ST. CLAIR CATHOLIC
DISTRICT SCHOOL BOARD
Lighting the Way ~ Rejoicing in Our Journey

ROOFING TENDER
HOLY FAMILY, OUR LADY OF FATIMA, URSULINE COLLEGE

INSTRUCTIONS TO BIDDERS

Date: May 26, 2015 **BID PACKAGES #: 616-CP1516, 619-CP1517, 725-CP1512**

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1. BID SUBMISSION

The St. Clair Catholic District School Board (Board) is seeking roofing contractors to provide roof replacement services at three facilities in Chatham / Wallaceburg.

Bids from invited bidders shall be submitted on the Bid Form provided and submitted in an envelope clearly marked:
Bid Packages #: 725-CP1512 Ursuline College – Roofing Tender
616-CP1516 Holy Family Catholic School - Roofing Tender
619-CP1517 Our Lady of Fatima Catholic School – Roofing Tender

The envelope shall be sealed and delivered to: St. Clair Catholic District School Board
420 Creek Street
Wallaceburg, ON
N8A 4C4

Attention: Mr. Tony Prizio, Procurement Specialist

Bids will be accepted at the Catholic Education Centre office not later than **June 10, 2015 @ 2:00:00 p.m. (No extensions to Bid Closing date are anticipated. Bidders are encouraged to act immediately to prepare their submissions!)**

Bids shall be filled out in ink or typed, signed in longhand by a duly authorized company official (having authority to bind) and sealed with a company corporate seal. One original of the fully completed Bid Form must be submitted. **Failure to provide all of the requested information on the Bid Form may result in disqualification of the bid**.

Bids by telephone, fax or email will **not** be accepted.

After bid closing, sealed envelopes will be opened by the Board's Procurement Specialist (Tony Prizio) and a representative from Corporate Services' department.

2. SCOPE OF WORK

The Instructions to Bidders identifies the work to be performed in the Contract and takes priority if there is a conflict within the Bid Documents. **Refer to attached specifications for detailed description of work to be carried out by the successful proponent.**

3. BID DOCUMENTS

The following Bid Documents form the basis of this Bid Package and shall be examined by bidders:

3.1 Instructions to Bidders dated May 26, 2015
3.2 Specifications and Bid Form dated May 2015.
3.3 **Prime Contract –** Board will issue a purchase order to the successful proponent(s). The Board assumes no responsibility for the bidder's failure to examine **all** of the Bid Documents.

INSTRUCTIONS TO BIDDERS

Date: May 26, 2015 **BID PACKAGES #: 616-CP1516, 619-CP1517, 725-CP1512**

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4. BID ACCEPTANCE

It shall be understood by all bidders, that the bid shall be valid and subject to acceptance by the Board, and that no adjustments shall be made to the Bid amounts for a period of up to and including sixty (60) days from the Bid Closing Date**.**

The Board reserves the right to determine the successful bidder by any combination of base bid, separate prices, requested alternate prices and voluntary alternate prices submitted with the bid. The Board is not obligated to select the bid with the lowest price and may cancel a bid prior to award without liability to any bidder.

The successful bidder shall be required to enter into a formal contract with the Board, which will include the terms and conditions of the Instructions to Bidders, Bid Form, and all other applicable documents.

5. AWARD

The Board has the right to reject any or all bids. The lowest Bid will not necessarily be accepted. The invitation to bid does not constitute an offer by the Contractor to enter into a contract.

6. PAYMENT

The Board shall pay within forty-five (45) days after receipt of the invoices which are received and approved by the Board.

7. TAXES

Include in Bid all Taxes and all other Customs Duties and Excise Taxes which are in force at Bid date as detailed in General Conditions. Harmonized Sales Tax (H.S.T.) is **not** to be included in the bid. The H.S.T. amount and the Bidder's **H.S.T. Registration Number** are to be indicated on the Bid Form in the spaces provided.

8. ADDENDA

Bidders finding discrepancies, ambiguities or omissions in the bid documents or having doubt as to the meaning or intent thereof, shall immediately notify the Procurement Specialist who may issue instructions and/or clarifications by Addendum to all Bidders. Bidders may also, during the Bidding Period, be advised by Addendum of any additions, deletions or alterations to bid documents. All such Addenda shall become part of the Bid Documents.

All questions to be addressed in writing to:

Mr. Tony Prizio, Procurement Specialist
St. Clair Catholic District School Board
Fax 519.627.8230 or
E-mail: tony.prizio@st-clair.net
Copy: patsy.mckenzie@st-clair.net
No later than 48 hours prior to bid closing date.

9. CHANGE NOTICES, CHANGE ORDERS

The following fee percentage and overhead charges shall be applied to additional work ordered by the Board:

- For work carried out by the Contractor's own forces – 10% Overhead & Profit
- For work involving a subcontractor, the subcontractor may charge a maximum 10% fee. The General Contractor may charge a maximum of 5% in addition to subcontractor's fee.

10. BONDING

On bids exceeding $ 50,000.00, submit with the Bid an Agreement to Bond for a 50% Performance Bond, and a 50% Labour & Material Payment Bond. Upon request, the successful Bidder will be required to provide the 50% Performance Bond and 50% Labour and Material Payment Bond from a bonding company acceptable to the Board. The cost of the bond is not to be included in the bid sum, the amount of which is to be identified on the Bid Form.

11. VOLUNTARY ALTERNATE AND SEPARATE PRICES

The bid amounts are to be based on the bid documents. Where there is any conflict within the bid documents, the bid amount shall include the higher cost alternative. Alternative proposals are encouraged and must be identified in the bid. Submit complete information including any impact on schedule to allow a full evaluation of the proposal including, as applicable, any particulars in which the alternate proposal is at variance with or unable to meet the specifications. Note also any impact on other trades if the alternative is accepted. Alternative proposals may be made without limitation, including for items specified as single sourced.

12. EXAMINATION OF SITE & SITE VISIT

In submitting a bid, it will be assumed that the bidders have carefully examined the site and surrounding properties of the work and have informed themselves as to the existing conditions, access, storage areas and limitations, and have included in the bid price the complete cost of the work contemplated by the drawings and specifications and other bid documents.

A mandatory site visit has been scheduled for June 4, 2015 at 10:00a.m. Interested parties should meet at the office of Ursuline College Catholic Secondary School, 85 Grand Avenue West, Chatham. Following the Ursuline College visit we will proceed to Our Lady of Fatima, 545 Baldoon Road, Chatham, and Holy Family Catholic School, 649 Murray Street in Wallaceburg.

13. TIMING OF PROJECT

A purchase order will be issued by June 17, 2015.
Work on **ALL** sites must take place during the month of July and completed no later than July 30, 2015.

14. PROJECT SPECIFIC REQUIREMENTS

Contractor's employees shall use only those toilet and washroom facilities designated by the Owner or provide their own facilities. In the event that the contractor elects to use Board facility washrooms, the contractor will be responsible for the maintenance, stocking and cleaning of the designated washroom. The designated washroom shall be returned to the Board in the same condition as received by the contractor. Any and all damages to facilities while under the control of the contractor shall be repaired at the contractor's cost.

Please be advised that the Owner has a No Smoking Requirement on the Owners' property. Contractors are requested to ensure that employees and suppliers are advised of the Requirement. Contractor shall remove rubbish and debris from the site on a daily basis or as directed by the Board. On completion of the work, all debris shall be removed; the floor shall be thoroughly cleaned and swept; the site shall be left in a tidy condition (construction clean). Do not use the Board's equipment or facilities for cleaning or for any reason.

15. INSURANCE

Contractor must maintain, at the Contractor's expense for the entire term of the Contract or as otherwise required, all insurance as set out below:

- The successful Contractor shall provide the Board with proof of insurance for Comprehensive General Liability and Property Damage with a limit of not less than $2,000,000.00 (two million dollars) inclusive prior to commencing work.
- The successful Contractor shall provide the Board with proof of insurance for Motor Vehicle Public Liability and Property Insurance on all owned and rented equipment with a limit of not less than **$2,000,000.00 (two million dollars)** inclusive prior to commencing work.
- The Contractor agrees to indemnify, hold harmless, and defend the Board from and against any and all liability for loss, damage and expense, which the Board may suffer or for which the Board may be held liable by reason of injury (including death) or damage to any property arising out of negligence on the party of the proponent or any of its representatives or employees by way of ownership or operation of an automobile.
- The successful Contractor shall provide the Board with a complete certified copy of all policies.
- The successful Contractor must name the St. Clair Catholic District School Board as additional insured on their insurance policies.

16. WORKPLACE SAFETY INSURANCE BOARD (WSIB)

Contractor must furnish a copy of Workplace Safety and Insurance Board Clearance Certificate of good standing, "Section 748" of the Workplace Safety and Insurance Act with its bid documents.

17. PERMITS

The Board will apply and pay for the building permit. The Contractor shall apply for and include costs for any other permits and approvals required for the completion of their work.

18. MEETINGS

A Post Bid Meeting may be convened and chaired by the Board who will invite Contractor and his major Subcontractors to review the Contract Documents and Bid submitted. This meeting will be prior to the Board issuing a Letter of Intent or Contract. This meeting does not constitute or infer any contract award to the proposed contractor or any other contractor, nor that will the project proceed.

During the course of Work, scheduled progress meetings may be required at the call of the Project Leader.

19. GUARANTEE

The guarantee shall be as outlined in the specifications starting from after completion of the entire job and acceptance thereof by the Board unless a different period of time is specified with the Board's approval. The Contractor's guarantee shall cover all work under the Contract whether or not any portion or trade has been sublet.

The Contractor agrees to correct promptly, at the Contractor's own expense, defects or deficiencies in the Work which appear prior to and during the period of guarantee, or such longer periods as may be specified for certain products or work.

If the Contractor fails to make any replacements or repairs required hereunder, after notice from the Board and reasonable opportunity to do so, the Board may have such work done at Contractor's expense, including all necessary labour costs in connection therewith. Board shall inform Contractor in advance of the approximate cost of such work to be done by the Board.

20. SCHEDULE

The Contractor will be required to perform the work in accordance with the Schedule dates provided in 13. Timing of Project. Ordering of major and long delivery items shall begin immediately upon successful bidder's receipt of contract award. The Contractor will provide a construction schedule within five (5) days of being awarded the project.

Time is of the essence. Bidders are to include adequate manpower, overtime and shift work necessary to meet or improve the schedule, and to make up any time lost to weather or normal delays. Include travel, room and board costs for out of town workers, shop overtime and other premiums to expedite material and equipment, shipping premiums and any incentive costs required to meet the schedule.

21. CONTRACTED SERVICES PROGRAM

Contractors performing work on Board property must complete the Contracted Services Program. This program has three basic components that **must** be met before the bid is awarded. Contractors who cannot meet the minimum requirements of this program will not be awarded this tender. Program information can be found on the Board's web site at www.st-clair.net or through the Board contact identified previously in this document.

22. HEALTH and SAFETY

The Occupational Health and Safety Act describes the responsibilities of an employer. The Board requires Contractors to maintain procedures, training, and enforcement so that the responsibilities are carried out in the workplace. The Contractor shall abide by and strictly adhere to the regulations and conditions set out and laid down by the most current versions of the Occupational Health and Safety Act. All staff employed or hired by the Contractor and working on the Board's premise MUST be trained in WHMIS in accordance with Occupational Health and Safety Act and Regulations. They MUST adhere to all of the Board's Health and Safety Procedures and Guidelines and to Municipal By-Laws.

Contractor will submit proof of its health and safety program, procedures and training as detailed above upon request by the Board.

The Contractor shall appoint a Competent Person as the Supervisor of this project. The Competent Person shall be as defined in Section 1 of the Occupational Health and Safety Act.

The successful Contractor shall conform to the Ontario "Occupational Health and Safety Act" and all regulations made under said act and assume full responsibility for contraventions of same.

All workplace injuries or accidents on Board property MUST be reported by the Contractor to the Board's representative within 24 hours.

Any workplace injury that is defined under the Occupational Health and Safety Act as a "Critical Injury" must be reported to the Board's representative IMMEDIATELY.

23. SAFE SCHOOL PROCEDURES

Contractor's staff is required to report to the main office of each school during regular school hours and notify the school office staff of the purpose of the visit. The Contractor is required to adhere to all school specific procedures if applicable.

It is the responsibility of the Contractor's staff to sign in and sign out of the Log Book, which is located in the main office area, while performing their duties.

The following information must be recorded in a legible manner:

- Date
- Company Name
- Employee Name
- Employee Signature
- Reason for Visit
- Time Entering Building
- Time Leaving Building

24. PARKING

Contractors must park within the designated areas and allow for provisions to and from the designated parking area onto the job site.

END OF INSTRUCTIONS TO BIDDERS

ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD

At

HOLY FAMILY CATHOLIC SCHOOL
649 MURRAY STREET
WALLACEBURG ONTARIO
N8A 1W1

TENDER FORM

PROJECT No. 616-CP1516

MAY 2015

Remlap Building Services Inc.
1407 Gore Rd., RR1 – Harrow Ontario N0R 1G0

TENDER FORM

Shingle Roof Replacement for
Holy Family Catholic School – Wallaceburg Ontario
PROJECT No. 616-CP1516

Name of Bidder _____
(*Hereinafter Called the Tenderer Contractor*)

Address _____

Being A _____ **(A) which** _____ **(B)**

Note: In space (A) above states type of Company
Eg. "Incorporated", "limited", etc
In space (B) above state "is" or "is not".

Registered under the laws of the Province of _____

DOES HEREBY AGREE TO:

1. Furnish all labour, materials, equipment, and service necessary for the completion of the Roof Replacement at the **Holy Family Catholic School - Wallaceburg** in accordance with Information of Tenderers, Form of Tender and Roof Plan with description for *TOTAL TENDER PRICE "A" (H.S.T. INCLUDED),* with **Malarkey Legacy 50 Year.**

_____ *$*_____
(HST Included)

or such other sums as may be finally ascertained in accordance with the allowance for roof replacement and deductions as set out in the Tender Documents.

TENDER FORM

Shingle Roof Replacement for
Holy Family Catholic School – Wallaceburg Ontario
PROJECT No. 616-CP1516

Item No.	*Description*	*Total*
		Malarkey
1.	**Holy Family Catholic School – Southeast Portion**	
	Contractor to completely remove the existing layer of asphalt shingles to the existing wood substrate and install the new shingle roof as specified for this project. (Includes Contingency Allowance of $4,000.00 - If the Allowance is not used, it will be taken off Tender Price).	**$**_____
	Total Tender Price "A" (excluding HST)	**$**_____
	Add 13% HST	**$**_____
	Total Tender Price "A" (including HST)	**$**_____

2. And also agrees to submit the total tender price in compliance with the provisions of Section 1.19 of the Information to Tenderers regarding Ontario Sales Tax.

3. And agrees to leave this tender open for acceptance a minimum period of sixty (60) days from the tender closing date and not to modify, withdraw, or cancel their bid during this period.

Unit Price

The Contractor is to provide a price per square foot to supply and install half (½) inch Spruce Plywood to replace any rotten or deteriorated wood substrate.

$_____
per square foot

The Tenderer also agrees that until the form of Agreement is completed and executed, this Tender, together with the acceptance thereof by **St. Clair Catholic District School Board** and the Tenderer, shall remain open regardless of whether or not any other Tender has been previously accepted.

4. And also agrees to start the entire work within four (4) working days after the award of contract.

5. ***Documents and Acknowledgements***

The Tenderer acknowledges that they have carefully examined the site of the proposed work, the existing premises and conditions; and thoroughly reviewed the Information to Tenderers, Tender Form and Roof Plan with Description and the Addenda of the proposed Contract.

TENDER FORM

Shingle Roof Replacement for
Holy Family Catholic School – Wallaceburg Ontario
PROJECT No. 616-CP1516

6. *Subcontractors*

The Tenderer proposed to use the following Subcontractors, the portion of the work to be performed by each being as indicated with no more than one Subcontractor being proposed for any such portions. (If Subcontractors are not proposed, write N/A in the blank space.)

SUBCONTRACTOR	WORK OR TRADE

7. *Addenda*

We acknowledge receipt of the following addenda issued during the tendering period.

Addendum No. _____ Date: _____

Addendum No. _____ Date: _____

8. *Completion of Work*

We undertake to complete the work in _____weeks after receipt of Purchase Order issued by **St. Clair Catholic District School Board.**

OR

To start the work on _____ and to complete the work by _____

Completion date not to exceed _____

TENDER FORM

Shingle Roof Replacement for
Holy Family Catholic School – Wallaceburg Ontario
PROJECT No. 616-CP1516

_____
Signature of Authorized Officer

Phone No _____ ***Email*** _____

_____
Name of Signature

_____
Witness

_____
Dated at

This _____ ***day of*** _____ ***2015***

Notes:

1. If this Tender is submitted by or on behalf of any Corporation by some duly authorized officer, or agent thereof, who shall subscribe their name and office, the Seal of the Corporation shall be affixed.

2. The Owner reserves the right to accept or reject any part OR all of bid and may not necessarily award the tender to the lowest bidder.

SPECIFICATION FOR

SHINGLE ROOF REPLACEMENT

FOR

ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD

At

HOLY FAMILY CATHOLIC SCHOOL
649 MURRAY STREET
WALLACEBURG ONTARIO
N8A 1W1

PROJECT No. 616-CP1516

MAY 2015

Remlap Building Services Inc.
1407 Gore Rd., RR1 – Harrow Ontario N0R 1G0

T-1.0 GENERAL CONDITIONS (Asphalt Shingles)

Shingle Roof Replacement for
St. Clair Catholic District School Board
Holy Family Catholic School – Wallaceburg Ontario

T-1.1 *Scope of General Work*

1.1.1 Comply with the requirements of the Ontario Building Code and this Specification.

1.1.2 Provide materials, labour and equipment.

1.1.3 Remove existing shingles, flashings, etc.

1.1.4 Install eave protection.

1.1.5 Install new shingles and flashings as shown on the drawings listed herein or as necessary to complete the work.

T-1.2 *Standards*

1.2.1 To CAN.CSA A123.51/A123.52-M85 and CRCA Specification SH-1.

1.2.2 Do not use asphalt shingles on vertical or near vertical surfaces.

T-1.3 *Samples/Shop Drawings/Product Literature*

1.3.1 Submit duplicate samples of full size Shingles, Ice and Water Protection, Drip Edge, Flashings, Vents & Ridge Vents as specified for approval.

1.3.2 Submit duplicate Shop Drawings & Product Literature for review.

T-1.4 *Existing Conditions*

1.4.1 Visit site and determine existing conditions, limitation and requirement for protection of this and adjacent work and verify dimensions.

T-1.5 *Delivery, Storage & Additional Materials*

1.5.1 Deliver in original bundles, package and containers. Ensure that materials are carefully handled to prevent damage to new and existing work.

1.5.2 Store materials dry and free from foreign matter during all phases or work.

1.5.3 Supply ten (10) extra bundles of shingles (colour/type as specified) and deliver material the site. Coordinate delivery with the Owner's Representative.

T-1.0 GENERAL CONDITIONS (Asphalt Shingles)

Shingle Roof Replacement for
St. Clair Catholic District School Board
Holy Family Catholic School – Wallaceburg Ontario

T-1.6 *Warranty*

1.6.1 Provide a signed certificate warranting the shingles free from manufacturing defects due to faulty materials or improper workmanship for a period of fifty (50) years Limited Transferable Warranty commencing on the date of final acceptance. ***Include sample copy of the required warranty in bid submission.***

1.6.2 Provide a signed certificate warranting the application of the roofing and flashing membrane for a period of five (5) years and the related sheet metal for a five (5) year period, commencing on the date of the final acceptance. Make good and promptly at no additional expense, any defects occurring or becoming apparent within the warranty period. Such defects include but are not restricted to leaking, failure to stay in place, undue expansion, lifting and deformation. ***Include sample copy of the required Warranty in Bid Submission.***

T-1.7 *Skilled Labour and Fall Arrest Protection*

1.7.1 The work in this section shall be executed by skilled labours with a minimum of five (5) years' experience in the roofing trade (shingle installation) and who have received training in Ladder Installation Techniques and Fall Arrest Training as noted in Section 26 of the Construction Regulations (Ontario Regulation 213/91).

1.7.2 The use of safety items such as anchors and or polyester straps as manufactured by "Safe-T-Strap" (Telephone No. 1-800-547-4298) or approved equal is recommended when executing this work.

T-1.8 *Mock-Up Unit*

1.8.1 As part of the project, the **first section of roof** at which the contractor completes the roof replacement shall be referred to as the Mock-Up Unit. This area shall set the standard for both materials and workmanship for all other areas in this project. Any disputes in workmanship/materials shall be compared to the mock-up unit and any discrepancies shall be made good by the Contractor.

T-1.9 *Clean-Up*

1.9.1 As part of the project, the **entire area** at which the contractor completes the roof each day shall be cleaned-up and kept clean every day.

T-1.10 *Fall Protection*

1.10.1 All workers are to adhere to Ontario Occupational Health and Safety Act-O. Reg. 213/91 (Subsection 26).

T-1.0 GENERAL CONDITIONS (Asphalt Shingles)

Shingle Roof Replacement for
St. Clair Catholic District School Board
Holy Family Catholic School – Wallaceburg Ontario

1.10.2 Where a worker is exposed to any of the following hazards:

- *Falling more than 3 metres.*
- *Falling more than 1.2 metres, if the work area is used as a path for a wheelbarrow or similar equipment.*
- *Falling through an opening on a work surface. O. Reg. 145/00, s. 12; O. Reg. 85/04, s. 4.*

A worker shall be adequately protected by a guardrail system that meets the requirements of Subsections 26.3 (2) to (8). O. Reg. 145/00, s. 12.

1.10.3 Despite (1.10.2), if it is not reasonably possible to install a guardrail system as that sub-section requires, a worker shall be adequately protected by a least one of the following methods of Fall Protection:

a) A travel restraint system that meets the requirements of Section 26.4.

b) A fall restricting system that meets the requirements of Section 26.5.

c) A fall arrest system, other that a fall restricting system designed for use in wood-pole climbing that meets the requirements of Section 26.6 (Health and Safety Act – O. Reg. 213/91).

d) A safety net that meets the requirement of Section 26.8. O. Reg.145/00, s.12:O. Reg. 85/04, s. 5 (1).

1.10.3 An employer shall ensure that a worker who may use a fall protection is adequately trained in its' use and given adequate oral and written instructions by a competent person. O. Reg. 145/00, s. 13.

1.10.4 All workers on **St. Clair Catholic District School Board** performing work under this section are required to present proof of all protection training upon request.

1.10.5 The components of any fall protection system listed shall be designed by a Professional Engineer in accordance with good engineering practice, and shall meet the requirements of any of the applicable CSA Standards.

T-1.11 *Temporary Stairs, Hoists, Scaffolds, Etc.*

1.11.1 Furnish and maintain all equipment such as stairs, ladders, ramps, scaffolds, hoists, runway chutes, etc. as required for proper execution of work.

1.11.2 When required/applicable, construct and maintain scaffolding in a rigid secure and safe manner. Erect scaffolding independent of walls. Remove promptly when no longer required and make good any damaged surfaces.

T-1.0 GENERAL CONDITIONS (Asphalt Shingles)

Shingle Roof Replacement for
St. Clair Catholic District School Board
Holy Family Catholic School – Wallaceburg Ontario

1.11.3 Where such structures are of a complicated nature, employ the services of a Registered Professional Engineer to design such scaffolding, framework or other temporary supports.

1.11.4 Provide all necessary temporary barricades, fencing, guardrails and barriers as necessary for the work.

T-1.12 *Safety Requirements*

1.12.1 Enforce use of CSA Approved Hardhats and Safety Boots for all entering or working on construction site. Refuse admission to those refusing to conform to this regulation.

1.12.2 Provide and maintain adequate lighting where workmen or public may be subject to hazards and in all working areas.

1.12.3 Comply with the requirements of the Workplace Hazardous Material Information System (WHMIS) regarding use, handling, storage and disposal of hazardous materials and regarding labelling and the provision of Material Safety Data Sheets.

1.12.4 In addition to the requirements of the Occupational Health and Safety Act, and Regulations for Construction Projects, provide temporary safeguards and protection against:

- *Accidents or injury to any workmen or other persons on site, adjacent work and property, roads and walks.*
- *Damage to any part of the work and to any adjoining or adjacent structure, properties, pavements, walkways and other similar items by frost, weather, overloading and any other cause resulting from the execution of the work.*

1.12.5 Make good with materials identical with existing and adjoining surfaces any damage resulting from the execution of the work to any part of the work or any buildings, pavements, landscaping, poles, hydrants, services, etc. on or surrounding the site.

T-1.13 *Notice of Project*

1.13.1 As indicated in the Occupational Health and Safety Act, the Contractor shall before commencing any work on a project, give to a Director, and notice in writing of the project containing such information as may be prescribed.

T-2.0 PRODUCTS (Asphalt Shingles)

Shingle Roof Replacement for
St. Clair Catholic District School Board
Holy Family Catholic School – Wallaceburg Ontario

2.1.0 ***Sheathing*:**
Douglas Fir Plywood unsanded, to CAN/CSA 0121-M78 matching existing thickness (1/2 inch)

2.1.1 ***Approved Supplier*:**
BEACON ROOFING SUPPLY –LONDON ONTARIO

2.1.2. ***Asphalt Shingle*:**
To CSA A123. IM 1998 (50 year SBS-Modified Laminated Shingle)

***Manufacturer*:**
MALARKEY ROOFING PRODUCTS (LEGACY 50 YEAR)
Note: The colour will be selected by the Owner once the successful Bidder is selected.

2.1.3. ***Eave Protection***:
Self-sealing, self-adhering, composite sheet membrane composed of high-density, cross laminated polyethylene and rubberized asphalt.
Eave protection shall be one of the following products or approved equal.

Malarkey Roofing Products – Arctic Seal 401 (at eaves, protrusion, etc.)
Certainteed Shingle System - Metalayment (beneath metal valleys)

2.1.4 ***Roof Underlayment*:**
New High Performance Synthetic Underlayment (Diamond Deck) as manufactured by Certainteed Roofing Products.

2.1.5 ***Nails*:**
Large head roofing to CAN/CSA B111-74, galvanized steel/aluminum as applicable, of sufficient length to penetrate deck minimum 12mm. (Minimum 1 ¼ inches)

2.1.6 ***Sheet Metal, Step Flashings, etc*.:**
Pre-finished Sheet Steel; (24 ga).

2.1.7 ***Drip Edge*:**
Pre-finish aluminum colour to be selected later by the Owner. Drip edge to be installed along the eaves and up rakes extending approximately 3 inches back from roof edge, extending a minimum of ¾ inches beyond the plywood sheathing bending down over the roof edge, 1 inch with ½ inch kick-out end.

2.1.8 ***Edge Vents*:**
Edge Vent shall accommodate roof pitches from 3/12" to 12/12 and shall be nailable.
Edge Vent shall be 11" wide x 4' long complete with 9 square inches of Net Freer Area per linear foot as manufactured by AIR VENT INC.

2.1.9 ***Ridge Vent*:**
Ridge Vent shall be "**SHINGLEVENT II"** as manufactured by AIR VENT INC.

T-2.0 PRODUCTS (Asphalt Shingles)

Shingle Roof Replacement for
St. Clair Catholic District School Board
Holy Family Catholic School – Wallaceburg Ontario

Ridge vent shall be Black PVC, complete with internal rib system and/or crush proof construction and continuous insect and neoprene filter on both sides.

Ridge vent shall accommodate roof pitches from 3/12" to 12/12 and shall be nailable (capable of accepting roof shingles). Ridge vent shall also be "Self-Aligning" complete with interlocking ends for quick alignments.

Ridge vent shall be 11" wide x 4'0" long x 1.4" high, complete with .84" high free air opening x total length of vent (both sides) for a total of 40.32 square inches of free air opening per side.

2.1.10 ***Vent Stack Flange:***

Manufacturer: Duraflo
Part No.: 6148 (Size Opening to be Measured)
Colour: Black
Dimensions: 16.25" x 16.25" x 3.75"

2.1.11 ***Starter Shingle:***

SMART START (MALARKEY ROOFING PRODUCTS)

2.1.12 ***Capping***

35 Year SBS – Modified Classic 3-Tab Metric Shingle
-THE ALASKAN (MALARKEY ROOFING PRODUCTS)

T-2.2 *Roofing Cement*

2.2.1 **Plastic Cement:** ASTM D 4586 TYPE 1

2.2.2 **Lap Cement:** ASTM D 4586 TYPE 1

T-4.0 EXECUTION (Asphalt Shingles)

Shingle Roof Replacement for
St. Clair Catholic District School Board
Holy Family Catholic School – Wallaceburg Ontario

T-4.1 *Preliminary Work*

4.1.1. Give at least two (2) days notice to the Owner's Representative before starting work.

4.1.2. Provide temporary protection to adjacent trees, shrubs, and flower beds as required.

4.1.3 Also provide temporary protection to balconies, and entrances where applicable.

4.1.4 Provide temporary protection to all interior areas where applicable during operations.

T-4.2 *Preparation*

4.2.1. The Contractor shall not remove any more roofing than physically possible to replace in one (1) day and the Contractor shall not proceed with the work unless twenty-four (24) hours of clear weather is forecasted.

4.2.2. When installing ladder(s), the contractor shall protect the eavestrough from damage at all times and shall ensure that the ladder(s) is/are properly secured. Any damage to the eavestrough and or downspouts as a result of this work shall be made good by the Contractor to the Owner's Representative's satisfaction.

4.2.3 Remove existing shingles, building paper, ice and water protection, flashing, drip edges, nails as required as designated roof locations. Obtain a smooth, even and clean deck surface.

4.2.4 Examine existing deck and report to the Owner's Representative any areas of damaged and deteriorated or unsuitable sheathing.

4.2.5 Re-nail loose plywood (wood deck) sheathing and replace "H" clips as required.

4.2.6 Promptly remove discarded materials from the site and pay all dumping charges as applicable. Stockpiling of refuse or scrap material on site is not permitted.

4.2.7 Apply materials in strict accordance with Manufacturers' Printed Instructions.

4.2.8 Install new work promptly after removal of existing roofing to minimize exposure to weather. Do not apply work during rain, fog or snow. Do not work over damp, frozen or unsuitable surfaces.

T-4.3 *New Plywood Sheathing - Install*

4.3.1 Replace damaged/rotting plywood with new plywood sheathing of same thickness c/w H-clips.

T-4.0 EXECUTION (Asphalt Shingles)

Shingle Roof Replacement for
St. Clair Catholic District School Board
Holy Family Catholic School – Wallaceburg Ontario

T-4.4 *Installation*

4.4.1 In accordance with CAN/CSA A123.51-M85/CAN/CSA A123.52-M85 and CRCA Specification SH-1. Contractor to divide shingle work up into logical segments that can be completed in one working day. Shingle roof areas must be watertight by the end of the contractor's working day. Once the contractor has begun shingle work, including underlayment, he assumes responsibility for rectifying at his own expense any water damage to the inside of the building caused by a failure to make the shingle roof watertight.

4.4.2 Install roll roofing valleys. (As shown on drawings)

4.4.3 Install metal flashings. (As shown on drawings)

4.4.4 ***Ice and Water Protection (IWP)*** – Before installing IWP ensure that deck is free of sharp protrusions, clean, smooth and dry. Install IWP along the eaves, valleys, rakes plumbing stacks, and static vents.

4.4.5 Installation of IWP at the eaves and rakes shall extend 36" (905mm) from the roof edge and extend not less than 12" (305mm) past the inner face of the exterior wall.

4.4.6 Installation of IWP in the valleys shall extend 18" (450mm) on both sides of the centre line.

4.4.7 Installation of IWP over exhaust vents and plumbing stacks shall extend 12" (305mm) to 18" (450mm) around the units.

4.4.8 Starting at the eaves, install a minimum 12" wide strip of self-adhering eave protection over the wood substrate carrying the membrane strip down the fascia board ensuring that it extends a minimum of 8" onto the sloped roof surface.

4.4.9 Install drip edge along the bottom of the roof as shown on detailed drawings and secure to wood substrate minimum 12 inches O.C. Install new drip edge along the rakes of all roof edges.

4.4.10 ***Underlayment***
Lay underlayment with minimum 50mm head lap and 100mm side lap; use sufficient nails to hold in place until shingle application is complete; overlap eave protection 100mm minimum.

4.4.11 Install roof vent/ridge, vents/wall vents, where applicable, as per manufacturer's instructions and locations shown on drawings.

4.4.12 ***Shingle Installation***
Install shingles over dry substrate to manufacturer's written instructions.

4.4.13 Moderately butt shingles together.

T-4.0 EXECUTION (Asphalt Shingles)

4.4.14 Stagger joints one half tab in succeeding courses to permit vertical alignment.

4.4.15 Use four (4) nails per shingle on main roof area with pitch of 3/12 to 8/12 and six (6) nails per shingle on roof area with pitch greater than 8/12. The fasteners to be installed on shingles where recommended by the Shingle Manufacturer. Do not nail into or above factory-applied adhesive strip; drive nails straight and flush.

4.4.16 Install asphalt shingles starter strip laid granule side up facing tabs up roof slope, over-hanging eave edge 20mm to provide a drip nail along bottom edge 300mm o.c.

4.4.17 On slopes steeper than 1:1 apply additional sealer under each tab after application.

4.4.18 ***Installation of Flashings***

The intersection of shingle roofs, masonry walls and stucco walls shall be protected with sheet metal flashing that extends not less than 100mm each way from the intersection.

Sheet metal flashings along the slopes of the roof shall be stepped so that there is at least 75mm head lap in both lower flashing and counter flashing.

Where a roof slopes downward from the masonry or stucco, flashing shall extend over the shingles.

Where a roof slopes upward from the masonry, the lower flashing shall extend up the slope under the shingles to a point equal in height to the height to the flashing on the wall, but not less than one and one-half times the shingle exposure.

Counter flashings shall be embedded approximately 25mm into the masonry with turn back water stop and shall have sufficient length to extend at least 150mm down the wall and lap the lower flashing at least 100mm.

Install metal soaker flashing between wall faces and abutting roof conditions. Soakers to interlay with shingles extending 100mm beyond face of intersecting wall and with 75mm head laps at wall.

4.4.19 Cut-out slots for edge vent and cornice vent as noted on Drawings required and install edge vent and cornice vent in a continuous row with tight joints and as per Manufacturer's Written Instructions. Finish edge and cornice by nailing shingles over 1WP membrane as detailed.

4.4.20 Cut-out roof ridge (vent slot) as noted on drawings required and install ridge vents in a continuous row with tight joints and as per manufacturer's written instructions. Finish ridge by nailing shingle ridge and taper off at ends or as per Manufacturer's Recommendation.

4.4.21 Install existing exhaust vents at the original locations. When installing exhaust vents, the Contractor is to ensure vent pipe/conduits are properly secured and re-attached to new vents. It shall be the Contractors responsibility to re-attach any vent pipe/conduits that may have been disconnected.

4.4.22 Install new stack vents as per Manufacturer's Instructions.

T-4.0 EXECUTION (Asphalt Shingles)

Shingle Roof Replacement for
St. Clair Catholic District School Board
Holy Family Catholic School – Wallaceburg Ontario

T-4.5 *Clean-Up*

4.5.1 The Contractor shall clean-up all debris on a daily basis and all garbage containers and or trucks shall be removed from the site at the end of each working day. Large garbage containers and trucks 20 yards and more will not be permitted on this job site.

4.5.2 Make good any damaged grass area by removing damaged sod and installing new topsoil and new sod. Make good and/or replace damaged asphalt paving and/or concrete sidewalks/landings and shrubs/trees as directed by Owner's Representative.

4.5.3 Remove surplus material, equipment and debris and leave site clean and tidy.

ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD

AT

OUR LADY OF FATIMA CATHOLIC SCHOOL
545 BALDOON ROAD
CHATHAM ONTARIO
N7L 5A9

TENDER FORM

PROJECT No. 619-CP1517

MAY 2015

Remlap Building Services Inc.
1407 Gore Road, RR1 – Harrow Ontario N0R 1H0

TENDER FORM

Partial Roof Replacement
for
Our Lady of Fatima Catholic School – Chatham
PROJECT No. 619-CP1517

Name of Bidder _____
(Hereinafter Called the Tenderer Contractor)

Address _____

Being A _____ **(A) which** _____ **(B)**

Note: In space (A) above states type of company
Eg. "Incorporated", "limited", etc.
In space (B) above state "is" or "is not".

Registered under the laws of the Province of _____

DOES HEREBY AGREE TO:

1. Furnish all labour, materials, equipment, and service necessary for the completion of the Partial Roof Replacement at **Our Lady of Fatima Catholic School** in accordance with Information of Tenderers, Form of Tender, General Conditions of Contract and Drawings by Remlap Building Services, 1407 Gore Road, RR1 Harrow, Ontario – N0R 1G0 for **TOTAL TENDER PRICE "A" (H.S.T. INCLUDED**),

_____ ***$***_____
(HST Included)

or such other sums as may be finally ascertained in accordance with the allowance for Partial Roof Replacement and deductions as set out in the Tender Documents.

2. And also agrees that upon Tender acceptance to furnish a Performance and Maintenance Bond, Labour and Material Payment Bond and Liability Insurance as required by the Contract Documents, the cost of which is included in the Total Tender Price. The Tenderer hereby proposes:

_____
Name of Bonding Company

Stipulated prices shall include all labour, equipment and materials required to complete the work in every respect, including provincial sales tax.

TENDER FORM

Partial Roof Replacement
for
Our Lady of Fatima Catholic School – Chatham
PROJECT No. 619-CP1517

Section "A"
Partial Roof Replacement for Our Lady of Fatima Catholic School

The Bidder offers to provide all labour, materials and equipment services for the execution and completion of the work of the trade or trades herein and in accordance with the instructions for Bidders including Provincial Sales Tax for the stipulated sum of:

Item No.	*Description*	*Total*	
		Option No.1	**Option No.2**
A.	**SOUTHWEST CORNER ROOF** The Roofing Contractor is to remove the existing Roof System completely to the metal deck. Then the Contractor is to supply and install vapour retarder, all rigid insulation, protection board, etc. prior to installing a Two Ply Modified Bitumen Roof System as shown on the Enclosed Drawings and in accordance with the Project Specifications for this facility. (The Contractor will include a Cash Allowance of $5,000.00 with this price (if the allowance is not used, it will be taken off of the Total Tender Price).	**$**_____	**$**_____

Total Tender Price "A" (excluding HST) **$**_____

Add 13% HST **$**_____

Total Tender Price "A" (including HST) **$**_____

3. And also agrees to submit the total tender price in compliance with the provisions of Section 1.21 of the Information to Tenderers regarding Ontario Sales Tax.

4. And agrees to leave this tender open for acceptance a minimum period of sixty (60) days from the tender closing date and not to modify, withdraw, or cancel their bid during this period.

The Tenderer also agrees that until the form of Agreement is completed and executed, this Tender, together with the acceptance thereof by the Owner and the Tenderer, shall remain open regardless of whether or not any other Tender has been previously accepted.

5. And also agrees to start the entire work within four (4) working days after the award of contract.

TENDER FORM

Partial Roof Replacement
for
Our Lady of Fatima Catholic School – Chatham
PROJECT No. 619-CP1517

6. Documents and Acknowledgements

The Tenderer acknowledges that they have carefully examined the site of the proposed work, the existing premises and conditions; and thoroughly reviewed the Information to Tenderers, Tender Form, General Conditions, Supplementary General Conditions, Specifications, Drawings and the Addenda of the proposed Contract.

Addendum No. _____ **Date:** _____

Addendum No. _____ **Date:** _____

7. Completion of Work

We undertake to complete the work in _____weeks after Receipt of Purchase Order or Written Authorization issued by **St. Clair Catholic District School Board**

OR

To start work on _____ and to complete the work by _____

Completion date is not to exceed **July 31st, 2015**

8. Subcontractors

The Tenderer proposes to use the following Subcontractors, the portion of the work to be performed by each being as indicated with no more than one Subcontractor being proposed for any such portions. (If Subcontractors are not proposed, write N/A in the blank space.)

SUBCONTRACTOR	WORK OR TRADE

TENDER FORM

Partial Roof Replacement
for
Our Lady of Fatima Catholic School – Chatham
PROJECT No. 619-CP1517

Signature of Authorized Officer _____

Phone No. _____ ***Email*** _____

Name of Signature _____

Witness _____

Dated at _____

This _____ ***day of*** _____ ***2015***

NOTES:

1. ***If this Tender is submitted by or on behalf of any Corporation by some duly authorized officer, or agent thereof, who shall subscribe their name and office, the Seal of the Corporation shall be affixed.***

2. ***The Owner reserves the right to accept or reject any part OR all of bid and may not necessarily award the tender to the lowest bidder.***

SPECIFICATION
ON
PARTIAL ROOF REPLACEMENT

FOR

ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD

AT

OUR LADY OF FATIMA CATHOLIC SCHOOL
545 BALDOON ROAD
CHATHAM ONTARIO
N7L 5A9

PROJECT No. 619-CP1517

MAY 2015

Remlap Building Services Inc.
1407 Gore Road, RR1 – Harrow Ontario N0R 1H0

3.0 GENERAL

Partial Roof Replacement
for
Our Lady of Fatima Catholic School – Chatham

3.1 Warranties

3.1.1 Roofing Application Guarantee

Warrant the work of this section including insulation, membrane and sheet metal work against defects and any actual leakage in accordance with the General Conditions but for a period of two (2) years and agree to make good promptly any defects which occur or become apparent within the warranty period, such defects to include but not be restricted to leaking, blistering, lifting, curling, wrinkling, alligatoring, fish mouths, loosening and splitting of seams, buckling of counter flashing, improper securement of flashings, improper use or application of materials.

3.1.2 Membrane System Warranty:

Provide a Written Membrane System Warranty to **St. Clair Catholic District School Board** – Partial Roof Replacement stating that the Roofing Membrane Manufacturer will pay the entire cost to have the Authorized Roofing Applicator search any leaks which occur due to Membrane or Application (workmanship) failure within the warranty period of fifteen years.

4.0 PRODUCTS

Partial Roof Replacement
for
Our Lady of Fatima Catholic School – Chatham

OPTION NO. 1 – HENRY COMPANY

4.1 Modified Bitumen Membrane

4.1.1 Modified Bitumen Sheets shall conform to CGSB 37-GP-56M "Membrane, Modified, Bituminous, Prefabricated and Reinforced for Roofing";Type 2, Class C, Grade 2 for Base Sheets and Type 1, Class A, Grade 2 for Cap Sheets.

4.1.2 The Contractor may bid on any Manufacturer's Systems specified for torching application of the base sheet and torching of the cap sheet for this roof area. The colour of the granular surface is to be selected by the Owner. Supply additional granules to be applied to bitumen outflows between membrane sheets.

4.1.3 Modified Bitumen Membrane Two-Ply System shall be as specified or approved equal and accepted by the Consultant and Owner.

a) Henry Company
- i) Base Sheet (NP180P/S) and (NP180 S/P 3.5 Cap Sheet)
- ii) Self-Adhesive Membrane (NP 180 Tack Sheet)
- iii) Cap Sheet (NP250gT4)

4.2 Vapour Retarder

4.2.1 Vapour retarder shall be Self-Adhered Sand Surfaced Air/Vapour Barrier shall be Perma-Seal FG as manufactured by Henry, an SBS modified bitumen self-adhering reinforced membrane have a thickness of 56 mils.

4.3 Primer

4.3.1 As required by each roof membrane manufacturer.

4.4 Rigid Insulation

4.4.1 Insulation shall be roof insulation which is rigid closed cell, Polyiso Foam Insulation, integrally laminated to inorganic felt facers, thermal resistance of insulation shall be R-28.8 (L.T.T.R.) (5 inch – 2 layers of 2.5 inch) for the main roof area and R-17.4 (L.T.T.R.) (3.0 inch) around recessed roof drains, Resistance R-Value in accordance with ASTM C1289-11A. All insulation boards shall be 4 feet by 4 feet in size.

4.5 Insulation Overlay Boards

4.5.1 Bituminous Boards consisting of multi-ply, semi-rigid Asphaltic Roofing Substrate Board composed of a mineral fortified Asphaltic core formed between two Asphaltic saturated fiberglass liners. Length 1200mm x Width 1500mm x thickness 4.5 mm such as Recover Board by Bakor or approved equal by the Consultant.

4.0 PRODUCTS

Partial Roof Replacement
for
Our Lady of Fatima Catholic School – Chatham

OPTION NO. 1 – HENRY COMPANY

4.6 Bitumen Adhesive

4.6.1 Thermostik 840-10 is a 100% solid, asphalt extended, ambient temperature, vulcanizing adhesive supplied as a two component unit consisting of two liquids which are mixed to produce a pourable adhesive.

4.7 Vent Pipe Stack Flange

4.7.1 The vent pipe stack flange shall be Thaler Roofing Specialties Products Inc. Model No. SJ-37 insulated flange. The Roofing Contractor shall verify the inside diameter of the vent pipe stack for each location.

4.8 Roof Drain

4.8.1 Roof Drain shall be Thaler Roof Specialties Products Inc. Model No. RD-4-RR with U-Flow. Outlet size shall be verified on site by the Roofing Contractor.

4.9 Tapered Insulation (Recessed Roof Drains)

4.9.1 The tapered insulation shall be faced Isocyanurate Boards conforming to CAN/CGSB-51.26-M86, meeting the requirements of ULC S126 Polyisocyanurate foam panels chemically bonded during the foaming process to facers on the top and bottom organic surfaces. Tapered panels shall not be less than 13m at any point of the roof to the slope indicated on the Roof Plan and Details.

4.10 Elastomeric Modified Bitumen Adhesive

4.10.1 Bakor MBA Gold is a fib rated rubberized adhesive with a bonding strength designed for adhering SBS modified bitumen and asphalt coated membranes directly to properly prepared substrates.

4.11 Metal Flashings

4.11.1 Metal flashings shall be 24ga. Colorite 8000 Series pre-finished steel (both sides) as manufactured by Westeel Roscoe, Steelcolour 8000 Series or Owner approved equal, formed to comply with field conditions. The colour is to be selected by the Owner from the Manufacturer's standard colours. A one meter "test bend" for each general metal flashing condition shall be completed and presented to the Owner's Representative for approval prior to general fabrication.

4.12 Sealants

4.12.1 Caulking Sealants for metal flashing shall be one part silicone to conform to CGSB 19 GP 96. Sealants shall be manufactured by Canadian General Electric, Dow Corning or approved equal. The colour of the sealant shall be identical to the colour of the metal flashing; the Owner is to approve the colour before ordering the sealant. This sealant shall be applied to all metal flashing joints including the reglet.

4.0 PRODUCTS

Partial Roof Replacement
for
Our Lady of Fatima Catholic School – Chatham

OPTION NO. 1 – HENRY COMPANY

4.13 Roofing Gravel

4.13.1 The gravel shall be ¼" to 5/8" size; water washed pea gravel, well graded, opaque, non-porous material free of fines, moisture, ice, and snow or long splinters and conforms to ASTM D1863086.

4.14 Framing Lumber

4.14.1 Framing Lumber on top of roof area shall be pressure treated for rot resistance conforming to CSA 0322-1976 and CSA 080-M1983; sizes shown on the Drawings. Grade SPF No. 2 or better.

4.15 Plywood

4.15.1 Exterior Grade "fir" to CSA 0121 or CSA 0151, ½" and ¾" thick, as detailed on Enclosed Drawings.

4.16 Rough Hardware and Nails

4.16.1 The Roofing Contractor shall supply all rough hardware where required. Nails, spikes, screws, bolts, etc. shall be of sufficient size and type to rigidly secure all members into place. All nails shall be hot dip galvanized.

4.17 Painting

4.17.1 All existing gas lines, exhaust fan hoods and roof top units shall be cleaned and scraped prior to being repainted.

4.17.2 Clean and prime with Alkyd Metal Primer before applying two coats of enamel paint. The colour shall be selected by the Owner.

4.18 Plastic Roof Cement

4.18.1 Pro-Grade Plastomers 810-21 Plastic Cement is composed of asphalt synthetic rubber, fiber and fillers exceeding the requirements of CAN/CGSB-37.5. This product is manufactured by Bakor or approved equal.

4.19 Precast Pads

4.19.1 Precast concrete pads shall be 24 inch by 24 inch by 2 inch thick for additional walkway, etc. as shown on Roof Plan. Pads shall be placed on a 20 inch by 20 inch by 2 inch thick sections of rigid Type 4 extruded polystrenne insulation. Also the supports under the electrical raceway shall be 12 inches by 12 inches by 2 inches and placed on a 10 inch square by 1 inch thick of rigid Type 4 extruded polystrenne insulation as detailed. (18 new pavers in total)

4.0 PRODUCTS

Partial Roof Replacement
for
Our Lady of Fatima Catholic School – Chatham

OPTION NO. 1 – HENRY COMPANY

4.20 Roof Pipe Supports

4.20.1 Roof pipe supports as manufactured by C-Port (Model No. CXP) are to be supplied and installed by the Roofing Contractor to replace the existing supports for gas line. (Total of 16 Required)

5.0 EXECUTION

Partial Roof Replacement
for
Our Lady of Fatima Catholic School – Chatham

OPTION NO. 1 – HENRY COMPANY

5.1 TEAR-OFF

5.1.1 Prior to the start of installation, the roofing Contractor shall examine all roof areas included in this Specification. The Roofing Contractor shall notify the Consultant of any unacceptable conditions.

5.1.2 These conditions include, but are not limited to, uneven deck surfaces, improperly installed curbs and nailers, surfaces with fins or sharp projections, and surfaces contaminated with incompatible materials. Work shall not begin until these conditions have been corrected. Protect membrane in high traffic areas, work by other trades, application of gravel, etc.

5.1.3 Completely remove the existing Loose Laid Ballasted Roof System completely to the existing metal deck. Only tear-off those roofing components that can be re-roofed in the same day. Tear-off work shall not be left exposed at the end of the work day.

5.2 INSTALLATION – Two Ply Modified Bitumen Membrane Roof System

5.2.1 The areas to be re-roofed must have all the roofing components removed completely to the metal roof dish before applying the new roof system. Install all carpentry items such as curb extensions, wood blocking at roof perimeters, etc. as detailed on the Drawings. All wood members which are to be anchored to masonry construction shall be permanently fastened into place. Do not use fasteners which will cause spalling, cracking or deformation of fastened materials.

5.2.2 Apply roofing materials over clean and dry surfaces in accordance with the Manufacturer's Recommendations. The re-roofing operations shall be performed on a continuous basis as weather conditions allow.

5.2.3 Install all new wood blocking and plywood as detailed on the applicable details

5.2.4 **Installation of Vapour Retarder**

.1 Apply Blueskin Primer by roller or spray to all surfaces as required and allow drying.

.2 Unroll and align air/vapour barrier centered at low point of roof or drain. Apply air/vapour removing release paper providing 2 inch side and end laps. Seal around projections as per manufacturer's recommendations.

.3 Apply self-adhesive membrane without any wrinkles or fish mouths.

.4 The vapour retarder is to be carried up the vertical surfaces a minimum of 8 inches above roof deck.

5.2.5 **Installation of Rigid Insulation Boards**

.1 Install boards with cold adhesive to the vapour retarder. On all insulation surfaces intended for board coverage apply beads of 20mm (3/4") wide on 200mm (8") centers.

.2 Firmly set the rigid insulation boards in staggered fashion. All boards must be butted tightly together.

.3 Apply only as many boards as can be covered in the same day.

5.0 EXECUTION

Partial Roof Replacement
for
Our Lady of Fatima Catholic School – Chatham

OPTION NO. 1 – HENRY COMPANY

5.2.6 **Installation of Insulation Overlay Boards**

.1 Install boards with cold adhesive to the rigid insulation as indicated. On all insulation surfaces intended for board coverage, apply beads of 20mm (3/4") wide on 200mm (8") centers.

.2 Firmly set the insulation overlay boards, long joints continuously and short joints staggered. All boards must be evenly and tightly butted together.

.3 All vertical joints between boards and insulation will be staggered.

.4 Apply only as many boards as can be covered in the same day.

5.2.7 **Base Sheet Installation**

.1 Install the base sheet roof membrane starting from the low point (roof drain) to the high point. The base sheet is to be adhered with adhesive to the overlay boards to the parapet wall.

.2 Unroll base sheet flashing at drain level with first side lap lined-up with drain center.

.3 Overlap side laps by 75mm along lines provided to this end and overlap end laps by 150mm. Stagger end joints by at least 300mm.

.4 Re-Roll base sheet and unroll again onto bed of cold adhesive with a notched squeegee having notches 6mm (1/4") wide 3mm (1/8") deep and spaced 25mm (1") on centers. The side and end lap must be HEAT WELDED (FUSED) TOGETHER WITH A LEISTER HAND HELD GUN OR APPROVED TO EQUAL TO ENSURE GOOD FUSION. Also avoid the cold adhesive from within two inches of the side and end laps.

.5 Avoid forming wrinkles, air pockets or fish-mouthing. The modified bitumen membrane should be cut in maximum lengths of 55mm (18 ft) and allowed to relax on the jobsite.

.6 This membrane is to be carried up to the inside face of parapet wall prior to installing new plywood on inside face of parapet wall.

5.2.8 **Installation of Additional Plywood and/or Wood Blocking**

.1 Install all new wood blocking and plywood as detailed on the applicable Details.

Note: The new plywood detail on the inside face of parapet wall is not to be installed until the first ply of base sheet roof membrane is applied 3 inches up the vertical surface of parapet wall.

5.2.9 **Base Sheet Flashing Installation**

.1 Apply base sheet flashing only once primer coat is dry.

.2 Install base sheet flashing in one (1) metre widths to cover roofing substrate over 100mm. Overlap side laps by 75mm. Stagger side laps by a least 100mm from base sheet overlaps on the roof to avoid excessive layering.

5.0 EXECUTION

OPTION NO. 1 – HENRY COMPANY

.3 Apply base sheet flashing directly onto substrate by removing silicone paper cover sheet. Proceed from top to bottom. Once in place, apply pressure manually in a uniformed fashion to obtain homogenous adherence over the entire surface. Preferably seal seams with aluminum applicator and rubber roller. The flashing membrane is to be adhered to the bottom of the wood blocking on the outside face of parapet wall. Nail outside edge at 300mm O.C. Burn off plastic film of base sheet membrane before adhering base sheet flashing over it.

.4 Avoid forming wrinkles, air pockets or fish-mouths.

5.2.10 Cap Sheet Installation

.1 Prior to installing the cap sheet membrane, all insulated flanges are to be installed around each roof penetration and secured to the metal roof deck with four (4) fasteners per flange before applying base sheet target section on top.

.2 Once the base sheet has been applied, the stripping has been completed and no indications of defects are present, then the cap sheet shall be laid.

.3 Begin application of the cap sheet at the lowest edge. Cap sheet shall be unrolled and care be taken to ensure proper alignment of the first roll.

.4 Cap sheet shall be torched into place in accordance with the Recommendations of the Membrane Manufacturer, to the base sheet membrane.

.5 The seams between the base sheet and cap sheet shall be staggered a minimum of 300 mm (12 inches).

.6 Care should be taken to ensure heating is consistent across the width in order to avoid skips or voids. Bitumen should flow out from the lap 6mm (1/4") to ensure a tight seal.

.7 All lap seams on the cap sheet are to be checked after membrane installation.

5.2.11 Cap Sheet Flashing Installation

.1 Cap sheet membrane installation shall be laid in strips 1m wide along the parapet. End laps shall be a minimum of 100mm (4 inches) overlap.

.2 Extend cap sheet a minimum of 150mm (6 inches) onto roof surface from the intersection of roof and vertical surfaces and extend to the top of the parapet wall to the outside of wall.

.3 The flashing membrane shall be anchored to the wood nailers by nailing through discs or using nails with 25mm (1 inch) minimum diameter head semi-solidly attached. Nail a minimum of 200mm (8 inches) on center.

.4 Matching granules shall be used to cover excess between flow at seams.

5.0 EXECUTION

OPTION NO. 1 – HENRY COMPANY

5.2.12 **Flood Coat and Gravel Cover**

.1 Apply a flood coat of cold roofing adhesive (MBA Gold) at the rate of 6.5 gallons/100ft² as recommended by Manufacturer (Bakor).

.2 Then embed new approved pea stone gravel at 20 kg/m² (450 lbs/100ft²) while adhesive is still wet.

5.2.13 **Concrete Pavers**

.1 Install concrete pavers as indicated on the Roof Plan on top of one inch extruded polystrenne rigid insulation (Type 4).

5.3 INSTALLATION – Metal Flashings

5.3.1 Cap and counter flashings shall be jointed with a double S-type locked joint. Flashings shall be installed with continuous clips secured to wood capping blocking at 12 inches O.C.

5.3.2 Flashing shall be fabricated to shapes on site with all necessary breaks for adequate expansion.

5.3.3 The inside face of the metal cap flashing between the S-locked joints is to be secured with three (3) fasteners matching the colour of the metal cap with a neoprene washer between the fastener head and inside face of the metal cap flashing.

5.3.4 All joints shall be sealed with approved sealant.

5.3.5 Counter flashings shall be installed at all reglets and curbs with at least three (3) inches below the top of roof curb or reglet.

5.4 CLEAN-UP

5.4.1 Upon completion of the installation, the work shall be left clean and free of defects which might affect the durability or appearance of the building. Clean all roof surfaces, including adjacent roofs and grounds of all foreign matter resulting from this Roofing Project.

6.0 PRODUCTS

Partial Roof Replacement
for
Our Lady of Fatima Catholic School – Chatham

OPTION NO. 2 – SOPREMA

6.1 Modified Bitumen Membrane

6.1.1 Modified Bitumen Sheets shall conform to CGSB 37-GP-56M "Membrane, Modified, Bituminous, Prefabricated and Reinforced for Roofing";Type 2, Class C, Grade 2 for Base Sheets and Type 1, Class A, Grade 2 for Cap Sheets.

6.1.2 The Contractor may bid on any Manufacturer's Systems specified for torching application of the base sheet and torching of the cap sheet for this roof area. The colour of the granular surface is to be selected by the Owner. Supply additional granules to be applied to bitumen outflows between membrane sheets.

6.1.3 Modified Bitumen Membrane Two-Ply System shall be as specified or approved equal and accepted by the Consultant and Owner.

a) Soprema
- i) Base Sheet (SOPRALENE 180 S/P 3.5 for Cap Sheet)
- ii) Self-Adhesive Membrane (NP 180 Tack Sheet)
- iii) Cap Sheet (NP250gT4) for flashing membrane.

6.2 Vapour Retarder

6.2.1 Sopravap'R is a self-adhesive membrane composed of SBS modified bitumen and a tri-laminated woven polyethylene facer. The under face is covered with a silicone release film.

6.3 Insulation Soprasmart Board 180

6.3.1 Soprasmart board 180 is a high performance high density support panel composed of SBS modified bitumen membrane with a non-woven polyester reinforcement, factory-laminated on asphaltic board (SOPRABOARD). The surface is covered with a thermo-fusible plastic film.

6.4 Primer

6.4.1 The primer shall consist of Elastocol Stick designed for use with self-adhered SBS modified bitumen base sheet flashing membrane. The risk of primer flare-up is eliminated when modified bitumen cap sheets are thermo-fused to the self-adhered base sheet flashing membranes.

6.5 Duotack

6.5.1 Duotack is a LOW-RISE two-part urethane adhesive to be used for the application of rigid insulation.

6.6 Vent Pipe Stack Flange

6.6.1 The vent pipe stack flange shall be Thaler Roofing Specialties Products Inc. Model No. SJ-37 insulated flange. The Roofing Contractor shall verify the inside diameter of the vent pipe stack for each location

6.0 PRODUCTS

Partial Roof Replacement
for
Our Lady of Fatima Catholic School – Chatham

OPTION NO. 2 – SOPREMA

6.7 Roof Drain

6.7.1 Roof Drain shall be Thaler Roof Specialties Products Inc. Model No. RD-4-RR with super seal. Outlet size shall be verified on site by the Roofing Contractor.

6.8 Rigid Insulation

6.8.1 Insulation shall be roof insulation which is rigid closed cell, Polyiso Foam Insulation, integrally laminated to inorganic felt facers, thermal resistance of insulation shall be R-28.8 (L.T.T.R.) (5 inch – 2 layers of 2.5 inch) for the main roof area and R-17.4 (L.T.T.R.) (3.0 inch) around recessed roof drains, Resistance R-Value in accordance with ASTM C1289-11A. All insulation boards shall be 4 feet by 4 feet in size.

6.9 Tapered Insulation (Recessed Roof Drains)

6.9.1 The tapered insulation shall be faced Isocyanurate Boards conforming to CAN/CGSB-51.26-M86, meeting the requirements of ULC S126 Polyisocyanurate foam panels chemically bonded during the foaming process to facers on the top and bottom organic surfaces. Tapered panels shall not be less than 13m at any point of the roof to the slope indicated on the Roof Plan and Details.

6.10 Elastomeric Modified Bitumen Adhesive

6.10.1 COLPLY EF is a low volatile organic compound (VOC), low odour, 100% solids and solvent-free polyether based adhesive.

6.11 Metal Flashings

6.11.1 Metal flashings shall be 24ga. Colorite 5000 Series pre-finished steel (both sides) as manufactured by Westeel Roscoe, Steelcolour 5000 Series or Owner approved equal, formed to comply with field conditions. The colour is to be selected by the Owner from the Manufacturer's standard colours. A one meter "test bend" for each general metal flashing condition shall be completed and presented to the Owner's Representative for approval prior to general fabrication.

6.12 Sealants

6.12.1 Caulking Sealants for metal flashing shall be one part silicone to conform to CGSB 19 GP 96. Sealants shall be manufactured by Canadian General Electric, Dow Corning or approved equal. The colour of the sealant shall be identical to the colour of the metal flashing; the Owner is to approve the colour before ordering the sealant. This sealant shall be applied to all metal flashing joints including the reglet.

6.13 Roofing Gravel

6.13.1 The gravel shall be ¼" to 5/8" size; water washed pea gravel, well graded, opaque, non-porous material free of fines, moisture, ice, and snow or long splinters and conforms to ASTM D1863086.

6.0 PRODUCTS

Partial Roof Replacement
for
Our Lady of Fatima Catholic School – Chatham

OPTION NO. 2 – SOPREMA

6.14 Framing Lumber

6.14.1 Framing Lumber on top of roof area shall be pressure treated for rot resistance conforming to CSA 0322-1976 and CSA 080-M1983; sizes shown on the Drawings. Grade SPF No. 2 or better.

6.15 Plywood

6.15.1 Exterior Grade "fir" to CSA 0121 or CSA 0151, ½" and ¾" thick, as detailed on Enclosed Drawings.

6.16 Rough Hardware and Nails

6.16.1 The Roofing Contractor shall supply all rough hardware where required. Nails, spikes, screws, bolts, etc. shall be of sufficient size and type to rigidly secure all members into place. All nails shall be hot dip galvanized.

6.17 Painting

6.17.1 All existing gas lines, exhaust fan hoods and roof top units shall be cleaned and scraped prior to being repainted.

6.17.2 Clean and prime with Alkyd Metal Primer before applying two coats of enamel paint. The colour shall be selected by the Owner.

6.18 Plastic Roof Cement

6.18.1 Pro-Grade Plastomers 810-21 Plastic Cement is composed of asphalt synthetic rubber, fiber and fillers exceeding the requirements of CAN/CGSB-37.5. This product is manufactured by Bakor or approved equal.

6.19 Precast Pads

6.19.1 Precast concrete pads shall be 24 inch by 24 inch by 2 inch thick for additional walkway, etc. as shown on Roof Plan. Pads shall be placed on a 20 inch by 20 inch by 2 inch thick sections of rigid Type 4 extruded polystrenne insulation. Also the supports under the electrical raceway shall be 12 inches by 12 inches by 2 inches and placed on a 10 inch square by 1 inch thick of rigid Type 4 extruded polystrenne insulation as detailed. (18 new pavers in total) along with existing pavers on roof area.

6.20 Roof Pipe Supports

6.20.1 Roof pipe supports as manufactured by C-Port (Model No. CXP) are to be supplied and installed by the Roofing Contractor to replace the existing wood supports for gas line. (Total of 16 Required)

7.0 EXECUTION

Partial Roof Replacement
for
Our Lady of Fatima Catholic School – Chatham

OPTION NO. 2 – SOPREMA

7.1 Tear-Off

7.1.1 Prior to the start of installation, the roofing Contractor shall examine all roof areas included in this Specification. The Roofing Contractor shall notify the Consultant of any unacceptable conditions.

7.1.2 These conditions include, but are not limited to, uneven deck surfaces, improperly installed curbs and nailers, surfaces with fins or sharp projections, and surfaces contaminated with incompatible materials. Work shall not begin until these conditions have been corrected. Protect membrane in high traffic areas, work by other trades, application of gravel, etc.

7.1.3 Completely remove the existing Loose Laid Ballasted Roof System completely to the existing metal deck. Only tear-off those roofing components that can be re-roofed in the same day. Tear-off work shall not be left exposed at the end of the work day.

7.2 INSTALLATION – Two Ply Modified Bitumen Membrane Roof System

7.2.1 The areas to be re-roofed must have all the roofing components removed completely to the metal roof deck before applying the new roof system. Install all carpentry items such as curb extensions, wood blocking at roof perimeters, etc. as detailed on the Drawings. All wood members which are to be anchored to masonry construction shall be permanently fastened into place. Do not use fasteners which will cause spalling, cracking or deformation of fastened materials.

7.2.2 Apply roofing materials over clean and dry surfaces in accordance with the Manufacturer's Recommendations. The re-roofing operations shall be performed on a continuous basis as weather conditions allow.

7.2.3 Install all new wood blocking and plywood as detailed on the applicable details.

7.2.4 **Installation of Vapour Retarder**

.1 When applying Sopravap'R over top metal deck, the existing surface is not required to be primed.

.2 The deck surface must be clean and sound, free of loose materials or contaminants such as water and grease which may compromise the performance of this product.

.3 Unroll and align air/vapour barrier centered at low point of roof or drain. Apply air/vapour removing release film providing 3 inch side laps and 6 inch end last (minimum). Seal around projections as per manufacturer's recommendations.

.4 Apply self-adhesive membrane without any wrinkles or fish mouths.

.5 The vapour retarder is to be carried up the vertical surfaces a minimum of 8 inches above roof deck.

7.2.5 **Installation of Rigid Insulation Boards**

.1 Install boards with Duotack Adhesive to the vapour retarder. On all insulation surfaces intended for board coverage apply beads of 20mm (3/4") wide on 200mm (8") centers.

7.0 EXECUTION

OPTION NO. 2 – SOPREMA

7.2.6 **Installation of Soprasmart Board**

.1 Install Smart Boards with Duotack Adhesive to the rigid insulation as indicated. On all insulation surfaces intended for board coverage, apply continuous strips of 13 to 19 mm (½ to ¾ inch) on 150 mm (6") centers for eight (8) feet around roof perimeter and 200 mm (8") centers for the field of the roof.

.2 Firmly set the Smart Boards, into the strips of Duotack Adhesive. All boards must be evenly and tightly butted together in soldier fashion.

.3 Apply only as many boards as can be covered in the same day.

.4 Install Sopralap cover strips across the end laps on the panels by heat-welded with a propane torch.

7.2.7 **Installation of Additional Plywood and/or Wood Blocking**

Install all new wood blocking and plywood as detailed on the applicable Details.

Note: The new plywood detailed on the inside face of parapet wall is not to be installed until the first ply of base sheet roof membrane is applied 3 inches up the vertical surface of parapet wall.

7.2.8 **Application of Primer**

.1 Apply primer to the wood blocking and plywood surfaces which will be in contact with the self-adhesive membranes at a rate of 0.2 to 0.3 l/m^2. All surfaces to be primed must be free of rust, dust or any residue that may hinder adherence. Cover primed surfaces with roofing membrane as directed by the Manufacturer.

7.2.9 **Base Sheet Flashing Installation**

.1 Apply base sheet flashing only once primer coat is dry.

.2 Install base sheet flashing in one (1) metre widths to cover roofing substrate over 100mm. Overlap side laps by 75mm. Stagger side laps by a least 100mm from base sheet overlaps on the roof to avoid excessive layering.

.3 Apply base sheet flashing directly onto substrate by removing silicone paper cover sheet. Proceed from top to bottom. Once in place, apply pressure manually in a uniformed fashion to obtain homogenous adherence over the entire surface. Preferably seal seams with aluminum applicator and rubber roller. The flashing membrane is to be adhered 4 inches over top of the Blueskin membrane on the outside face of parapet wall. Nail outside edge at 300mm O.C. Burn off plastic film of base sheet membrane before adhering base sheet flashing over it.

.4 Avoid forming wrinkles, air pockets or fish-mouths.

7.2.10 **Cap Sheet Installation**

.1 Prior to installing the cap sheet membrane, all insulated flanges are to be installed around each roof penetration and secured to the metal roof deck with four (4) fasteners per flange before applying base sheet target section on top.

7.0 EXECUTION

OPTION NO. 2 – SOPREMA

.2 Once the base sheet has been applied, the stripping has been completed and no indications of defects are present, then the cap sheet shall be laid.

.3 Begin application of the cap sheet at the lowest edge. Cap sheet shall be unrolled and care be taken to ensure proper alignment of the first roll.

.4 Cap sheet shall be torched into place in accordance with the Recommendations of the Membrane Manufacturer, to the base sheet membrane.

.5 The seams between the base sheet and cap sheet shall be staggered a minimum of 300 mm (12 inches).

.6 Care should be taken to ensure heating is consistent across the width in order to avoid skips or voids. Bitumen should flow out from the lap 6mm (1/4") to ensure a tight seal.

.7 All lap seams on the cap sheet are to be checked after membrane installation.

7.2.11 **Cap Sheet Flashing Installation**

.1 Cap sheet membrane installation shall be laid in strips 1m wide along the parapet. End laps shall be a minimum of 100mm (4 inches) overlap.

.2 Extend cap sheet a minimum of 150mm (6 inches) onto roof surface from the intersection of roof and vertical surfaces and extend to the top of the parapet wall to the outside of wall.

.3 The flashing membrane shall be anchored to the wood nailers by nailing through discs or using nails with 25mm (1 inch) minimum diameter head semi-solidly attached. Nail a minimum of 200mm (8 inches) on center.

.4 Matching granules shall be used to cover excess between flow at seams.

7.2.12 **Flood Coat and Gravel Cover**

.1 Apply a flood coat of cold roofing adhesive (COLPLY EF) at the rate of 5 gallons/100ft² as recommended by Manufacturer (Soprema).

.2 Then embed new approved pea stone gravel at 20 kg/m² (450 lbs/100ft²) while adhesive is still wet.

7.2.13 **Concrete Pavers**

.1 Install concrete pavers as indicated on the Roof Plan on top of one inch extruded polystrenne rigid insulation (Type 4).

7.3 INSTALLATION – Metal Flashings

7.3.1 Cap and counter flashings shall be jointed with a double S-type locked joint. Flashings shall be installed with continuous clips secured to wood capping blocking at 12 inches O.C.

7.3.2 Flashing shall be fabricated to shapes on site with all necessary breaks for adequate expansion.

7.0 EXECUTION

OPTION NO. 2 – SOPREMA

7.3.3 The inside face of the metal cap flashing between the S-locked joints is to be secured with three (3) fasteners matching the colour of the metal cap with a neoprene washer between the fastener head and inside face of the metal cap flashing.

7.3.4 All joints shall be sealed with approved sealant.

7.3.5 Counter flashings shall be installed at all reglets and curbs with at least three (3) inches below the top of roof curb or reglet.

7.4 CLEAN-UP

7.4.1 Upon completion of the installation, the work shall be left clean and free of defects which might affect the durability or appearance of the building. Clean all roof surfaces, including adjacent roofs and grounds of all foreign matter resulting from this Roofing Project.

ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD

AT

URSULINE COLLEGE SECONDARY SCHOOL
85 GRAND AVENUE WEST
CHATHAM ONTARIO
N7L 1B6

TENDER FORM

PROJECT No. 725-CP1512

MAY 2015

Remlap Building Services Inc.
1407 Gore Road, RR1 – Harrow Ontario N0R 1H0

TENDER FORM

Partial Roof Replacement
for
Ursuline College Secondary School – Chatham
PROJECT No. 725-CP1512

Name of Bidder _____
(Hereinafter Called the Tenderer Contractor)

Address _____

Being A _____ **(A) which** _____ **(B)**

Note: In space (A) above states type of company
Eg. "Incorporated", "limited", etc.
In space (B) above state "is" or "is not".

Registered under the laws of the Province of _____

DOES HEREBY AGREE TO:

1. Furnish all labour, materials, equipment, and service necessary for the completion of the Partial Roof Replacement at **Ursuline College Secondary School Chatham** in accordance with Information of Tenderers, Form of Tender, General Conditions of Contract and Drawings by Remlap Building Services, 1407 Gore Road, RR1 Harrow, Ontario – N0R 1G0 for **TOTAL TENDER PRICE "A" (H.S.T. INCLUDED)**,

_____ **$**_____
(HST Included)

or such other sums as may be finally ascertained in accordance with the allowance for Partial Roof Replacement and deductions as set out in the Tender Documents.

2. And also agrees that upon Tender acceptance to furnish a Performance and Maintenance Bond, Labour and Material Payment Bond and Liability Insurance as required by the Contract Documents, the cost of which is included in the Total Tender Price. The Tenderer hereby proposes:

_____
Name of Bonding Company

Stipulated prices shall include all labour, equipment and materials required to complete the work in every respect, including provincial sales tax.

TENDER FORM

Partial Roof Replacement
for
Ursuline College Secondary School – Chatham
PROJECT No. 725-CP1512

Section "A"
Partial Roof Replacement for Ursuline College Secondary School

The Bidder offers to provide all labour, materials and equipment services for the execution and completion of the work of the trade or trades herein and in accordance with the instructions for Bidders including Provincial Sales Tax for the stipulated sum of:

Item No.	*Description*	*Total*	
		Option No.1	**Option No.2**
A.	**AREA 3.2** The Roofing Contractor is to remove the existing Roof System completely to the metal deck. Then the Contractor is to supply and install vapour retarder, all rigid insulation, protection board, etc. prior to installing a Two Ply Modified Bitumen Roof System as shown on the Enclosed Drawings and in accordance with the Project Specifications for this facility. (The Contractor will include a Cash Allowance of $5,000.00 with this price (if the allowance is not used, it will be taken off of the Total Tender Price).	**$**_____	**$**_____
B.	**AREA 1.3** The Roofing Contractor is to remove the existing Roof System completely to the metal deck. Then the Contractor is to supply and install vapour retarder, all rigid insulation, protection board, etc. prior to installing a Two Ply Modified Bitumen Roof System as shown on the Enclosed Drawings and in accordance with the Project Specifications for this facility. (The Contractor will include a Cash Allowance of $5,000.00 with this price (if the allowance is not used, it will be taken off of the Total Tender Price).	**$**_____	**$**_____

Total Tender Price "A" (excluding HST) **$**_____

Add 13% HST **$**_____

Total Tender Price "A" (including HST) **$**_____

3. And also agrees to submit the total tender price in compliance with the provisions of Section 1.21 of the Information to Tenderers regarding Ontario Sales Tax.

4. And agrees to leave this tender open for acceptance a minimum period of sixty (60) days from the tender closing date and not to modify, withdraw, or cancel their bid during this period.

TENDER FORM

Partial Roof Replacement
for
Ursuline College Secondary School – Chatham
PROJECT No. 725-CP1512

The Tenderer also agrees that until the form of Agreement is completed and executed, this Tender, together with the acceptance thereof by the Owner and the Tenderer, shall remain open regardless of whether or not any other Tender has been previously accepted.

5. And also agrees to start the entire work within four (4) working days after the award of contract.

6. Documents and Acknowledgements

The Tenderer acknowledges that they have carefully examined the site of the proposed work, the existing premises and conditions; and thoroughly reviewed the Information to Tenderers, Tender Form, General Conditions, Supplementary General Conditions, Specifications, Drawings and the Addenda of the proposed Contract.

Addendum No. _____ **Date:** _____

Addendum No. _____ **Date:** _____

7. Completion of Work

We undertake to complete the work in _____weeks after Receipt of Purchase Order or Written Authorization issued by **St. Clair Catholic District School Board**

OR

To start work on _____ and to complete the work by _____

Completion date is not to exceed **July 31st, 2015**

8. Subcontractors

The Tenderer proposes to use the following Subcontractors, the portion of the work to be performed by each being as indicated with no more than one Subcontractor being proposed for any such portions. (If Subcontractors are not proposed, write N/A in the blank space.)

SUBCONTRACTOR	WORK OR TRADE

TENDER FORM

Partial Roof Replacement
for
Ursuline College Secondary School – Chatham
PROJECT No. 725-CP1512

Signature of Authorized Officer _____

Phone No. _____ ***Email*** _____

Name of Signature _____

Witness _____

Dated at _____

This _____ ***day of*** _____ ***2015***

NOTES:

1. ***If this Tender is submitted by or on behalf of any Corporation by some duly authorized officer, or agent thereof, who shall subscribe their name and office, the Seal of the Corporation shall be affixed.***

2. ***The Owner reserves the right to accept or reject any part OR all of bid and may not necessarily award the tender to the lowest bidder.***

SPECIFICATION
ON
PARTIAL ROOF REPLACEMENT

FOR

ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD

AT

URSULINE COLLEGE SECONDARY SCHOOL
85 GRAND AVENUE WEST
CHATHAM ONTARIO
N7L 1B6

PROJECT No. 725-CP1512

MAY 2015

Remlap Building Services Inc.
1407 Gore Road, RR1 – Harrow Ontario N0R 1H0

3.0 GENERAL

Partial Roof Replacement
for
Ursuline College Secondary School – Chatham

3.1 Warranties

3.1.1 Roofing Application Guarantee

Warrant the work of this section including insulation, membrane and sheet metal work against defects and any actual leakage in accordance with the General Conditions but for a period of two (2) years and agree to make good promptly any defects which occur or become apparent within the warranty period, such defects to include but not be restricted to leaking, blistering, lifting, curling, wrinkling, alligatoring, fish mouths, loosening and splitting of seams, buckling of counter flashing, improper securement of flashings, improper use or application of materials.

3.1.2 Membrane System Warranty:

Provide a Written Membrane System Warranty to **St. Clair Catholic District School Board** – Partial Roof Replacement stating that the Roofing Membrane Manufacturer will pay the entire cost to have the Authorized Roofing Applicator search any leaks which occur due to Membrane or Application (workmanship) failure within the warranty period of fifteen years.

4.0 PRODUCTS

Partial Roof Replacement
for
Ursuline College Secondary School – Chatham

OPTION NO. 1 – HENRY COMPANY

4.1 Modified Bitumen Membrane

4.1.1 Modified Bitumen Sheets shall conform to CGSB 37-GP-56M "Membrane, Modified, Bituminous, Prefabricated and Reinforced for Roofing";Type 2, Class C, Grade 2 for Base Sheets and Type 1, Class A, Grade 2 for Cap Sheets.

4.1.2 The Contractor may bid on any Manufacturer's Systems specified for torching application of the base sheet and torching of the cap sheet for this roof area. The colour of the granular surface is to be selected by the Owner. Supply additional granules to be applied to bitumen outflows between membrane sheets.

4.1.3 Modified Bitumen Membrane Two-Ply System shall be as specified or approved equal and accepted by the Consultant and Owner.

a) Henry Company
- i) Base Sheet (NP180P/S) and (NP180 S/P 3.5 Cap Sheet)
- ii) Self-Adhesive Membrane (NP 180 Tack Sheet)
- iii) Cap Sheet (NP250gT4)

4.2 Vapour Retarder

4.2.1 **Metal Deck**: Vapour retarder shall be Self-Adhered Sand Surfaced Air/Vapour Barrier shall be Perma-Seal FG as manufactured by Henry, an SBS modified bitumen self-adhering reinforced membrane have a thickness of 56 mils.

4.2.2 **Concrete Deck**: Vapour retarder shall be Modified Plus G100 tack sanded as manufactured by Henry

4.3 Primer

4.3.1 Primer shall be 930-38 tack sheet primer by Henry.

4.4 Rigid Insulation

4.4.1 Insulation shall be roof insulation which is rigid closed cell, Polyiso Foam Insulation, integrally laminated to inorganic felt facers; thermal resistance of insulation shall be R-28.8 (L.T.T.R.) (5 inch – 2 layers of 2.5 inch) for the main roof area and R-17.4 (L.T.T.R.) (3.0 inch) around recessed roof drains, wall drains and scupper drains, Resistance R-Value in accordance with ASTM C1289-11A. All insulation boards shall be 4 feet by 4 feet in size.

4.5 Insulation Overlay Boards

4.5.1 Bituminous Boards consisting of multi-ply, semi-rigid Asphaltic Roofing Substrate Board composed of a mineral fortified Asphaltic core formed between two Asphaltic saturated fiberglass liners. Length 1200mm x Width 1500mm x thickness 4.5 mm such as Recover Board by Bakor or approved equal by the Consultant.

4.0 PRODUCTS

Partial Roof Replacement
for
Ursuline College Secondary School – Chatham

OPTION NO. 1 – HENRY COMPANY

4.6 Bitumen Adhesive

4.6.1 Thermostik 840-10 is a 100% solid, asphalt extended, ambient temperature, vulcanizing adhesive supplied as a two component unit consisting of two liquids which are mixed to produce a pourable adhesive.

4.7 Vent Pipe Stack Flange

4.7.1 The vent pipe stack flange shall be Thaler Roofing Specialties Products Inc. Model No. SJ-37 insulated flange. The Roofing Contractor shall verify the inside diameter of the vent pipe stack for each location.

4.8 Roof Drain

4.8.1 Roof Drain shall be Thaler Roof Specialties Products Inc. Model No. RD-4-RR with U-Flow. Outlet size shall be verified on site by the Roofing Contractor.

4.8.2 Wall Drain shall be OMG Roofing Products Scupper Thru-Wall Retro Drain. Outlet size to be verified on site by the Roofing Contractor.

4.9 Tapered Insulation (Recessed Roof Drains)

4.9.1 The tapered insulation shall be faced Isocyanurate Boards conforming to CAN/CGSB-51.26-M86, meeting the requirements of ULC S126 Polyisocyanurate foam panels chemically bonded during the foaming process to facers on the top and bottom organic surfaces. Tapered panels shall not be less than 13m at any point of the roof to the slope indicated on the Roof Plan and Details.

4.10 Elastomeric Modified Bitumen Adhesive

4.10.1 Bakor MBA Gold is a fib rated rubberized adhesive with a bonding strength designed for adhering SBS modified bitumen and asphalt coated membranes directly to properly prepared substrates.

4.11 Metal Flashings

4.11.1 Metal flashings shall be 24ga. Colorite 8000 Series pre-finished steel (both sides) as manufactured by Westeel Roscoe, Steelcolour 8000 Series or Owner approved equal, formed to comply with field conditions. The colour is to be selected by the Owner from the Manufacturer's standard colours. A one meter "test bend" for each general metal flashing condition shall be completed and presented to the Owner's Representative for approval prior to general fabrication.

4.12 Sealants

4.12.1 Caulking Sealants for metal flashing shall be one part silicone to conform to CGSB 19 GP 96. Sealants shall be manufactured by Canadian General Electric, Dow Corning or approved equal. The colour of the sealant shall be identical to the colour of the metal flashing; the Owner is to approve the colour before ordering the sealant. This sealant shall be applied to all metal flashing joints including the reglet.

4.0 PRODUCTS

Partial Roof Replacement
for
Ursuline College Secondary School – Chatham

OPTION NO. 1 – HENRY COMPANY

4.13 Roofing Gravel

4.13.1 The gravel shall be ¼" to 5/8" size; water washed pea gravel, well graded, opaque, non-porous material free of fines, moisture, ice, and snow or long splinters and conforms to ASTM D1863086.

4.14 Framing Lumber

4.14.1 Framing Lumber on top of roof area shall be pressure treated for rot resistance conforming to CSA 0322-1976 and CSA 080-M1983; sizes shown on the Drawings. Grade SPF No. 2 or better.

4.15 Plywood

4.15.1 Exterior Grade "fir" to CSA 0121 or CSA 0151, ½" and ¾" thick, as detailed on Enclosed Drawings.

4.16 Rough Hardware and Nails

4.16.1 The Roofing Contractor shall supply all rough hardware where required. Nails, spikes, screws, bolts, etc. shall be of sufficient size and type to rigidly secure all members into place. All nails shall be hot dip galvanized.

4.17 Painting

4.17.1 All existing gas lines, exhaust fan hoods and roof top units shall be cleaned and scraped prior to being repainted.

4.17.2 Clean and prime with Alkyd Metal Primer before applying two coats of enamel paint. The colour shall be selected by the Owner.

4.18 Plastic Roof Cement

4.18.1 Pro-Grade Plastomers 810-21 Plastic Cement is composed of asphalt synthetic rubber, fiber and fillers exceeding the requirements of CAN/CGSB-37.5. This product is manufactured by Bakor or approved equal.

4.19 Precast Pads

4.19.1 Precast concrete pads shall be 24 inch by 24 inch by 2 inch thick for additional walkway, etc. as shown on Roof Plan. Pads shall be placed on a 20 inch by 20 inch by 2 inch thick sections of rigid Type 4 extruded polystrenne insulation. Also the supports under the electrical raceway shall be 12 inches by 12 inches by 2 inches and placed on a 10 inch square by 1 inch thick of rigid Type 4 extruded polystrenne insulation as detailed. (18 new pavers in total)

5.0 EXECUTION

Partial Roof Replacement
for
Ursuline College Secondary School – Chatham

OPTION NO. 1 – HENRY COMPANY

5.1 TEAR-OFF

5.1.1 Prior to the start of installation, the roofing Contractor shall examine all roof areas included in this Specification. The Roofing Contractor shall notify the Consultant of any unacceptable conditions.

5.1.2 These conditions include, but are not limited to, uneven deck surfaces, improperly installed curbs and nailers, surfaces with fins or sharp projections, and surfaces contaminated with incompatible materials. Work shall not begin until these conditions have been corrected. Protect membrane in high traffic areas, work by other trades, application of gravel, etc.

5.1.3 Completely remove the existing Loose Laid Ballasted Roof System completely to the existing metal or concrete deck. Only tear-off those roofing components that can be re-roofed in the same day. Tear-off work shall not be left exposed at the end of the work day.

5.2 INSTALLATION – Two Ply Modified Bitumen Membrane Roof System

5.2.1 The areas to be re-roofed must have all the roofing components removed completely to the metal roof dish before applying the new roof system. Install all carpentry items such as curb extensions, wood blocking at roof perimeters, etc. as detailed on the Drawings. All wood members which are to be anchored to masonry construction shall be permanently fastened into place. Do not use fasteners which will cause spalling, cracking or deformation of fastened materials.

5.2.2 Apply roofing materials over clean and dry surfaces in accordance with the Manufacturer's Recommendations. The re-roofing operations shall be performed on a continuous basis as weather conditions allow.

5.2.3 Install all new wood blocking and plywood as detailed on the applicable details

5.2.4 **Installation of Vapour Retarder (Metal Deck)**

.1 Apply Blueskin Primer by roller or spray to all surfaces as required and allow drying.

.2 Unroll and align air/vapour barrier centered at low point of roof or drain. Apply air/vapour removing release paper providing 2 inch side and end laps. Seal around projections as per manufacturer's recommendations.

.3 Apply self-adhesive membrane without any wrinkles or fish mouths.

.4 The vapour retarder is to be carried up the vertical surfaces a minimum of 8 inches above roof deck.

5.2.5 **Installation of Vapour Retarder (Concrete Deck)**

.1 Once primer is cured, apply specified self-adhesive membrane without wrinkles or fishmouths.

.2 The vapour retarder is to be carried up the vertical surfaces a minimum of 8 inches above roof deck.

5.2.6 **Installation of Rigid Insulation Boards**

.1 Install boards with cold adhesive to the vapour retarder. On all insulation surfaces intended for board coverage apply beads of 20mm (3/4") wide on 200mm (8") centers.

.2 Firmly set the rigid insulation boards in staggered fashion. All boards must be butted tightly together.

.3 Apply only as many boards as can be covered in the same day.

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5.2.7 **Installation of Insulation Overlay Boards**

.1 Install boards with cold adhesive to the rigid insulation as indicated. On all insulation surfaces intended for board coverage, apply beads of 20mm (3/4") wide on 200mm (8") centers.

.2 Firmly set the insulation overlay boards, long joints continuously and short joints staggered. All boards must be evenly and tightly butted together.

.3 All vertical joints between boards and insulation will be staggered.

.4 Apply only as many boards as can be covered in the same day.

5.2.8 **Base Sheet Installation**

.1 Install the base sheet roof membrane starting from the low point (roof drain) to the high point. The base sheet is to be adhered with adhesive to the overlay boards to the parapet wall.

.2 Unroll base sheet flashing at drain level with first side lap lined-up with drain center.

.3 Overlap side laps by 75mm along lines provided to this end and overlap end laps by 150mm. Stagger end joints by at least 300mm.

.4 Re-Roll base sheet and unroll again onto bed of cold adhesive with a notched squeegee having notches 6mm (1/4") wide 3mm (1/8") deep and spaced 25mm (1") on centers. The side and end lap must be HEAT WELDED (FUSED) TOGETHER WITH A LEISTER HAND HELD GUN OR APPROVED TO EQUAL TO ENSURE GOOD FUSION. Also avoid the cold adhesive from within two inches of the side and end laps.

.5 Avoid forming wrinkles, air pockets or fish-mouthing. The modified bitumen membrane should be cut in maximum lengths of 55mm (18 ft) and allowed to relax on the jobsite.

.6 This membrane is to be carried up to the inside face of parapet wall prior to installing new plywood on inside face of parapet wall.

5.2.9 **Installation of Additional Plywood and/or Wood Blocking**

.1 Install all new wood blocking and plywood as detailed on the applicable Details.

Note: The new plywood detail on the inside face of parapet wall is not to be installed until the first ply of base sheet roof membrane is applied 3 inches up the vertical surface of parapet wall.

5.2.10 **Base Sheet Flashing Installation**

.1 Apply base sheet flashing only once primer coat is dry.

.2 Install base sheet flashing in one (1) metre widths to cover roofing substrate over 100mm. Overlap side laps by 75mm. Stagger side laps by a least 100mm from base sheet overlaps on the roof to avoid excessive layering.

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OPTION NO. 1 – HENRY COMPANY

.3 Apply base sheet flashing directly onto substrate by removing silicone paper cover sheet. Proceed from top to bottom. Once in place, apply pressure manually in a uniformed fashion to obtain homogenous adherence over the entire surface. Preferably seal seams with aluminum applicator and rubber roller. The flashing membrane is to be adhered to the bottom of the wood blocking on the outside face of parapet wall. Nail outside edge at 300mm O.C. Burn off plastic film of base sheet membrane before adhering base sheet flashing over it.

.4 Avoid forming wrinkles, air pockets or fish-mouths.

5.2.11 Cap Sheet Installation

.1 Prior to installing the cap sheet membrane, all insulated flanges are to be installed around each roof penetration and secured to the metal roof deck with four (4) fasteners per flange before applying base sheet target section on top.

.2 Once the base sheet has been applied, the stripping has been completed and no indications of defects are present, then the cap sheet shall be laid.

.3 Begin application of the cap sheet at the lowest edge. Cap sheet shall be unrolled and care be taken to ensure proper alignment of the first roll.

.4 Cap sheet shall be torched into place in accordance with the Recommendations of the Membrane Manufacturer, to the base sheet membrane.

.5 The seams between the base sheet and cap sheet shall be staggered a minimum of 300 mm (12 inches).

.6 Care should be taken to ensure heating is consistent across the width in order to avoid skips or voids. Bitumen should flow out from the lap 6mm (1/4") to ensure a tight seal.

.7 All lap seams on the cap sheet are to be checked after membrane installation.

5.2.12 Cap Sheet Flashing Installation

.1 Cap sheet membrane installation shall be laid in strips 1m wide along the parapet. End laps shall be a minimum of 100mm (4 inches) overlap.

.2 Extend cap sheet a minimum of 150mm (6 inches) onto roof surface from the intersection of roof and vertical surfaces and extend to the top of the parapet wall to the outside of wall.

.3 The flashing membrane shall be anchored to the wood nailers by nailing through discs or using nails with 25mm (1 inch) minimum diameter head semi-solidly attached. Nail a minimum of 200mm (8 inches) on center.

.4 Matching granules shall be used to cover excess between flow at seams.

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5.2.13 **Flood Coat and Gravel Cover**

.1 Apply a flood coat of cold roofing adhesive (MBA Gold) at the rate of 6.5 gallons/100ft² as recommended by Manufacturer (Bakor).

.2 Then embed new approved pea stone gravel at 20 kg/m² (450 lbs/100ft²) while adhesive is still wet.

5.2.14 **Concrete Pavers**

.1 Install concrete pavers as indicated on the Roof Plan on top of one inch extruded polystrenne rigid insulation (Type 4).

5.3 INSTALLATION – Metal Flashings

5.3.1 Cap and counter flashings shall be jointed with a double S-type locked joint. Flashings shall be installed with continuous clips secured to wood capping blocking at 12 inches O.C.

5.3.2 Flashing shall be fabricated to shapes on site with all necessary breaks for adequate expansion.

5.3.3 The inside face of the metal cap flashing between the S-locked joints is to be secured with three (3) fasteners matching the colour of the metal cap with a neoprene washer between the fastener head and inside face of the metal cap flashing.

5.3.4 All joints shall be sealed with approved sealant.

5.3.5 Counter flashings shall be installed at all reglets and curbs with at least three (3) inches below the top of roof curb or reglet.

5.4 CLEAN-UP

5.4.1 Upon completion of the installation, the work shall be left clean and free of defects which might affect the durability or appearance of the building. Clean all roof surfaces, including adjacent roofs and grounds of all foreign matter resulting from this Roofing Project.

6.0 PRODUCTS

Partial Roof Replacement
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OPTION NO. 2 – SOPREMA

6.1 Modified Bitumen Membrane

6.1.1 Modified Bitumen Sheets shall conform to CGSB 37-GP-56M "Membrane, Modified, Bituminous, Prefabricated and Reinforced for Roofing";Type 2, Class C, Grade 2 for Base Sheets and Type 1, Class A, Grade 2 for Cap Sheets.

6.1.2 The Contractor may bid on any Manufacturer's Systems specified for torching application of the base sheet and torching of the cap sheet for this roof area. The colour of the granular surface is to be selected by the Owner. Supply additional granules to be applied to bitumen outflows between membrane sheets.

6.1.3 Modified Bitumen Membrane Two-Ply System shall be as specified or approved equal and accepted by the Consultant and Owner.

a) Soprema
- i) Base Sheet (SOPRALENE 180 S/P 3.5 for Cap Sheet)
- ii) Self-Adhesive Membrane (NP 180 Tack Sheet)
- iii) Cap Sheet (NP250gT4) for flashing membrane.

6.2 Vapour Retarder

6.2.1 Sopravap'R is a self-adhesive membrane composed of SBS modified bitumen and a tri-laminated woven polyethylene facer. The under face is covered with a silicone release film. The substrate is required to be pumped when applying membrane to concrete deck.

6.3 Insulation Soprasmart Board 180

6.3.1 Soprasmart board 180 is a high performance high density support panel composed of SBS modified bitumen membrane with a non-woven polyester reinforcement, factory-laminated on asphaltic board (SOPRABOARD). The surface is covered with a thermo-fusible plastic film.

6.4 Primer

6.4.1 The primer shall consist of Elastocol Stick designed for use with self-adhered SBS modified bitumen base sheet flashing membrane. The risk of primer flare-up is eliminated when modified bitumen cap sheets are thermo-fused to the self-adhered base sheet flashing membranes.

6.5 Duotack

6.5.1 Duotack is a LOW-RISE two-part urethane adhesive to be used for the application of rigid insulation.

6.6 Vent Pipe Stack Flange

6.6.1 The vent pipe stack flange shall be Thaler Roofing Specialties Products Inc. Model No. SJ-37 insulated flange. The Roofing Contractor shall verify the inside diameter of the vent pipe stack for each location

6.0 PRODUCTS

Partial Roof Replacement
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OPTION NO. 2 – SOPREMA

6.7 Roof Drain

6.7.1 Roof Drain shall be Thaler Roof Specialties Products Inc. Model No. RD-4-RR with super seal. Outlet size shall be verified on site by the Roofing Contractor.

6.7.2 Wall drain shall be OMG Roofing Products (Scupper Thru-Wall Retro Drain). Outlet size shall be verified on site by the Roofing Contractor.

6.8 Rigid Insulation

6.8.1 Insulation shall be roof insulation which is rigid closed cell, Polyiso Foam Insulation, integrally laminated to inorganic felt facers, thermal resistance of insulation shall be R-28.8 (L.T.T.R.) (5 inch – 2 layers of 2.5 inch) for the main roof area and R-17.4 (L.T.T.R.) (3.0 inch) around recessed roof drains, wall drains and scupper drains Resistance R-Value in accordance with ASTM C1289-11A. All insulation boards shall be 4 feet by 4 feet in size.

6.9 Tapered Insulation (Recessed Roof Drains)

6.9.1 The tapered insulation shall be faced Isocyanurate Boards conforming to CAN/CGSB-51.26-M86, meeting the requirements of ULC S126 Polyisocyanurate foam panels chemically bonded during the foaming process to facers on the top and bottom organic surfaces. Tapered panels shall not be less than 13m at any point of the roof to the slope indicated on the Roof Plan and Details.

6.10 Elastomeric Modified Bitumen Adhesive

6.10.1 COLPLY EF is a low volatile organic compound (VOC), low odour, 100% solids and solvent-free polyether based adhesive.

6.11 Metal Flashings

6.11.1 Metal flashings shall be 24ga. Colorite 5000 Series pre-finished steel (both sides) as manufactured by Westeel Roscoe, Steelcolour 5000 Series or Owner approved equal, formed to comply with field conditions. The colour is to be selected by the Owner from the Manufacturer's standard colours. A one meter "test bend" for each general metal flashing condition shall be completed and presented to the Owner's Representative for approval prior to general fabrication.

6.12 Sealants

6.12.1 Caulking Sealants for metal flashing shall be one part silicone to conform to CGSB 19 GP 96. Sealants shall be manufactured by Canadian General Electric, Dow Corning or approved equal. The colour of the sealant shall be identical to the colour of the metal flashing; the Owner is to approve the colour before ordering the sealant. This sealant shall be applied to all metal flashing joints including the reglet.

6.0 PRODUCTS

Partial Roof Replacement
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OPTION NO. 2 – SOPREMA

6.13 Roofing Gravel

6.13.1 The gravel shall be ¼" to 5/8" size; water washed pea gravel, well graded, opaque, non-porous material free of fines, moisture, ice, and snow or long splinters and conforms to ASTM D1863086.

6.14 Framing Lumber

6.14.1 Framing Lumber on top of roof area shall be pressure treated for rot resistance conforming to CSA 0322-1976 and CSA 080-M1983; sizes shown on the Drawings. Grade SPF No. 2 or better.

6.15 Plywood

6.15.1 Exterior Grade "fir" to CSA 0121 or CSA 0151, ½" and ¾" thick, as detailed on Enclosed Drawings.

6.16 Rough Hardware and Nails

6.16.1 The Roofing Contractor shall supply all rough hardware where required. Nails, spikes, screws, bolts, etc. shall be of sufficient size and type to rigidly secure all members into place. All nails shall be hot dip galvanized.

6.17 Painting

6.17.1 All existing gas lines, exhaust fan hoods and roof top units shall be cleaned and scraped prior to being repainted.

6.17.2 Clean and prime with Alkyd Metal Primer before applying two coats of enamel paint. The colour shall be selected by the Owner.

6.18 Plastic Roof Cement

6.18.1 Pro-Grade Plastomers 810-21 Plastic Cement is composed of asphalt synthetic rubber, fiber and fillers exceeding the requirements of CAN/CGSB-37.5. This product is manufactured by Bakor or approved equal.

6.19 Precast Pads

6.19.1 Precast concrete pads shall be 24 inch by 24 inch by 2 inch thick for additional walkway, etc. as shown on Roof Plan. Pads shall be placed on a 20 inch by 20 inch by 2 inch thick sections of rigid Type 4 extruded polystrenne insulation. Also the supports under the electrical raceway shall be 12 inches by 12 inches by 2 inches and placed on a 10 inch square by 1 inch thick of rigid Type 4 extruded polystrenne insulation as detailed. (18 new pavers in total) along with existing pavers on roof area.

7.0 EXECUTION

Partial Roof Replacement
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OPTION NO. 2 – SOPREMA

7.1 Tear-Off

7.1.1 Prior to the start of installation, the roofing Contractor shall examine all roof areas included in this Specification. The Roofing Contractor shall notify the Consultant of any unacceptable conditions.

7.1.2 These conditions include, but are not limited to, uneven deck surfaces, improperly installed curbs and nailers, surfaces with fins or sharp projections, and surfaces contaminated with incompatible materials. Work shall not begin until these conditions have been corrected. Protect membrane in high traffic areas, work by other trades, application of gravel, etc.

7.1.3 Completely remove the existing Loose Laid Ballasted Roof System completely to the existing metal deck. Only tear-off those roofing components that can be re-roofed in the same day. Tear-off work shall not be left exposed at the end of the work day.

7.2 INSTALLATION – Two Ply Modified Bitumen Membrane Roof System

7.2.1 The areas to be re-roofed must have all the roofing components removed completely to the metal roof deck before applying the new roof system. Install all carpentry items such as curb extensions, wood blocking at roof perimeters, etc. as detailed on the Drawings. All wood members which are to be anchored to masonry construction shall be permanently fastened into place. Do not use fasteners which will cause spalling, cracking or deformation of fastened materials.

7.2.2 Apply roofing materials over clean and dry surfaces in accordance with the Manufacturer's Recommendations. The re-roofing operations shall be performed on a continuous basis as weather conditions allow.

7.2.3 Install all new wood blocking and plywood as detailed on the applicable details.

7.2.4 **Installation of Vapour Retarder (Metal Deck)**

.1 When applying Sopravap'R over top metal deck, the existing surface is not required to be primed.

.2 The deck surface must be clean and sound, free of loose materials or contaminants such as water and grease which may compromise the performance of this product.

.3 Unroll and align air/vapour barrier centered at low point of roof or drain. Apply air/vapour removing release film providing 3 inch side laps and 6 inch end last (minimum). Seal around projections as per manufacturer's recommendations.

.4 Apply self-adhesive membrane without any wrinkles or fish mouths.

.5 The vapour retarder is to be carried up the vertical surfaces a minimum of 8 inches above roof deck.

7.2.5 **Installation of Vapour Retarder (Concrete Deck)**

.1 When applying Sopravap'R over top concrete deck, the existing surface is required to be primed.

.2 The deck surface must be clean and sound, free of loose materials or contaminants such as water and grease which may compromise the performance of this product.

7.0 EXECUTION

OPTION NO. 2 – SOPREMA

.3 Unroll and align air/vapour barrier centered at low point of roof or drain. Apply air/vapour removing release film providing 3 inch side laps and 6 inch end last (minimum). Seal around projections as per manufacturer's recommendations.

.4 Apply self-adhesive membrane without any wrinkles or fish mouths.

.5 The vapour retarder is to be carried up the vertical surfaces a minimum of 8 inches above roof deck.

7.2.6 Installation of Rigid Insulation Boards

.1 Install boards with Duotack Adhesive to the vapour retarder. On all insulation surfaces intended for board coverage apply beads of 20mm (3/4") wide on 200mm (8") centers.

7.2.7 Installation of Soprasmart Board

.1 Install Smart Boards with Duotack Adhesive to the rigid insulation as indicated. On all insulation surfaces intended for board coverage, apply continuous strips of 13 to 19 mm (½ to ¾ inch) on 150 mm (6") centers for eight (8) feet around roof perimeter and 200 mm (8") centers for the field of the roof.

.2 Firmly set the Smart Boards, into the strips of Duotack Adhesive. All boards must be evenly and tightly butted together in soldier fashion.

.3 Apply only as many boards as can be covered in the same day.

.4 Install Sopralap cover strips across the end laps on the panels by heat-welded with a propane torch.

7.2.8 Installation of Additional Plywood and/or Wood Blocking

Install all new wood blocking and plywood as detailed on the applicable Details.

Note: The new plywood detailed on the inside face of parapet wall is not to be installed until the first ply of base sheet roof membrane is applied 3 inches up the vertical surface of parapet wall.

7.2.9 Application of Primer

.1 Apply primer to the wood blocking and plywood surfaces which will be in contact with the self-adhesive membranes at a rate of 0.2 to 0.3 l/m^2. All surfaces to be primed must be free of rust, dust or any residue that may hinder adherence. Cover primed surfaces with roofing membrane as directed by the Manufacturer.

7.2.10 Base Sheet Flashing Installation

.1 Apply base sheet flashing only once primer coat is dry.

.2 Install base sheet flashing in one (1) metre widths to cover roofing substrate over 100mm. Overlap side laps by 75mm. Stagger side laps by a least 100mm from base sheet overlaps on the roof to avoid excessive layering.

.3 Apply base sheet flashing directly onto substrate by removing silicone paper cover sheet. Proceed from top to bottom. Once in place, apply pressure manually in a uniformed fashion to obtain homogenous adherence over the entire surface. Preferably seal seams with aluminum applicator and

7.0 EXECUTION

OPTION NO. 2 – SOPREMA

rubber roller. The flashing membrane is to be adhered 4 inches over top of the Blueskin membrane on the outside face of parapet wall. Nail outside edge at 300mm O.C. Burn off plastic film of base sheet membrane before adhering base sheet flashing over it.

.4 Avoid forming wrinkles, air pockets or fish-mouths.

7.2.11 **Cap Sheet Installation**

.1 Prior to installing the cap sheet membrane, all insulated flanges are to be installed around each roof penetration and secured to the metal roof deck with four (4) fasteners per flange before applying base sheet target section on top.

.2 Once the base sheet has been applied, the stripping has been completed and no indications of defects are present, then the cap sheet shall be laid.

.3 Begin application of the cap sheet at the lowest edge. Cap sheet shall be unrolled and care be taken to ensure proper alignment of the first roll.

.4 Cap sheet shall be torched into place in accordance with the Recommendations of the Membrane Manufacturer, to the base sheet membrane.

.5 The seams between the base sheet and cap sheet shall be staggered a minimum of 300 mm (12 inches).

.6 Care should be taken to ensure heating is consistent across the width in order to avoid skips or voids. Bitumen should flow out from the lap 6mm (1/4") to ensure a tight seal.

.7 All lap seams on the cap sheet are to be checked after membrane installation.

7.2.12 **Cap Sheet Flashing Installation**

.1 Cap sheet membrane installation shall be laid in strips 1m wide along the parapet. End laps shall be a minimum of 100mm (4 inches) overlap.

.2 Extend cap sheet a minimum of 150mm (6 inches) onto roof surface from the intersection of roof and vertical surfaces and extend to the top of the parapet wall to the outside of wall.

.3 The flashing membrane shall be anchored to the wood nailers by nailing through discs or using nails with 25mm (1 inch) minimum diameter head semi-solidly attached. Nail a minimum of 200mm (8 inches) on center.

.4 Matching granules shall be used to cover excess between flow at seams.

7.2.13 **Flood Coat and Gravel Cover**

.1 Apply a flood coat of cold roofing adhesive (COLPLY EF) at the rate of 5 gallons/100ft² as recommended by Manufacturer (Soprema).

.2 Then embed new approved pea stone gravel at 20 kg/m² (450 lbs/100ft²) while adhesive is still wet.

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OPTION NO. 2 – SOPREMA

7.2.14 **Concrete Pavers**

.1 Install concrete pavers as indicated on the Roof Plan on top of one inch extruded polystrenne rigid insulation (Type 4).

7.3 INSTALLATION – Metal Flashings

7.3.1 Cap and counter flashings shall be jointed with a double S-type locked joint. Flashings shall be installed with continuous clips secured to wood capping blocking at 12 inches O.C.

7.3.2 Flashing shall be fabricated to shapes on site with all necessary breaks for adequate expansion.

7.3.3 The inside face of the metal cap flashing between the S-locked joints is to be secured with three (3) fasteners matching the colour of the metal cap with a neoprene washer between the fastener head and inside face of the metal cap flashing.

7.3.4 All joints shall be sealed with approved sealant.

7.3.5 Counter flashings shall be installed at all reglets and curbs with at least three (3) inches below the top of roof curb or reglet.

7.4 CLEAN-UP

7.4.1 Upon completion of the installation, the work shall be left clean and free of defects which might affect the durability or appearance of the building. Clean all roof surfaces, including adjacent roofs and grounds of all foreign matter resulting from this Roofing Project.