



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

PARTIAL ROOF REPLACEMENT  
TENDER  
URSULINE COLLEGE CHATHAM

**INSTRUCTIONS TO BIDDERS**

Date: Feb 5, 2018

BID PACKAGES #: 725-CP1829 & 725-CP1831

**1. BID SUBMISSION**

The St. Clair Catholic District School Board (Board) is seeking roofing contractors to provide an emergency roof replacement and partial roof replacement at Ursuline College Chatham (UCC) located at 85 Grand Avenue West Chatham Ontario.

Bids from invited bidders shall be submitted on the Bid Form provided and submitted in 2 separate envelopes clearly marked:

**Bid Packages #:** 725-CP1829 UCC – Emergency Roof Replacement Tender - **AREA 'S'**  
725-CP1831 UCC – Partial Roof Replacement Tender **AREA 'K' and 'P'**

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

Attention: Mr. Tony Prizio, Procurement Specialist

Bids will be accepted not later than

**725-CP1829 UCC – Emergency Roof Replacement Tender - AREA 'S'**  
Feb. 13, 2018 @ 2:00:00 p.m. (No extensions to Bid Closing date are anticipated. Bidders are encouraged to act immediately to prepare their submissions!)

**725-CP1831 UCC – Partial Roof Replacement Tender AREA 'K' and 'P'**  
Feb. 13, 2018 @ 2:30:00 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). One original of the fully completed Tender Form must be submitted. **Failure to provide all of the requested information on the Tender 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 a member of the Boards Purchasing Department 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 Feb. 5<sup>th</sup>, 2018

**3.2** Tender Form, Specifications and Drawings – Ursuline College Chatham School Feb., 2018



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**3.3 Prime Contract – Board will issue separate purchase orders to the successful proponent(s).** The Board assumes no responsibility for the bidder's failure to examine all of the Bid Documents

**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.

**725-CP1829 UCC – Emergency Roof Replacement Tender - AREA 'S' .** Will proceed immediately after award.

**725-CP1831 UCC – Partial Roof Replacement Tender AREA 'K' and 'P'.** Acceptance of this bid and or award of the contract is subject to the approval of the St. Clair Catholic District School Board.

**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.



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**INSTRUCTIONS TO BIDDERS**

Date: Feb 5, 2018

BID PACKAGES #: 725-CP1829 & 725-CP1831

All questions to be addressed in writing to: Mr. Tony Prizio, Procurement Specialist  
St. Clair Catholic District School Board  
E-mail: [tony.prizio@st-clair.net](mailto:tony.prizio@st-clair.net)  
Copy: [victoria.iaccino@st-clair.net](mailto:victoria.iaccino@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: REQUIREMENT**

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.

Each bid shall be accompanied by bid security in the form of either:

Certified cheque payable to the "St. Clair Catholic District School Board" in the amount of 10% of the bid price;

OR

Bid bond in the amount of 10% of the bid price naming the Owner as obligee and issued by a surety licensed to conduct surety and insurance business in Canada. The bid bond shall remain valid for a period of sixty (60) days from the Submission Deadline.

**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 Feb. 7, 2018 at 10:30 a.m. Interested parties are to meet at the admin. office of Ursuline College Chatham Secondary School, located at 85 Grand Ave. W. Chatham, On. N7L 1B6.**



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13. **TIMING OF PROJECT**

**725-CP1829 UCC – Emergency Roof Replacement Tender - AREA 'S'**

**PHASE I** Must start **February 15<sup>th</sup>, 2018** and to be completed no later than **February 19<sup>th</sup>, 2018**.

**PHASE II** Must start **March 9<sup>th</sup>, 2018** and to be completed no later than **March 19<sup>th</sup>, 2018**.

**725-CP1831 UCC – Partial Roof Replacement Tender AREA 'K' and 'P'**

To start **July 3<sup>rd</sup>, 2018** and to be completed the work by **August 31<sup>st</sup>, 2018**.

14. **PROJECT SPECIFIC REQUIREMENTS**

Contractor shall provide their own washroom facilities for their employees, board washrooms will be off-limits to the contractor's employees.

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 part 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



**INSTRUCTIONS TO BIDDERS**

**Date: Feb 5, 2018**

**BID PACKAGES #: 725-CP1829 & 725-CP1831**

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](http://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



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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.

**25. TIE BIDS**

In the event of a tie. A coin flip conducted by the Procurement Specialist with a minimum of one other Board staff will determine the successful proponent.

**END OF INSTRUCTIONS TO BIDDERS**

ST. CLAIR CATHOLIC DISTRICT SCHOOL  
BOARD  
EMERGENCY ROOF REPLACEMENT  
AREA 'S'

FOR

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

**TENDER FORM**

**PROJECT No. 725-CP1829**

**FEBRUARY 2018**

**TENDER FORM**

*Emergency Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1829*

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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 **Emergency Roof Replacement** at **St. Clair Catholic District School Board** in accordance with Information of Tenderers, Form of Tender, and Drawings by Remlap Building Services, 1407 Gore Road, RR1 Harrow, Ontario – N0R 1G0 for **TOTAL TENDER PRICE "A" (H.S.T. INCLUDED)**,

\_\_\_\_\_ \$ \_\_\_\_\_  
*Option № 1 (HST Included)*

\_\_\_\_\_ \$ \_\_\_\_\_  
*Option № 2 (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.

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*

\_\_\_\_\_  
*Cost of Bonding*

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



**TENDER FORM**

*Emergency Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1829*

**Section "A"****Emergency Roof Replacement for Ursuline College Chatham Catholic 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**  
**(Peel&Stick V.R.)**

**Option No.2**  
**(10 mil Polyethelene)**

**A. Roof Area 'S'****As Indicated on Key Plan R-1**

The Roofing Contractor is to remove the existing Roof System completely to the metal roof deck, then the Contractor is to supply and install Vapour Retarder (OPTION No.1 – Peel & Stick Membrane or OPTION No. 2 – 10 mil Polyethelene) as determined by the School Board, all rigid insulation, etc. prior to installing the Mechanically Attached EPDM Reinforced Membrane Single Ply 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 \$10,000.00 with this price (if the allowance is not used, it will be taken off of the Total Tender Price).

\$ \_\_\_\_\_ \$ \_\_\_\_\_

**B. Allowance for Emergency Roof Materials**

The Roofing Contractor is required to carry the following amount for the 75 mil Reinforced EPDM Membrane along with 2 inch SecurShield Polyiso Rigid Insulation Boards (4 feet x 4 feet in size) to cover the entire area (2 layers thick) as supplied by Beacon Roofing Supply - London for the amount of.

\$ 24,686.88 \$ 24,686.88

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

\$ \_\_\_\_\_ \$ \_\_\_\_\_

**Add 13% HST**

\$ \_\_\_\_\_ \$ \_\_\_\_\_

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

\$ \_\_\_\_\_ \$ \_\_\_\_\_

**SEPARATE PRICE - Tapered Rigid Insulation Cost**

The Contractor is to provide the Price to Supply and Install the Tapered Backslope Insulation as Indicated on Drawing UCC-R3a

\$ \_\_\_\_\_  
(Excluding HST)

**TENDER FORM**

*Emergency Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1829*

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**MEMBRANE MANUFACTURER – (SINGLE PLY MECHANICALLY FASTENED ROOF SYSTEM)**

The Contractor is required to submit the name of the Membrane Manufacturer who they are planning to use for this Roof Replacement Project:

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- 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 Harmonized Sales Tax (HST).
- 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.

**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**

**PHASE I – TO START FEBRUARY 15<sup>TH</sup>, 2018 AND TO BE COMPLETED FEBRUARY 19<sup>TH</sup>, 2018**  
**PHASE II – TO START MARCH 9<sup>TH</sup>, 2018 AND TO BE COMPLETED MARCH 19<sup>TH</sup>, 2018.**

**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**


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**TENDER FORM**

*Emergency Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1829*

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*Signature of Authorized Officer* \_\_\_\_\_

*Phone No.* \_\_\_\_\_ *Email* \_\_\_\_\_

*Name of Signature* \_\_\_\_\_

*Witness* \_\_\_\_\_

*Dated at* \_\_\_\_\_

*This* \_\_\_\_\_ *day of* \_\_\_\_\_ *2018*

**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  
EMERGENCY ROOF REPLACEMENT**

**FOR**

**ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD**

**AT**

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

**PROJECT No. 725-CP1829**

**FEBRUARY 2018**

## 3.0 GENERAL

*Emergency Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1829*

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### 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: (Mechanically Attached EPDM Reinforced Membrane Single Ply Roof System)**

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

## 4.0 PRODUCTS – ROOF AREA 'S'

*Emergency Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1829*

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### **75 MIL REINFORCED EPDM MECHANICALLY FASTENED ROOF SYSTEM**

#### **4.1 General**

- 4.1.1 The components of this roofing system are to be products of Carlisle or accepted by Carlisle as compatible or approved equal.

#### **4.2 Membrane**

- 4.2.1 Furnish Sure-Tough, 75 mil thick reinforced EPDM (Ethylene, Propylene Diene Terpolymer) conforming to the minimum physical properties of ASTM D4637, Type 11. The membrane shall be manufactured in a single panel with no factory splices to reduce splice intersections. EPDM membrane shall be ordered with Factory-Applied Tape.

#### **4.3 Related Materials**

- 4.3.1 Sure-Seal Reinforced Flashing, Bonding Adhesive, Water Cut-Off Mastic, EP-95 Spicing Cement, Weathered Membrane Cleaner, Molded Pocket Sealant, Pre-Molded Inside/Outside Corners, Pipe Flashings, Curb Wraps and Sealant Pockets.

#### **4.4 Vapour Retarder**

- 4.4.1 The Vapour Retarder shall consist of one of the following Options: (*Note*: The Contractor is required to submit a cost for both options listed below and the School Board will make a decision on which vapour retarder method they wish to be completed.

##### **Option № 1**

The vapour retarder shall be Carlisle Vap Air Seal 725 TR, 40 mil composite consisting of 35 mils of self-adhering rubberized asphalt laminated to a 5 mil woven polypropylene film. A one-piece silicone poly release liner is applied to the SBS adhesive to prevent the material from bonding to itself.

##### **Option № 2**

The vapour retarder shall be Super 10 mil polyethelene applied over top of the metal deck shall comply with CGSB CAN2-S1.34-M86. Adhesive shall be of a type as recommended by the Polyethelene Manufacturer for adhesion at the side and end laps.

#### **4.5 Rigid Insulation**

- 4.5.1 Insulation shall be SecurShield Polyiso Rigid Insulation Boards with coated glass fiber mat facers on both sides, meeting or exceeding the requirements of ASTM C1289 (Minimum Compressive Strength of 20 psi (138 KPa). The thermal resistance of insulation for Areas 'S' shall be R-24.2 (L.T.T.R.) (2 layers of 2.0 inch for the main roof and R-12.1 (L.T.T.R.) (2 inch) around the recessed roof drains, resistance R-value in accordance with ASTM C1289-11A. All insulation boards shall be 4 feet by 4 feet in size.

## **4.0 PRODUCTS – ROOF AREA ‘S’**

*Emergency Roof Replacement  
for  
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Project № 725-CP1829*

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### **4.6 Tapered Insulation**

- 4.6.1 The tapered insulation shall be coated glass fiber mat facers Isocyanurate Boards conforming to ASTM C1289 meeting the requirements of ULC S126. Polyisocyanurate foam panels chemically bonded during the foaming process to facers on the top and bottom surfaces. Tapered panels shall not be less than 25 mm at any point of the roof to the slope indicated at the roof drains (2% slope) (2" to 1" for four feet around each drain). Backslope: (2% slope) (1 ½" to ½" for four feet around roof perimeter and penetrations as noted) and crickets (1% slope starting at ½" upward)

### **4.7 Fasteners, Plates, Bars**

- 4.7.1 The fasteners shall be Carlisle HP Fasteners (2" in length for Russ securement strip) (3" in length for first layer of rigid insulation) (5" in length for securement of reinforced membrane at seams).
- 4.7.2 HP Polymer Seam Plates shall be 2 inch (51mm) diameter plastic barbed fastening plate used for membrane
- 4.7.3 Seam Fastening Plate shall be 2 inch (51mm) diameter metal plate for RUSS attachment
- 4.7.4 Insulation Fastening Plate shall be nominal 3 inch (76mm) diameter FM approved metal plate used for insulation attachment.
- 4.7.5 Sure-Seal Metal Fastening Bar shall be 1 inch by 10 feet long (25 mm x 3048 mm) Galvalume-coated steel fastening bar pre-punched 6 inches (152mm) on center for membrane securement as noted.

### **4.8 Insulation Adhesive**

- 4.8.1 The adhesive to adhere second layer of rigid insulation to first layer of insulation shall be Fast 100, two-component, polyurethane low-rise expanding foam adhesive.

### **4.9 Vent Pipe Stack Flange**

- 4.9.1 The vent pipe stack flange shall be Thaler Roofing Specialties Products Inc. Model № SJ-38 insulated flange. The Roofing Contractor shall verify the inside diameter of the vent pipe stack for each location. The flanges are required to be sealed to the roof membrane with Pre-molded Pressure Sensitive Pipe Seal in accordance with Carlisle U-8A Detail.

### **4.10 Roof Drain**

- 4.10.1 The roof drain shall be Thaler Roof Specialties Products Inc. Model No. RD-4A-RR Vandal-Proof aluminum roof drain and under deck clamp. Drain is to be completed with Furco Connection. Outlet size shall be verified on site by the Roofing Contractor.

### **4.11 Framing Lumber**

- 4.11.1 Framing lumber on top of roof area shall be Spruce conforming to CSA 0322-1976 and CSA 080-M1983. Size as shown on the project drawings. Grade SPF No. 2 or better.

## **4.0 PRODUCTS – ROOF AREA ‘S’**

*Emergency Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1829*

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### **4.12 Plywood**

4.12.1 Exterior grade fir to CSA 0121 or CSA 0151 to the thickness indicated on the project drawings.

### **4.13 Metal Flashings**

4.13.1 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 brown as 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.

### **4.14 Painting**

4.14.1 All existing gas lines, pipe stacks, exhaust fan hoods shall be cleaned and scraped prior to being repainted.

4.14.2 Clean and prime with alkyd metal primer before applying two coats of enamel paint. The colour shall match existing colour.

### **4.15 Concrete Pads**

4.15.1 Precast Concrete Pads shall be 24 inch by 24 inch by 2 inch thick for additional walkway, etc. as show on Roof Plans. Pads shall be placed on a 20 inch by 20 inch by 1 inch thick section of Rigid Type 4 Extruded Polystyrene Insulation.

**40 NEW CONCRETE PADS ARE REQUIRED IN TOTAL**

### **4.16 Roof Pipe Supports**

4.16.1 Roof Pipe Supports as manufactured by C-Pot (Model № CXP) are to be supplied and installed by the Roofing Contractor.

**TOTAL OF 24 ARE REQUIRED @ URSULINE COLLEGE -CHATHAM**



## 5.0 EXECUTION – ROOF AREA 'S'

*Emergency Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1829*

### **75 MIL REINFORCED EPDM MECHANICALLY FASTENED ROOF SYSTEM**

#### **5.1 General**

- 5.1.1 Comply with the manufacturer's published instructions for the installation of the membrane roofing system including proper substrate preparation, jobsite considerations and weather restrictions.
- 5.1.2 Position sheets to accommodate contours of the roof deck and shingle splices to avoid bucking water.

#### **5.2 Installation of Vapour Retarder**

- 5.2.1 Install vapour retarder only to clean, dry surfaces.
- 5.2.2 Vapour retarder is required to be enveloped over rigid insulation.
- 5.2.3 Vapour retarder is required to be laid directly on top of the metal roof deck.
- 5.2.4 Overlap on the side laps shall be no less than three (3) inches wide and end laps shall be at least six (6) inches wide with staggered joints.
- 5.2.5 A bead of sealant is required on all overlaps when 10 mil polyethelene is applied.

#### **5.3 Insulation Placement and Attachment**

- 5.3.1 Install insulation or membrane underlayment over the substrate with boards butted tightly together with no joints or gaps greater than 1/8 inch. Stagger joints both horizontally and vertically if multiple layers are provided.
- 5.3.2 Secure insulation to the substrate with the required mechanical fasteners in accordance with the manufacturer's specifications. (no less than 4 per board) (1<sup>st</sup> layer)
- 5.3.3 Install second layer of rigid insulation with Fast 100 Adhesive to the lower rigid insulation as indicated. On all insulation surfaces intended for board coverage, apply continuous stripes of 13 to 19mm (1/2" to 3/4") on 150mm (6") centers for twelve (12) feet around roof perimeter and 200mm (8") centers for the field of the roof.
- 5.3.4 Firmly set the second layer of rigid insulation boards into the strips of the Fast 100 Adhesive. All boards must be evenly and tightly butted together in stagger fashion.
- 5.3.5 Apply only as many boards as can be covered in the same day.

#### **5.4 Membrane Placement and Attachment**

- 5.4.1 Unroll and position membrane without stretching. Allow the membrane to relax for approximately 1/2 hour prior to attachment. Provide and secure both perimeter and field membrane sheets in accordance with the manufacturer's most current specifications and details.
- 5.4.2 Secure the membrane (along the pre-printed blue line approximately 3" from the edge of the membrane sheet) with the required Sure-Seal Fastener and 2" Polymer Seam Plate (required for steel decks) or Seam Fastening Plate spaced a maximum of 12" on center. The minimum distance between the edge of the fastening plate and the edge of the membrane must be 2 inches.

## 5.0 EXECUTION – ROOF AREA 'S'

*Emergency Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1829*

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- 5.4.3 Install adjoining membrane sheets in the same manner in accordance with the manufacturer's specifications.
- 5.4.4 Mechanically install fastener strip to all perimeter roof membrane and secure into the roof parapet with approved screw fasteners or RUSS (Reinforced Universal Securement Strip).
- 5.4.5 Bond roof membrane to the Reinforced Universal Securement Strip using splicing adhesive.

### 5.5 Membrane Splicing with SecurTape

- 5.5.1 Tape splices where fastening plates are located (along the length of the membrane) must utilize 6" wide SecurTape or FAT. Tape splices at end roll sections (along the width of the membrane without fastening plates) shall utilize 3" wide SecurTape.
- 5.5.2 Overlap adjacent sheets and mark a line approximately 1/4" to 1/2" from the top sheet edge.
- 5.5.3 Apply Sure-Seal HP-250 Primer to the splice area.
- 5.5.4 When Factory-Applied Tape (FAT) is not used, apply SecurTAPE in accordance with the manufacturer's specifications and roll the top sheet onto the mating surface.
- 5.5.5 Immediately roll the splice using positive pressure when using a 2" wide steel roller. Roll across the splice edge, not parallel to it. When using FAT, Carlisle's Stand-Up Seam Roller can be used to roll parallel to the splice edge.
- 5.5.6 **All field splice seams are to be flashed in with 6" wide overlay Pressure Sensitive Flashing Membrane.**
- 5.5.7 **Lap sealant is required for all field splices. Feather the lap sealant with a specially performed tool so that the high point or the crown of the lap sealant is located over the edge of splice.**

### 5.6 Flashing

- 5.6.1 Wall and curb flashing shall be cured EPDM membrane. Continue the deck membrane as wall flashing where practicable.
- 5.6.2 Follow manufacturer's typical flashing procedures for all wall, curb, and penetration flashing including metal edging/coping and roof drain applications.
- 5.6.3 Once the roof membrane is adhered to the securement strip, then bond the flashing membrane using bonding adhesive. Flashing membrane shall extend continuously up the entire height of the parapet over the parapet and down the exterior face as indicated on the enclosed drawings.

### 5.7 Installation of Metal Flashings

- 5.7.0 Cap flashings shall be jointed with a double S-type locked joint. Flashings shall be installed with continuous clips secured to the wood capping blocking at 12 inches on centre.
- 5.7.1 Flashings shall be fabricated to shapes on site with all necessary breaks for adequate expansion.

## **5.0 EXECUTION – ROOF AREA 'S'**

*Emergency Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1829*

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- 5.7.2 The inside face of the metal cap flashing between the S-locked joint is to be secured with three (3) fasteners matching the colour of the metal cap with neoprene washer between the head and inside face of the metal cap flashing.
- 5.7.3 All joints shall be sealed with approved sealant.
- 5.7.4 Counter flashings shall be installed at all reglets and curbs with at least three (3) inches below top of roof curb or reglet.

### **5.8 Walkways**

- 5.8.1 Install walkways in those locations as designated on the project drawings or as directed by Roof Consultant.
- 5.8.2 Install one inch extruded polystyrene rigid insulation over top the single ply membrane as indicated on the project drawings.
- 5.8.3 Then install the concrete pavers as specified on top the rigid insulation as indicated on the roof plan.

### **5.9 Daily Seal**

- 5.9.1 On phased roofing, when the completion of flashings and terminations is not achieved by the end of the work day, a daily seal must be performed to temporarily close the membrane to prevent water infiltration.
- 5.9.2 Complete an acceptable membrane seal in accordance with the manufacturer's requirements.

### **5.10 Clean Up**

- 5.10.1 Perform daily clean-up to collect all wrappings, empty containers, paper, and other debris from the project site. Upon completion, all debris must be disposed of in a legally acceptable manner.
- 5.10.2 Prior to the manufacturer's inspection for warranty, the applicator must perform a pre-inspection to review all work and to verify all flashing has been completed as well as the application of all caulking.

**EMERGENCY ROOF REPLACEMENT  
URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL  
85 GRAND AVENUE WEST  
CHATHAM ONTARIO N7L 1B6**

**PROJECT № 725-CP1829**

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**ENCLOSED DRAWINGS**

<b>UCC-B</b>	<b>Existing and Proposed Roof System List</b>
<b>UCC-R1</b>	<b>Key Roof Plan</b>
<b>UCC-R3</b>	<b>Enlarged Roof Plan – Area ‘S’ (Roof Penetration and Dimensions)</b>
<b>UCC-R3a</b>	<b>Enlarged Roof Plan – Area ‘S’ (Tapered Insulation Layout)</b>
<b>UCC-D1</b>	<b>Roof Drain Detail – Typical</b>
<b>UCC-D2</b>	<b>Vent Pipe Stack Detail - Typical</b>
<b>UCC-D3</b>	<b>Gooseneck Exhaust Fan – Typical</b>
<b>UCC-D19</b>	<b>Perimeter Wall Detail – Area ‘S’</b>
<b>UCC-D20</b>	<b>Detail @ Man Door Entry onto Area ‘S’</b>
<b>UCC-D21</b>	<b>Perimeter Wall Detail – Area ‘S’</b>
<b>UCC-D22</b>	<b>Perimeter Wall Detail – Area ‘S’</b>
<b>UCC-D23</b>	<b>Perimeter Wall Detail – Area ‘S’</b>
<b>UCC-D24</b>	<b>Wall Ladder Detail – Leading to Area ‘S’</b>
<b>UCC-D25</b>	<b>Detail @ Skylight – Area ‘S’</b>
<b>UCC-D26</b>	<b>New Platform Detail Beneath Roof Top Unit @ Canopy – Area ‘S’</b>

**EMERGENCY ROOF REPLACEMENT  
URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL  
85 GRAND AVENUE WEST  
CHATHAM ONTARIO N7L 1B6**

**PROJECT № 725-CP1829**

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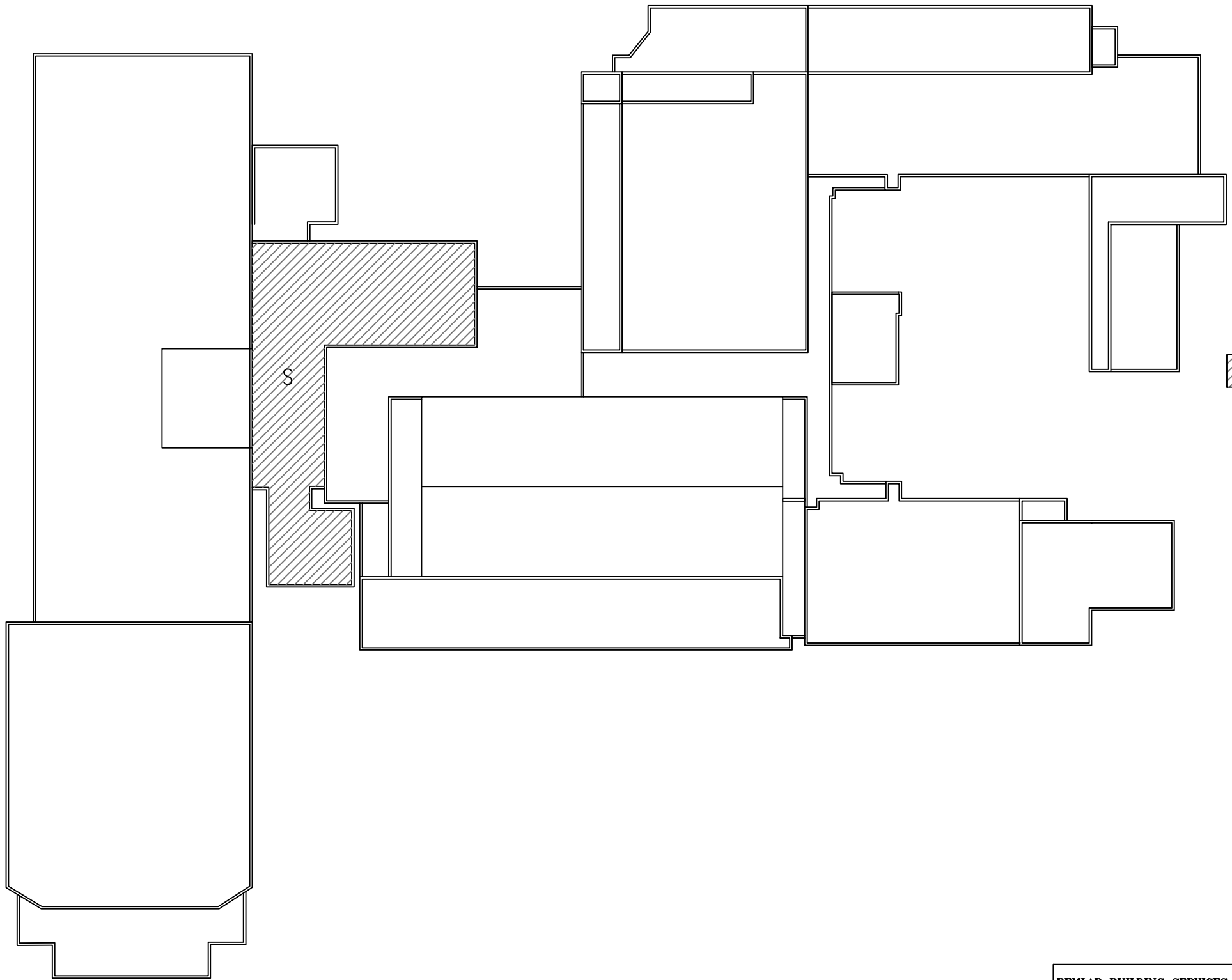
**EXISTING ROOF SYSTEM**

**DESIGN ROOF SYSTEM**

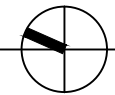
**AREA 'S'**

Round River Ballast  
On Single Ply EPDM Membrane  
On 2" Fibreglass Rigid Insulation  
On 2" Fibreglass Rigid Insulation  
On Kraft Vapour Retarder  
On Metal Deck (E-W Direction)

75 Mil EPDM Reinforced Membrane  
On Tapered (ISO) Rigid Insulation as Noted  
On 2" (ISO) Rigid Insulation  
On 2" (ISO) Rigid Insulation  
On Vapour Retarder as Specified  
On Existing Metal Deck (E-W Direction)



EMERGENCY ROOF REPLACEMENT  
FEBRUARY / MARCH 2018



KEY ROOF PLAN

SCALE : 1" = 50'-0"

<div>REMLAP BUILDING SERVICES INC.</div> <div><div>R</div><div>B</div><div>S</div></div> <div>ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS BUILDING ENVELOPES (AIR/VAPOUR BARRIER/WATER PROOFING) SURVEYS AND CONDITIONS OF ROOFS AND BUILDINGS</div> <div><div>Christopher W. Palmer, C.E.T.</div><div>1407 Gore Road Harrow, Ontario N0R 1G0</div><div>Tel: (519) 738-3458 Fax: (519) 738-4797</div></div>		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL EMERGENCY ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO		DATE : FEBRUARY 2018	
		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD		SCALE : AS SHOWN	
				DRAWN BY : CWP	
				CHK. BY : CWP	
DATE (MM-DD-YY) 01-05-18 02-02-18		ISSUED FOR OWNER REVIEW TENDER		SHEET SIZE : 11"x17"	
DRAWING TITLE KEY ROOF PLAN		PROJECT FILE NO. RBS17-99		DRAWING NO. UCC-R1	

# AREA 'S'

## EXISTING ROOF SYSTEM

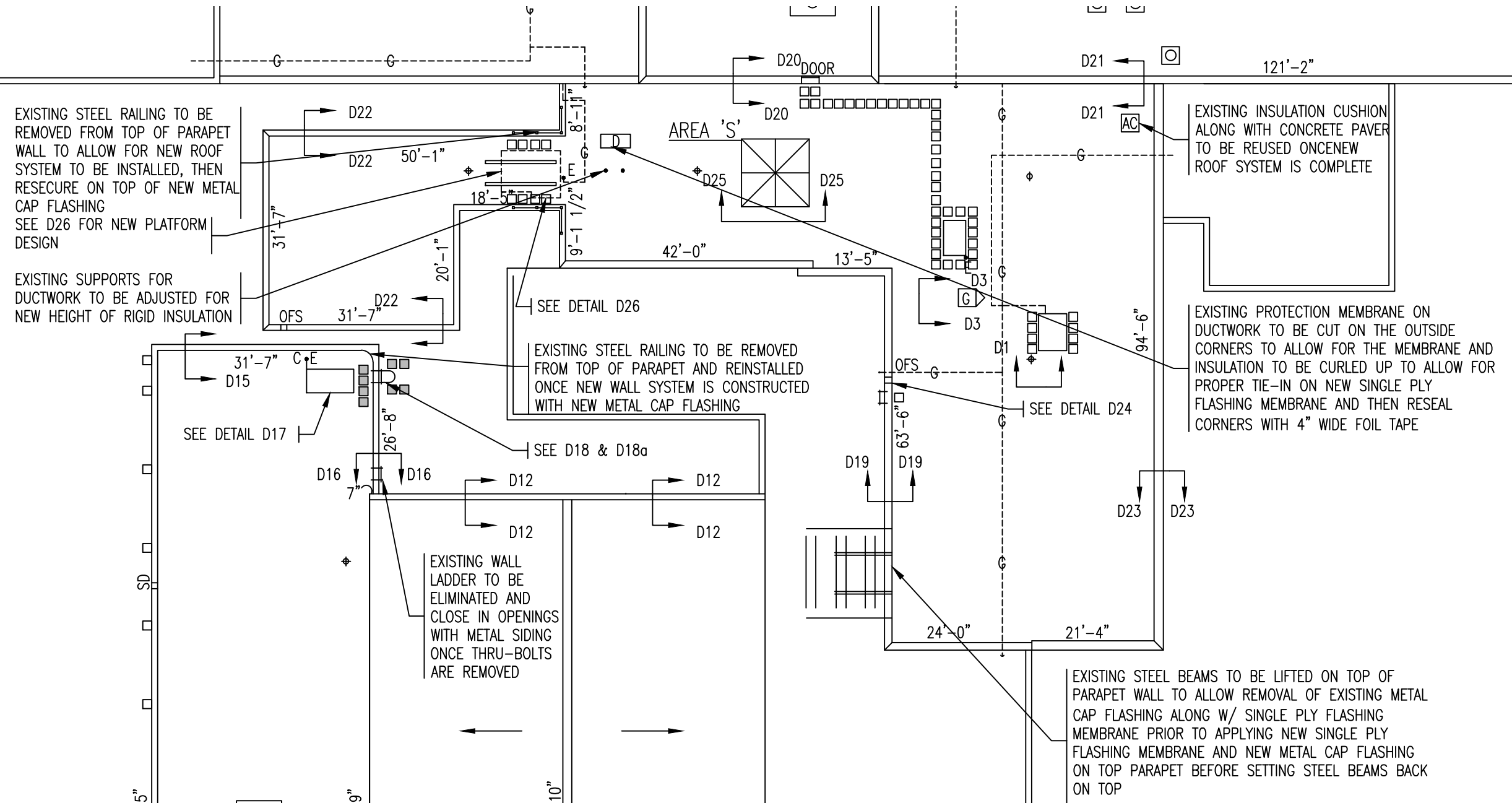
ROUND RIVER BALLAST  
ON SINGLE PLY EPDM MEMBRANE  
ON 2" FIBREGLAS RIGID INSULATION  
ON 2" FIBREGLAS RIGID INSULATION  
ON KRAFT PAPER  
ON METAL DECK (E-W DIRECTION)

## PROPOSED ROOF SYSTEM

75 MIL EPDM REINFORCED MEMBRANE  
ON TAPERED (ISO) INSULATION AS NOTED  
ON 2" (ISO) RIGID INSULATION  
ON 2" (ISO) RIGID INSULATION  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING METAL DECK (E-W DIRECTION)

## LEGEND

	WALL LADDER W/ BARREL
	EXIST. CONC. PAVERS TO BE REUSED ONCE NEW ROOF SYSTEM IS IN PLACE
	NEW CONC. PAVERS TO BE SUPPLIED BY CONTRACTOR
	ROOF DRAIN
	VENT PIPE STACK
	EXHAUST FAN
	RELIEF VENT
	HOT EXHAUST STACK
	GOOSE NECK EXHAUST FAN
	OVERFLOW SCUPPER
	A/C UNIT W/ PAD
	GAS LINE
	GAS PIPE PENETRATION



## ENLARGED ROOF PLAN - AREA 'S' (ROOF PENETRATIONS & DIMENSIONS)

SCALE : 1" = 20'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>RBS</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS BUILDING ENVELOPES (AIR/VAPOUR BARRIER/WATER PROOFING) SURVEYS AND CONDITIONS OF ROOFS AND BUILDINGS Christopher W. Palmer, C.E.T. 1407 Gore Road Huron, Ontario NOR 1G0 Tel: (519) 738-3458 Fax: (519) 738-4797	PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL EMERGENCY ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO		DATE : FEBRUARY 2018
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD		SCALE : AS SHOWN
	DRAWING TITLE ROOF PENETRATIONS AND DIMENSIONS		DRAWN BY : CWP
	DATE (MM-DD-YY) 01-05-18 02-02-18		CHK. BY : CWP SHEET SIZE : 11"x17" PROJECT FILE NO. RBS17-99 DRAWING NO. <b>UCC-R3</b>

AREA 'S'

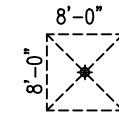
EXISTING ROOF SYSTEM

ROUND RIVER BALLAST  
ON SINGLE PLY EPDM MEMBRANE  
ON 2" FIBREGLAS RIGID INSULATION  
ON 2" FIBREGLAS RIGID INSULATION  
ON KRAFT PAPER  
ON METAL DECK (E-W DIRECTION)

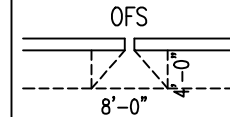
PROPOSED ROOF SYSTEM

75 MIL EPDM REINFORCED MEMBRANE  
ON TAPERED (ISO) INSULATION AS NOTED  
ON 2" (ISO) RIGID INSULATION  
ON 2" (ISO) RIGID INSULATION  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING METAL DECK (E-W DIRECTION)

TAPERED INSULATION  
LAYOUT LEGEND

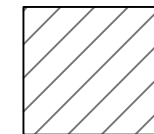


ROOF DRAIN  
4 FEET ALL AROUND  
1"-2" IN 4 FEET  
2% SLOPE

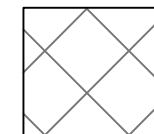


OFS - OVERFLOW  
SCUPPER  
4 FEET BY 8 FEET  
1"-2" IN 4 FEET  
2% SLOPE

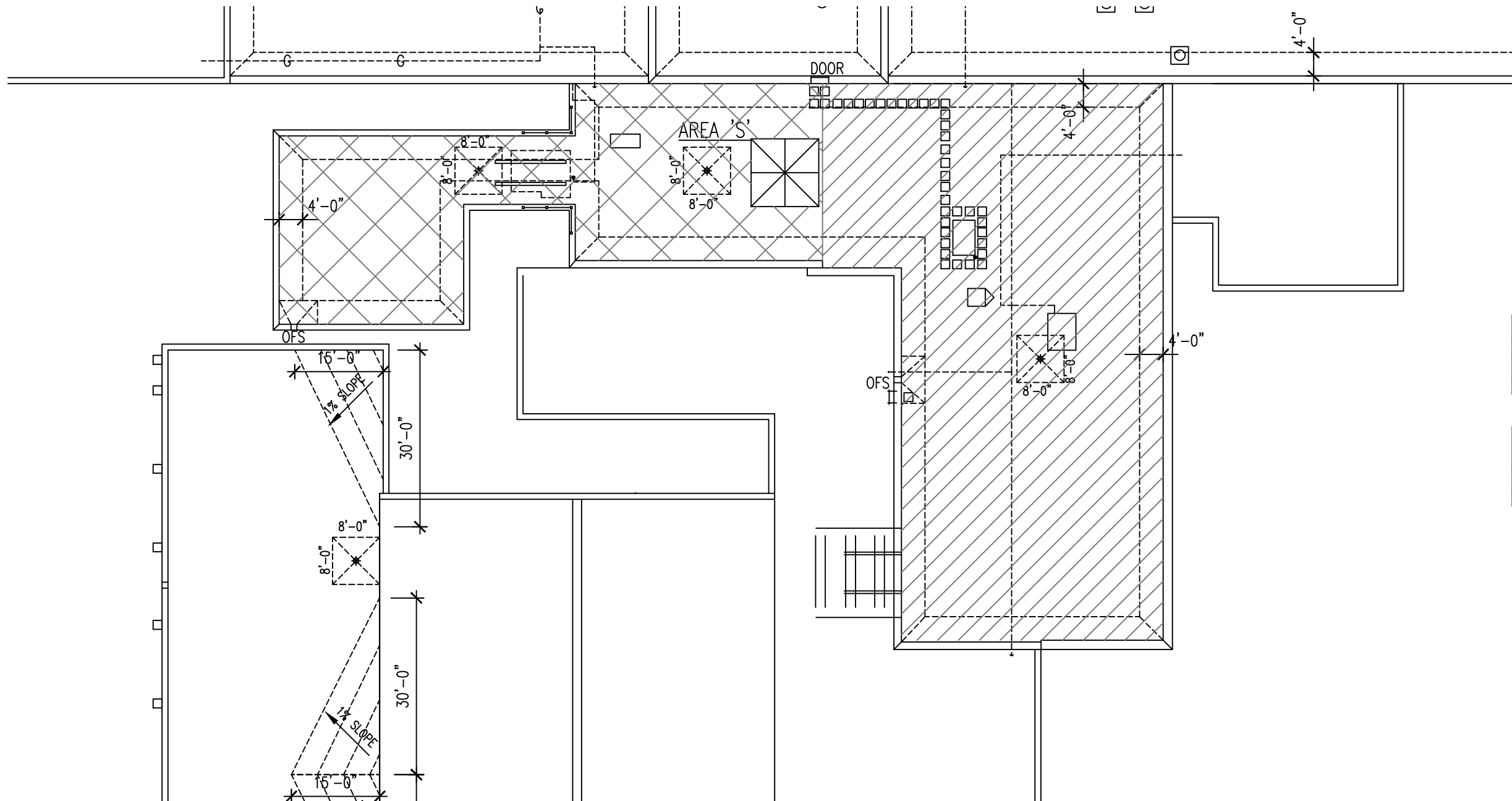
BACKSLOPE  
4 FEET WIDE  
1/2"-1 1/2"  
2% SLOPE



PHASE 1  
EMERGENCY ROOF REPAIRS  
(TO START FEB 15, 2018 AND TO BE  
COMPLETED FEB 19, 2018)



PHASE 2  
EMERGENCY ROOF REPAIRS  
(TO START MARCH 9, 2018 AND TO BE  
COMPLETED MARCH 18, 2018)

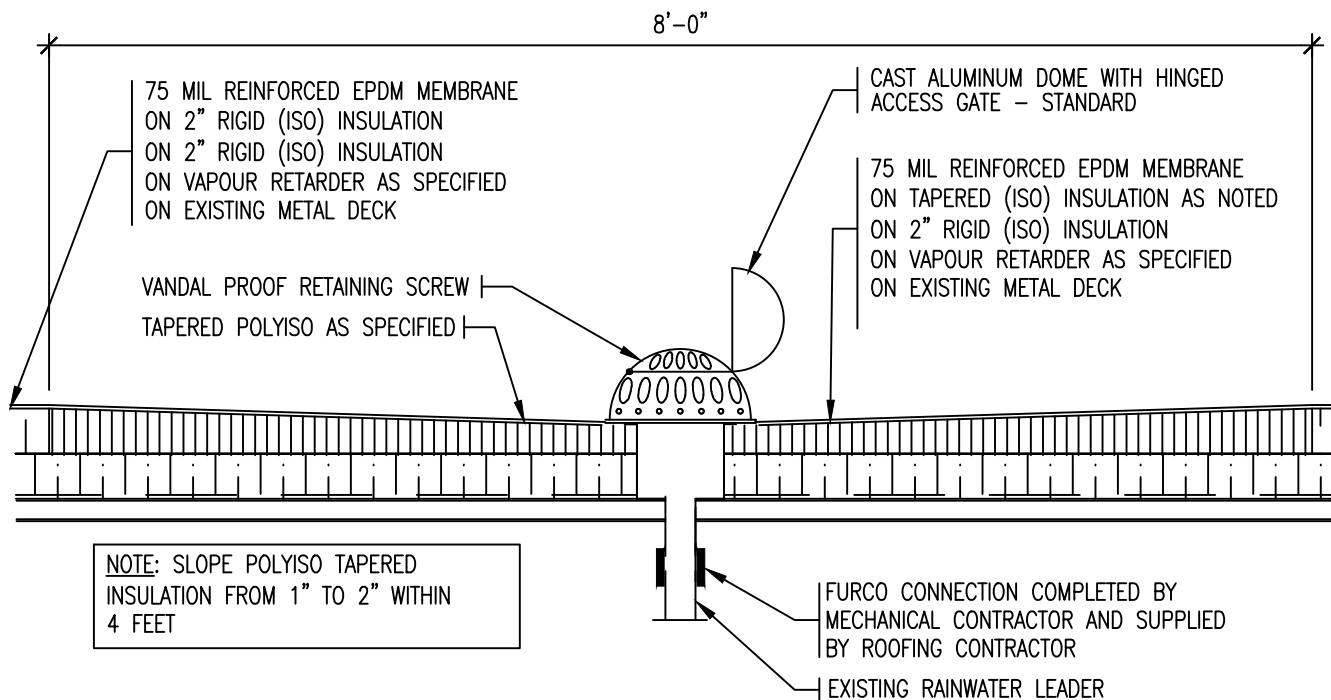


**ENLARGED ROOF PLAN - AREA 'S' (TAPERED INSULATION LAYOUT)**

SCALE : 1" = 20'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>RBS</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS BUILDING ENVELOPES (AIR/VAPOUR BARRIER/WATER PROOFING) SURVEYS AND CONDITIONS OF ROOFS AND BUILDINGS  Christopher W. Palmer, C.E.T. 1407 Gore Road Harrow, Ontario N0R 1G0 Tel: (519) 738-3458 Fax: (519) 738-4797		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL EMERGENCY ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	DATE : FEBRUARY 2018
		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SCALE : AS SHOWN
		DRAWING TITLE TAPERED INSULATION LAYOUT	DRAWN BY : CWP
		DATE (MM-DD-YY) 01-05-18 02-02-18	ISSUED FOR OWNER REVIEW TENDER
			CHK. BY : CWP
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			PROJECT FILE NO. RBS17-99
			DRAWING NO. <b>UCC-R3a</b>

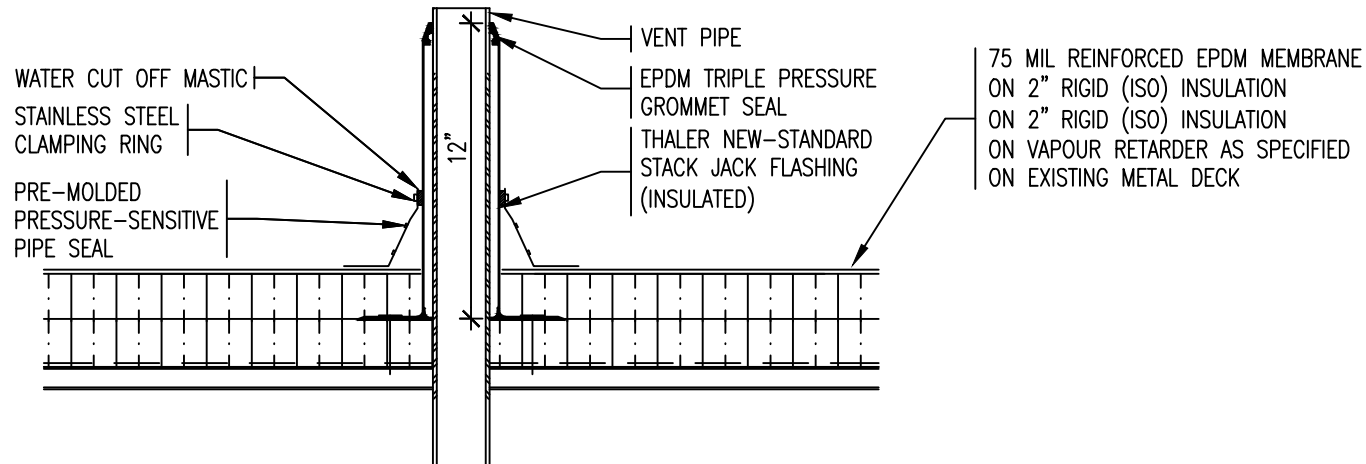




## ROOF DRAIN DETAIL - TYPICAL

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>RBS</b> <small>ROOF REPAIR, MAINTENANCE, AND INSULATION SERVICES          INSULATION DEVELOPMENT (ISO/FOAM BOARD/OTHER PRODUCTS)          SURVEYS AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.B.A.</small> <small>1601 Glen Road          Maple, Ontario M6P 1G5</small>	<b>PROJECT</b> URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL PARTIAL ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO  <b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DATE :	FEBRUARY 2018
		SCALE :	N.T.S.
		DRAWN BY :	CWP
		CHK. BY :	CWP
DATE 01-05-18 02-02-18	ISSUED FOR OWNER REVIEW TENDER	SHEET SIZE :	8.1/2"x11"
DRAWING TITLE ROOF DETAIL		PROJECT FILE NO.	RBS17-00
		DRAWING NO.	UCC-D1

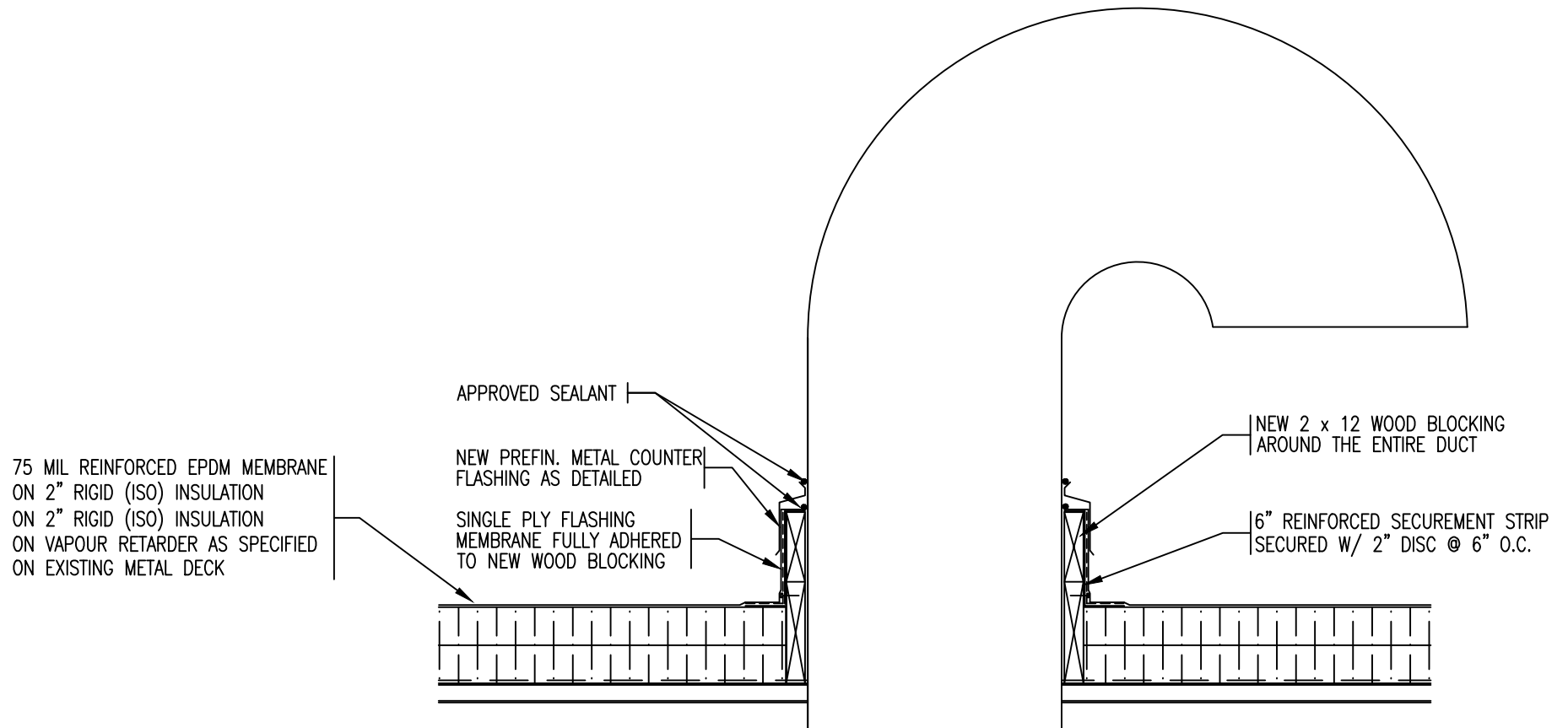


NOTE:  
IF EXISTING VENT STACK IS NOT  
HIGHER THAN THE NEW SJ-38, THE  
CONTRACTOR IS REQUIRED TO EXTEND  
A MINIMUM OF 3" ABOVE EPDM  
GROMMET SEAL

## VENT PIPE STACK DETAIL - TYPICAL

SCALE : 1" = 1'-0"

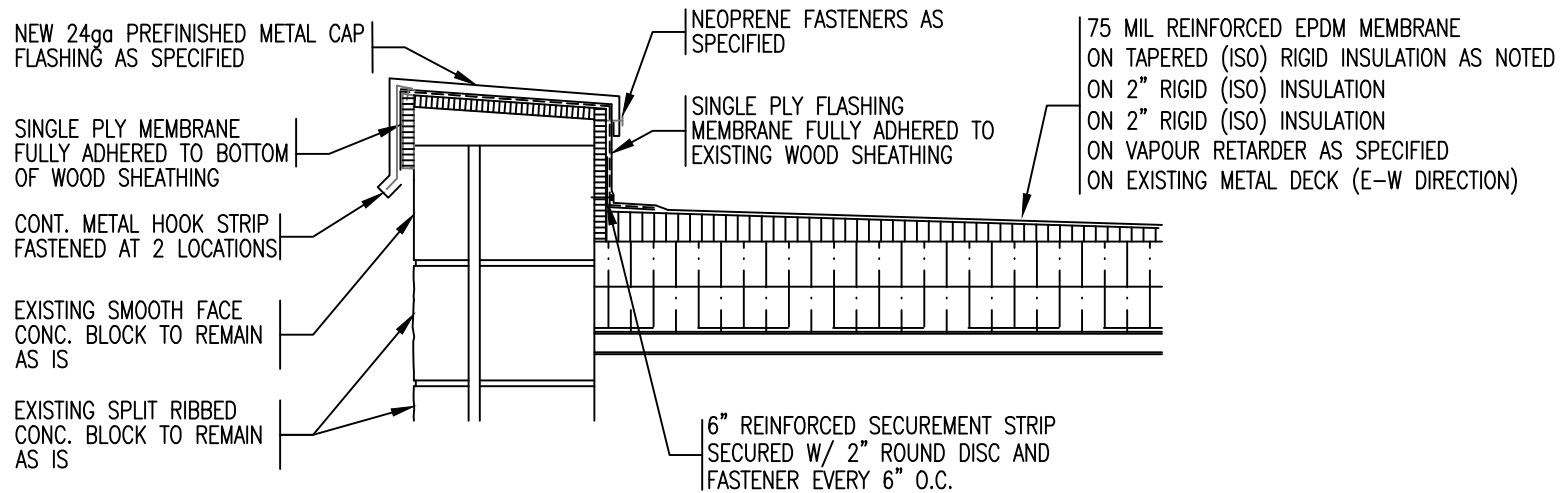
<b>REMLAP BUILDING SERVICES INC.</b> <b>R B S</b> <small>ROOF REPAIRS, ROOFING AND ROOFING SERVICES          INSULATION SPECIALISTS (RIGID/SPRINKLER ROOFING/UNDER ROOFING)          SURVEYS AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>1000 Glen Road          North, York, ON M2H 1G5</small>		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL EMERGENCY ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	DATE : FEBRUARY 2018 SCALE : N.T.S. DRAWN BY : CWP
<small>1000 Glen Road          North, York, ON M2H 1G5</small>		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
DATE (02-02-18)		DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS17-00 DRAWING NO. UCC-D2
01-05-18 OWNER REVIEW 02-02-18 TENDER			



# GOOSENECK EXHAUST FAN - TYPICAL

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1001 Glen Road Hawthorn, Ontario M19 1G2</small> <small>Tel: (905) 709-3885 Fax: (905) 709-4557</small>		<b>PROJECT</b> URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL EMERGENCY ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	<b>DATE :</b> FEBRUARY 2018 <b>SCALE :</b> N.T.S. <b>DRAWN BY :</b> CWP
<small>CLIENT</small> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD		<b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	<b>CHK. BY :</b> CWP <b>SHEET SIZE :</b> 8.1/2"x11"
<b>DATE</b> (MM-DD-YY) 01-05-18 02-02-18		<b>ISSUED FOR</b> OWNER REVIEW TENDER	<b>PROJECT FILE NO.</b> RBS17-99 <b>DRAWING NO.</b> UCC-D3
<b>DRAWING TITLE</b> ROOF DETAIL			

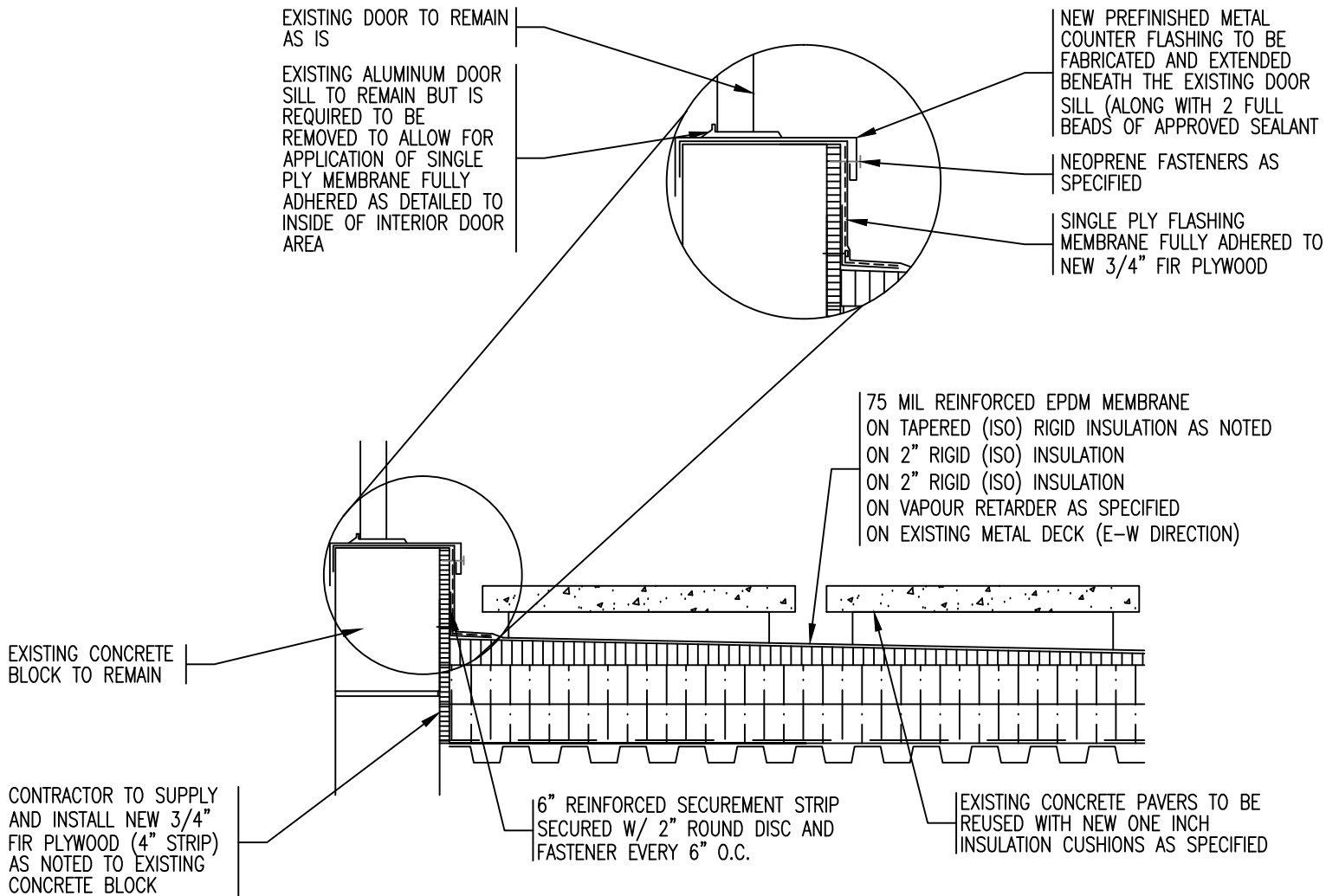


**NOTE:** EXISTING PLYWOOD SHEATHING TO REMAIN BUT IS REQUIRED TO BE SECURED TO CONCRETE BLOCK BEYOND WITH ADDITIONAL 1/4" CONCRETE FASTENERS (EVERY 2' O.C. TOP AND BOTTOM STAGGERED) TO ENSURE SHEATHING IS ADHERED TO SUBSTRATE BEYOND PRIOR TO INSTALLING NEW ROOF SYSTEM

## PERIMETER WALL DETAIL - AREA 'S'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF REPAIRS, ROOFING AND ROOFING PRODUCTS          INSULATION SPECIALISTS (RIGID/FOAM BOARD/ROOFING PRODUCTS)          SURVEYS AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>1000 Glen Road          Huron, Ontario N2R 1G2</small>		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL EMERGENCY ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	DATE : FEBRUARY 2018 SCALE : N.T.S. DRAWN BY : CWP
<small>1000 Glen Road          Huron, Ontario N2R 1G2</small>		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
DATE 01-02-17 01-02-18 02-02-18		ISSUED FOR OWNER REVIEW TENDER	PROJECT FILE NO. RBS17-00 DRAWING NO. UCC-D19
DRAWING TITLE ROOF DETAIL			



**NOTE:** EXISTING PLYWOOD SHEATHING TO REMAIN BUT IS REQUIRED TO BE SECURED TO CONCRETE BLOCK BEYOND WITH ADDITIONAL 1/4" CONCRETE FASTENERS (EVERY 2' O.C. TOP AND BOTTOM STAGGERED) TO ENSURE SHEATHING IS ADHERED TO SUBSTRATE BEYOND PRIOR TO INSTALLING NEW ROOF SYSTEM

## DETAIL @ MANDOOR ENTRY ONTO AREA 'S'

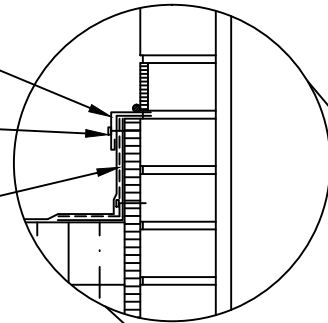
SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1001 Glen Road Markham, Ontario L3R 9H2</small>	<small>NEW ARCHITECTURAL, DESIGN AND CONSTRUCTION SERVICES          EXISTING DEVELOPER (NEW/REPAIR/RENOVATION/REPAIRS)          SUBJECT AND COORDINATOR OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.B.A.</small> <small>Tel: (905) 729-3885 Fax: (905) 729-4157</small>	<b>PROJECT</b> URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL EMERGENCY ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO  <b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DATE : FEBRUARY 2018
			SCALE : N.T.S.
			DRAWN BY : CWP
			CHK. BY : CWP
			SHEET SIZE : 8.1/2"x11"
DATE (02-02-18)	ISSUED FOR OWNER REVIEW	DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS17-99
01-02-18	TENDER		DRAWING NO. UCC-D20

NEW METAL COUNTER FLASHING TO  
EXTEND BENEATH THE THRU-WALL  
FLASHING PRIOR TO APPLYING A  
BEAD OF SEALANT ON TOP

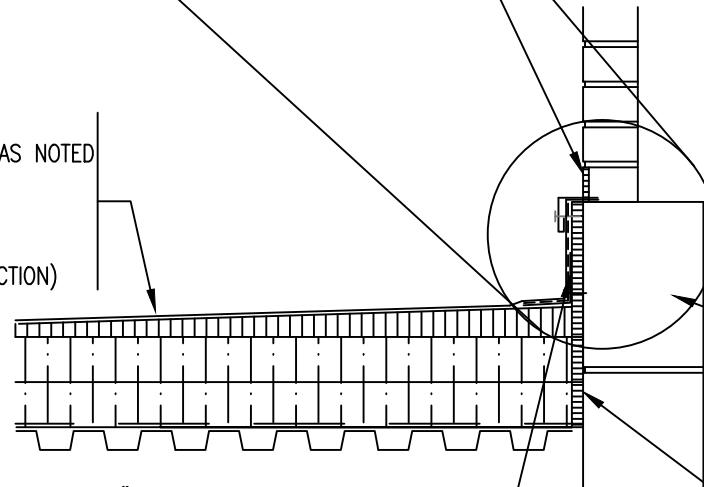
NEOPRENE FASTENERS AS SPECIFIED

SINGLE PLY FLASHING MEMBRANE  
FULLY ADHERED TO EXISTING WOOD  
SHEATHING



EXISTING WEEP VENT TO  
REMAIN OPEN AT ALL TIMES

75 MIL REINFORCED EPDM MEMBRANE  
ON TAPERED (ISO) RIGID INSULATION AS NOTED  
ON 2" RIGID (ISO) INSULATION  
ON 2" RIGID (ISO) INSULATION  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING METAL DECK (E-W DIRECTION)



EXISTING CONCRETE  
BLOCK TO REMAIN

6" REINFORCED SECUREMENT STRIP  
SECURED W/ 2" ROUND DISC AND  
FASTENER EVERY 6" O.C.

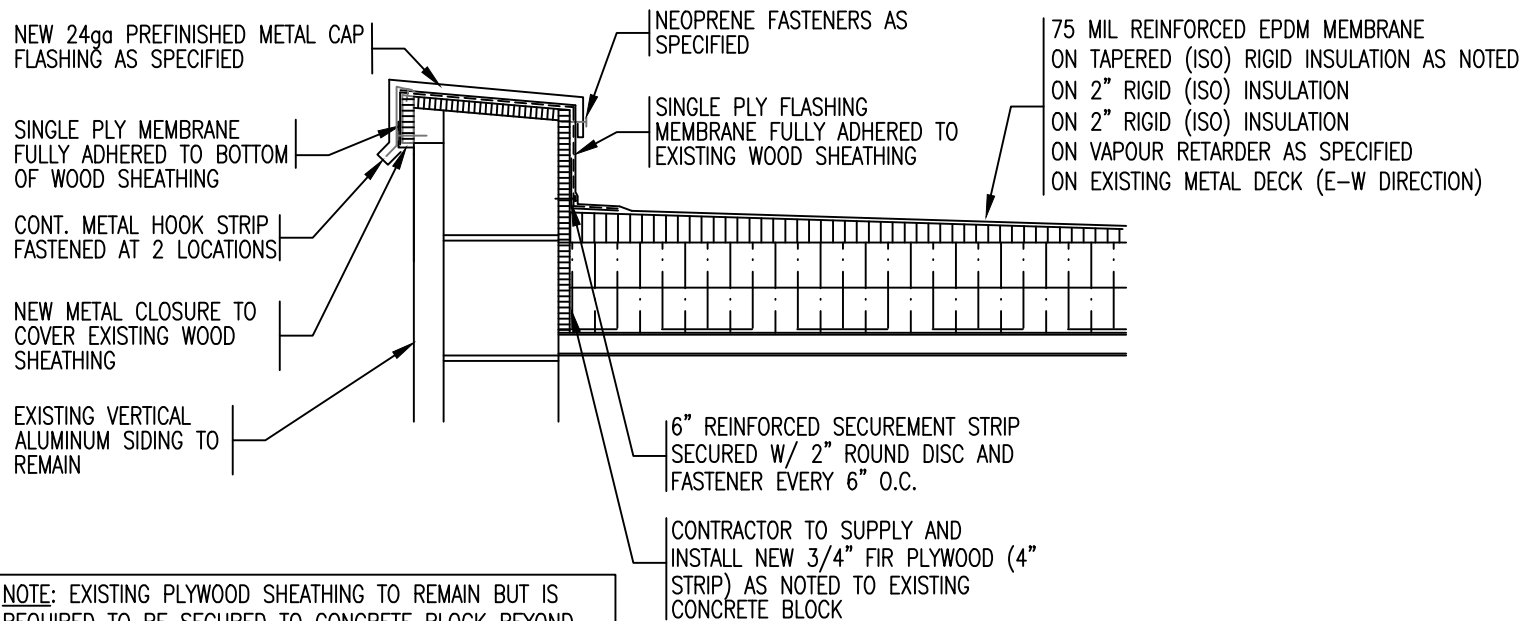
CONTRACTOR TO SUPPLY  
AND INSTALL NEW 3/4"  
FIR PLYWOOD (4" STRIP)  
AS NOTED TO EXISTING  
CONCRETE BLOCK

NOTE: EXISTING PLYWOOD SHEATHING TO REMAIN BUT IS  
REQUIRED TO BE SECURED TO CONCRETE BLOCK BEYOND  
WITH ADDITIONAL 1/4" CONCRETE FASTENERS (EVERY 2'  
O.C. TOP AND BOTTOM STAGGERED) TO ENSURE SHEATHING  
IS ADHERED TO SUBSTRATE BEYOND PRIOR TO INSTALLING  
NEW ROOF SYSTEM

## PERIMETER WALL DETAIL - AREA 'S'

SCALE : 1" = 1'-0"

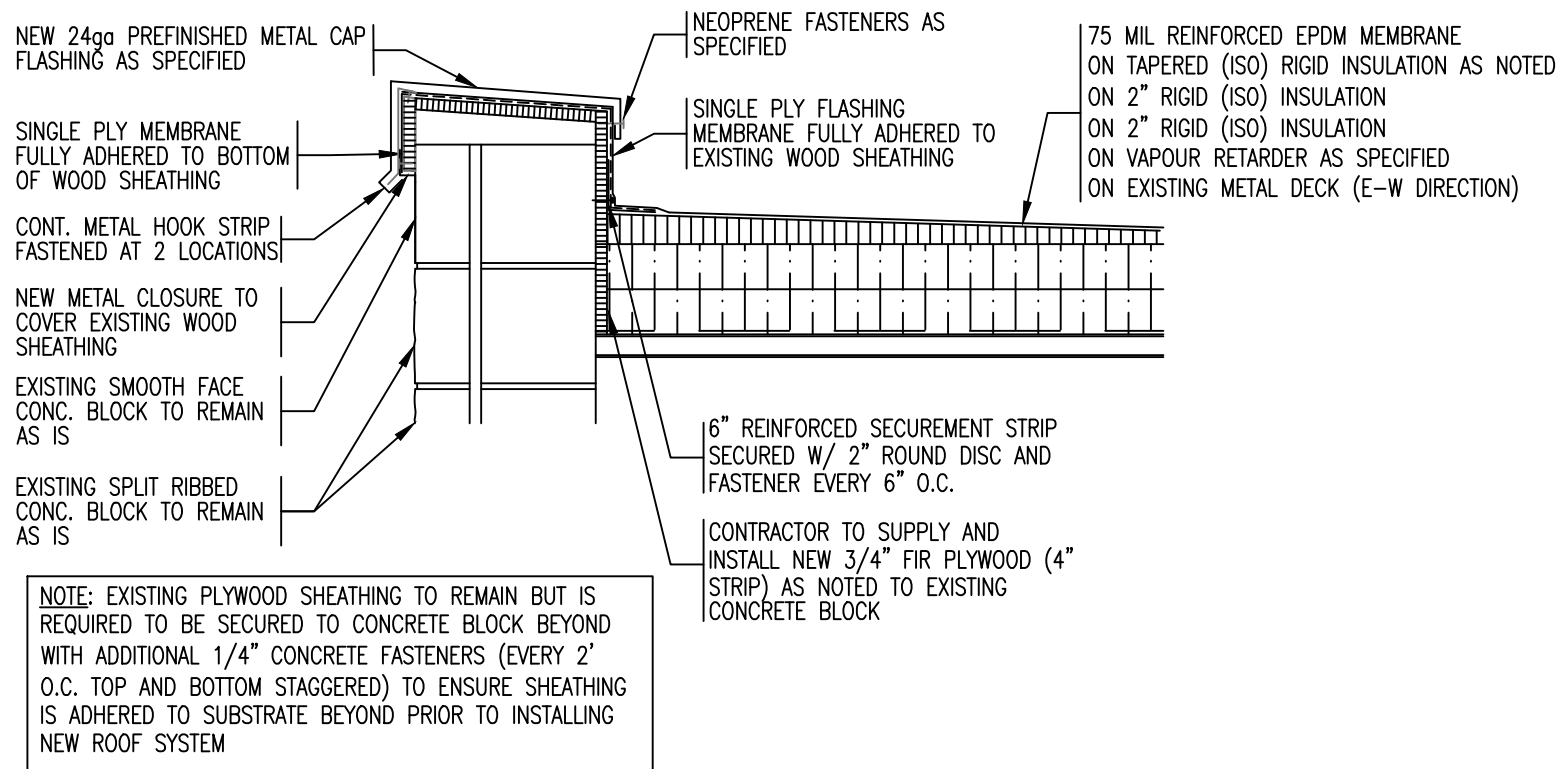
<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1601 Glen Road Rexdale, Ontario M9L 1G5</small>		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL EMERGENCY ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	DATE : FEBRUARY 2018 SCALE : N.T.S. DRAWN BY : CWP
<small>1601 Glen Road Rexdale, Ontario M9L 1G5</small>		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
DATE 01-05-18 02-02-18		ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE ROOF DETAIL PROJECT FILE NO. RBS17-99 DRAWING NO. <b>UCC-D21</b>



## PERIMETER WALL DETAIL - AREA 'S'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> ROOF REPAIRS, ROOFING AND REPAIRS <b>B</b> ROOFING, REPAIRS AND REPAIRS <b>S</b> ROOFING, REPAIRS AND REPAIRS 1000 Glen Road North, Ontario M1S 1S2		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL EMERGENCY ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	DATE : FEBRUARY 2018 SCALE : N.T.S. DRAWN BY : CWP
1000 Glen Road North, Ontario M1S 1S2 Tel: (519) 738-3885 Fax: (519) 738-4107		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
DATE 01-05-18 02-02-18		ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE ROOF DETAIL PROJECT FILE NO. RBS17-99 DRAWING NO. UCC-D22

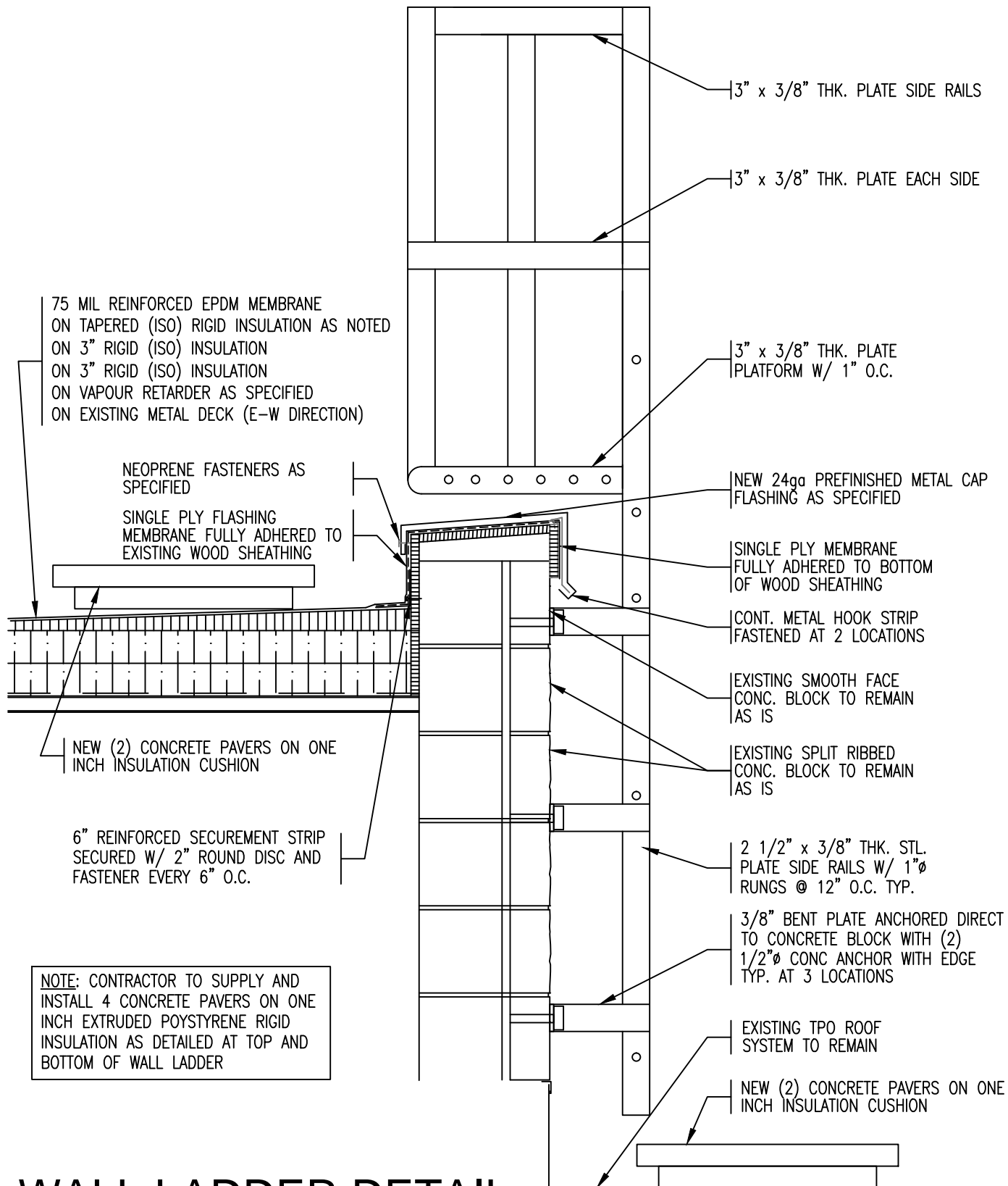


## PERIMETER WALL DETAIL - AREA 'S'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> ROOF REPAIRS, ROOFING AND ROOFING PRODUCTS <b>B</b> BUILDING ENVELOPE (W/VAPOUR BARRIERS/UNDER PROTECTORS) <b>S</b> SURVEYS AND COORDINATING OF ROOFS AND BUILDINGS 1607 Glen Road Huron, Ontario N2B 1G2 Tel: (519) 739-3385 Fax: (519) 739-4757		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL EMERGENCY ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	DATE : FEBRUARY 2018 SCALE : N.T.S. DRAWN BY : CWP
CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD		CHK. BY : CWP SHEET SIZE : 8.1/2"x11"	PROJECT FILE NO. RBS17-00 DRAWING NO. <b>UCC-D23</b>
DATE 01-05-18 02-02-18	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE ROOF DETAIL	

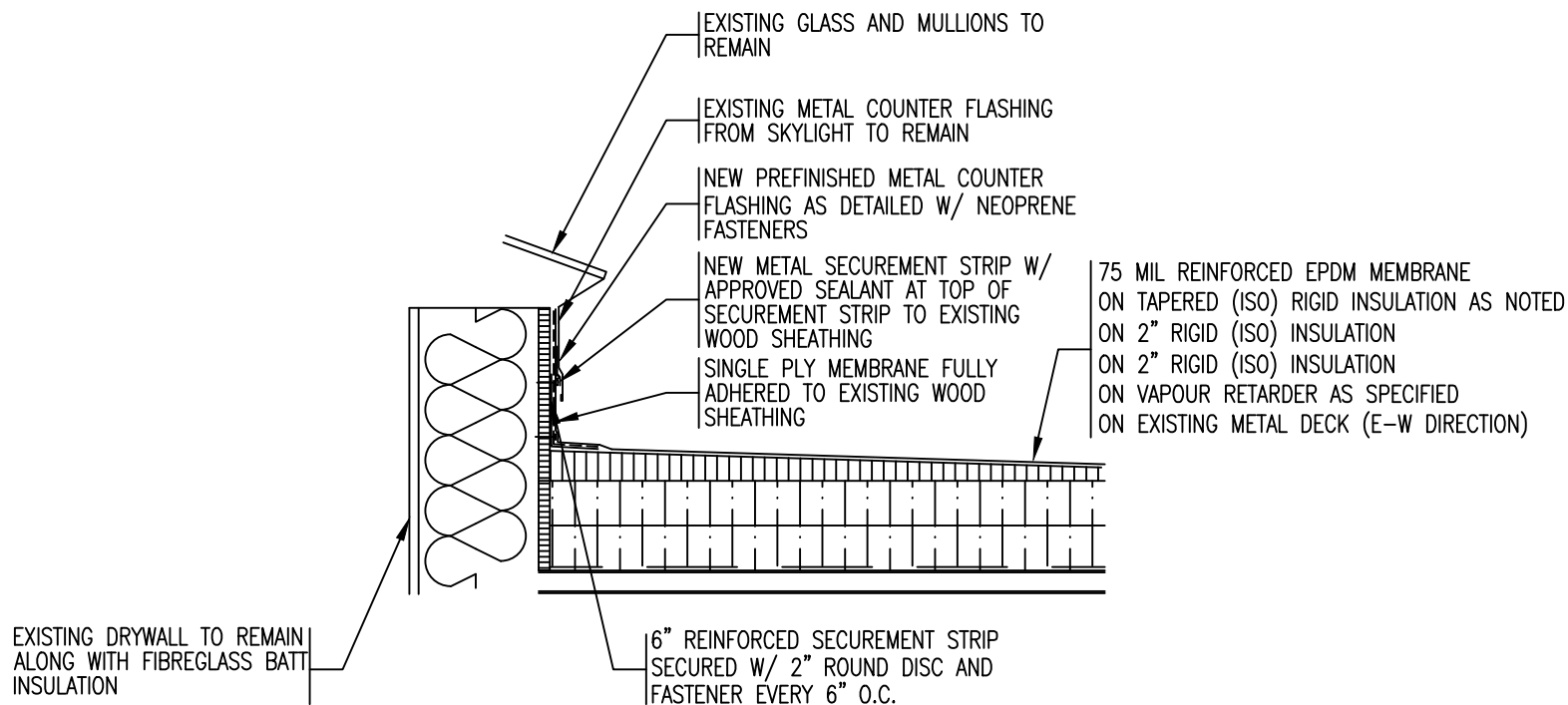




# WALL LADDER DETAIL LEADING TO AREA 'S'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAM BUILDING ENVELOPE (DAY/ROOF SERVICE/MAINT PROGRAM) SERVICES AND CONSULTING OF ROOFS AND BUILDINGS Christopher W. Fellows, C.B.E. 1467 Glen Road North York, Ontario M2H 1G9 Tel: (416) 753-3400 Fax: (416) 753-0107		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL PARTIAL ROOF REPLACEMENT 85 GRAND AVENUE WEST, CHATHAM ONTARIO	DATE : FEBRUARY 2018 SCALE : N.T.S. DRAWN BY : CWP CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
DATE 01-05-18 02-02-18	ISSUED FOR OWNER REVIEW TENDER	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS17-99 DRAWING NO. UCC-D24



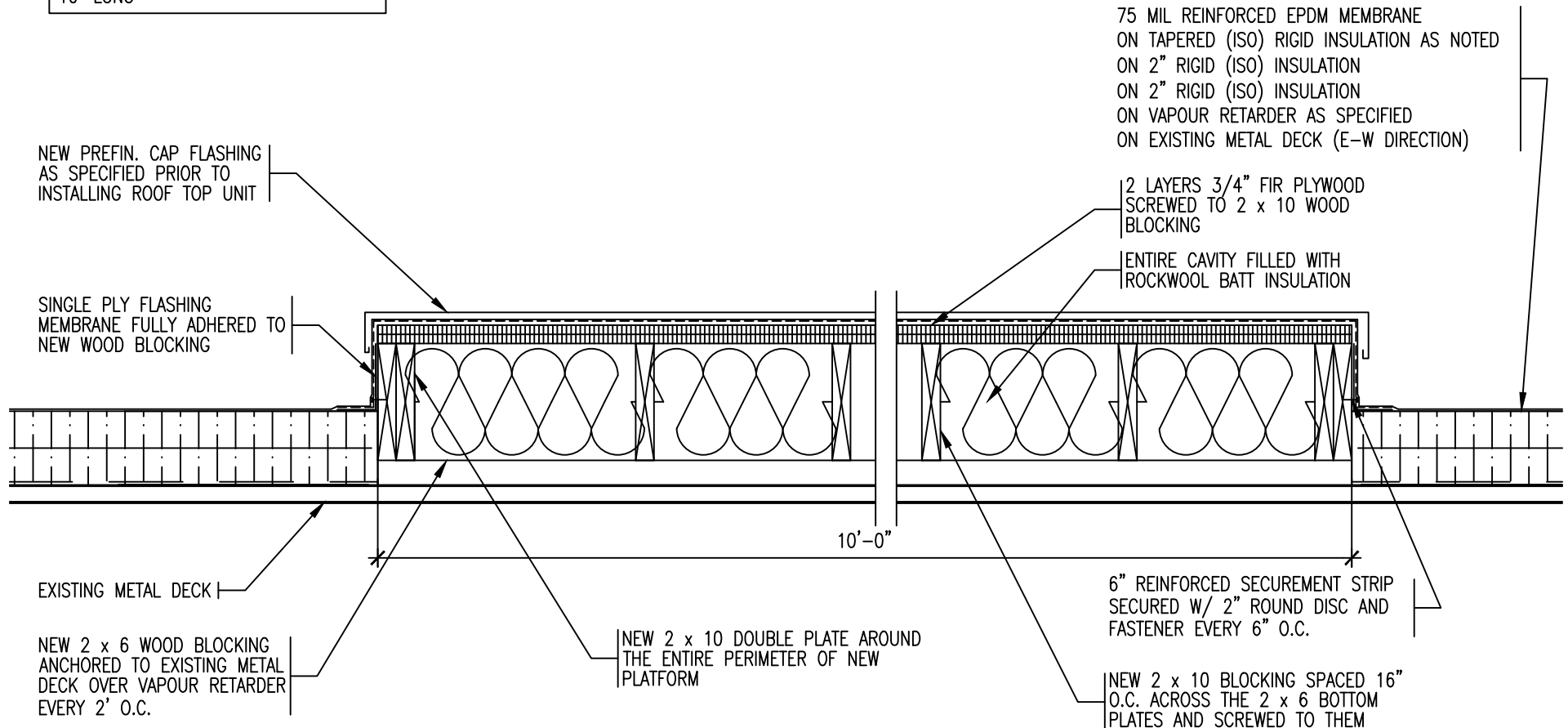
**NOTE:** EXISTING BOTTOM METAL COUNTER FLASHING AROUND THE ENTIRE SKYLIGHT IS TO BE REMOVED TO ALLOW FOR INSTALLATION OF NEW EPDM MEMBRANE FULLY BONDED TO WOOD SHEATHING AND THEN TERMINATED WITH METAL SECUREMENT STRIP WITH SEALANT ALONG THE TOP PRIOR TO INSTALLING NEW METAL COUNTER FLASHING UP BENEATH THE METAL COUNTER FLASHING ATTACHED TO THE BOTTOM OF SKYLIGHT

## DETAIL AT SKYLIGHT - AREA 'S'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R B S</b> <small>ROOF REPAIRS, ROOFING AND ROOFING PRODUCTS  EMERGENCY REPAIRS (24/7) (24/7) (24/7)  SUBSISTENCE AND CONSTRUCTION OF ROOFS AND BUILDINGS</small> <small>1000 Glen Road  Hawthorn, Ontario M1H 1A1</small>		<b>PROJECT</b> URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL EMERGENCY ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	<b>DATE :</b> FEBRUARY 2018 <b>SCALE :</b> N.T.S. <b>DRAWN BY :</b> CWP
<small>1000 Glen Road  Hawthorn, Ontario M1H 1A1</small>		<b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	<b>CHK. BY :</b> CWP <b>SHEET SIZE :</b> 8.1/2"x11"
<b>DATE</b> 01-02-18 <b>ISSUED FOR</b> 02-02-18 <b>OWNER REVIEW</b> 02-02-18 <b>TENDER</b>		<b>DRAWING TITLE</b> ROOF DETAIL	<b>PROJECT FILE NO.</b> RBS17-99 <b>DRAWING NO.</b> UCC-D25

NOTE: NEW PLATFORM FOR ROOF TOP UNIT TO BE CONSTRUCTED AS DETAILED TO THE FOLLOWING SIZE (7' WIDE BY 10' LONG)



## NEW PLATFORM DETAIL BENEATH ROOF TOP UNIT @ CANOPY - AREA 'S'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R B S</b> <small>ROOF REPAIRS, REMEDIATION AND ROOFING SERVICES              INSULATION SPECIALISTS (RIGID/SPRINKLER/ROOFING/ROOFING)              SURVEYS AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>1001 Glen Road              North, York, ON M2H 1G2</small>		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL EMERGENCY ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	DATE : FEBRUARY 2018 SCALE : N.T.S. DRAWN BY : CWP
<small>1001 Glen Road              North, York, ON M2H 1G2</small> Tel: (905) 739-3485 Fax: (905) 739-4077		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
DATE 01-02-18 02-02-18		ISSUED FOR OWNER REVIEW TENDER	PROJECT FILE NO. RBS17-99 DRAWING NO. UCC-D26
DRAWING TITLE ROOF DETAIL			

ST. CLAIR CATHOLIC DISTRICT SCHOOL  
BOARD  
PARTIAL ROOF REPLACEMENT  
AREA 'K' AND 'P'

FOR

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

**TENDER FORM**

**PROJECT No. 725-CP1831**

**FEBRUARY 2018**

**TENDER FORM**

*Partial Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1831*

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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 **St. Clair Catholic District School Board** in accordance with Information of Tenderers, Form of Tender, and Drawings by Remlap Building Services, 1407 Gore Road, RR1 Harrow, Ontario – N0R 1G0 for **TOTAL TENDER PRICE "A" (H.S.T. INCLUDED)**,

\_\_\_\_\_ \$ \_\_\_\_\_  
*Option № 1 (HST Included)*

\_\_\_\_\_ \$ \_\_\_\_\_  
*Option № 2 (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.

- 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*

\_\_\_\_\_  
*Cost of Bonding*

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 Chatham Catholic Secondary School  
Project № 725-CP1831*

**Section "A"****Partial Roof Replacement for Ursuline College Chatham Catholic 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:

<u>Item</u> <u>No.</u>	<u>Description</u>	<u>Total</u> <u>Option No.1</u> (Peel&Stick V.R.)	<u>Option No.2</u> (10 mil Polyethelene)
<b>A.</b>	<b><u>Roof Area 'P'</u></b>		
	<b><u>As Indicated on Key Plan R-1a</u></b>		
	The Roofing Contractor is to remove the existing Roof System completely to the metal roof deck, then the Contractor is to supply and install Vapour Retarder (OPTION No.1 – Peel & Stick Membrane or OPTION No. 2 – 10 mil Polyethelene) as determined by the School Board, all rigid insulation, etc. prior to installing the Mechanically Attached EPDM Reinforced Membrane Single Ply Roof System as shown on the Enclosed Drawings and in accordance with the Project Specifications for this facility. <u>(The Contractor will include a Cash Allowance of \$10,000.00 with this price (if the allowance is not used, it will be taken off of the Total Tender Price).</u>	\$ _____	\$ _____
<b>B.</b>	<b><u>Roof Area 'K'</u></b>		
	<b><u>As Indicated on Key Plan R-1a</u></b>		
	The Roofing Contractor is to supply and install 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. <u>(The Contractor will include a Cash Allowance of \$10,000.00 with this price (if the allowance is not used, it will be taken off of the Total Tender Price).</u>	\$ _____	\$ _____
	<b>Total Tender Price "A" (excluding HST)</b>	\$ _____	\$ _____
	<b>Add 13% HST</b>	\$ _____	\$ _____
	<b>Total Tender Price "A" (including HST)</b>	\$ _____	\$ _____

**SEPARATE PRICE - Tapered Rigid Insulation Cost**

The Contractor is to provide the Price to Supply and Install the Tapered Backslope Insulation as Indicated on Drawing UCC-R4a

\$ \_\_\_\_\_  
(Excluding HST)

**TENDER FORM**

*Partial Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1831*

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**MEMBRANE MANUFACTURER – (SINGLE PLY MECHANICALLY FASTENED ROOF SYSTEM)**

The Contractor is required to submit the name of the Membrane Manufacturer who they are planning to use for this Roof Replacement Project:

\_\_\_\_\_

**MEMBRANE MANUFACTURER – (TWO PLY MECHANICALLY FASTENED ROOF SYSTEM)**

The Contractor is required to submit the name of the Membrane Manufacturer who they are planning to use for this Roof Replacement Project:

\_\_\_\_\_

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 Harmonized Sales Tax (HST).
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.

**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 School Board**.

**OR**

To start work on **JULY 3<sup>RD</sup>, 2018** and to complete the work by **AUGUST 31<sup>ST</sup>, 2018**

**TENDER FORM**

*Partial Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1831*

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**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**


*Signature of Authorized Officer* \_\_\_\_\_

*Phone No.* \_\_\_\_\_ *Email* \_\_\_\_\_

*Name of Signature* \_\_\_\_\_

*Witness* \_\_\_\_\_

*Dated at* \_\_\_\_\_

*This* \_\_\_\_\_ *day of* \_\_\_\_\_ *2018*

**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  
AREA 'K' AND 'P'**

**FOR**

**ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD**

**AT**

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

**PROJECT No. 725-CP1831**

**FEBRUARY 2018**

## 3.0 GENERAL

*Partial Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1831*

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### 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, alligating, 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: (Two Ply Modified Bitumen Roof System)**

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 searches any leaks which occur due to Membrane or Application (workmanship) failure within the warranty period of fifteen years.

#### **3.1.3 Membrane System Warranty: (Mechanically Attached EPDM Reinforced Membrane Single Ply Roof System)**

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 searches any leaks which occur due to Membrane or Application (workmanship) failure within the warranty period of fifteen years.

## 4.0 PRODUCTS – ROOF AREA 'P'

*Partial Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1831*

### **75 MIL REINFORCED EPDM MECHANICALLY FASTENED ROOF SYSTEM**

#### **4.1 General**

- 4.1.1 The components of this roofing system are to be products of Carlisle or accepted by Carlisle as compatible or approved equal.

#### **4.2 Membrane**

- 4.2.1 Furnish Sure-Tough, 75 mil thick reinforced EPDM (Ethylene, Propylene Diene Terpolymer) conforming to the minimum physical properties of ASTM D4637, Type 11. The membrane shall be manufactured in a single panel with no factory splices to reduce splice intersections. EPDM membrane shall be ordered with Factory-Applied Tape.

#### **4.3 Related Materials**

- 4.3.1 Sure-Seal Reinforced Flashing, Bonding Adhesive, Water Cut-Off Mastic, EP-95 Spicing Cement, Weathered Membrane Cleaner, Molded Pocket Sealant, Pre-Molded Inside/Outside Corners, Pipe Flashings, Curb Wraps and Sealant Pockets.

#### **4.4 Vapour Retarder**

- 4.4.1 The Vapour Retarder shall consist of one of the following Options: (Note: The Contractor is required to submit a cost for both options listed below and the School Board will make a decision on which vapour retarder method they wish to be completed.

##### **Option № 1**

The vapour retarder shall be Carlisle Vap Air Seal 725 TR, 40 mil composite consisting of 35 mils of self-adhering rubberized asphalt laminated to a 5 mil woven polypropylene film. A one-piece silicone poly release liner is applied to the SBS adhesive to prevent the material from bonding to itself.

##### **Option № 2**

The vapour retarder shall be Super 10 mil polyethelene applied over top of the metal deck shall comply with CGSB CAN2-S1.34-M86. Adhesive shall be of a type as recommended by the Polyethelene Manufacturer for adhesion at the side and end laps.

#### **4.5 Rigid Insulation**

- 4.5.1 Insulation shall be SecurShield Polyiso Rigid Insulation Boards with coated glass fiber mat facers on both sides, meeting or exceeding the requirements of ASTM C1289 (Minimum Compressive Strength of 20 psi (138 KPa). The thermal resistance of insulation for Areas 'S' shall be R-24.2 (L.T.T.R.) (2 layers of 2.0 inch for the main roof and R-12.1 (L.T.T.R.) (2 inch) around the recessed roof drains, resistance R-value in accordance with ASTM C1289-11A. All insulation boards shall be 4 feet by 4 feet in size.

## **4.0 PRODUCTS – ROOF AREA ‘P’**

*Partial Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1831*

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### **4.6 Tapered Insulation**

- 4.6.1 The tapered insulation shall be coated glass fiber mat facers Isocyanurate Boards conforming to ASTM C1289 meeting the requirements of ULC S126. Polyisocyanurate foam panels chemically bonded during the foaming process to facers on the top and bottom surfaces. Tapered panels shall not be less than 25 mm at any point of the roof to the slope indicated at the roof drains (2% slope) (2" to 1" for four feet around each drain). Backslope: (2% slope) (1 ½" to ½" for four feet around roof perimeter and penetrations as noted) and crickets (1% slope starting at ½" upward)

### **4.7 Fasteners, Plates, Bars**

- 4.7.1 The fasteners shall be Carlisle HP Fasteners (2" in length for Russ securement strip) (3" in length for first layer of rigid insulation) (5" in length for securement of reinforced membrane at seams).
- 4.7.2 HP Polymer Seam Plates shall be 2 inch (51mm) diameter plastic barbed fastening plate used for membrane
- 4.7.3 Seam Fastening Plate shall be 2 inch (51mm) diameter metal plate for RUSS attachment
- 4.7.4 Insulation Fastening Plate shall be nominal 3 inch (76mm) diameter FM approved metal plate used for insulation attachment.
- 4.7.5 Sure-Seal Metal Fastening Bar shall be 1 inch by 10 feet long (25 mm x 3048 mm) Galvalume-coated steel fastening bar pre-punched 6 inches (152mm) on center for membrane securement as noted.

### **4.8 Insulation Adhesive**

- 4.8.1 The adhesive to adhere second layer of rigid insulation to first layer of insulation shall be Fast 100, two-component, polyurethane low-rise expanding foam adhesive.

### **4.9 Vent Pipe Stack Flange**

- 4.9.1 The vent pipe stack flange shall be Thaler Roofing Specialties Products Inc. Model № SJ-38 insulated flange. The Roofing Contractor shall verify the inside diameter of the vent pipe stack for each location. The flanges are required to be sealed to the roof membrane with Pre-molded Pressure Sensitive Pipe Seal in accordance with Carlisle U-8A Detail.

### **4.10 Roof Drain**

- 4.10.1 The roof drain shall be Thaler Roof Specialties Products Inc. Model No. RD-4A-RR Vandal-Proof aluminum roof drain and under deck clamp. Drain is to be completed with Furco Connection. Outlet size shall be verified on site by the Roofing Contractor.

### **4.11 Framing Lumber**

- 4.11.1 Framing lumber on top of roof area shall be Spruce conforming to CSA 0322-1976 and CSA 080-M1983. Size as shown on the project drawings. Grade SPF No. 2 or better.

## **4.0 PRODUCTS – ROOF AREA ‘P’**

*Partial Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1831*

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### **4.12 Plywood**

4.12.1 Exterior grade fir to CSA 0121 or CSA 0151 to the thickness indicated on the project drawings.

### **4.13 Metal Flashings**

4.13.1 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 brown as 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.

### **4.14 Painting**

4.14.1 All existing gas lines, pipe stacks, exhaust fan hoods shall be cleaned and scraped prior to being repainted.

4.14.2 Clean and prime with alkyd metal primer before applying two coats of enamel paint. The colour shall match existing colour.

### **4.15 Concrete Pads**

4.15.1 Precast Concrete Pads shall be 24 inch by 24 inch by 2 inch thick for additional walkway, etc. as show on Roof Plans. Pads shall be placed on a 20 inch by 20 inch by 1 inch thick section of Rigid Type 4 Extruded Polystyrene Insulation.

**10 NEW CONCRETE PADS ARE REQUIRED IN TOTAL**

## **5.0 EXECUTION – ROOF AREA ‘P’**

*Partial Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1831*

### **75 MIL REINFORCED EPDM MECHANICALLY FASTENED ROOF SYSTEM**

#### **5.1 General**

- 5.1.1 Comply with the manufacturer's published instructions for the installation of the membrane roofing system including proper substrate preparation, jobsite considerations and weather restrictions.
- 5.1.2 Position sheets to accommodate contours of the roof deck and shingle splices to avoid bucking water.

#### **5.2 Installation of Vapour Retarder**

- 5.2.1 Install vapour retarder only to clean, dry surfaces.
- 5.2.2 Vapour retarder is required to be enveloped over rigid insulation.
- 5.2.3 Vapour retarder is required to be laid directly on top of the metal roof deck.
- 5.2.4 Overlap on the side laps shall be no less than three (3) inches wide and end laps shall be at least six (6) inches wide with staggered joints.
- 5.2.5 A bead of sealant is required on all overlaps when 10 mil polyethelene is applied.

#### **5.3 Insulation Placement and Attachment**

- 5.3.1 Install insulation or membrane underlayment over the substrate with boards butted tightly together with no joints or gaps greater than 1/8 inch. Stagger joints both horizontally and vertically if multiple layers are provided.
- 5.3.2 Secure insulation to the substrate with the required mechanical fasteners in accordance with the manufacturer's specifications. (no less than 4 per board) (1<sup>st</sup> layer)
- 5.3.3 Install second layer of rigid insulation with Fast 100 Adhesive to the lower rigid insulation as indicated. On all insulation surfaces intended for board coverage, apply continuous stripes of 13 to 19mm (1/2" to 3/4") on 150mm (6") centers for twelve (12) feet around roof perimeter and 200mm (8") centers for the field of the roof.
- 5.3.4 Firmly set the second layer of rigid insulation boards into the strips of the Fast 100 Adhesive. All boards must be evenly and tightly butted together in stagger fashion.
- 5.3.5 Apply only as many boards as can be covered in the same day.

#### **5.4 Membrane Placement and Attachment**

- 5.4.1 Unroll and position membrane without stretching. Allow the membrane to relax for approximately 1/2 hour prior to attachment. Provide and secure both perimeter and field membrane sheets in accordance with the manufacturer's most current specifications and details.
- 5.4.2 Secure the membrane (along the pre-printed blue line approximately 3" from the edge of the membrane sheet) with the required Sure-Seal Fastener and 2" Polymer Seam Plate (required for steel decks) or Seam Fastening Plate spaced a maximum of 12" on center. The minimum distance between the edge of the fastening plate and the edge of the membrane must be 2 inches.

## 5.0 EXECUTION – ROOF AREA 'P'

*Partial Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1831*

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- 5.4.3 Install adjoining membrane sheets in the same manner in accordance with the manufacturer's specifications.
- 5.4.4 Mechanically install fastener strip to all perimeter roof membrane and secure into the roof parapet with approved screw fasteners or RUSS (Reinforced Universal Securement Strip).
- 5.4.5 Bond roof membrane to the Reinforced Universal Securement Strip using splicing adhesive.

### 5.5 Membrane Splicing with SecurTape

- 5.5.1 Tape splices where fastening plates are located (along the length of the membrane) must utilize 6" wide SecurTape or FAT. Tape splices at end roll sections (along the width of the membrane without fastening plates) shall utilize 3" wide SecurTape.
- 5.5.2 Overlap adjacent sheets and mark a line approximately 1/4" to 1/2" from the top sheet edge.
- 5.5.3 Apply Sure-Seal HP-250 Primer to the splice area.
- 5.5.4 When Factory-Applied Tape (FAT) is not used, apply SecurTAPE in accordance with the manufacturer's specifications and roll the top sheet onto the mating surface.
- 5.5.5 Immediately roll the splice using positive pressure when using a 2" wide steel roller. Roll across the splice edge, not parallel to it. When using FAT, Carlisle's Stand-Up Seam Roller can be used to roll parallel to the splice edge.
- 5.5.6 **All field splice seams are to be flashed in with 6" wide overlay Pressure Sensitive Flashing Membrane.**
- 5.5.7 **Lap sealant is required for all field splices. Feather the lap sealant with a specially performed tool so that the high point or the crown of the lap sealant is located over the edge of splice.**

### 5.6 Flashing

- 5.6.1 Wall and curb flashing shall be cured EPDM membrane. Continue the deck membrane as wall flashing where practicable.
- 5.6.2 Follow manufacturer's typical flashing procedures for all wall, curb, and penetration flashing including metal edging/coping and roof drain applications.
- 5.6.3 Once the roof membrane is adhered to the securement strip, then bond the flashing membrane using bonding adhesive. Flashing membrane shall extend continuously up the entire height of the parapet over the parapet and down the exterior face as indicated on the enclosed drawings.

### 5.7 Installation of Metal Flashings

- 5.7.0 Cap flashings shall be jointed with a double S-type locked joint. Flashings shall be installed with continuous clips secured to the wood capping blocking at 12 inches on centre.
- 5.7.1 Flashings shall be fabricated to shapes on site with all necessary breaks for adequate expansion.

## **5.0 EXECUTION – ROOF AREA 'P'**

*Partial Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1831*

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- 5.7.2 The inside face of the metal cap flashing between the S-locked joint is to be secured with three (3) fasteners matching the colour of the metal cap with neoprene washer between the head and inside face of the metal cap flashing.
- 5.7.3 All joints shall be sealed with approved sealant.
- 5.7.4 Counter flashings shall be installed at all reglets and curbs with at least three (3) inches below top of roof curb or reglet.

### **5.8 Walkways**

- 5.8.1 Install walkways in those locations as designated on the project drawings.
- 5.8.2 Install one inch extruded polystyrene rigid insulation over top the single ply membrane as indicated on the project drawings.
- 5.8.3 Then install the concrete pavers as specified on top the rigid insulation as indicated on the roof plan.

### **5.9 Daily Seal**

- 5.9.1 On phased roofing, when the completion of flashings and terminations is not achieved by the end of the work day, a daily seal must be performed to temporarily close the membrane to prevent water infiltration.
- 5.9.2 Complete an acceptable membrane seal in accordance with the manufacturer's requirements.

### **5.10 Clean Up**

- 5.10.1 Perform daily clean-up to collect all wrappings, empty containers, paper, and other debris from the project site. Upon completion, all debris must be disposed of in a legally acceptable manner.
- 5.10.2 Prior to the manufacturer's inspection for warranty, the applicator must perform a pre-inspection to review all work and to verify all flashing has been completed as well as the application of all caulking.



## **6.0 PRODUCTS – ROOF AREA 'K'**

*Partial Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1831*

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### **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 Insulation Soprasmart Board 180**

- 6.2.1 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.

### **6.3 Primer**

- 6.3.1 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.

### **6.4 Duotack**

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

### **6.5 Rigid Insulation**

- 6.5.1 Insulation shall be roof insulation which is rigid closed cell, Polyiso Foam Insulation, integrally laminated to fiber-reinforced paper facers, thermal resistance of insulation shall be R-20.5 (L.T.T.R.) (3.5 inch) for the main roof area, Resistance R-Value in accordance with ASTM C1289-11A. All insulation boards shall be 4 feet by 4 feet in size.

### **6.6 Tapered Insulation**

- 6.6.1 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.

## **6.0 PRODUCTS – ROOF AREA 'K'**

*Partial Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1831*

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### **6.7 Metal Flashings**

- 6.7.1 Metal flashings shall be 24ga. Colorite 8000 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.

### **6.8 Sealants**

- 6.8.1 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.

### **6.9 Framing Lumber**

- 6.9.1 Framing Lumber on top of roof area shall be SPRUCE conforming to CSA 0322-1976 and CSA 080-M1983; sizes shown on the Drawings. Grade SPF No. 2 or better.

### **6.10 Plywood**

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

### **6.11 Rough Hardware and Nails**

- 6.11.1 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.

## **7.0 EXECUTION – ROOF AREA 'K'**

*Partial Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1831*

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### **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.

### **7.2 INSTALLATION – Two Ply Modified Bitumen Membrane Roof System**

- 7.2.1 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 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 150 mm (6") centers for eight (8) feet around roof perimeter and 200 mm (8") centers for the field of the roof..
- 7.2.5 **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.
- 7.2.6 **Installation of Metal Flashings**
  - .1 Cap 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.

## **7.0 EXECUTION – ROOF AREA 'K'**

*Partial Roof Replacement  
for  
Ursuline College Chatham Catholic Secondary School  
Project № 725-CP1831*

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- .2 Flashings shall be fabricated to shapes on site with all necessary breaks for adequate expansion.
- .3 Gravel stop is required on both gable ends and drip edge on both eaves location.

### **7.2.7 Base Flashing Installation**

- .1 Once the metal drip edge and gravel stop are secured into place, then torch apply a twelve (12) inch wide strip over top the metal drip edge and gravel stop onto the Smartboard

### **7.2.8 Cap Sheet Installation**

- .1 Begin application of the cap sheet parallel with the slope of the roof. Cap sheet shall be unrolled and care be taken to ensure proper alignment of the first roll.
- .2 Cap sheet shall be torched into place in accordance with the Recommendations of the Membrane Manufacturer, to the base sheet membrane.
- .3 The seams between the base sheet and cap sheet shall be staggered a minimum of 300 mm (12 inches).
- .4 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.
- .5 All lap seams on the cap sheet are to be checked after membrane installation.

## **7.3 CLEAN-UP**

- 7.3.1 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.

**PARTIAL ROOF REPLACEMENT  
URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL  
85 GRAND AVENUE WEST  
CHATHAM ONTARIO N7L 1B6**

**PROJECT № 725 – CP1831**

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**ENCLOSED DRAWINGS**

<b>UCC-B</b>	<b>Existing and Proposed Roof System</b>
<b>UCC-R1a</b>	<b>Key Roof Plan</b>
<b>UCC-R4</b>	<b>Enlarged Roof Plan – Area ‘P’ and ‘K’ (Roof Penetration and Dimensions)</b>
<b>UCC-R4a</b>	<b>Enlarged Roof Plan – Area ‘P’ and ‘K’ (Tapered Insulation Layout)</b>

<b>UCC-D1</b>	<b>Roof Drain Detail – Typical</b>
<b>UCC-D2</b>	<b>Vent Pipe Stack Detail - Typical</b>
<b>UCC-D11</b>	<b>South Perimeter Wall – Area ‘K’</b>
<b>UCC-D12</b>	<b>Gable End Detail – Area ‘K’</b>
<b>UCC-D13</b>	<b>Perimeter Detail Between Area ‘P’ and ‘K’</b>
<b>UCC-D13a</b>	<b>Perimeter Detail Area ‘K’ (East End)</b>
<b>UCC-D14</b>	<b>South Perimeter Detail – Area ‘P’</b>
<b>UCC-D15</b>	<b>Perimeter Wall Detail – Area ‘P’</b>
<b>UCC-D16</b>	<b>Perimeter Wall Detail – Area ‘P’</b>
<b>UCC-D17</b>	<b>New Platform Detail Beneath Roof Top Unit – Area ‘P’</b>
<b>UCC-D18</b>	<b>Wall Ladder Detail – Leading to Area ‘P’</b>
<b>UCC-D18a</b>	<b>Roof Ladder Detail – Area ‘P’</b>

**PARTIAL ROOF REPLACEMENT  
URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL  
85 GRAND AVENUE WEST  
CHATHAM ONTARIO N7L 1B6**

**PROJECT № 725 – CP1831**

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**EXISTING ROOF SYSTEM**

**DESIGN ROOF SYSTEM**

3.5” Standing Seam Metal Roof Panel

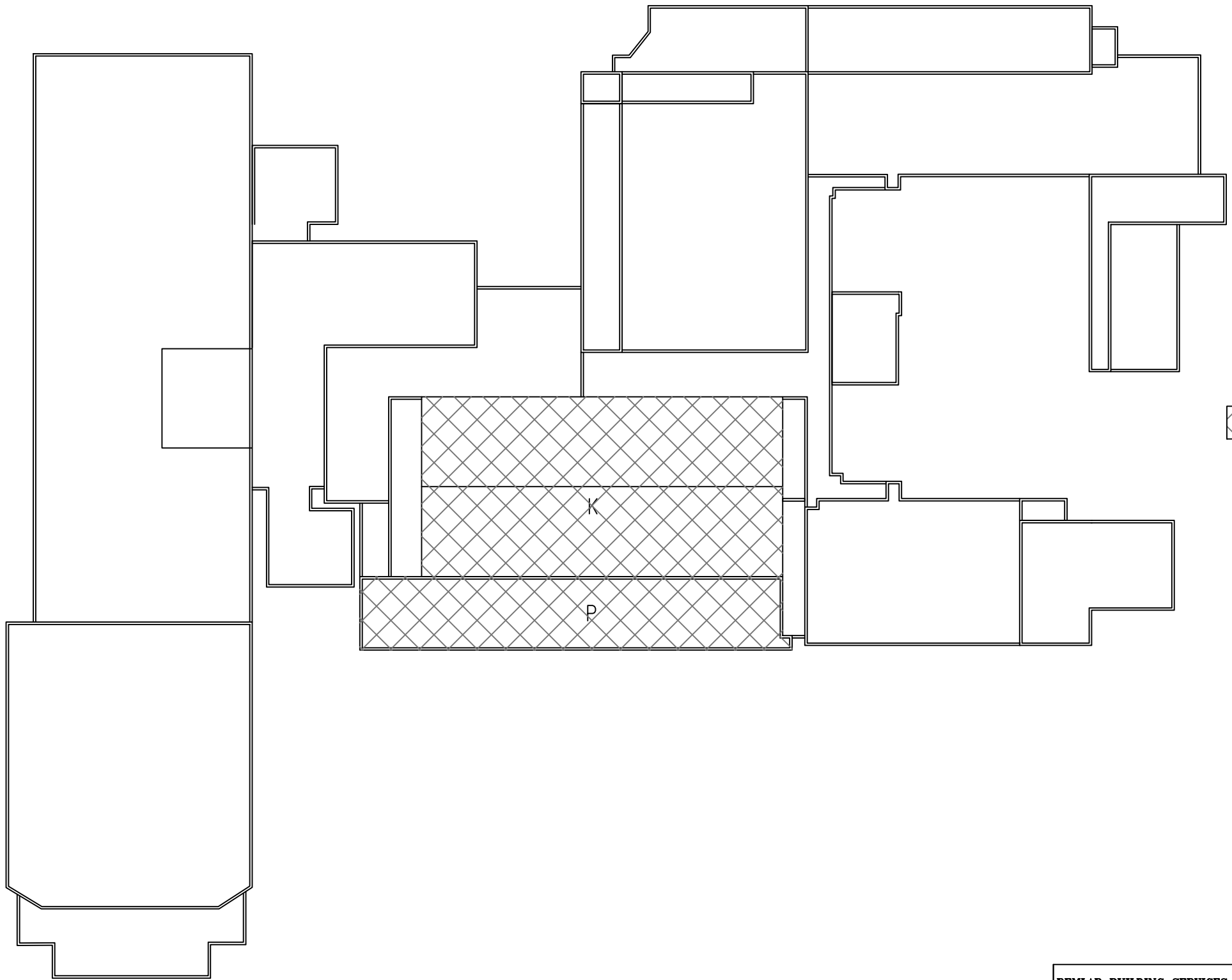
**AREA ‘K’**


Two-Ply Modified Bitumen Membrane  
On Asphalt Core Protection Board  
On 3.5” (ISO) Rigid Insulation  
On Existing Standing Seam Metal Roof Panel

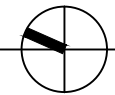
Single Ply EPDM Membrane  
On 2” Rigid Insulation (ISO)  
On Metal Deck (N-S Direction)

**AREA ‘P’**

75 Mil EPDM Reinforced Membrane  
On Tapered (ISO) Rigid Insulation as Noted  
On 2” (ISO) Rigid Insulation  
On 2” (ISO) Rigid Insulation  
On Vapour Retarder as Specified  
On Existing Metal Deck (N-S Direction)



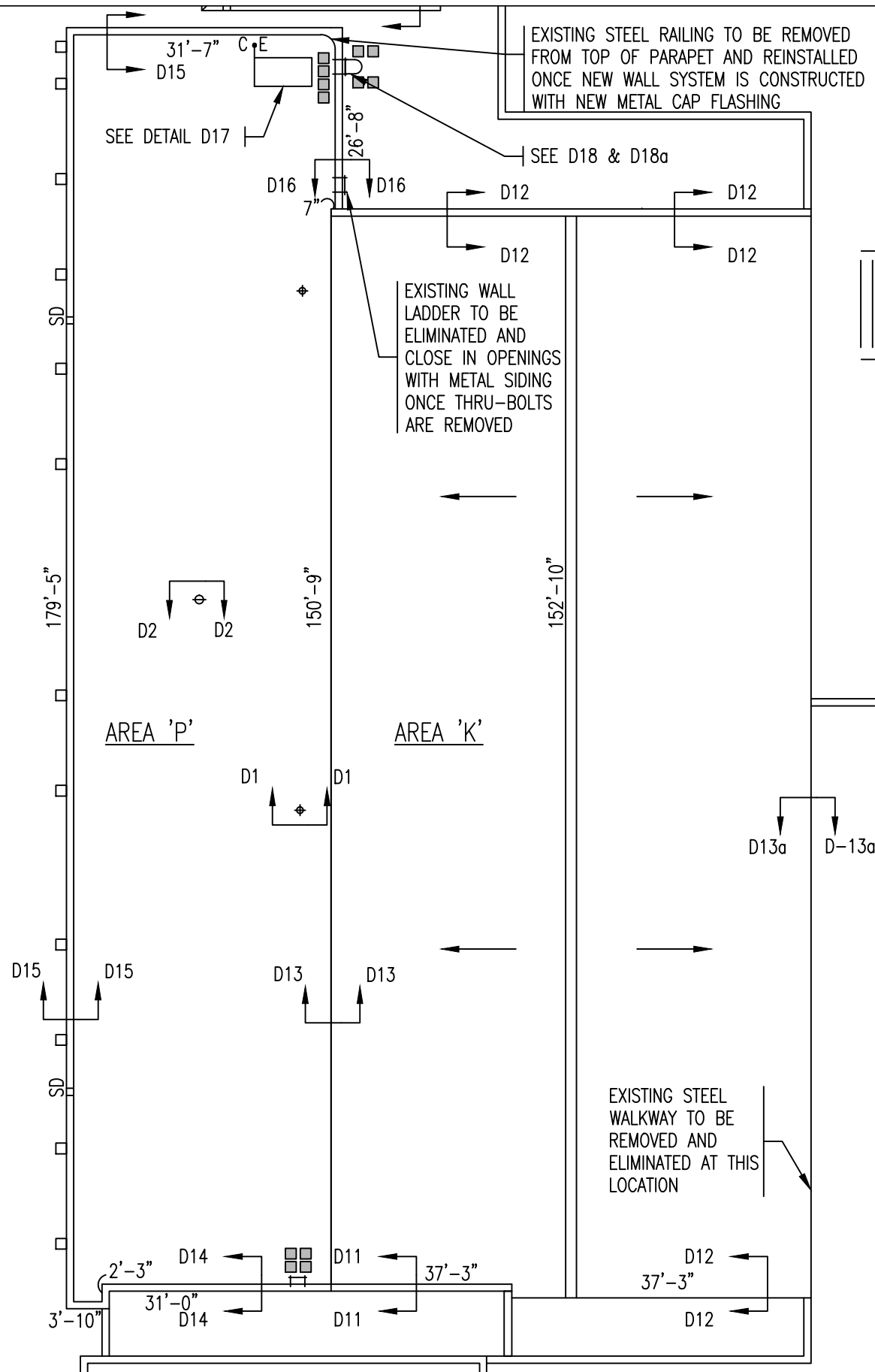
 AREA TO BE REMOVED AND REPLACED  
JULY / AUGUST 2018



KEY ROOF PLAN

SCALE : 1" = 50'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS <b>B</b> BUILDING ENVELOPES (AIR/VAPOUR BARRIER/WATER PROOFING) <b>S</b> SURVEYS AND CONDITIONS OF ROOFS AND BUILDINGS  Christopher W. Palmer, C.E.T. 1407 Gore Road Harrow, Ontario N0R 1G0 Tel: (519) 738-3458 Fax: (519) 738-4797		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL PARTIAL ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	DATE : FEBRUARY 2018
			SCALE : AS SHOWN
			DRAWN BY : CWP
DATE (MM-DD-YY) 01-05-18 02-02-18	ISSUED FOR OWNER REVIEW	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP
	TENDER		SHEET SIZE : 11"x17"
			PROJECT FILE NO. RBS17-99
DRAWING TITLE KEY ROOF PLAN		DRAWING NO. <b>UCC-R1a</b>	



EXISTING ROOF SYSTEM  
3.5" STANDING SEAM METAL ROOF  
SYSTEM (EXISTING PANELS RUN IN  
E-W DIRECTION)

AREA 'K'









PROPOSED ROOF SYSTEM  
TWO PLY MODIFIED BITUMEN ROOF MEMBRANE  
ON ASPHALT PROTECTION BOARD  
ON 3.5" (ISO) RIGID INSULATION  
ON EXISTING STANDING SEAM METAL ROOF SYSTEM

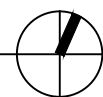
EXISTING ROOF SYSTEM  
SINGLE PLY EPDM MEMBRANE  
ON 2" (ISO) RIGID INSULATION  
ON METAL DECK (N-S DIRECTION)

AREA 'P'

PROPOSED ROOF SYSTEM  
75 MIL EPDM REINFORCED MEMBRANE  
ON TAPERED (ISO) INSULATION AS NOTED  
ON 2" (ISO) RIGID INSULATION  
ON 2" (ISO) RIGID INSULATION  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING METAL DECK (E-W DIRECTION)

LEGEND

-  WALL LADDER W/ BARREL
-  NEW PLATFORM FOR ROOF TOP UNIT
-  EXISTING CONC. PAVER W/  
NEW INSULATION CUSHION
-  ROOF DRAIN
-  VENT PIPE STACK
-  EXISTING WALL LADDER
-  ELECTRICAL CONDUIT  
PENETRATION
-  COOLING LINE PENETRATION



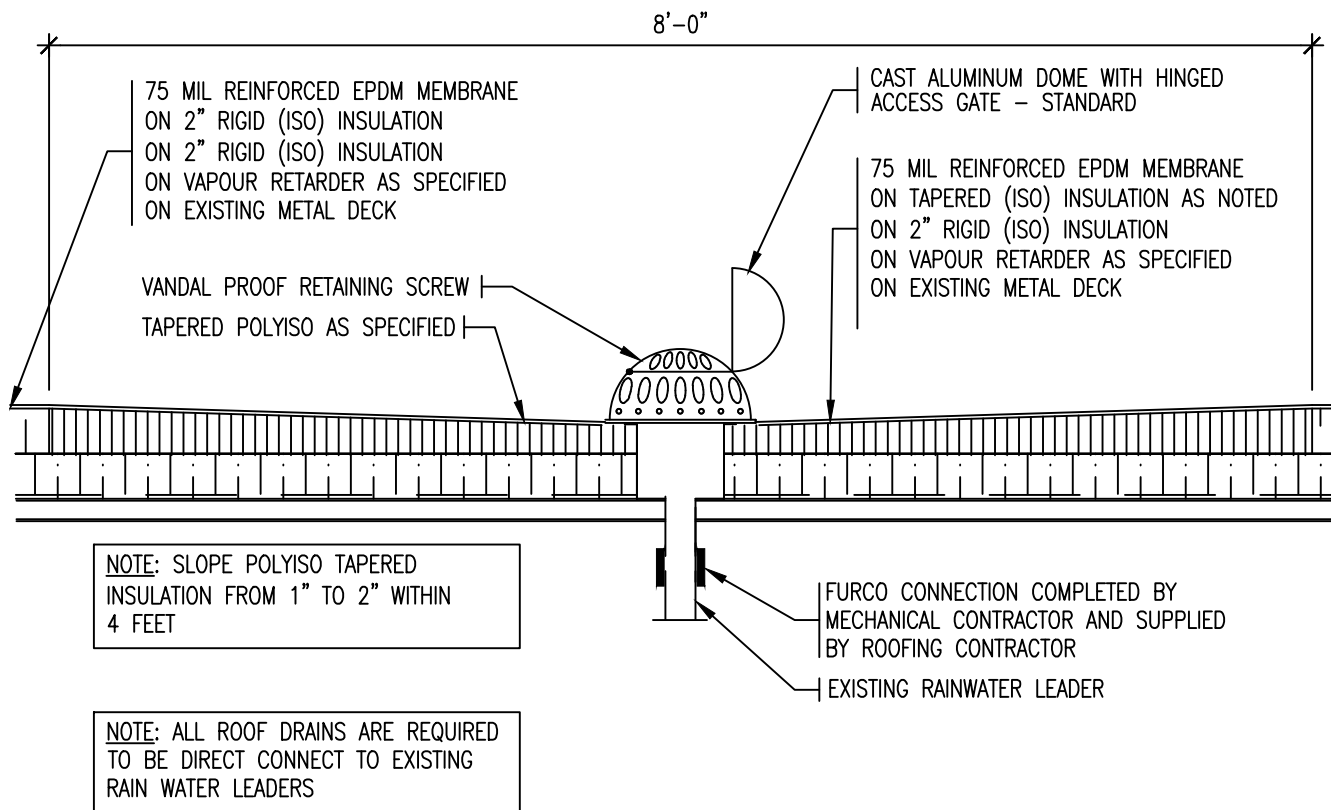
**ENLARGED ROOF PLAN - AREA 'P' AND 'K' (ROOF PENETRATIONS & DIMS)**

SCALE : 1" = 20'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>RBS</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS BUILDING ENVELOPES (AIR/VAPOUR BARRIER/WATER PROOFING) SURVEYS AND CONDITIONS OF ROOFS AND BUILDINGS  Christopher W. Palmer, C.E.T. 1407 Gore Road Harrow, Ontario N0R 1G0 Tel: (519) 738-3458 Fax: (519) 738-4797		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL PARTIAL ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO		DATE : FEBRUARY 2018
		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD		SCALE : AS SHOWN
		DRAWING TITLE KEY ROOF PLAN		DRAWN BY : CWP
DATE (MM-DD-YY) 01-05-18 02-02-18	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE KEY ROOF PLAN		CHK. BY : CWP
		PROJECT FILE NO. RBS17-99		SHEET SIZE : 11"x17"
		DRAWING NO. <b>UCC-R4</b>		



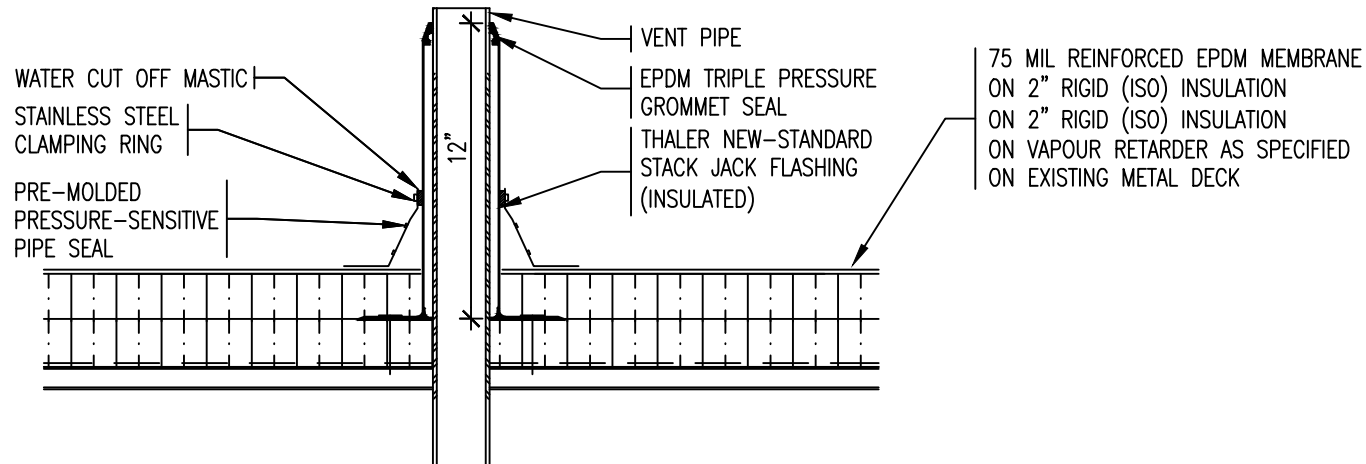




## ROOF DRAIN DETAIL - TYPICAL

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>RBS</b> <small>ROOF REPAIR, MAINTENANCE, AND INSULATION SERVICES          EMERGENCY ROOF REPAIR (24/7) (W/IN 1 HOUR RESPONSE)          ROOFING AND COATING OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.B.A.</small> <small>1001 Glen Road          North, Chatham, ON N6B 1G2</small>		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL EMERGENCY ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	DATE : FEBRUARY 2018 SCALE : N.T.S. DRAWN BY : CWP
<small>1001 Glen Road          North, Chatham, ON N6B 1G2</small>		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
DATE (02-02-18) 01-02-18 OWNER REVIEW 02-02-18 TENDER		DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS17-09 DRAWING NO. UCC-D1



NOTE:  
IF EXISTING VENT STACK IS NOT  
HIGHER THAN THE NEW SJ-38, THE  
CONTRACTOR IS REQUIRED TO EXTEND  
A MINIMUM OF 3" ABOVE EPDM  
GROMMET SEAL

## VENT PIPE STACK DETAIL - TYPICAL

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R B S</b> <small>ROOF REPAIR, MAINTENANCE, AND INSULATION SERVICES          EMERGENCY ROOF REPAIR (24/7) AND MAINTENANCE SERVICES          SURVEYS AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>1000 Glen Road          North, York, ON M2H 1G5</small>		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL EMERGENCY ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	DATE : FEBRUARY 2018 SCALE : N.T.S. DRAWN BY : CWP
<small>1000 Glen Road          North, York, ON M2H 1G5</small>		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
DATE 01-05-18 02-02-18		ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE ROOF DETAIL PROJECT FILE NO. RBS17-00 DRAWING NO. UCC-D2

EXISTING FULLY ADHERED EPDM ROOF SYSTEM TO REMAIN AS IS

EXISTING 2 PIECE METAL CAP FLASHING TO REMAIN (BOTTOM SECTION TO BE REMOVED TO ALLOW FOR ACCESS TO FASTENERS SECURING METAL SIDING - RESECURE W/ NEOPRENE FASTENERS)

EXISTING VERTICAL RIBBED METAL SIDING TO BE FABRICATED TO FIT NEW HEIGHT OF WALL

NEW PEAL + STICK FLASHING MEMBRANE TO SEAL OVER TOP VERTICAL LEG OF NEW DRIP EDGE

NEW PREFIN. METAL DRIP EDGE SECURED TO EXISTING SUBSTRATE (ALL END LAPS TO BE SEALED W/ SEALANT MATCHING COLOR OF METAL)

NEW PREFIN. METAL COUNTER FLASHING AS DETAILED W/ NEOPRENE FASTENERS

TWO PLY BITUMEN FLASHING MEMBRANE AS SPECIFIED

TWO PLY MODIFIED BITUMEN ROOF MEMBRANE ON ASPHALT PROTECTION BOARD ON 3.5" (ISO) RIGID INSULATION ON EXISTING STANDING SEAM METAL ROOF SYSTEM

EXISTING ICE + WATER SHIELD MEMBRANE TO REMAIN

NEW MODIFIED BITUMEN BASE SHEET MEMBRANE EXTENDED 4" UP VERTICAL WALL

NEW (14" HIGH) WALL AT LOW END (AND LESS AT UPPER END) 2x3 WOOD STUD WALL 16" O.C. W/ R-14 ROCKWOOL BATT INSULATION (3/4" FIR PLYWOOD INSTALLED AS DETAILED)

BEAD OF ADHESIVE REQUIRED AT THESE LOCATIONS

EXISTING STANDING SEAM ROOF PANEL TO REMAIN

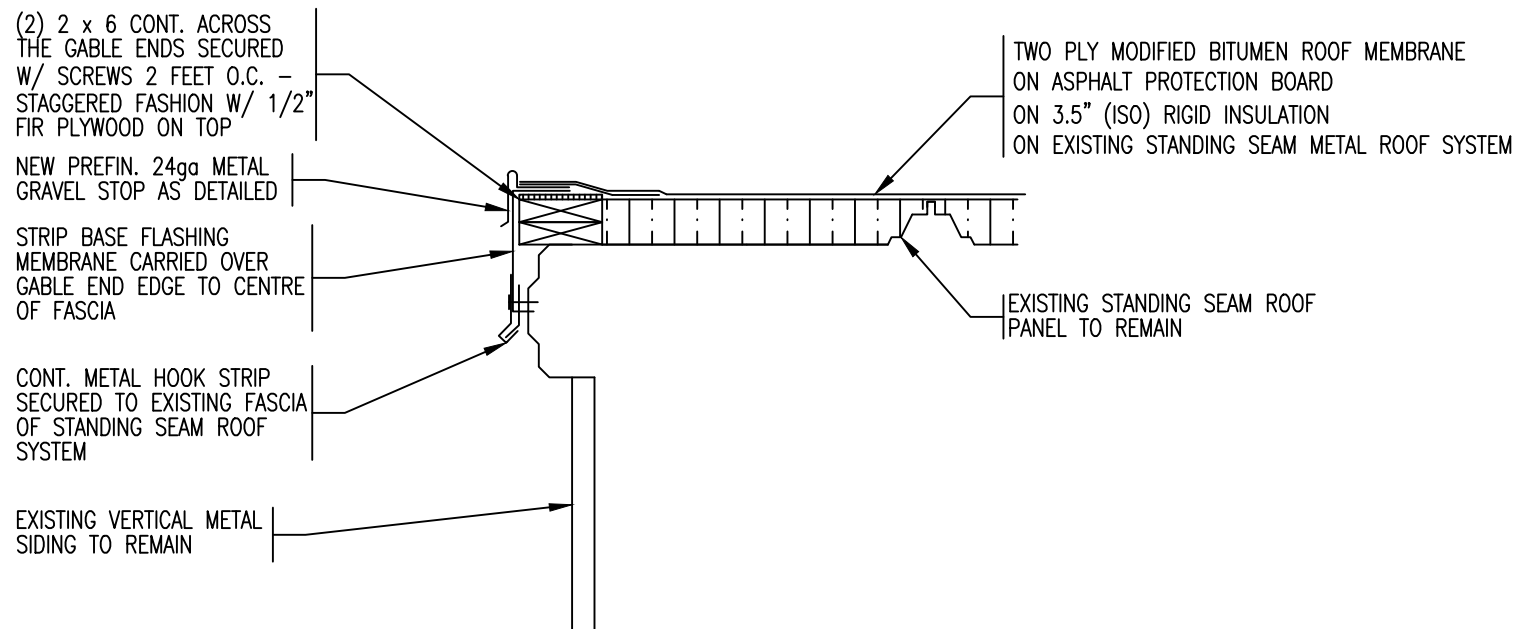
**NOTE 1:** EXISTING RIBBED METAL SIDING TO BE REMOVED TO ALLOW FOR CONSTRUCTION OF NEW ROOF SYSTEM OVER EXISTING METAL STANDING SEAM ROOF PANELS. ONCE NEW ROOF SYSTEM IS INSTALLED, EXISTING SIDING TO BE FABRICATED TO FIT THE NEW HEIGHT

**NOTE 1:** WHEN APPLYING FOAM ADHESIVE TO THE METAL STANDING SEAM ROOF PANEL, ENSURE THAT A BEAD OF ADHESIVE IS APPLIED ALONG THE STANDING SEAM RIB AS INDICATED ON THE ENCLOSED DETAIL BESIDE THE BOTTOM ROOF PANEL

## SOUTH PERIMETER WALL - AREA 'K'

SCALE : 1" = 1'-0"

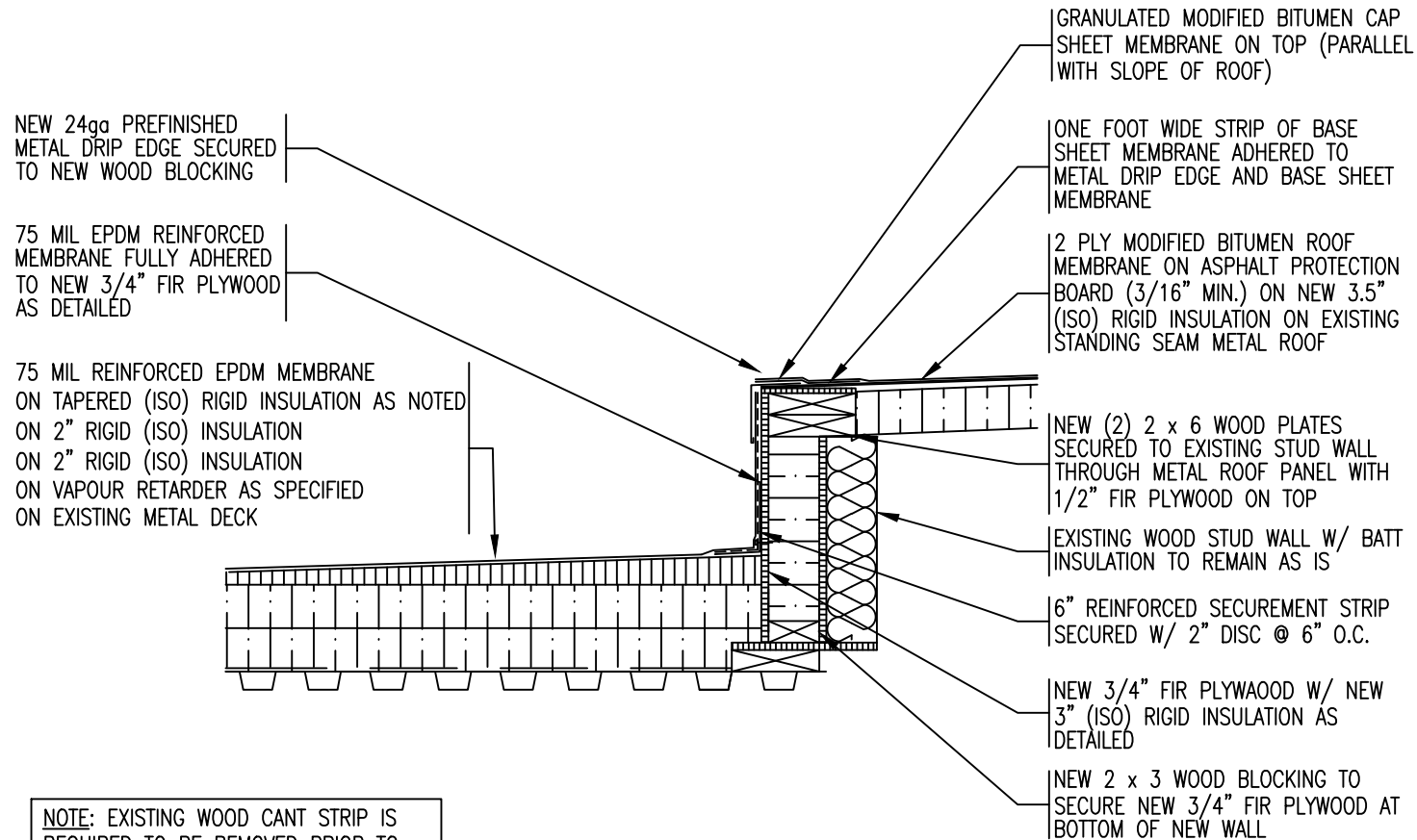
<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1001 Glen Road North, Chatham, ON N6C 1G2</small>	<small>NEW ARCHITECTURAL, DESIGN AND INSPECTION SERVICES  BUSINESS DEVELOPMENT (NEW/REPAIR ROOFS/OTHER PROJECTS)  SUBJECTS AND CONDITIONS OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.B.A.</small> <small>Tel: (905) 739-0385 Fax: (905) 739-0377</small>	<b>PROJECT</b> URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL PARTIAL ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO  <b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DATE :	FEBRUARY 2018
			SCALE :	N.T.S.
			DRAWN BY :	CWP
			CHK. BY :	CWP
<b>DATE</b> (02-02-18) 01-02-18 02-02-18	<b>ISSUED FOR</b> OWNER REVIEW TENDER	<b>DRAWING TITLE</b> ROOF DETAIL	SHEET SIZE :	8.1/2"x11"
			PROJECT FILE NO.	RBS17-99
			DRAWING NO.	UCC-D11



## GABLE END DETAIL - AREA 'K'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF REPAIRS, ROOFING AND ROOFING PRODUCTS          INSULATION DEVELOPMENT (NEW/UPPER ROOFING/UNDER ROOFING)          SURVEYS AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>Christine W. Palmer, C.B.A.</small> <small>1001 Glen Road          North, York, ON M2H 1G2</small>		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL PARTIAL ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	DATE : FEBRUARY 2018 SCALE : N.T.S. DRAWN BY : CWP
<small>1001 Glen Road          North, York, ON M2H 1G2</small>		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
DATE (02-02-18)	ISSUED FOR OWNER REVIEW	DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS17-09 DRAWING NO. UCC-D12
01-02-18	OWNER REVIEW		
02-02-18	TENDER		



NOTE: EXISTING WOOD CANT STRIP IS REQUIRED TO BE REMOVED PRIOR TO INSTALLING 3/4" FIR PLYWOOD OVER 3" RIGID INSULATION TO EXISTING WOOD STUD WALL AS DETAILED

## PERIMETER DETAIL BETWEEN AREA 'P' + 'K'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b>		<b>PROJECT</b>		<b>DATE :</b>	<b>FEBRUARY 2018</b>
<b>R B S</b>	<small>NEW ARCHITECTURAL, DESIGN AND CONSTRUCTION SERVICES DESIGN DEVELOPER (NEW/REPAIR/RENOVATION/REPAIRS) SURVEY AND CONSULTING OF ROOFS AND BUILDINGS</small>	<b>URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL PARTIAL ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO</b>		<b>SCALE :</b>	<b>N.T.S.</b>
	<b>Christopher W. Palmer, C.B.A.</b>	<b>CLIENT</b>		<b>DRAWN BY :</b>	<b>CWP</b>
	<small>1601 Glen Road Rexdale, Ontario M9L 1G5</small>	<b>ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD</b>		<b>CHK. BY :</b>	<b>CWP</b>
	<small>Tel: (905) 739-3885 Fax: (905) 739-4377</small>	<b>DRAWING TITLE</b>		<b>SHEET SIZE :</b>	<b>8.1/2"x11"</b>
<b>DATE</b>	<b>ISSUED FOR</b>	<b>DRAWING TITLE</b>		<b>PROJECT FILE NO.</b>	<b>RBS17-09</b>
<b>01-02-18</b>	<b>OWNER REVIEW</b>	<b>ROOF DETAIL</b>		<b>DRAWING NO.</b>	
<b>02-02-18</b>	<b>TENDER</b>				
					<b>UCC-D13</b>

ONE FOOT WIDE STRIP OF BASE  
SHEET MEMBRANE ADHERED TO  
METAL DRIP EDGE AND BASE SHEET  
MEMBRANE

2 PLY MODIFIED BITUMEN ROOF  
MEMBRANE ON ASPHALT PROTECTION  
BOARD (3/16" MIN.) ON NEW 3.5"  
(ISO) RIGID INSULATION ON EXISTING  
STANDING SEAM METAL ROOF

GRANULATED MODIFIED BITUMEN CAP  
SHEET MEMBRANE ON TOP (PARALLEL  
WITH SLOPE OF ROOF)

NEW 24ga PREFINISHED  
METAL DRIP EDGE SECURED  
TO NEW WOOD BLOCKING

NEW (2) 2 x 6 WOOD PLATES  
SECURED TO EXISTING STUD WALL  
THROUGH METAL ROOF PANEL WITH  
1/2" FIR PLYWOOD ON TOP

NEW ONE FOOT WIDE STRIP OF BASE  
SHEET MEMBRANE CARRIED DOWN  
THE EXTERIOR FASCIA ON INCH  
BEYOND BOTTOM OF WOOD BLOCKING

CONT. METAL HOOK STRIP

EXISTING VERTICAL METAL SIDING TO  
REMAIN

## PERIMETER DETAIL AREA 'K' (EAST END)

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> ROOF REPAIRS, ROOFING AND REPAIRS <b>B</b> BUILDING SERVICES (NEW/REPAIRS/REPAIRS) <b>S</b> SERVICES AND CONSULTING OF ROOFS AND BUILDINGS <small>1000 Glen Road Markham, Ontario L3R 9V2</small>		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL PARTIAL ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	DATE : FEBRUARY 2018 SCALE : N.T.S. DRAWN BY : CWP
<small>1000 Glen Road Markham, Ontario L3R 9V2</small>		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
DATE 01-02-18 02-02-18		ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE ROOF DETAIL PROJECT FILE NO. RBS17-00 DRAWING NO. UCC-D13a

EXISTING FULLY ADHERED EPDM ROOF SYSTEM TO REMAIN AS IS

EXISTING 2 PIECE METAL CAP FLASHING TO REMAIN (BOTTOM SECTION TO BE REMOVED TO ALLOW FOR ACCESS TO FASTENERS SECURING METAL SIDING - RESECURE WITH NEOPRENE FASTENERS)

EXISTING VERTICAL RIBBED METAL SIDING TO BE FABRICATED TO FIT NEW HEIGHT OF WALL

ENSURE THAT EXISTING TYVEK MEMBRANE IS EXTENDED OVER VERTICAL LEG OF DRIP EDGE

NEW PREFIN. METAL DRIP EDGE SECURED TO EXISTING SUBSTRATE (ALL END LAPS TO BE SEALED W/ SEALANT MATCHING COLOR OF METAL)

SINGLE PLY MEMBRANE EXTENDED 4" UP VERTICAL WALL

NEW PREFIN. METAL COUNTER FLASHING AS DETAILED W/ NEOPRENE FASTENERS

EXISTING PLYWOOD SHEATHING TO REMAIN

SINGLE PLY FLASHING MEMBRANE FULLY ADHERED TO NEW 3/4" FIR PLYWOOD

75 MIL REINFORCED EPDM MEMBRANE ON TAPERED (ISO) RIGID INSULATION AS NOTED ON 2" RIGID (ISO) INSULATION ON VAPOUR RETARDER AS SPECIFIED ON EXISTING METAL DECK (N-S DIRECTION)

NEW (12" HIGH) WALL AT LOW END 2x3 WOOD STUD WALL 16" O.C. W/ R-14 ROCKWOOL BATT INSULATION (3/4" FIR PLYWOOD INSTALLED AS DETAILED)

6" REINFORCED SECUREMENT STRIP SECURED W/ 2" ROUND DISC AND FASTENER EVERY 6" O.C.

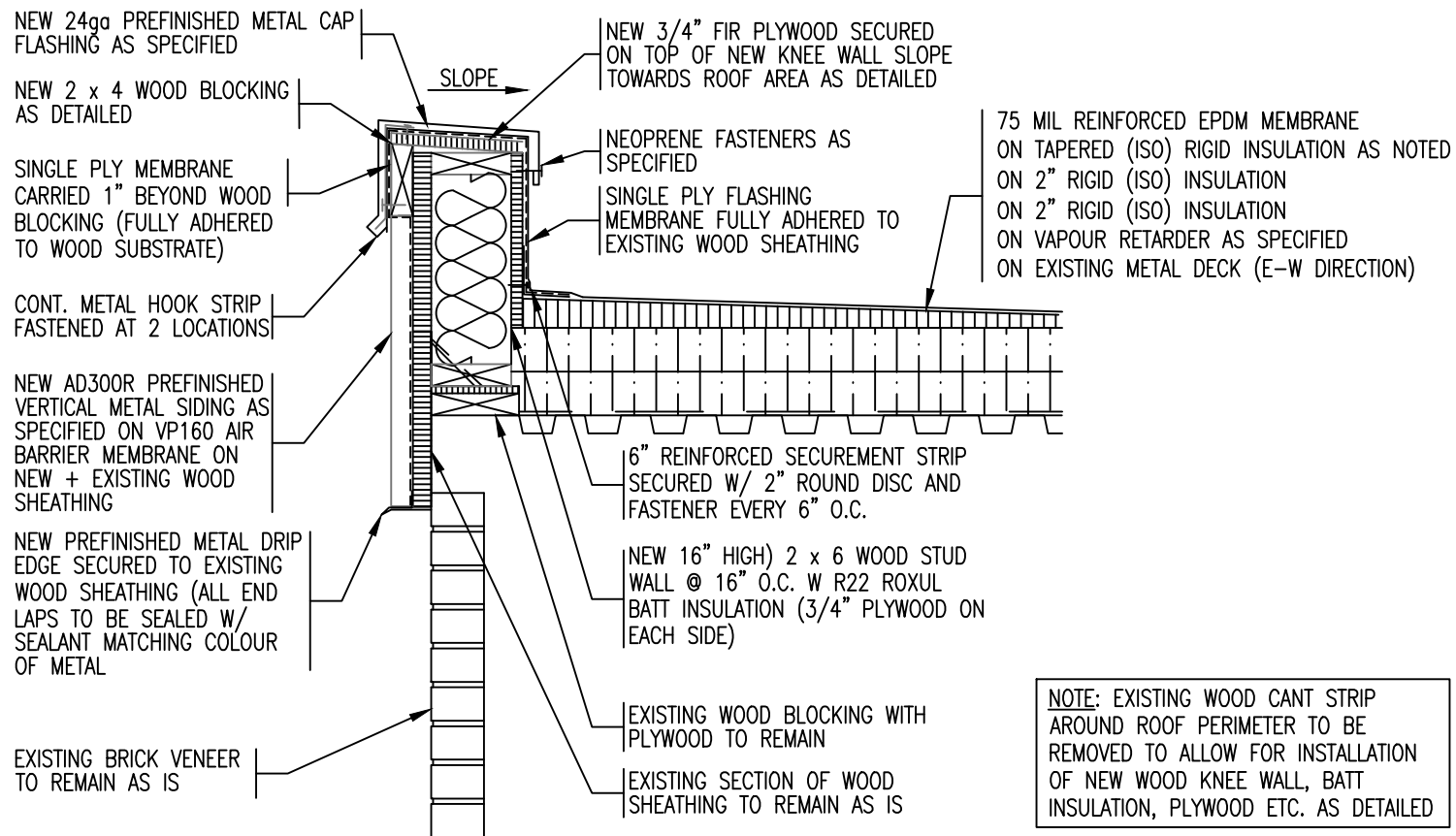
NOTE: EXISTING RIBBED METAL SIDING TO BE REMOVED TO ALLOW FOR CONSTRUCTION OF NEW KNEEWALL AND OVER NEW ROOF SYSTEM IS INSTALLED, EXISTING SIDING IS TO BE FABRICATED TO FIT THE NEW HEIGHT

## SOUTH PERIMETER DETAIL - AREA 'P'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF REPAIRS, ROOFING AND ROOFING PRODUCTS  INDUSTRIAL DEVELOPMENT (NEW/REPAIR ROOFING/UNDER ROOFING)  SUSPENSION AND CONSTRUCTION OF ROOFS AND BUILDINGS</small>	<small>1601 Glen Road  Hawthorn, Ontario M18 1G5</small>	<small>TEL (905) 729-0385  FAX (905) 729-0377</small>	<b>PROJECT</b> URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL PARTIAL ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	DATE :	FEBRUARY 2018
				SCALE :	N.T.S.
				DRAWN BY :	CWP
				CHK. BY :	CWP
<b>DATE</b> <small>(MM-DD-YY)</small> 01-05-18	<b>ISSUED FOR</b> OWNER REVIEW	<b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	<b>DRAWING TITLE</b> ROOF DETAIL	SHEET SIZE :	8.1/2"x11"
				PROJECT FILE NO.	RBS17-00
				DRAWING NO.	UCC-D14

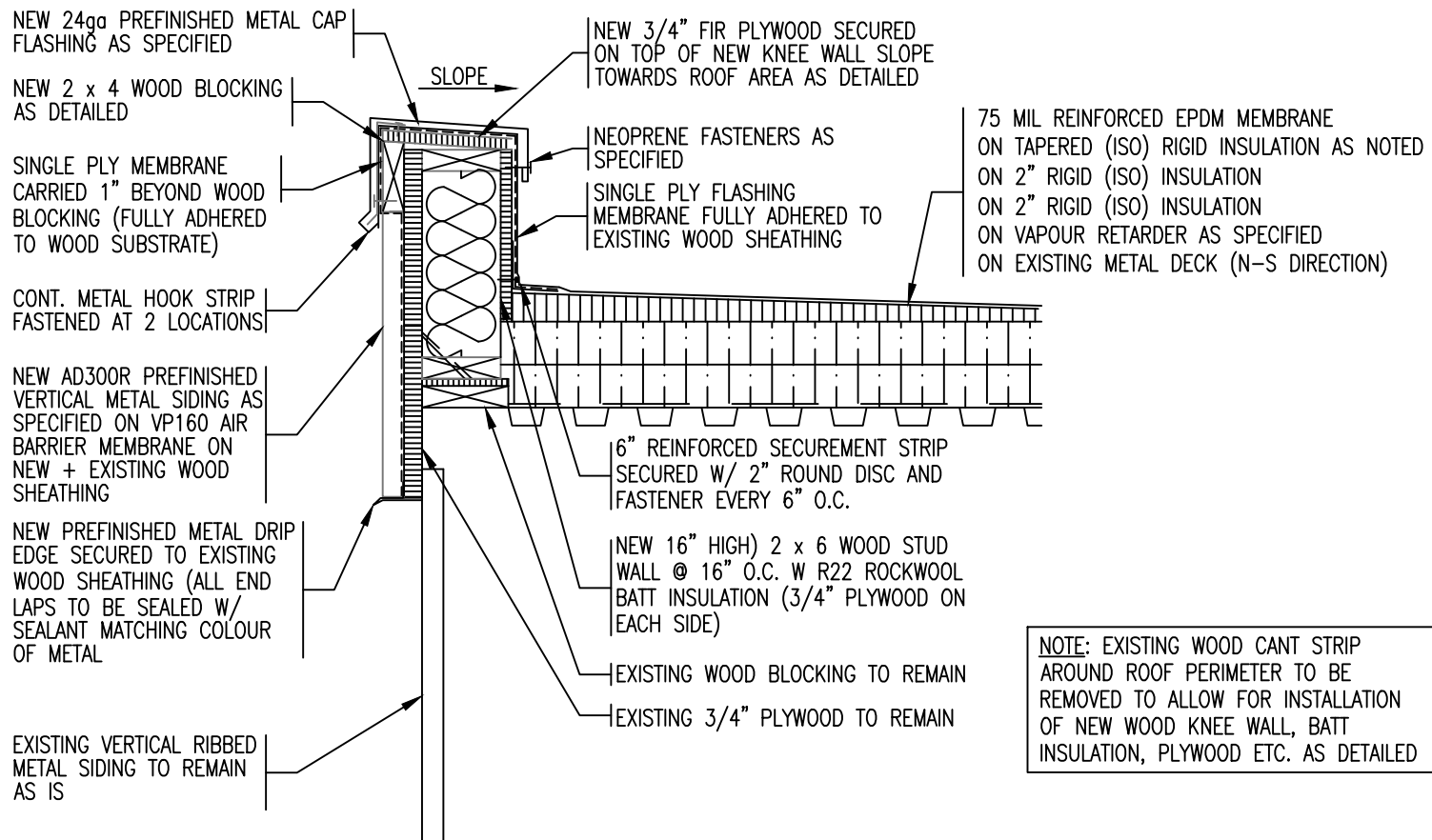




## PERIMETER WALL DETAIL - AREA 'P'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1601 Glen Road Rexdale, Ontario M9L 1G2</small>	<small>NEW ARCHITECTURAL, DESIGN AND INSPECTION SERVICES          PROJECT DEVELOPMENT (NEW/REPAIR RENOVATION/REPAIRS)          SURVEY AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.B.A.</small> <small>Tel: (905) 739-3385 Fax: (905) 739-4577</small>	<b>PROJECT</b> URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL PARTIAL ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO  <b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DATE :	FEBRUARY 2018
			SCALE :	N.T.S.
			DRAWN BY :	CWP
			CHK. BY :	CWP
<b>DATE</b> (MM-DD-YY) 01-05-18 02-02-18	<b>ISSUED FOR</b> OWNER REVIEW TENDER	<b>DRAWING TITLE</b> ROOF DETAIL	SHEET SIZE :	8.1/2"x11"
			PROJECT FILE NO.	RBS17-09
			DRAWING NO.	UCC-D15

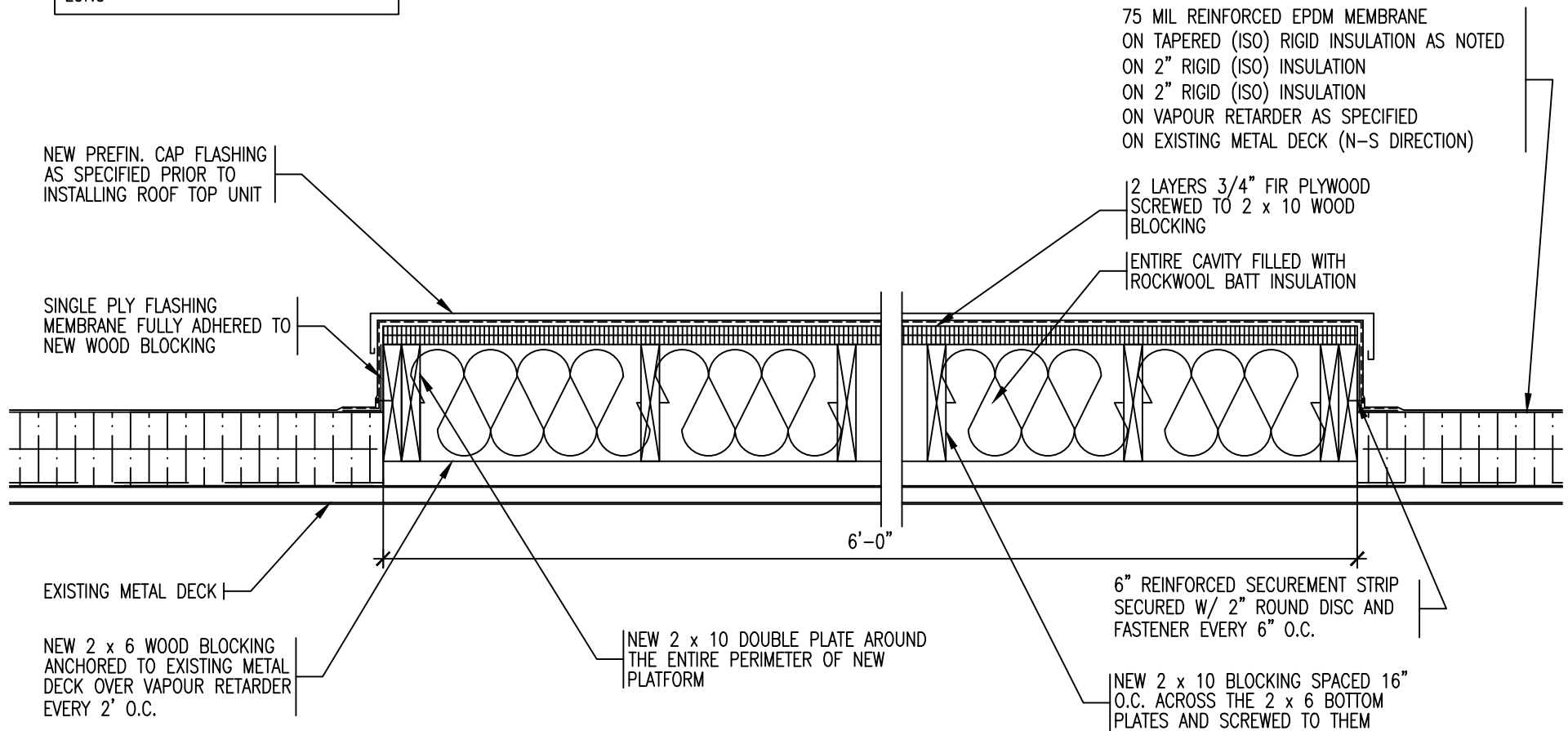


## PERIMETER WALL DETAIL - AREA 'P'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1001 Glen Road Hawthorn, Ontario M18 1G2</small>	<small>NEW ARCHITECTURAL, DESIGN AND INSPECTION SERVICES          EXISTING DEVELOPER (NEW/EXISTING ROOFS/EXISTING ROOFS)          SURVEY AND COORDINATE OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.B.A.</small> <small>Tel: (905) 709-3885 Fax: (905) 709-4577</small>	<b>PROJECT</b> URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL PARTIAL ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO  <b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DATE :	FEBRUARY 2018
			SCALE :	N.T.S.
			DRAWN BY :	CWP
			CHK. BY :	CWP
DATE (02-02-17)	ISSUED FOR	DRAWING TITLE	SHEET SIZE :	8.1/2"x11"
01-02-18	OWNER REVIEW	ROOF DETAIL	PROJECT FILE NO.	RBS17-00
02-02-18	TENDER		DRAWING NO.	UCC-D16

**NOTE:** NEW PLATFORM FOR ROOF TOP UNIT TO BE CONSTRUCTED AS DETAILED TO THE FOLLOWING SIZE (4' WIDE BY 6' LONG



## NEW PLATFORM DETAIL BENEATH ROOF TOP UNIT - AREA 'P'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>RBS</b> <small>ROOF REPAIR, MAINTENANCE, DESIGN AND INSPECTION SERVICES          ROOFING DEVELOPMENT (NEW/REPAIR ROOFING/FLASHING)          SURVEY AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>1001 Glen Road          North, York, ON M2H 1G2</small>		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL PARTIAL ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	DATE : FEBRUARY 2018 SCALE : N.T.S. DRAWN BY : CWP
<small>1001 Glen Road          North, York, ON M2H 1G2</small>		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
DATE 01-05-18 02-02-18		ISSUED FOR OWNER REVIEW TENDER	PROJECT FILE NO. RBS17-09 DRAWING NO. UCC-D17
		DRAWING TITLE ROOF DETAIL	

3" x 3/8" THK. PLATE SIDE  
RAILS

3" x 3/8" THK. PLATE EACH  
SIDE

3" x 3/8" THK. PLATE  
PLATFORM W/ 1" O.C.

1 1/2" x 3/8" THK.  
STL. PLATE HOOPS &  
SIDE RAILS TYP.

NEW 24ga. PREFINISHED  
METAL CAP FLASHING AS  
SPECIFIED

SEE D-16 FOR FULL  
WALL DETAIL

CONCRETE PAVER AS  
INDICATED ON ROOF  
PLAN

EXISTING 8" CONCRETE  
BLOCK WALL

3/8" BENT PLATE ANCHORED  
DIRECTLY THRU VERTICAL  
METAL SIDING AND CONCRETE  
BLOCK WALL BEYOND WITH  
(2) 1/2"Ø THREADED ROD  
ALL THE WAY THROUGH WALL  
WITH 6" x 26" x 1/4"  
STEEL PLATE ON INSIDE  
(LOCK WASHER WITH DOUBLE  
NUT EACH SIDE) ANCHOR  
TYPICAL AT 5 LOCATIONS (TO  
BE VERIFIED BY  
CONTRACTOR)

EXISTING VERTICAL  
RIBBED METAL SIDING  
ON Z BARS TO  
REMAIN

2 1/2" x 3/8" THK.  
STL. PLATE SIDE  
RAILS W/ 1"Ø RUNGS  
@ 12" O.C. TYP.

NEW (4) CONCRETE  
PAVERS ON 2"  
EXTRUDED INSULATION  
CUSHION

EXISTING TPO ROOF  
SYSTEM TO REMAIN

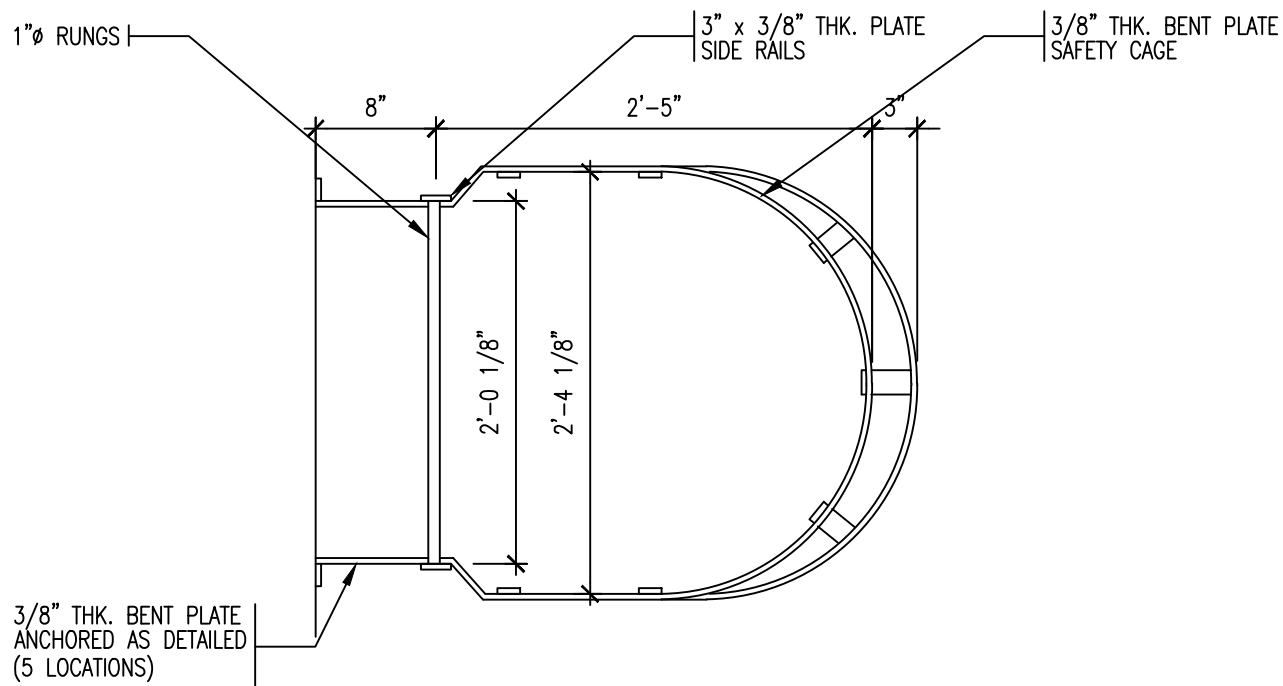
# WALL LADDER DETAIL LEADING TO AREA 'P'

SCALE : 1/2" = 1'-0"

REMLAP BUILDING SERVICES INC.	
ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAM	
BUILDING ENVELOPE (DAY/ROOF/UNDER/ROOF) PROGRAM	
SERVICES AND CONSULTING OF ROOFS AND BUILDINGS	
Christopher W. Fellows, C.E.T.	
1407 Glen Road North York, Ontario M2H 1S9	
Tel: (416) 739-3400 Fax: (416) 739-0107	
DATE (MM-DD-YY)	ISSUED FOR
01-08-18	OWNER REVIEW
02-02-18	TENDER

PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL PARTIAL ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO
CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD
DRAWING TITLE ROOF DETAIL

DATE :	FEBRUARY 2018
SCALE :	N.T.S.
DRAWN BY :	CWP
CHK. BY :	CWP
SHEET SIZE :	8.1/2"x11"
PROJECT FILE NO.	RBS17-99
DRAWING NO.	UCC-D18



# ROOF LADDER DETAIL PLAN - AREA 'P'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF MAINTENANCE, DESIGN AND INSPECTION SERVICES BUILDING DEVELOPMENT (NEW/REPAIR ROOFS/OTHER PROJECTS) SURVEY AND CONSTRUCTION OF ROOFS AND BUILDINGS Christopher W. Palmer, C.B.C. 1607 Glen Road Hawthorn, Ontario M2H 1G2 Tel: (905) 728-3385 Fax: (905) 728-4727</small>		PROJECT URSULINE COLLEGE CHATHAM CATHOLIC SECONDARY SCHOOL PARTIAL ROOF REPLACEMENT 85 GRAND AVENUE WEST., CHATHAM ONTARIO	DATE : FEBRUARY 2018
DATE (MM-DD-YY) 01-05-18		ISSUED FOR OWNER REVIEW	SCALE : N.T.S.
02-02-18		TENDER	DRAWN BY : CWP
		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP
		DRAWING TITLE ROOF DETAIL	SHEET SIZE : 8.1/2"x11"
			PROJECT FILE NO. RBS17-99
			DRAWING NO. UCC-D18a