.

.4 Trim insulation to ensure no voids occur between the insulation and the insulation substrate. Where insulation butts a sloping surface, trim the insulation to profile that change in slope.

.5 Trim insulation to ensure tight fit at all vertical uprights.

.6 Fill all gaps with spray urethane foam.

.7 Leave no insulation exposed at the end of the workday.

3.9 INSTALLATION OF INSULATION COVER SHEATHING

.1 Using Flexible Fast Two Part Adhesive Install ½"Densdeck Prime cover sheathing over insulation with sheets butted tight together and staggered from adjacent sheet.

.2 Align long edges of insulation cover sheathing. Offset end laps minimum 300 mm. Offset cover sheathing joints minimum 30 0 mm from insulation joints.

3.10 INSTALLATION OF PRIMARY MEMBRANE

.1 Position Sure-Weld 60-mil TPO membrane over the acceptable substrate. Fold membrane sheet back lengthwise so half the underside of the membrane is exposed.

.2 Apply approved Bonding Adhesive in accordance with the manufacturer's published instructions, to the exposed underside of the membrane and the corresponding substrate area. Do not apply Bonding Adhesive along the splice edge of the membrane to be hot air welded over the adjoining sheet. Allow the adhesive to dry until it is tacky but will not string or stick to a dry finger touch

.1 Roll the coated membrane into the coated substrate while avoiding wrinkles. Brush down the bonded section of the membrane sheet immediately after rolling the membrane into the adhesive with a soft bristle push broom to achieve maximum contact.

.2 Fold back the unbonded half of the sheet lengthwise and repeat the bonding procedures.

.3 Position adjoining sheets to allow a minimum overlap of 2 inches.

.4 Hot-air weld the Sure-Weld membrane sheets using the Automatic Hot Air Welding Machine or Hot Air Hand Welder in accordance with the manufacturer's hot air welding procedures. Carlisle recommends a test weld sample be made from a piece of scrap TPO to eliminate the need to remove a section from a completed seam. At all splice intersections, roll the seam with a silicone roller to ensure a continuous hot air welded seam.

.5 Continue to install adjoining membrane sheets in the same manner, overlapping edges a minimum of 2 inches and complete the bonding procedures as stated previously.

3.11 SEAM WELDING

Hot-air weld membrane using an Automatic Hot Air Welding Machine or Hot Air Hand Welder in accordance with the manufacturer's current guidelines. At all splice intersections, roll the seam with a silicone roller to ensure a continuous hot air welded seam.

When utilizing membrane greater than 45-mil thickness, overlay all splice intersections with Sure-Weld T-Joint Cover.

Probe all seams once the hot air welds have thoroughly cooled (approximately 30 minutes).

Repair all seam deficiencies the same day they are discovered.

Apply Cut Edge Sealant on all cut edges of reinforced membrane (where the scrim reinforcement is exposed) after seam probing is complete. Cut Edge Sealant is not required on vertical splices.

3.12 FLASHING

Flashing of parapets, curbs, expansion joints and other parts of the roof must be performed using Sure-Weld reinforced membrane or prefabricated accessories. Sure-Weld non-reinforced membrane may be used for flashing pipe penetrations, Sealant Pockets, and scuppers, as well as inside and outside corners, when the use of pre-molded or prefabricated accessories is not feasible.

Follow manufacturer's typical flashing procedures for all wall, curb, and penetration flashing including metal edging/coping and roof drain applications.

3.13 INSTALLATION AT DRAINS

.1 Typical drawing.

.2 Install primary membrane, cutting neatly around drain flange.

.3 Install Primed Thaler RD-240A Aluminum drains with U-Flow connectors. Embed RD-240A Aluminum drain in Water Cut-Off mastic.

.

.4 Strip in drains with base sheet flashing to ARCA recommendations.

END OF SECTION

1. General

1.1 RELATED SECTIONS

.1 Thermoplastic Membrane Roofing : Section 07 54 23.

1.2 SAMPLES

.1 Comply with requirements of Division 01.

.2 Submit full size samples of each joint and profile.

1.3 DELIVERY, STORAGE AND HANDLING

.1 Store materials off ground and under cover in a dry, well ventilated enclosure.

.2 Stack preformed material in manner to prevent twisting, bending and rubbing.

.3 Provide protection for galvanized and prepainted surfaces.

.4 Prevent contact of dissimilar metals during storage and protect from acids, flux, and other corrosive materials and elements.

2. Products

2.1 MATERIALS

.1 Galvanized Steel Sheet: commercial quality sheet to ASTM A653-M96, with Z275 designation zinc coating.

.2 Prepainted Galvanized Steel: commercial quality to ASTM A653-M96 with Z275 zinc coating prepainted with baked on enamel with colours of proven durability for exterior exposure, to CSSBI Technical Bulletin No. 7, 5000 series.

.3 Solder: 50% pig lead and 50% block tin.

.4 Flux: commercial quality as recommended by sheet metal manufacturer.

.5 Flashing Nails: #12 hot dipped zinc coated, annular ringed.

.6 Sheet Metal Screws: Cadmium plated, self tapping, pan head.

.7 Bituminous Paint: solvent type, to CAN/CGSB-1.108-M89, type II.

.8 Plastic Cement: cutback asphalt type, to CAN/CGSB-37.5-M89.

.9 Sealant: one component, elastomeric, chemical curing, CAN/CGSB-19.13-M87.

.10 Flashing Anchor Clips: 0.80 mm thick galvanized steel.

.11 Manufacturer's fire tape.

2.2 FABRICATION, GENERALLY

.1 Form sections square, true and accurate to size, free from distortion and other defects detrimental to appearance or performance.

.2 Back paint sheet metal with bituminous paint on surface in contact with concrete, masonry, cementitious materials or dissimilar metal.

2.3 FABRICATION, FLASHING

.1 Maximum Joint Spacing:

.1 Parapet Face flashings: 1200 mm
.2 Cap Flashing 300 mm and Greater in Width: 1200 mm.
.3 All Other Flashings: 2400 mm.

.2 Construct flashing joints to allow for flashing movement, using flat "S" lock seams.

.3 Maintain minimum of 22 mm lap at all joints. Provide 25 mm anchor projection of "S" locks.

.4 At inside and outside corners, miter the joint, and use upstanding seams, 25 mm minimum height and 22 mm minimum lap.

.5 Maintain minimum 1:5 slope on horizontal surfaces of flashings, parapets and control joints.

.6 Hem exposed edges on underside of all flashings.

.7 Fabricate cap flashing to have a drip leg minimum 110 mm high.

.8 Fabricate cap and counter flashings to lap 100 mm over base flashings.

2.4 FABRICATION, ROOF ACCESSORIES

.1 Curbs around hot pipes, including chimneys are to be 1.6 mm (16 gauge) galvanized iron insulated with 50 mm of rigid fiberglass or mineral wool insulation. Ensure that there is at least 50 mm clearance between any combustible material and the chimney.

3. Execution

3.1 EXAMINATION OF SURFACES

.1 Examine surfaces to receive flashings. Notify the Owner of surfaces which are considered unacceptable to receive the work of this Section.

.2 The commencement of flashing work will imply unconditional acceptance of the surfaces and substrates to which the flashing is to be fastened.

.3 Verify that the following are located and installed as detailed on drawings:

.1 Plywood and lumber nailer plates to walls and parapets.
.2 Control joints.

3.2 PROTECTION OF EXISTING WORK

.1 Protect the work of other Sections from damage by the work of this Section.

.2 Place protection to the requirements and satisfaction of this Section before performing the work of other Sections.

3.3 FLASHING INSTALLATION, GENERALLY

.1 Install flashings not later than seven days after installation of the membrane on any particular section of the roof.

.2 Use 0.80 mm thick x 150 mm long anchor clips on fascia faces, and screws or annular ringed nails on the opposite face.

.3 Use exposed fastenings in approved locations. Install anchors using annular ringed nails.

.4 Fasten flashings of 1.2 m length and shorter, through the extended "S" locks. Fasten flashings over 1.2 m length, through the extended "s" locks, and at mid-length with a 150 mm long, 0.80 mm thick galvanized steel clip.

.5 Fasten flashings at maximum 600 mm O.C.

.6 Where possible, do not set base flashing screws less than 200 mm from top of roof membrane.

3.4 INSTALLATION OF FLASHING JOINTS

.1 Fit flashings together so that one end of each section is free to move in the joint. Do not use sealant at joints.

.2 Wipe and wash clean, soldered joints to remove traces of flux, immediately after soldering.

3.5 VENT STACK INSTALLATION

.1 Install Thaler Aluminum SJ 26 insulated flashings.

.2 Prime Flashing, embed in mastic and strip as per ARCA "Roof Application Standard Manual".

END OF SECTION

1.1 INTENT

.1 Temporarily remove and re-install cooling systems, roof top mechanical equipment, and electrical equipment as required to accommodate reroofing. Ensure a fully operational mechanical system and modifications to meet requirements described herein to complete the roofing project in accord with applicable codes and ordinances.

.2 Contract documents of this Division are diagrammatic and approximately to scale unless detailed otherwise. They establish scope, material and installation quality and are not detailed installation instructions.

.3 Install equipment generally in locations and routes shown, close to building structure with minimum interference with other services or free space. Remove and replace improperly installed equipment to the satisfaction of the Owner at no extra cost.

.4 Prior to commencing work, check locations of piping, conduits outside and inside building. Ensure all work carried out on site will not affect the existing building and equipment.

.5 Provide twenty-four hours notice to Maintenance Personnel to witness all removal, reinstallation, and testing.

1.2 MATERIALS

.1 Materials installed shall be new, full weight and of the best quality specified. Use same brand or manufacturer for each specific application.

.2 Repair or replace any of existing duct work and piping insulation and cladding damaged or removed during the work of this contract.

1.3 METRIC CONVERSION

.1 All units in this division are expressed in SI units.

1.4 RECORD DRAWINGS

.1 Marked up drawings shall identify all changes during construction.

1.5 EQUIPMENT PROTECTION AND CLEAN-UP

.1 Protect equipment and materials in storage on site, during and after installation until final acceptance. Leave factory covers in place and take special precautions to prevent entry of foreign material into working parts of piping and duct systems.

.2 Equipment used during construction shall not interfere with the operation of electronic equipment in the building by creating vibration, dust, or electrical or magnetic disturbances.

.3 Protect equipment with polyethylene covers and crates.

.4 Thoroughly clean piping, ducts and equipment of dirt, cuttings and other foreign substances.

1.6 ELECTRICAL WORK

.1 Owner will assume responsibility for disconnection and reconnection of electrical.

.2 Owner must be contacted one week prior to contractor being on site.

END OF SECTION