



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

ROOF REPLACEMENT TENDER  
ST. JOSEPH CATHOLIC SCHOOL  
ST. MICHAEL CATHOLIC SCHOOL  
GOOD SHEPHERD CATHOLIC SCHOOL

## INSTRUCTIONS TO BIDDERS

Date: December 13, 2016

BID PACKAGES #: 636-CP1704,640-CP1704 & 642-CP1704

### 1. BID SUBMISSION

The St. Clair Catholic District School Board (Board) is a roofing contractor to provide partial roof replacement at 3 facilities in the Municipality of Chatham-Kent.

Bids from invited bidders shall be submitted on the Bid Form provided and submitted in an envelope clearly marked:

**Bid Packages #:**

**636-CP1704 St. Joseph Catholic School Tilbury, ON - Roof Replacement Tender**

**640-CP1704 St. Michael Catholic School Ridgetown, ON – Roof Replacement Tender**

**642-CP1704 Good Shepherd Catholic School Thamesville, ON – Roof Replacement Tender**

The envelope shall be sealed and delivered to: **St. Clair Catholic District School Board  
Chatham Maintenance Facilities  
525 Baldoon Road  
Chatham, ON N7L 5A9  
Attention: Mr. Tony Prizio, Procurement Specialist**

Bids will be accepted at the St. Clair Catholic District School Board Office not later than **January 31, 2017 @ 2:00:00 p.m.** (No extensions to Bid Closing date are anticipated. Bidders are encouraged to act immediately to prepare their submissions!)

Bids shall be filled out in ink or typed, signed in longhand by a duly authorized company official (having authority to bind) and sealed with a company corporate seal. One original of the fully completed 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 the Board's Procurement Specialist (Tony Prizio) and a representative from Corporate Services' department.

### 2. SCOPE OF WORK

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

### 3. BID DOCUMENTS

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

- 3.1 Instructions to Bidders dated December 13, 2016
- 3.2 Tender Form, Specifications and Drawings – St. Joseph School dated November, 2016
- 3.3 Tender Form, Specifications and Drawings – St. Michael School dated November, 2016
- 3.4 Tender Form, Specifications and Drawings – Good Shepherd School dated November, 2016
- 3.5 **Prime Contract – Will be a standard CCDC-2 2008 Stipulated Price Contract.** The Board assumes no responsibility for the bidder's failure to examine **all** of the Bid Documents. **(also refer to Appendix A – SCCDSB - Supplementary Conditions to CCDC-2 2008)**



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### 4. **BID ACCEPTANCE**

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

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

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

### 5. **AWARD**

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

### 6. **PAYMENT**

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

### 7. **TAXES**

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

### 8. **ADDENDA**

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

All questions to be addressed in writing to: Mr. Tony Prizio, Procurement Specialist  
St. Clair Catholic District School Board  
Fax 519.627.8230 or  
E-mail: [tony.prizio@st-clair.net](mailto:tony.prizio@st-clair.net)  
Copy: [marcie.myers@st-clair.net](mailto:marcie.myers@st-clair.net)  
**No later than 48 hours prior to bid closing date.**



**INSTRUCTIONS TO BIDDERS**

Date: December 13, 2016

BID PACKAGES #: 636-CP1704,640-CP1704 & 642-CP1704

**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:**

**December 15, 2016 beginning at 10:00 a.m.**

**Interested parties will meet at the admin. office of**

**Good Shepherd Catholic School, located at 4 Edith St, Thamesville, ON N0P 2K0.**

**Following the Good Shepherd visit, everyone will proceed to**

**St. Michael Catholic School, located at 25 Maple St, Ridgetown, ON N0P 2C0 for 11:00am.**

**Following the St. Michael visit, everyone will proceed to**

**St. Joseph Catholic School, located at 43 St Clair St, Tilbury, ON N0P 2L0 12:30pm.**



**INSTRUCTIONS TO BIDDERS**

Date: December 13, 2016

BID PACKAGES #: 636-CP1704,640-CP1704 & 642-CP1704

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13. **TIMING OF PROJECT**

Work at all sites must take place during the months of **July 4, 2017** and completed no later than **August 11, 2017**.

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 party of the proponent or any of its representatives or employees by way of ownership or operation of an automobile.
- The successful Contractor shall provide the Board with a complete certified copy of all policies.
- The successful Contractor must name the St. Clair Catholic District School Board as additional insured on their insurance policies.

16. **WORKPLACE SAFETY INSURANCE BOARD (WSIB)**

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

17. **PERMITS**

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



**INSTRUCTIONS TO BIDDERS**

Date: December 13, 2016

BID PACKAGES #: 636-CP1704,640-CP1704 & 642-CP1704

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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 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



**INSTRUCTIONS TO BIDDERS**

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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**

# TENDER FORM

## ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD ROOF REPLACEMENT

FOR

### ST. MICHAEL CATHOLIC SCHOOL

25 MAPLE STREET SOUTH  
RIDGETOWN, ONTARIO  
N0P 2C0

### GOOD SHEPHERD CATHOLIC SCHOOL

4 EDITH STREET  
THAMESVILLE, ONTARIO  
N0P 2K0

### ST. JOSEPH CATHOLIC SCHOOL

43 ST. CLAIR STREET  
TILBURY, ONTARIO  
N0P 2L0

**ST. MICHAEL CATHOLIC SCHOOL  
PROJECT No. 640-CP1704**

**GOOD SHEPHERD CATHOLIC SCHOOL  
PROJECT No. 642-CP1704**

**ST. JOSEPH CATHOLIC SCHOOL  
PROJECT No. 636-CP1704**

**NOVEMBER 2016**

**TENDER FORM**

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

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

\_\_\_\_\_ \$ \_\_\_\_\_  
*(HST Included)*

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

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

\_\_\_\_\_  
*Name of Bonding Company*

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



**TENDER FORM**

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

**Section "A"****Roof Replacement for St. Michael/Good Shepherd/St. Joseph Catholic Schools**

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

**Item****No.****Description**

**Total**  
**Option No.1**    **Option No.2**  
**(HENRY)**        **(SOPREMA)**

**A. ST. MICHAEL CATHOLIC SCHOOL  
(Includes Roof Areas A,B,E,G,H,I and J  
as indicated on Key Plan RM-1)**

The Roofing Contractor is to remove the existing Roof System completely to the metal or wood with the exception of Roof Area 'A'. Then the Contractor is to supply and install Vapour Retarder, all Rigid Insulation, Protection board, etc. prior to installing a Two Ply Modified Bitumen Roof System as shown on the Enclosed Drawings and in accordance with the Project Specifications for this facility. (The Contractor will include a Cash Allowance of \$15,000.00 with this price (if the allowance is not used, it will be taken off of the Total Tender Price).

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

**B. GOOD SHEPHERD CATHOLIC SCHOOL  
(Includes Roof Areas A,B,C,D and E  
as indicated on Key Plan RGS-1)**

The Roofing Contractor is to remove the existing Roof System completely to the metal or wood with the exception of Roof Area 'B'. Then the Contractor is to supply and install Vapour Retarder, all Rigid Insulation, Protection board, etc. prior to installing a Two Ply Modified Bitumen Roof System as shown on the Enclosed Drawings and in accordance with the Project Specifications for this facility. (The Contractor will include a Cash Allowance of \$15,000.00 with this price (if the allowance is not used, it will be taken off of the Total Tender Price).

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

**C. ST. JOSEPH CATHOLIC SCHOOL  
(Includes Roof Areas A, B and C  
as indicated on Key Plan RJ-1)**

The Roofing Contractor is to remove the existing Roof System completely to the wood deck. Then the Contractor is to supply and install Vapour Retarder, all Rigid Insulation, Protection board, etc. prior to installing a Two Ply Modified Bitumen Roof System as shown on the Enclosed Drawings and in accordance with the Project Specifications for this facility. (The Contractor will include a Cash Allowance of \$5,000.00 with this price (if the allowance is not used, it will be taken off of the Total Tender Price).

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

**TENDER FORM**

Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704

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**Total Tender Price "A" (excluding HST)** \$ \_\_\_\_\_

**Add 13% HST** \$ \_\_\_\_\_

**Total Tender Price "A" (including HST)** \$ \_\_\_\_\_

**SEPARATE PRICE 'A' – ST. MICHAEL CATHOLIC SCHOOL**

The Contractor is to provide a cost to supply and install Exterior Grade Gypsum Board as indicated with Products 4.2 Thermal Barrier with low foam adhesive as indicated with Execution 5.2 Installation to the metal deck with the exception of Roof Area 'A' prior to installing the Vapour Retarder, all Rigid insulation, Protection Board, etc.

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

**SEPARATE PRICE 'B' – GOOD SHEPHERD CATHOLIC SCHOOL**

The Contractor is to provide a cost to supply and install Exterior Grade Gypsum Board as indicated with Products 4.2 Thermal Barrier with low foam adhesive as indicated with Execution 5.2 Installation to the metal deck with the exception of Roof Area 'B' prior to installing the Vapour Retarder, all Rigid insulation, Protection Board, etc.

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

**SEPARATE PRICE 'C' – ST. JOSEPH CATHOLIC SCHOOL**

The Contractor is to provide a cost to supply and install Exterior Grade Gypsum Board as indicated with Products 4.2 Thermal Barrier with low foam adhesive as indicated with Execution 5.2 Installation to the wood deck prior to installing the Protection Board, etc.

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

**SEPARATE PRICE 'D' – ST. JOSEPH CATHOLIC SCHOOL**

The Contractor is to provide a cost to remove the existing metal siding on the west elevation below Roof Area 'A' and then supply and install new AD300R vertical metal siding as specified.

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

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

# TENDER FORM

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

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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. 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:** \_\_\_\_\_

**6. 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 \_\_\_\_\_ and to complete the work by \_\_\_\_\_

Completion date is not to exceed **AUGUST 11<sup>TH</sup>, 2017**

**7. 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**

**Roof Replacement  
for**

**St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

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

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

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

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

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

*This* \_\_\_\_\_ *day of* \_\_\_\_\_ **2017**

**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  
ROOF REPLACEMENT  
FOR

**ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD**

ST. MICHAEL CATHOLIC SCHOOL

25 MAPLE STREET SOUTH  
RIDGETOWN, ONTARIO  
N0P 2C0

GOOD SHEPHERD CATHOLIC SCHOOL

4 EDITH STREET  
THAMESVILLE, ONTARIO  
N0P 2K0

ST. JOSEPH CATHOLIC SCHOOL

43 ST. CLAIR STREET  
TILBURY, ONTARIO  
N0P 2L0

**ST. MICHAEL CATHOLIC SCHOOL  
PROJECT No. 640-CP1704**

**GOOD SHEPHERD CATHOLIC SCHOOL  
PROJECT No. 642-CP1704**

**ST. JOSEPH CATHOLIC SCHOOL  
PROJECT No. 636-CP1704**

**NOVEMBER 2016**

## 3.0 GENERAL

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

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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:**

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

## 4.0 PRODUCTS

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

### **OPTION NO. 1 – HENRY COMPANY**

#### **4.1 Modified Bitumen Membrane**

- 4.1.1 Modified Bitumen Sheets shall conform to CGSB 37-GP-56M “Membrane, Modified, Bituminous, Prefabricated and Reinforced for Roofing”; Type 2, Class C, Grade 2 for Base Sheets and Type 1, Class A, Grade 2 for Cap Sheets.
- 4.1.2 The Contractor may bid on any Manufacturer’s Systems specified for torching application of the base sheet and torching of the cap sheet for this roof area. The colour of the granular surface is to be selected by the Owner. Supply additional granules to be applied to bitumen outflows between membrane sheets.
- 4.1.3 Modified Bitumen Membrane Two-Ply System shall be as specified or approved equal and accepted by the Consultant and Owner.
- a) Henry Company**
- i) Base Sheet (NP180P/S) and (NP180 S/P 3.5 Cap Sheet)
  - ii) Self-Adhesive Membrane (NP 180 Tack Sheet)
  - iii) Cap Sheet (NP250gT4)

#### **4.2 Thermal Barrier (If Required)**

- 4.2.1 Exterior grade gypsum sheathing board with water resistant paper surfaces 12.7mm thick. Reference Standard CSA-A82.27 – M1979

#### **4.3 Vapour Retarder**

- 4.3.1 Vapor-Bloc SA is a Self-Adhered Vapour Barrier Membrane consisting of an SBS rubberized asphalt compound which is integrally laminated to a blue cross-laminated polyethelene film.

#### **4.4 Primer**

- 4.4.1 As required by each roof membrane manufacturer. NO PRIMER REQUIRED WHEN USING VAPOR-BLOC SA ON METAL DECK. IF THE GYPSUM BOARD IS APPLIED, THEN BLUESKIN PRIMER WILL BE REQUIRED.

#### **4.5 Rigid Insulation**

- 4.5.1 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-23.6 (L.T.T.R.) (4.0 inch) for the main roof area and R-11.4 (L.T.T.R.) (4 inch) around recessed roof drains, Resistance R-Value in accordance with ASTM C1289-11A. All insulation boards shall be 4 feet by 4 feet in size.

#### **4.6 Insulation Overlay Boards**

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

## 4.0 PRODUCTS

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

### **OPTION NO. 1 – HENRY COMPANY**

#### **4.7 Bitumen Adhesive**

- 4.7.1 Royal Millennium One-Step Foamable Adhesive to be used for application of thermal barrier (if required) along with rigid insulation and overlay boards.

#### **4.8 Cavity Wall Rigid Insulation**

- 4.8.1 Insulation shall be Foamular C-300 Extruded Polystyrene Rigid Insulation as manufactured by Owens Corning to be used on the exterior walls behind the new metal siding as indicated on the Enclosed Drawings. The rigid insulation complies with CAN/ULC S701, Type 4 and has a CCMS listing. **ALL BOARDS TO BE SQUARE EDGE, NOT SHIP-LAPPED.**

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

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

#### **4.10 Hot Exhaust Stack Flashings**

- 4.10.1 The hot pipe flashings shall be Thaler Roofing Specialties Products Inc. Model № MEF-3A aluminum flashings with split collar to suit new roof system. The Contractor shall fill Roxul Insulation between pipe and flange.

#### **4.11 Roof Drain**

- 4.11.1 Roof Drain shall be Thaler Roof Specialties Products Inc. Model No. RD-4-RR with FURCO FOR DIRECT CONNECT. Outlet size shall be verified on site by the Roofing Contractor.

#### **4.12 Conduit Flashings**

- 4.12.1 The multiple flexible conduit flashings shall be Thaler Roofing Specialties Products Inc. Model № MEF-AE4 insulated flange. The Roofing Contractor shall verify the diameter of all openings.

#### **4.13 Tapered Insulation (Recessed Roof Drains and Crickets)**

- 4.13.1 The tapered insulation shall be faced Isocyanurate Boards conforming to CAN/CGSB-51.26-M86, 4.11.1 The tapered insulation shall be faced Isocyanurate Boards conforming to CAN/CGSB-51.26-M86, meeting the requirements of ULC S126 Polyisocyanurate foam panels chemically bonded during the foaming process to facers on the top and bottom organic surfaces. Tapered panels shall not be less than 13m at any point of the roof to the slope indicated on the Roof Plan and Details.

#### **4.14 Elastomeric Modified Bitumen Adhesive**

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



## 4.0 PRODUCTS

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

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### **OPTION NO. 1 – HENRY COMPANY**

#### **4.15 Metal Flashings**

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

#### **4.16 Sealants**

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

#### **4.17 Roofing Gravel**

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

#### **4.18 Framing Lumber**

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

#### **4.19 Plywood**

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

#### **4.20 Rough Hardware and Nails**

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

#### **4.21 Painting**

- 4.21.1 All existing gas lines, exhaust fan hoods and roof top units shall be cleaned and scraped prior to being repainted.
- 4.21.2 Clean and prime with Alkyd Metal Primer before applying two coats of enamel paint. The colour shall be selected by the Owner.

## 4.0 PRODUCTS

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

### **OPTION NO. 1 – HENRY COMPANY**

#### **4.22 Plastic Roof Cement**

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

#### **4.23 Precast Pads**

4.23.1 Precast concrete pads shall be 24 inch by 24 inch by 2 inch thick for additional walkway, etc. as shown on Roof Plan. Pads shall be placed on a 20 inch by 20 inch by 2 inch thick sections of rigid Type 4 extruded polystyrene insulation.

**52 NEW PAVERS IN TOTAL FOR ST. MICHAEL CATHOLIC SCHOOL**

**32 NEW PAVERS IN TOTAL FOR GOOD SHEPHERD CATHOLIC SCHOOL**

**13 NEW PAVERS IN TOTAL FOR ST. JOSEPH CATHOLIC SCHOOL**

#### **4.24 Roof Pipe Supports**

4.24.1 Roof Pipe Supports as manufactured by C-Port (Model № CXP) are to be supplied and installed by the Roofing Contractor to replace the existing supports for gas lines at St. Michael / Good Shepherd / St. Joseph Catholic Schools.

**TOTAL OF 41 REQUIRED @ ST. MICHAEL CATHOLIC SCHOOL**

**TOTAL OF 50 REQUIRED @ GOOD SHEPHERD CATHOLIC SCHOOL**

#### **4.25 Exterior Cladding**

- 4.25.1 The exterior cladding shall be fabricated from galvanize coated structural quality steel sheet, CESB1 201-M84 Grade 33, base thickness .030 in (22 ga) Coating Designation A2150 for painted finish.
- 4.25.2 The prefinished wall cladding shall be Vic West Inc-AD300R or approved equal.
- 4.25.3 The paint finish for wall cladding shall be Steelcolour Series 8000 having a dry film thickness of 1.0 mil. The unexposed side shall have a prime coat. Colour will be selected from Manufacturer's Standard Colours by the Owner.
- 4.25.4 The sub girts shall be as manufactured from galvanized steel conforming to ASTM Z27S, profiled to be Z-300 (18 ga) installed no more than every two (2) feet on center.
- 4.25.5 All flashings and trims are required to be fabricated as detailed with 24 ga material which is the same as metal cap and counter flashings.

## 5.0 EXECUTION

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

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### **OPTION NO. 1 – HENRY COMPANY**

#### **5.1 TEAR-OFF**

- 5.1.1 Prior to the start of installation, the roofing Contractor shall examine all roof areas included in this Specification. The Roofing Contractor shall notify the Consultant of any unacceptable conditions.
- 5.1.2 These conditions include, but are not limited to, uneven deck surfaces, improperly installed curbs and nailers, surfaces with fins or sharp projections, and surfaces contaminated with incompatible materials. Work shall not begin until these conditions have been corrected. Protect membrane in high traffic areas, work by other trades, application of gravel, etc.
- 5.1.3 Completely remove the existing Loose Laid Ballasted Roof System completely to the existing metal deck. Only tear-off those roofing components that can be re-roofed in the same day. Tear-off work shall not be left exposed at the end of the work day.

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

- 5.2.1 The areas to be re-roofed must have all the roofing components removed completely to the metal roof dish before applying the new roof system. Install all carpentry items such as curb extensions, wood blocking at roof perimeters, etc. as detailed on the Drawings. All wood members which are to be anchored to masonry construction shall be permanently fastened into place. Do not use fasteners which will cause spalling, cracking or deformation of fastened materials.
- 5.2.2 Apply roofing materials over clean and dry surfaces in accordance with the Manufacturer's Recommendations. The re-roofing operations shall be performed on a continuous basis as weather conditions allow.
- 5.2.3 Install all new wood blocking and plywood as detailed on the applicable details
- 5.2.4 **Installation of Thermal Barrier (If Required)**
  - .1 Apply low-rise foam adhesive as recommended by the Membrane Manufacturer on top the metal roof deck to ensure good adhesion of the exterior grade gypsum board to the top flute of metal deck.
- 5.2.5 **Installation of Vapour Retarder**
  - .1 Apply Blueskin Primer by roller or spray to all surfaces as required and allow drying. **(IF THERMAL BARRIER IS APPLIED)**
  - .2 Unroll and align air/vapour barrier centered at low point of roof or drain. Apply air/vapour removing release paper providing 2 inch side and end laps. Seal around projections as per manufacturer's recommendations.
  - .3 Apply self-adhesive membrane without any wrinkles or fish mouths.
  - .4 The vapour retarder is to be carried up the vertical surfaces a minimum of 8 inches above roof deck.

## 5.0 EXECUTION

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

### **OPTION NO. 1 – HENRY COMPANY**

#### 5.2.6 **Installation of Rigid Insulation Boards**

- .1 Install boards with low-rise foam adhesive to the vapour retarder. On all insulation surfaces intended for board coverage apply beads of 20mm (3/4") wide on 200mm (8") centers.
- .2 Firmly set the rigid insulation boards in staggered fashion. All boards must be butted tightly together.
- .3 Apply only as many boards as can be covered in the same day.

#### 5.2.7 **Installation of Insulation Overlay Boards**

- .1 Install boards with low-rise foam adhesive to the rigid insulation as indicated. On all insulation surfaces intended for board coverage, apply beads of 20mm (3/4") wide on 200mm (8") centers.
- .2 Firmly set the insulation overlay boards, long joints continuously and short joints staggered. All boards must be evenly and tightly butted together.
- .3 All vertical joints between boards and insulation will be staggered.
- .4 Apply only as many boards as can be covered in the same day.

#### 5.2.8 **Base Sheet Installation**

- .1 Install the base sheet roof membrane starting from the low point (roof drain) to the high point. The base sheet is to be adhered with adhesive to the overlay boards to the parapet wall.
- .2 Unroll base sheet flashing at drain level with first side lap lined-up with drain center.
- .3 Overlap side laps by 75mm along lines provided to this end and overlap end laps by 150mm. Stagger end joints by at least 300mm.
- .4 Re-Roll base sheet and unroll again onto bed of cold adhesive with a notched squeegee having notches 6mm (1/4") wide 3mm (1/8") deep and spaced 25mm (1") on centers. The side and end lap must be HEAT WELDED (FUSED) TOGETHER WITH A LEISTER HAND HELD GUN OR APPROVED TO EQUAL TO ENSURE GOOD FUSION. Also avoid the cold adhesive from within two inches of the side and end laps.
- .5 Avoid forming wrinkles, air pockets or fish-mouthing. The modified bitumen membrane should be cut in maximum lengths of 55mm (18 ft) and allowed to relax on the jobsite.
- .6 This membrane is to be carried up to the inside face of parapet wall prior to installing new plywood on inside face of parapet wall.

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

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

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

## 5.0 EXECUTION

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

### **OPTION NO. 1 – HENRY COMPANY**

#### 5.2.10 **Base Sheet Flashing Installation**

- .1 Apply base sheet flashing only once primer coat is dry.
- .2 Install base sheet flashing in one (1) metre widths to cover roofing substrate over 100mm. Overlap side laps by 75mm. Stagger side laps by a least 100mm from base sheet overlaps on the roof to avoid excessive layering.
- .3 Apply base sheet flashing directly onto substrate by removing silicone paper cover sheet. Proceed from top to bottom. Once in place, apply pressure manually in a uniformed fashion to obtain homogenous adherence over the entire surface. Preferably seal seams with aluminum applicator and rubber roller. The flashing membrane is to be adhered to the bottom of the wood blocking on the outside face of parapet wall. Nail outside edge at 300mm O.C. Burn off plastic film of base sheet membrane before adhering base sheet flashing over it.
- .4 Avoid forming wrinkles, air pockets or fish-mouths.

#### 5.2.11 **Cap Sheet Installation**

- .1 Prior to installing the cap sheet membrane, all insulated flanges are to be installed around each roof penetration and secured to the metal roof deck with four (4) fasteners per flange before applying base sheet target section on top.
- .2 Once the base sheet has been applied, the stripping has been completed and no indications of defects are present, then the cap sheet shall be laid.
- .3 Begin application of the cap sheet at the lowest edge. Cap sheet shall be unrolled and care be taken to ensure proper alignment of the first roll.
- .4 Cap sheet shall be torched into place in accordance with the Recommendations of the Membrane Manufacturer, to the base sheet membrane.
- .5 The seams between the base sheet and cap sheet shall be staggered a minimum of 300 mm (12 inches).
- .6 Care should be taken to ensure heating is consistent across the width in order to avoid skips or voids. Bitumen should flow out from the lap 6mm (1/4") to ensure a tight seal.
- .7 All lap seams on the cap sheet are to be checked after membrane installation.

#### 5.2.12 **Cap Sheet Flashing Installation**

- .1 Cap sheet membrane installation shall be laid in strips 1m wide along the parapet. End laps shall be a minimum of 100mm (4 inches) overlap.
- .2 Extend cap sheet a minimum of 150mm (6 inches) onto roof surface from the intersection of roof and vertical surfaces and extend to the top of the parapet wall to the outside of wall.

## 5.0 EXECUTION

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

### **OPTION NO. 1 – HENRY COMPANY**

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

#### 5.2.13 **Flood Coat and Gravel Cover**

- .1 Apply a flood coat of cold roofing adhesive (MBA Gold) at the rate of 6.5 gallons/100ft<sup>2</sup> as recommended by Manufacturer (Bakor).
- .2 Then embed new approved pea stone gravel at 20 kg/m<sup>2</sup> (450 lbs/100ft<sup>2</sup>) while adhesive is still wet.

#### 5.2.14 **Concrete Pavers**

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

#### 5.2.15 **Erection – Wall Panels**

1. Provide all fastenings to completely install metal wall system and maintain a weather-tight installation. All sealant shall be in accordance with Item 12.8
2. Protect metal surfaces in contact with masonry mortar or other cementitious surface with isolation coating.
3. The exterior sheets shall be fastened to the sub-frame by means of self-tapping S.M. steel cadmium plated for steel. Fasten sub-girts to masonry with purpose designed fasteners, non-corrosive type. Colour to match siding and any exposed fasteners.
4. Provide flashing and closures at head, bottom edge and jamb corners, parapet cap, etc. as required of the same material, gauge and finish as wall and installed to provide a water-tight job.
5. A ribbon of joint sealing compound shall be laid on the face of the supports at the top and bottom of the wall panels to provide an adequate seal.
6. All materials, articles and accessories incorporated in the work shall be of a type and quality specified herein and subject to the approval of the Consultant. Methods of preparation, construction and installation of such materials, articles and accessories shall be in accordance with the S.S.S.B.I. Standard Code of Practice, Manufacturer's Printed Specifications and as directed by the Consultant.

**NOTE: THE EXTERIOR WALL CAVITY INSULATION (EXTRUDED POLYSTYRENNE – 3 INCH) IS REQUIRED BETWEEN EVERY 3 INCH Z-BAR @ TWO FEET ON CENTER.**

## **5.0 EXECUTION**

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

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### **OPTION NO. 1 – HENRY COMPANY**

## **5.3 INSTALLATION – Metal Flashings**

- 5.3.1 Cap and counter flashings shall be jointed with a double S-type locked joint. Flashings shall be installed with continuous clips secured to wood capping blocking at 12 inches O.C.
- 5.3.2 Flashing shall be fabricated to shapes on site with all necessary breaks for adequate expansion.
- 5.3.3 The inside face of the metal cap flashing between the S-locked joints is to be secured with three (3) fasteners matching the colour of the metal cap with a neoprene washer between the fastener head and inside face of the metal cap flashing.
- 5.3.4 All joints shall be sealed with approved sealant.
- 5.3.5 Counter flashings shall be installed at all reglets and curbs with at least three (3) inches below the top of roof curb or reglet.

## **5.4 CLEAN-UP**

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

## 6.0 PRODUCTS

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

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### **OPTION NO. 2 – SOPREMA**

#### **6.1 Modified Bitumen Membrane**

- 6.1.1 Modified Bitumen Sheets shall conform to CGSB 37-GP-56M “Membrane, Modified, Bituminous, Prefabricated and Reinforced for Roofing”; Type 2, Class C, Grade 2 for Base Sheets and Type 1, Class A, Grade 2 for Cap Sheets.
- 6.1.2 The Contractor may bid on any Manufacturer’s Systems specified for torching application of the base sheet and torching of the cap sheet for this roof area. The colour of the granular surface is to be selected by the Owner. Supply additional granules to be applied to bitumen outflows between membrane sheets.
- 6.1.3 Modified Bitumen Membrane Two-Ply System shall be as specified or approved equal and accepted by the Consultant and Owner.
- a) Soprema**
- i) Base Sheet (SOPRALENE 180 S/P 3.5 for Cap Sheet)
  - ii) Self-Adhesive Membrane (NP 180 Tack Sheet)
  - iii) Cap Sheet (NP250gT4) for flashing membrane.

#### **6.2 Thermal Barrier (If Required)**

- 6.2.1 Exterior grade gypsum sheathing board with water resistant paper surfaces 12.7mm thick. Reference Standard CSA-A82-27-M1979.

#### **6.3 Vapour Retarder**

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

#### **6.4 Insulation Soprasmart Board 180**

- 6.4.1 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.

#### **6.5 Primer**

- 6.5.1 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.

#### **6.6 Duotack**

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



## 6.0 PRODUCTS

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

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### **OPTION NO. 2 – SOPREMA**

#### **6.7 Cavity Wall Rigid Insulation**

- 6.7.1 Insulation shall be Foamular C-300 Extruded Polystyrene Rigid Insulation as manufactured by Owens Corning to be used on the exterior walls behind the new metal siding as indicated on the Enclosed Drawings. The rigid insulation complies with CAN/ULC S701, Type 4 and has a CCMS listing.

#### **6.8 Vent Pipe Stack Flange**

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

#### **6.9 Hot Exhaust Stack Flashings**

- 6.9.1 The hot pipe flashings shall be Thaler Roofing Specialties Products Inc. Model № MEF-3A aluminum flashings with split collar to suit the new Two-Ply Modified Bitumen Roof System. The Roofing Contractor shall verify the inside diameter of the hot pipe stack for each location and fill between the flange and pipe with Roxul Insulation.

#### **6.10 Roof Drain**

- 6.10.1 Roof Drain shall be Thaler Roof Specialties Products Inc. Model No. RD-4-RR with FURCO FOR DIRECT CONNECT. Outlet size shall be verified on site by the Roofing Contractor.

#### **6.11 Rigid Insulation**

- 6.11.1 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-23.6 (L.T.T.R.) (4.0 inch) for the main roof area and R-11.4 (L.T.T.R.) (2.0 inch) around recessed roof drains, Resistance R-Value in accordance with ASTM C1289-11A. All insulation boards shall be 4 feet by 4 feet in size.

#### **6.12 Tapered Insulation (Recessed Roof Drains)**

- 6.12.1 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.

#### **6.13 Elastomeric Modified Bitumen Adhesive**

- 6.13 .1 COLPLY EF is a low volatile organic compound (VOC), low odour, 100% solids and solvent-free polyether based adhesive.

## 6.0 PRODUCTS

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

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### **OPTION NO. 2 – SOPREMA**

#### **6.14 Metal Flashings**

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

#### **6.15 Sealants**

6.15.1 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.

#### **6.16 Roofing Gravel**

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

#### **6.17 Framing Lumber**

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

#### **6.18 Plywood**

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

#### **6.19 Rough Hardware and Nails**

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

#### **6.20 Painting**

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

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

## 6.0 PRODUCTS

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

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### **OPTION NO. 2 – SOPREMA**

#### **6.21 Plastic Roof Cement**

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

#### **6.22 Precast Pads**

- 6.22.1 Precast concrete pads shall be 24 inch by 24 inch by 2 inch thick for additional walkway, etc. as shown on Roof Plan. Pads shall be placed on a 20 inch by 20 inch by 2 inch thick sections of rigid Type 4 extruded polystyrene insulation.

**52 NEW PAVERS IN TOTAL FOR ST. MICHAEL CATHOLIC SCHOOL**

**32 NEW PAVERS IN TOTAL FOR GOOD SHEPHERD CATHOLIC SCHOOL**

**13 NEW PAVERS IN TOTAL FOR ST. JOSEPH CATHOLIC SCHOOL**

#### **4.24 Roof Pipe Supports**

- 4.24.1 Roof Pipe Supports as manufactured by C-Port (Model № CXP) are to be supplied and installed by the Roofing Contractor to replace the existing supports for gas lines at St. Michael / Good Shepherd / St. Joseph Catholic Schools.

**TOTAL OF 41 REQUIRED @ ST. MICHAEL CATHOLIC SCHOOL**

**TOTAL OF 50 REQUIRED @ GOOD SHEPHERD CATHOLIC SCHOOL**

#### **6.24 Exterior Cladding**

- 6.24.1 The exterior cladding shall be fabricated from galvanize coated structural quality steel sheet, CESB1 201-M84 Grade 33, base thickness .030 in (22 ga) Coating Designation A2150 for painted finish.
- 6.24.2 The prefinished wall cladding shall be Vic West Inc-AD300R or approved equal.
- 6.24.3 The paint finish for wall cladding shall be Steelcolour Series 8000 having a dry film thickness of 1.0 mil. The unexposed side shall have a prime coat. Colour will be selected from Manufacturer's Standard Colours by the Owner.
- 6.24.4 The sub girts shall be as manufactured from galvanized steel conforming to ASTM Z27S, profiled to be Z-300 (18 ga) installed no more than every two (2) feet on center.
- 6.24.5 All flashings and trims are required to be fabricated as detailed with 24 ga material which is the same as metal cap and counter flashings.

## 7.0 EXECUTION

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

### **OPTION NO. 2 – SOPREMA**

#### **7.1 Tear-Off**

- 7.1.1 Prior to the start of installation, the roofing Contractor shall examine all roof areas included in this Specification. The Roofing Contractor shall notify the Consultant of any unacceptable conditions.
- 7.1.2 These conditions include, but are not limited to, uneven deck surfaces, improperly installed curbs and nailers, surfaces with fins or sharp projections, and surfaces contaminated with incompatible materials. Work shall not begin until these conditions have been corrected. Protect membrane in high traffic areas, work by other trades, application of gravel, etc.
- 7.1.3 Completely remove the existing Loose Laid Ballasted Roof System completely to the existing metal deck. Only tear-off those roofing components that can be re-roofed in the same day. Tear-off work shall not be left exposed at the end of the work day.

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

- 7.2.1 The areas to be re-roofed must have all the roofing components removed completely to the metal roof deck before applying the new roof system. Install all carpentry items such as curb extensions, wood blocking at roof perimeters, etc. as detailed on the Drawings. All wood members which are to be anchored to masonry construction shall be permanently fastened into place. Do not use fasteners which will cause spalling, cracking or deformation of fastened materials.
- 7.2.2 Apply roofing materials over clean and dry surfaces in accordance with the Manufacturer's Recommendations. The re-roofing operations shall be performed on a continuous basis as weather conditions allow.
- 7.2.3 Install all new wood blocking and plywood as detailed on the applicable details.
- 7.2.4 **Installation of Thermal Barrier**
  - .1 Install boards with Duotack Adhesive to the metal deck or wood deck.
  - .2 On all gypsum surfaces intended for board coverage, apply beads of 20mm (3/4") wide on 200mm (8") centers.
- 7.2.5 **Installation of Vapour Retarder**
  - .1 When applying Soprapap'R over top metal deck, the existing surface is not required to be primed.
  - .2 The deck surface must be clean and sound, free of loose materials or contaminants such as water and grease which may compromise the performance of this product.
  - .3 Unroll and align air/vapour barrier centered at low point of roof or drain. Apply air/vapour removing release film providing 3 inch side laps and 6 inch end last (minimum). Seal around projections as per manufacturer's recommendations.
  - .4 Apply self-adhesive membrane without any wrinkles or fish mouths.
  - .5 The vapour retarder is to be carried up the vertical surfaces a minimum of 8 inches above roof deck.

## 7.0 EXECUTION

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

### **OPTION NO. 2 – SOPREMA**

#### 7.2.6 Installation of Rigid Insulation Boards

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

#### 7.2.7 Installation of Soprasmart Board

- .1 Install Smart Boards with Duotack Adhesive to the rigid insulation as indicated. On all insulation surfaces intended for board coverage, apply continuous strips of 13 to 19 mm (½ to ¾ inch) on 150 mm (6") centers for eight (8) feet around roof perimeter and 200 mm (8") centers for the field of the roof.
- .2 Firmly set the Smart Boards, into the strips of Duotack Adhesive. All boards must be evenly and tightly butted together in soldier fashion.
- .3 Apply only as many boards as can be covered in the same day.
- .4 Install Sopralap cover strips across the end laps on the panels by heat-welded with a propane torch.

#### 7.2.8 Installation of Additional Plywood and/or Wood Blocking

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

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

#### 7.2.9 Application of Primer

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

#### 7.2.10 Base Sheet Flashing Installation

- .1 Apply base sheet flashing only once primer coat is dry.
- .2 Install base sheet flashing in one (1) metre widths to cover roofing substrate over 100mm. Overlap side laps by 75mm. Stagger side laps by a least 100mm from base sheet overlaps on the roof to avoid excessive layering.
- .3 Apply base sheet flashing directly onto substrate by removing silicone paper cover sheet. Proceed from top to bottom. Once in place, apply pressure manually in a uniformed fashion to obtain homogenous adherence over the entire surface. Preferably seal seams with aluminum applicator and rubber roller. The flashing membrane is to be adhered 4 inches over top of the Blueskin membrane on the outside face of parapet wall. Nail outside edge at 300mm O.C. Burn off plastic film of base sheet membrane before adhering base sheet flashing over it.
- .4 Avoid forming wrinkles, air pockets or fish-mouths.

## 7.0 EXECUTION

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

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### **OPTION NO. 2 – SOPREMA**

#### 7.2.11 Cap Sheet Installation

- .1 Prior to installing the cap sheet membrane, all insulated flanges are to be installed around each roof penetration and secured to the metal roof deck with four (4) fasteners per flange before applying base sheet target section on top.
- .2 Once the base sheet has been applied, the stripping has been completed and no indications of defects are present, then the cap sheet shall be laid.
- .3 Begin application of the cap sheet at the lowest edge. Cap sheet shall be unrolled and care be taken to ensure proper alignment of the first roll.
- .4 Cap sheet shall be torched into place in accordance with the Recommendations of the Membrane Manufacturer, to the base sheet membrane.
- .5 The seams between the base sheet and cap sheet shall be staggered a minimum of 300 mm (12 inches).
- .6 Care should be taken to ensure heating is consistent across the width in order to avoid skips or voids. Bitumen should flow out from the lap 6mm (1/4") to ensure a tight seal.
- .7 All lap seams on the cap sheet are to be checked after membrane installation.

#### 7.2.12 Cap Sheet Flashing Installation

- .1 Cap sheet membrane installation shall be laid in strips 1m wide along the parapet. End laps shall be a minimum of 100mm (4 inches) overlap.
- .2 Extend cap sheet a minimum of 150mm (6 inches) onto roof surface from the intersection of roof and vertical surfaces and extend to the top of the parapet wall to the outside of wall.
- .3 The flashing membrane shall be anchored to the wood nailers by nailing through discs or using nails with 25mm (1 inch) minimum diameter head semi-solidly attached. Nail a minimum of 200mm (8 inches) on center.
- .4 Matching granules shall be used to cover excess between flow at seams.

#### 7.2.13 Flood Coat and Gravel Cover

- .1 Apply a flood coat of cold roofing adhesive (COLPLY EF) at the rate of 5 gallons/100ft<sup>2</sup> as recommended by Manufacturer (Soprema).
- .2 Then embed new approved pea stone gravel at 20 kg/m<sup>2</sup> (450 lbs/100ft<sup>2</sup>) while adhesive is still wet.

#### 7.2.14 Concrete Pavers

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

## 7.0 EXECUTION

**Roof Replacement  
for  
St. Michael Catholic School-Ridgetown / Project № 640-CP1704  
Good Shepherd Catholic School-Thamesville / Project № 642-CP1704  
St. Joseph Catholic School-Tilbury / Project № 636-CP1704**

### **OPTION NO. 2 – SOPREMA**

#### 7.2.15 Erection – Wall Panels

1. Provide all fastenings to completely install metal wall system and maintain a weather-tight installation. All sealant shall be in accordance with Item 12.8
2. Protect metal surfaces in contact with masonry mortar or other cementitious surface with isolation coating.
3. The exterior sheets shall be fastened to the sub-frame by means of self-tapping S.M. steel cadmium plated for steel. Fasten sub-girts to masonry with purpose designed fasteners, non-corrosive type. Colour to match siding and any exposed fasteners.
4. Provide flashing and closures at head, bottom edge and jamb corners, parapet cap, etc. as required of the same material, gauge and finish as wall and installed to provide a water-tight job.
5. A ribbon of joint sealing compound shall be laid on the face of the supports at the top and bottom of the wall panels to provide an adequate seal.
6. All materials, articles and accessories incorporated in the work shall be of a type and quality specified herein and subject to the approval of the Consultant. Methods of preparation, construction and installation of such materials, articles and accessories shall be in accordance with the S.S.S.B.I. Standard Code of Practice, Manufacturer's Printed Specifications and as directed by the Consultant.

**NOTE: THE EXTERIOR WALL CAVITY INSULATION (EXTRUDED POLYSTYRENE – 3 INCH) IS REQUIRED BETWEEN EVERY 3 INCH Z-BAR @ TWO FEET ON CENTER.**

## 7.3 INSTALLATION – Metal Flashings

- 7.3.1 Cap and counter flashings shall be jointed with a double S-type locked joint. Flashings shall be installed with continuous clips secured to wood capping blocking at 12 inches O.C.
- 7.3.2 Flashing shall be fabricated to shapes on site with all necessary breaks for adequate expansion.
- 7.3.3 The inside face of the metal cap flashing between the S-locked joints is to be secured with three (3) fasteners matching the colour of the metal cap with a neoprene washer between the fastener head and inside face of the metal cap flashing.
- 7.3.4 All joints shall be sealed with approved sealant.
- 7.3.5 Counter flashings shall be installed at all reglets and curbs with at least three (3) inches below the top of roof curb or reglet.

## 7.4 CLEAN-UP

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

# ROOF REPLACEMENT

FOR

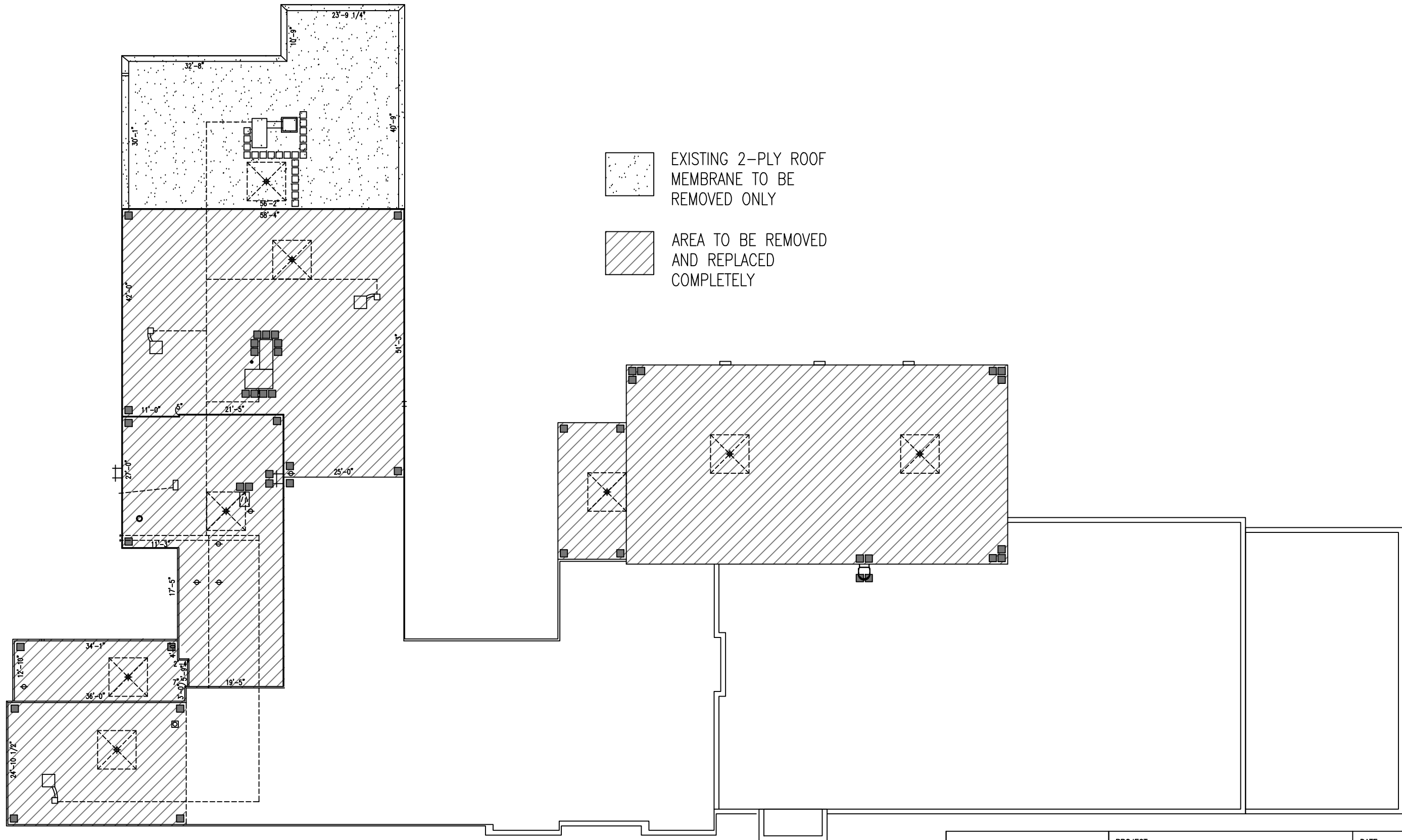
ST. MICHAEL CATHOLIC SCHOOL  
25 MAPLE STREET SOUTH  
RIDGETOWN, ONTARIO  
N0P 2C0

**PROJECT No. 640-CP1704**

## ENCLOSED DRAWINGS

- RM-1 Key Roof Plan
- RM-1a Existing and Design Roof System List
- RM-2 Enlarged Roof Plan – Area ‘B’
- RM-3 Enlarged Roof Plan – Area ‘I’, ‘G’ and ‘H’
- RM-4 Enlarged Roof Plan – Area ‘E’ and ‘J’
- RM-5 Enlarged Roof Plan – Area ‘A’
- RM-6 North and West Elevation
- RM-7 South Elevation / East Elevation
  
- DM-1 Roof Drain Detail – Area ‘A’
- DM-2 Roof Drain Detail – All Other Areas
- DM-3 Vent Pipe Stack Detail
- DM-4 Typical Hot Exhaust Stack Detail
- DM-5 Exhaust Vent Flashing Detail
- DM-6 Exhaust Fan Detail
- DM-7 Control Joint Detail
- DM-8 Roof Perimeter Detail – Area ‘A’
- DM-9 Venmar Unit Detail – Area ‘A’
- DM-10 HVAC Unit Detail – Area ‘A’
- DM-11 Roof Perimeter Detail – Between Area ‘B’ and ‘A’
- DM-12 Roof Perimeter Detail – North and South Wall of Area ‘B’
- DM-13 Roof Perimeter Detail – Between Area ‘B’ and ‘I’
- DM-14 Roof Perimeter Detail – Area ‘I’
- DM-15 Roof Perimeter Detail – Between Area ‘F’ and ‘I’
- DM-16 Roof Perimeter Detail – Between Area ‘G’ and ‘H’
- DM-17 Roof Perimeter Detail – Area ‘E’
- DM-18 Roof Perimeter Detail – Between Area ‘J’ and ‘E’
- DM-19 Roof Perimeter Detail – Between Area ‘J’ and ‘F’
- DM-20 Roof Perimeter Detail – Area ‘J’
- DM-21 Roof Hatch Detail – Area ‘I’
- DM-22 Roof Detail – Electrical / Cooling Line Penetrations
- DM-23 Wall Ladder Detail – Area ‘E’
- DM-23a Roof Ladder Detail Plan – Area ‘E’





# KEY ROOF PLAN

SCALE : 1" = 30'-0"

<b>REMLAP BUILDING SERVICES INC.</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS BUILDING ENVELOPES (AIR/WATER BARRIER/WATER PROOFING) SURVEYS AND CONDITIONS OF ROOFS AND BUILDINGS Christopher W. Palmer, C.E.T. 1407 Gore Road, Huron, Ontario N0R 1G0 Tel: (519) 738-3458 Fax: (519) 738-4787		PROJECT <b>ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT</b> 25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO CLIENT <b>ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD</b>	DATE : DECEMBER 2016 SCALE : AS SHOWN DRAWN BY : CWP CHK. BY : CWP SHEET SIZE : 11"x17" PROJECT FILE NO. RBS16-67 DRAWING NO. <b>RM-1</b>
DATE (MM-DD-YY) 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE <b>KEY ROOF PLAN</b>	

**ROOF REPLACEMENT  
ST. MICHAEL CATHOLIC SCHOOL  
25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO N0P 2C0**

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**EXISTING ROOF SYSTEM**

Two Ply Modified Bitumen Granulated Surface Membrane  
On 1/2" Fiberboard Insulation  
On 2" Rigid Insulation (ISO)  
On Vapour Retarder  
On Metal Deck

**AREA 'A'**

Fully Adhered EPDM  
On 2.7" Rigid Insulation (ISO)  
On Metal Deck

**AREA 'B'**

Fully Adhered EPDM  
On 1/2" Fiberboard Insulation  
On Pea Stone w/Asphalt  
On 4 Ply Roofing Felt w/Asphalt  
On 1" of Extruded Polystyrene Rigid Insulation  
On Acoustic Metal Deck

**AREA 'E'**

Fully Adhered EPDM  
On 2.7" Rigid Insulation (ISO)  
On Metal Deck

**AREA 'G'**

Fully Adhered EPDM  
On 2.7" Rigid Insulation (ISO)  
On Wood Deck

**AREA 'H'****DESIGN ROOF SYSTEM**

Pea Stone Roofing Gravel  
On Flood Coat of Adhesive  
On Two Ply Modified Bitumen Roof Membrane  
On 3/16" Asphalt Protection Board  
On New 2" Rigid Insulation (ISO)  
On Existing 1/2" Fiberboard  
On Existing 2" Rigid Insulation (ISO)  
On Existing Vapour Retarder  
On Existing Metal Deck

Pea Stone Roofing Gravel  
On Flood Coat of Adhesive  
On Two Ply Modified Bitumen Roof Membrane  
On 3/16" Asphalt Protection Board  
On New 4" Rigid Insulation (ISO)  
On Existing Vapour Retarder as Specified  
On Existing Metal Deck

Pea Stone Roofing Gravel  
On Flood Coat of Adhesive  
On Two Ply Modified Bitumen Roof Membrane  
On 3/16" Asphalt Protection Board  
On New 4" Rigid Insulation (ISO)  
On Vapour Retarder as Specified  
On Acoustic Metal Deck w/Fiberglass  
Batt Insulation

Pea Stone Roofing Gravel  
On Flood Coat of Adhesive  
On Two Ply Modified Bitumen Roof Membrane  
On 3/16" Asphalt Protection Board  
On New 4" Rigid Insulation (ISO)  
On Existing Vapour Retarder as Specified  
On Existing Metal Deck

Pea Stone Roofing Gravel  
On Flood Coat of Adhesive  
On Two Ply Modified Bitumen Roof Membrane  
On 3/16" Asphalt Protection Board  
On New 4" Rigid Insulation (ISO)  
On Existing Vapour Retarder as Specified  
On Existing Wood Deck

Fully Adhered EPDM  
On 2.7" Rigid Insulation (ISO)  
On Wood Deck

**AREA 'I'**

Pea Stone Roofing Gravel  
On Flood Coat of Adhesive  
On Two Ply Modified Bitumen Roof Membrane  
On 3/16" Asphalt Protection Board  
On New 4" Rigid Insulation (ISO)  
On Vapour Retarder as Specified  
On Existing Wood Deck

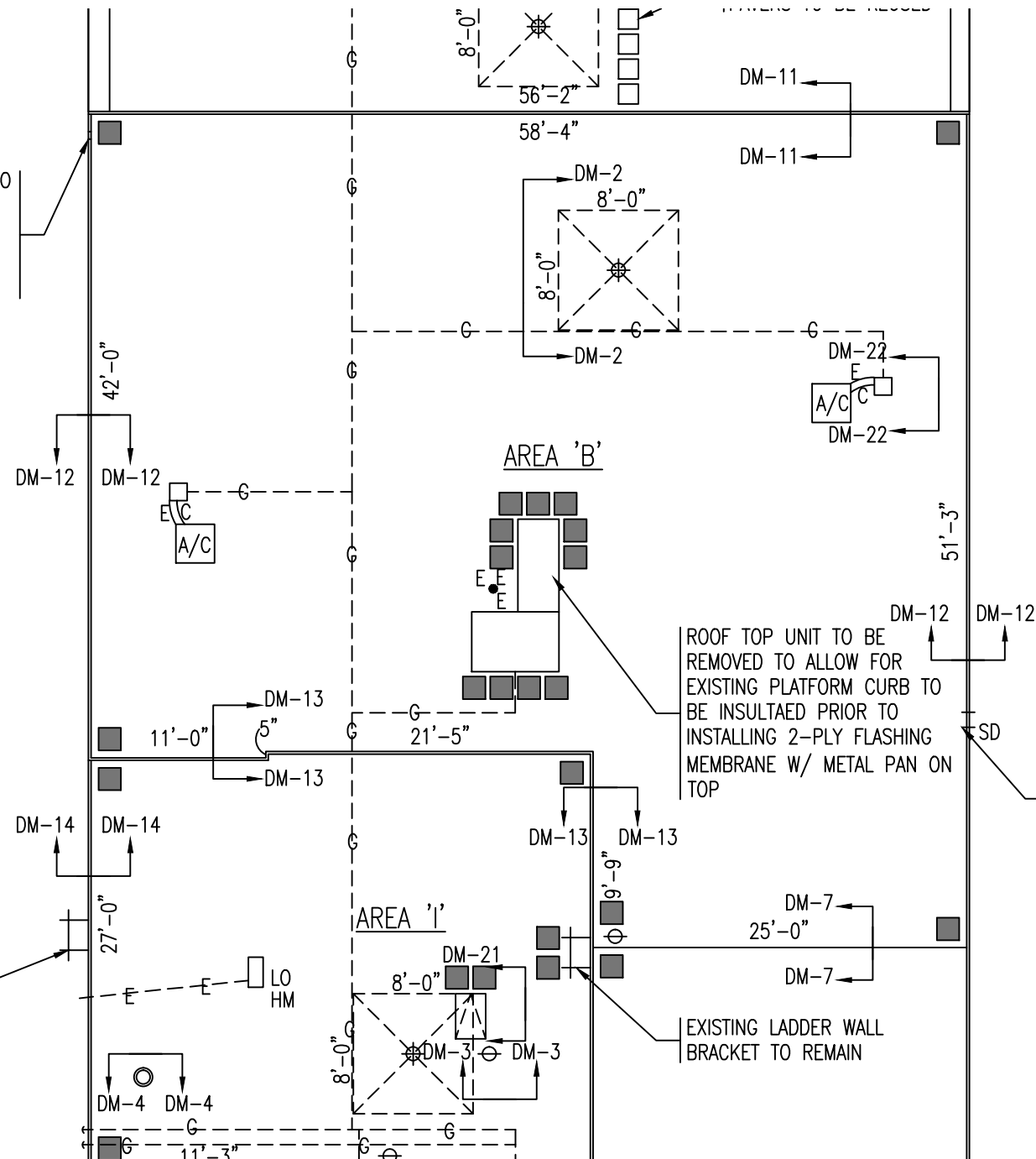
Fully Adhered EPDM  
On 2" Rigid Insulation (ISO)  
On Metal Deck

**AREA 'J'**

Pea Stone Roofing Gravel  
On Flood Coat of Adhesive  
On Two Ply Modified Bitumen Roof Membrane  
On 3/16" Asphalt Protection Board  
On New 4" Rigid Insulation (ISO)  
On Existing Vapour Retarder as Specified  
On Existing Metal Deck

CONTRACTOR IS REQUIRED TO CUT THE PARAPET WALL (6" WIDE) FOR NEW SCUPPER DRAIN (ALSO INCLUDE 15 FEET OF 4" PVC PIPE)

EXISTING LADDER WALL BRACKET TO REMAIN



NOTE: THE CONTRACTOR IS RESPONSIBLE FOR GAS LINE ADJUSTMENTS OVER NEW PARAPET WALLS

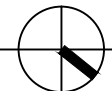
ROOF TOP UNIT TO BE REMOVED TO ALLOW FOR EXISTING PLATFORM CURB TO BE INSULTAED PRIOR TO INSTALLING 2-PLY FLASHING MEMBRANE W/ METAL PAN ON TOP

EXISTING SCUPPER DRAIN TO BE ELIMINATED AND WALL CLOSED IN

**LEGEND**

- ⊕ ROOF DRAIN
- ⊙ VENT PIPE STACK
- ⊞ EXHAUST FAN
- ≡ WALL LADDER
- ⊥ BRACKET FOR EXTENSION LADDER
- ⊞ ABANDONED CURB TO BE ELIMINATED
- ⊙ HOT EXHAUST STACK
- ⊞ EXHAUST STACK W/ DIRECTION
- ⊞ GOOSE NECK EXHAUST FAN
- G- CONTROL JOINT
- CONCRETE PAVER W/ INSULATION CUSHION
- A/C CONDENSING UNIT (NEW CONCRETE PAVER W/ INSULATION CUSHION)

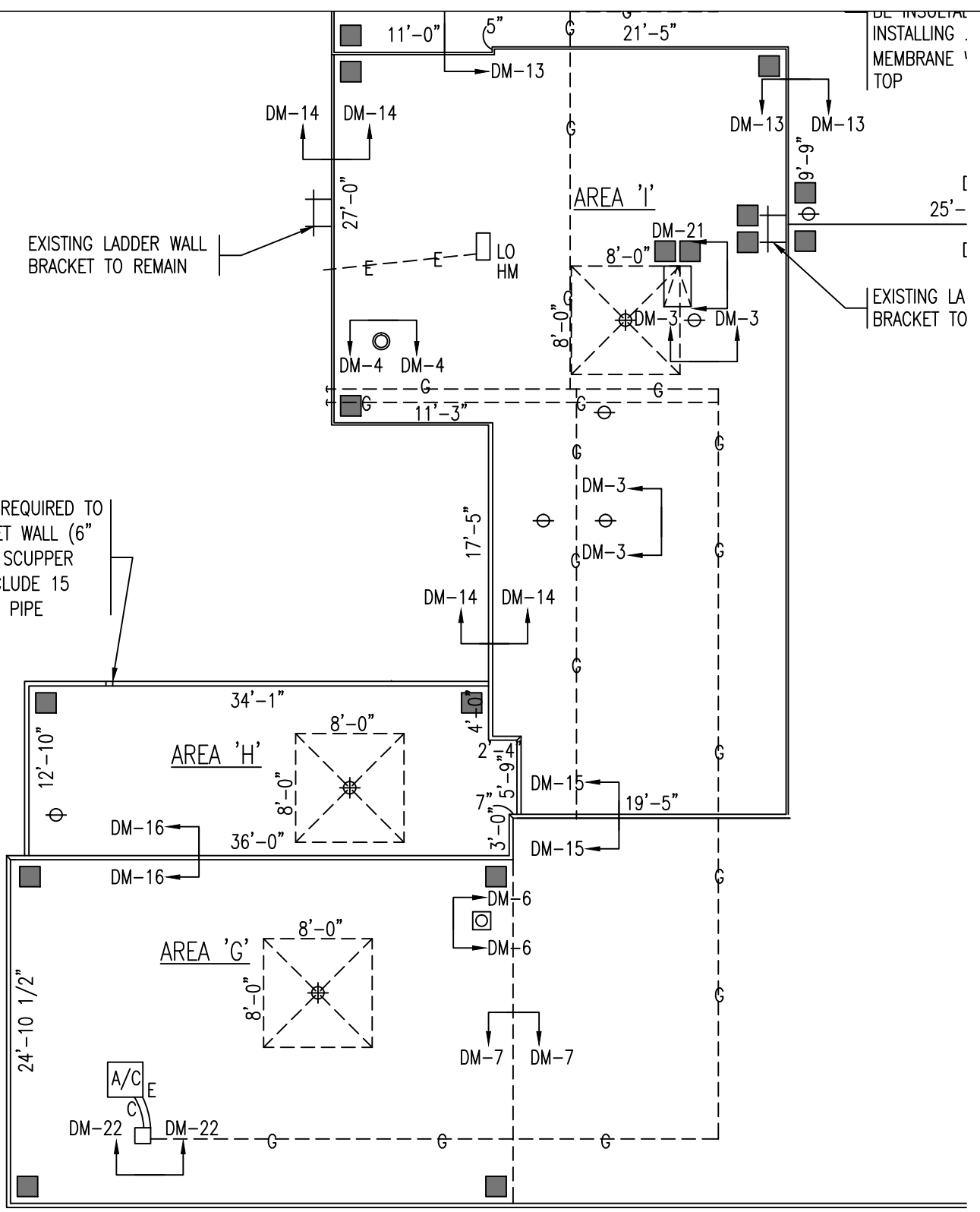
TAPERED INSULATION  
ROOF DRAIN - 2% SLOPE  
CRICKET - 1% SLOPE



**ENLARGED ROOF PLAN - ROOF PENETRATION AND DIMENSIONS**

SCALE : 3/32" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS BUILDING ENVELOPES (AIR/WAPOUR BARRIER/WATER PROOFING) SURVEYS AND CONDITIONS OF ROOFS AND BUILDINGS Christopher W. Palmer, C.E.T. 1407 Gore Road, Toronto, Ontario M6R 1G0 Tel: (519) 738-3458 Fax: (519) 738-4797	PROJECT <b>ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT</b> 25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	DATE : DECEMBER 2016 SCALE : AS SHOWN DRAWN BY : CWP
	CLIENT <b>ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD</b>	CHK. BY : CWP SHEET SIZE : 11"x17" PROJECT FILE NO. RBS16-67 DRAWING NO. <b>RM-2</b>
DATE (MM-DD-YY) 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE <b>ENLARGED ROOF PLAN - ROOF AREA 'B'</b>



**LEGEND**

- ROOF DRAIN
- VENT PIPE STACK
- EXHAUST FAN
- WALL LADDER
- BRACKET FOR EXTENSION LADDER
- ABANDONED CURB TO BE ELIMINATED
- HOT EXHAUST STACK
- EXHAUST STACK W/ DIRECTION
- GOOSE NECK EXHAUST FAN
- CONTROL JOINT
- CONCRETE PAVER W/ INSULATION CUSHION
- CONDENSING UNIT (NEW CONCRETE PAVER W/ INSULATION CUSHION)

TAPERED INSULATION  
 ROOF DRAIN - 2% SLOPE  
 CRICKET - 1% SLOPE

**ENLARGED ROOF PLAN - ROOF PENETRATION AND DIMENSIONS**  
 SCALE : 3/32" = 1'-0"

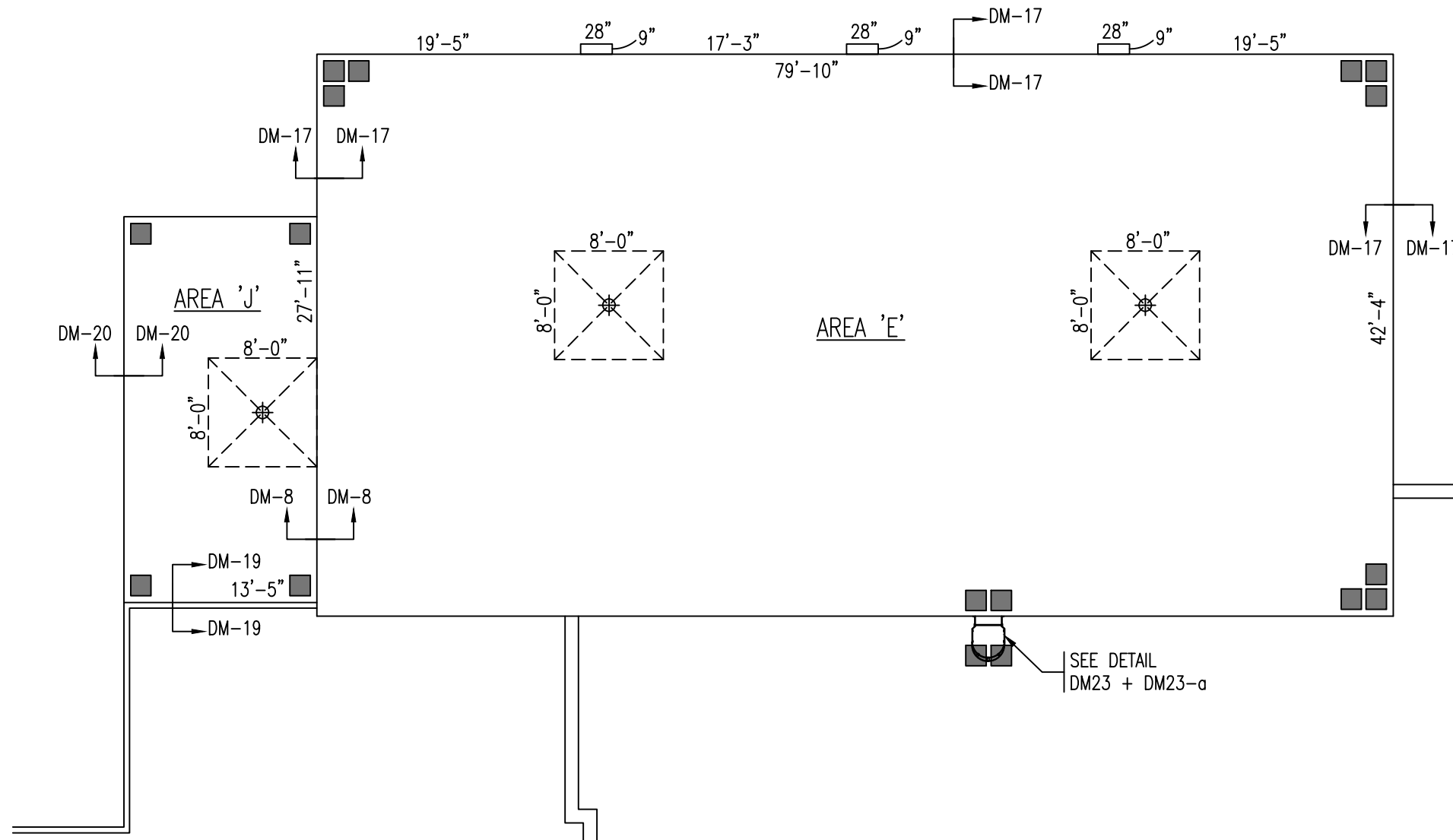
<b>REMLAP BUILDING SERVICES INC.</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS BUILDING ENVELOPES (AIR/WAPOUR BARRIER/WATER PROOFING) SURVEYS AND CONDITIONS OF ROOFS AND BUILDINGS Christopher W. Palmer, C.E.T. 1407 Gore Road Harrow, Ontario N0R 1G0 Tel: (519) 738-3458 Fax: (519) 738-4787	PROJECT <b>ST. MICHAEL CATHOLIC SCHOOL          ROOF REPLACEMENT</b> 25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	DATE : DECEMBER 2016 SCALE : AS SHOWN DRAWN BY : CWP CHK. BY : CWP SHEET SIZE : 11"x17"
	CLIENT <b>ST. CLAIR CATHOLIC DISTRICT          SCHOOL BOARD</b>	PROJECT FILE NO. RBS16-67 DRAWING NO. <b>RM-3</b>
DATE (MM-DD-YY) 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE <b>ENLARGED ROOF PLAN - ROOF          AREA 'I', 'H' + 'G'</b>

**LEGEND**

- ⊕ ROOF DRAIN
- ⊙ VENT PIPE STACK
- ⊠ EXHAUST FAN
- ≡ WALL LADDER
- ┌─ BRACKET FOR EXTENSION LADDER
- ⊠ ABANDONED CURB TO BE ELIMINATED
- ⊙ HOT EXHAUST STACK
- ⊙ EXHAUST STACK W/ DIRECTION
- ⊠ G GOOSE NECK EXHAUST FAN
- CJ- CONTROL JOINT
- CONCRETE PAVER W/ INSULATION CUSHION
- A/C CONDENSING UNIT (NEW CONCRETE PAVER W/ INSULATION CUSHION)

TAPERED INSULATION  
ROOF DRAIN - 2% SLOPE

CRICKET - 1% SLOPE



**ENLARGED ROOF PLAN - ROOF PENETRATION AND DIMENSIONS**

SCALE : 3/32" = 1'-0"

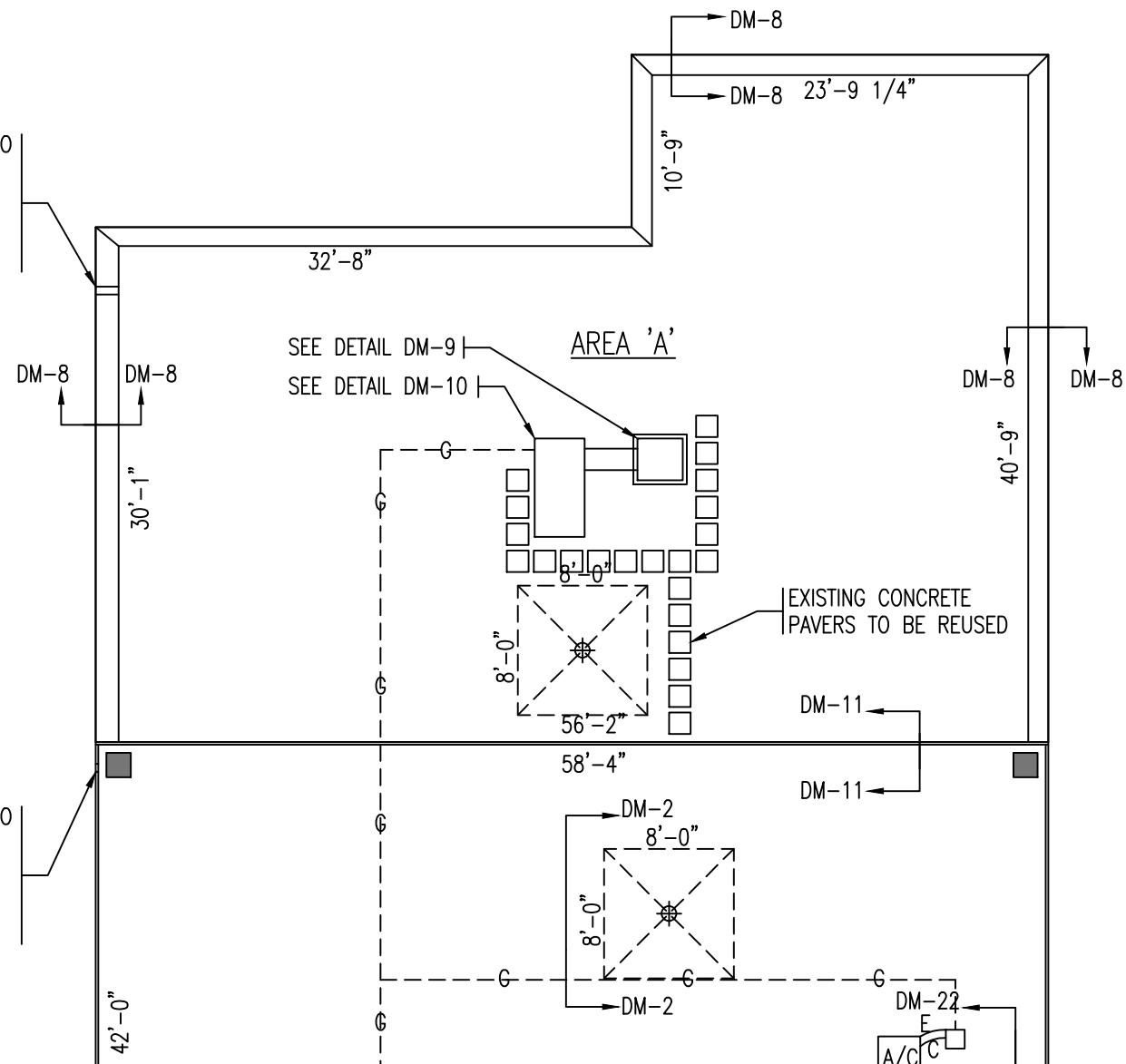
<b>REMLAP BUILDING SERVICES INC.</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS BUILDING ENVELOPES (AIR/VAPOUR BARRIER/WATER PROOFING) SURVEYS AND CONDITIONS OF ROOFS AND BUILDINGS Christopher W. Palmer, C.E.T. 1407 Gore Road, Harrow, Ontario N0R 1G0 Tel: (519) 738-3458 Fax: (519) 738-4787		PROJECT	DATE :	DECEMBER 2016
		ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT	SCALE :	AS SHOWN
		25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	DRAWN BY :	CWP
		CLIENT	CHK. BY :	CWP
		ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SHEET SIZE :	11"x17"
DATE (MM-DD-YY)	ISSUED FOR	DRAWING TITLE	PROJECT FILE NO.	RBS16-67
12-2-16	OWNER REVIEW	ENLARGED ROOF PLAN - ROOF AREA 'E' + 'J'	DRAWING NO.	<b>RM-4</b>
12-8-16	TENDER			

**LEGEND**

- ⊕ ROOF DRAIN
- ⊙ VENT PIPE STACK
- ⊠ EXHAUST FAN
- ≡ WALL LADDER
- ⊥ BRACKET FOR EXTENSION LADDER
- ⊠ ABANDONED CURB TO BE ELIMINATED
- ⊙ HOT EXHAUST STACK
- ⊙ EXHAUST STACK W/ DIRECTION
- ⊠ GOOSE NECK EXHAUST FAN
- CJ- CONTROL JOINT
- CONCRETE PAVER W/ INSULATION CUSHION
- A/C CONDENSING UNIT (NEW CONCRETE PAVER W/ INSULATION CUSHION)

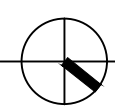
CONTRACTOR IS REQUIRED TO CUT THE PARAPET WALL (6" WIDE) FOR NEW SCUPPER DRAIN (ALSO INCLUDE 15 FEET OF 4" PVC PIPE)

CONTRACTOR IS REQUIRED TO CUT THE PARAPET WALL (6" WIDE) FOR NEW SCUPPER DRAIN (ALSO INCLUDE 15 FEET OF 4" PVC PIPE)



TAPERED INSULATION  
ROOF DRAIN - 2% SLOPE

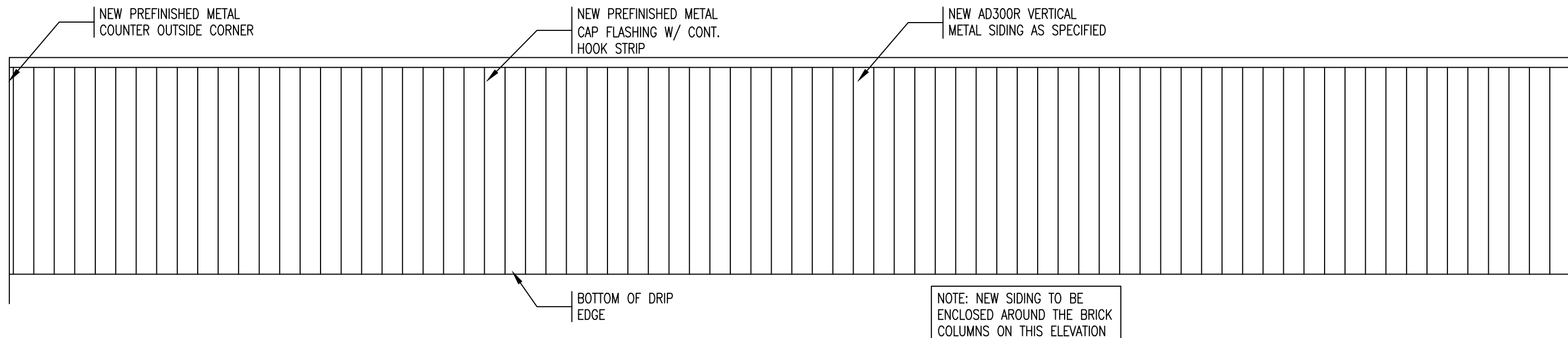
CRICKET - 1% SLOPE



**ENLARGED ROOF PLAN - ROOF PENETRATION AND DIMENSIONS**

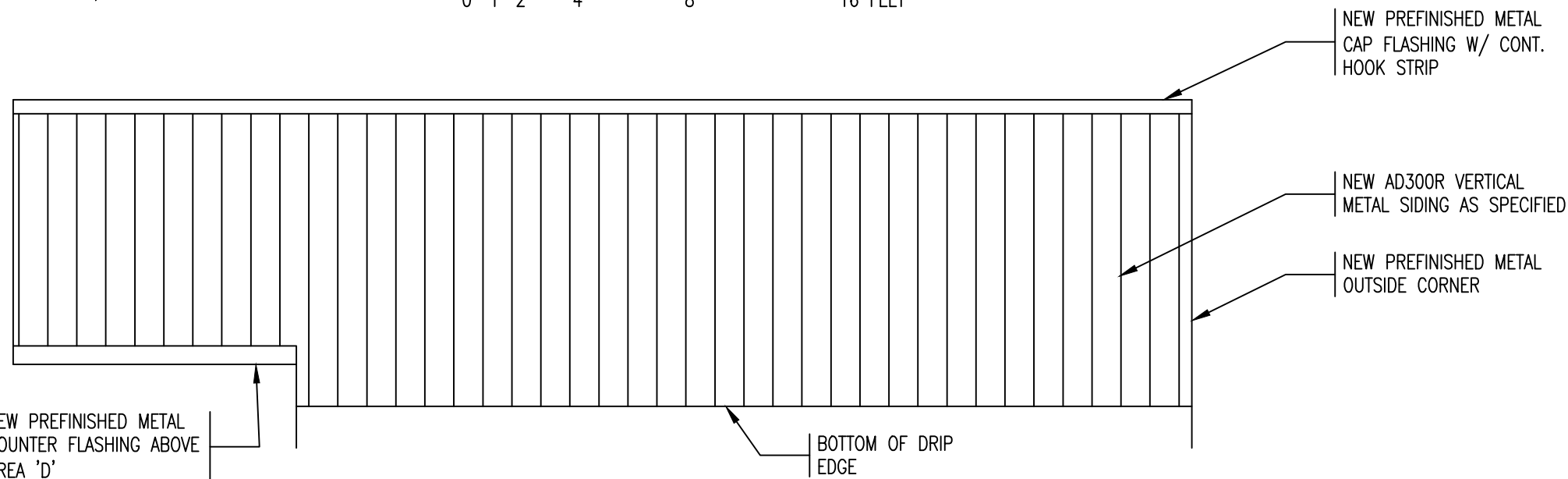
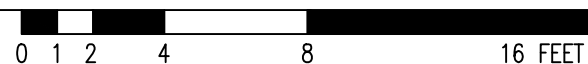
SCALE : 3/32" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS BUILDING ENVELOPES (AIR/WATER 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 ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT 25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	DATE : DECEMBER 2016 SCALE : AS SHOWN DRAWN BY : CWP
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 11"x17" PROJECT FILE NO. RBS16-67 DRAWING NO. <b>RM-5</b>
DATE (MM-DD-YY) 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE ENLARGED ROOF PLAN - ROOF AREA 'A'



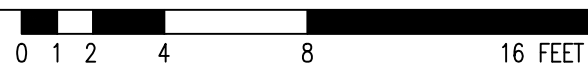
# WEST ELEVATION

SCALE : 3/16" = 1'-0"



# NORTH ELEVATION

SCALE : 3/16" = 1'-0"



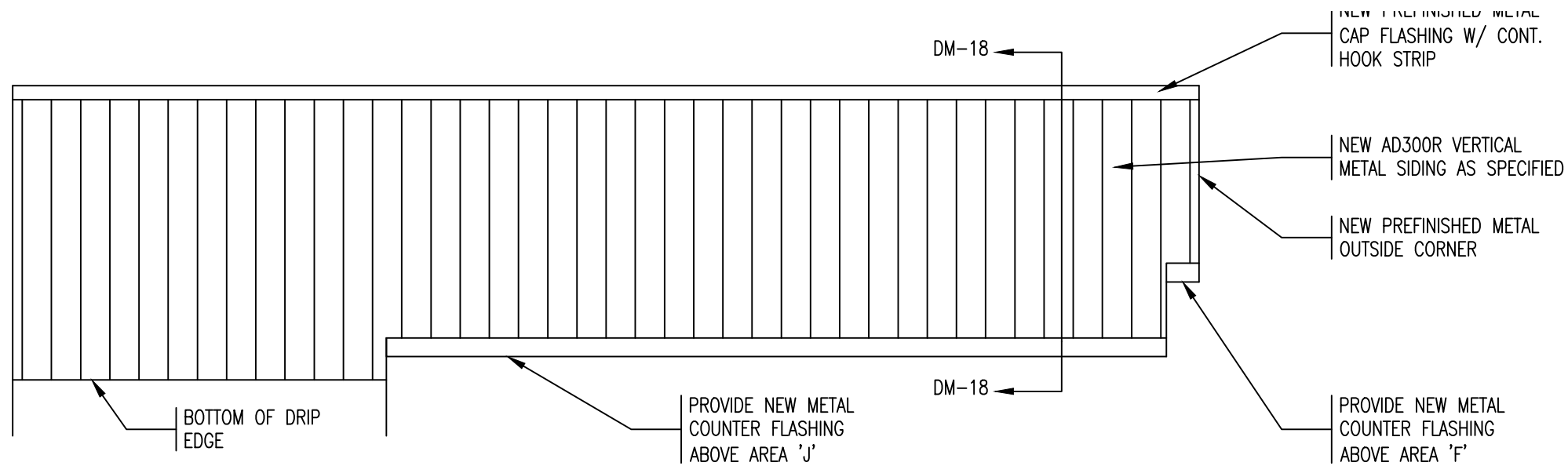
DM-1R

<b>REMLAP BUILDING SERVICES INC.</b> <small>ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS          BUILDING ENVELOPES (AIR/WAPOUR BARRIER/WATER PROOFING)          SERVICES AND CONDITIONS OF ROOFS AND BUILDINGS</small> <b>Christopher W. Palmer, C.E.T.</b> <small>1407 Gore Road          Harrow, Ontario N0R 1G0          Tel: (519) 738-3458          Fax: (519) 738-4797</small>		PROJECT	DATE :
		ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT	DECEMBER 2016
		25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	SCALE :
		CLIENT	AS SHOWN
		ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DRAWN BY :
			CWP
			CHK. BY :
			CWP
			SHEET SIZE :
			11"x17"
			PROJECT FILE NO.
			RBS16-67
			DRAWING NO.
			<b>RM-6</b>

DATE (MM-DD-YY)	ISSUED FOR
12-2-16	OWNER REVIEW
12-8-16	TENDER

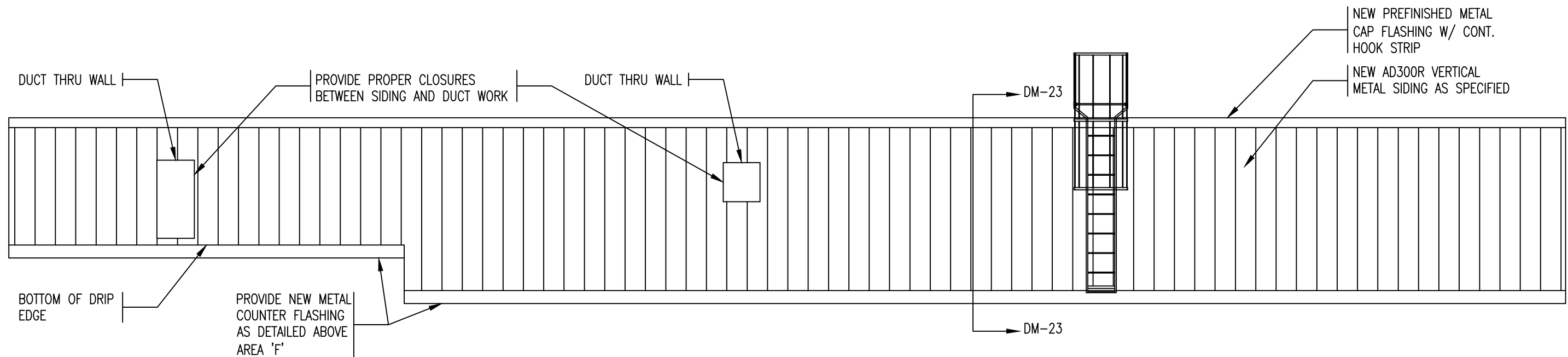
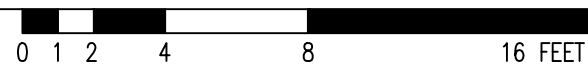
DRAWING TITLE
ELEVATIONS





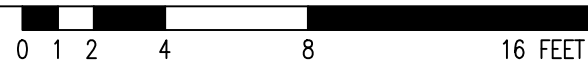
# SOUTH ELEVATION - AREA 'A'

SCALE : 3/16" = 1'-0"

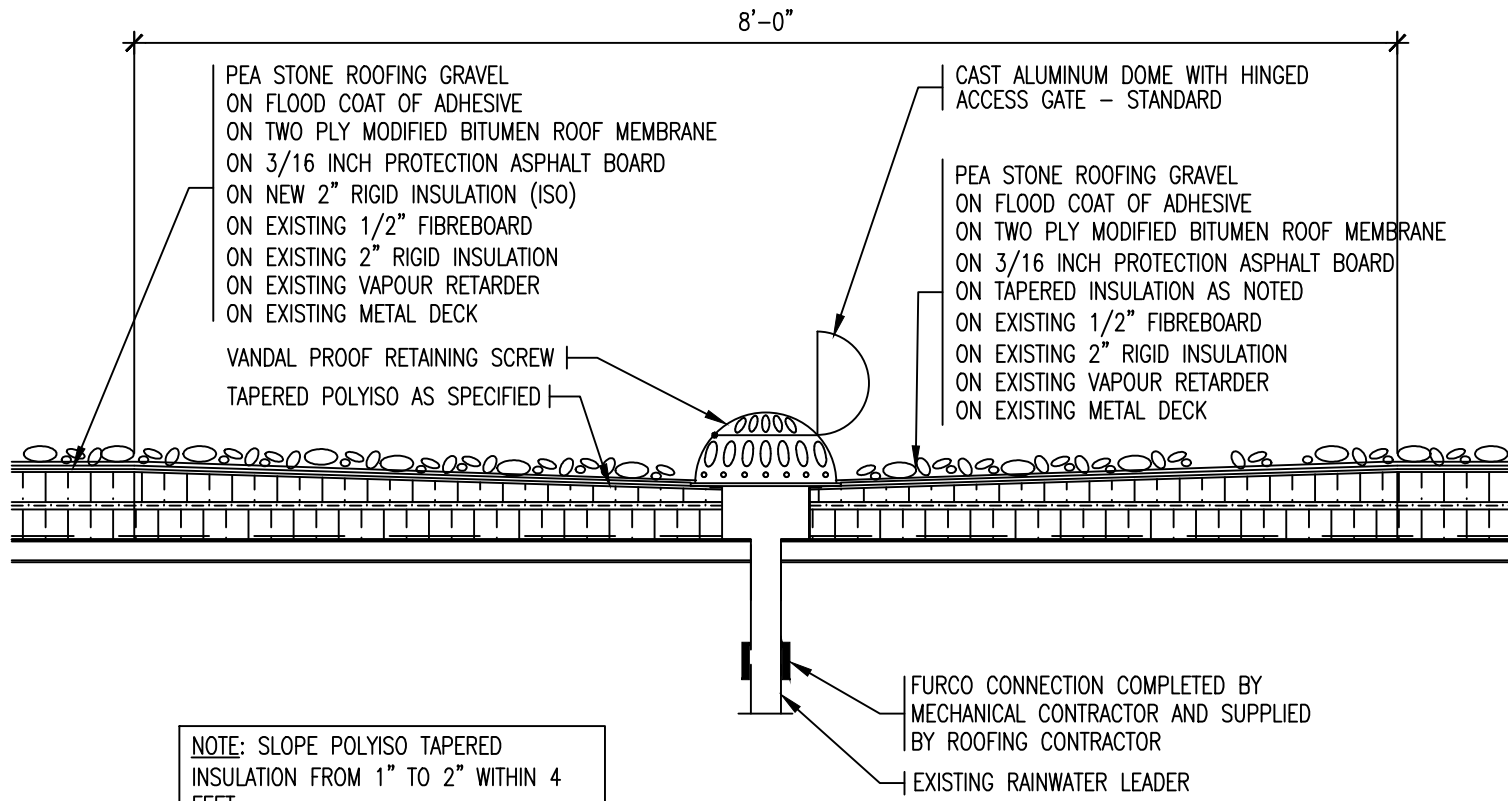


# EAST ELEVATION

SCALE : 3/16" = 1'-0"



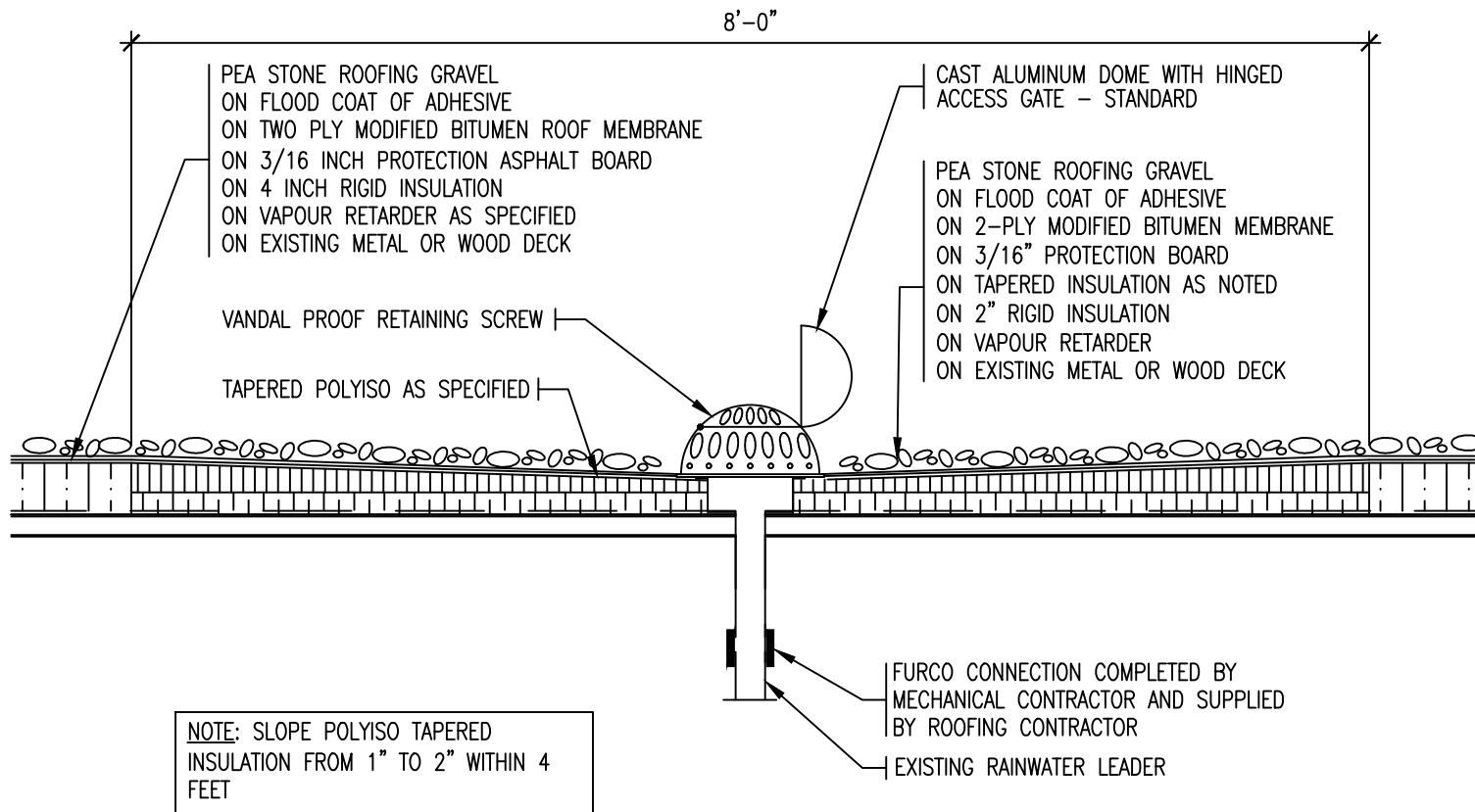
<b>REMLAP BUILDING SERVICES INC.</b> <b>R B S</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS BUILDING ENVELOPES (AIR/VAPOUR BARRIER/WATER PROOFING) SURVEYS AND CONDITIONS OF ROOFS AND BUILDINGS Christopher W. Palmer, C.E.T. 1407 Gore Road Huron, Ontario N0R 1G0 Tel: (519) 738-3458 Fax: (519) 738-4787	PROJECT <b>ST. MICHAEL CATHOLIC SCHOOL          ROOF REPLACEMENT</b> 25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	DATE : DECEMBER 2016 SCALE : AS SHOWN DRAWN BY : CWP						
	CLIENT <b>ST. CLAIR CATHOLIC DISTRICT          SCHOOL BOARD</b>	CHK. BY : CWP SHEET SIZE : 11"x17" PROJECT FILE NO. RBS16-67 DRAWING NO. <b>RM-7</b>						
<table border="1"> <tr> <th>DATE (MM-DD-YY)</th> <th>ISSUED FOR</th> </tr> <tr> <td>12-2-16</td> <td>OWNER REVIEW</td> </tr> <tr> <td>12-8-16</td> <td>TENDER</td> </tr> </table>	DATE (MM-DD-YY)	ISSUED FOR	12-2-16	OWNER REVIEW	12-8-16	TENDER	DRAWING TITLE <b>ELEVATIONS</b>	
DATE (MM-DD-YY)	ISSUED FOR							
12-2-16	OWNER REVIEW							
12-8-16	TENDER							



# ROOF DETAIL - ROOF DRAIN AREA 'A'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>RBS</b> <small>1001 Glen Road Toronto, Ontario M8Z 1K2 Tel: (416) 738-3383 Fax: (416) 738-0737</small>	<b>PROJECT</b> ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT	<b>DATE :</b> DECEMBER 2016	
	<small>ROOF ASSESSMENT, DESIGN AND SUPERVISION PROVIDED          DRAWING DEVELOPED (BY/WORK UNDER/OTHER PROVIDED)          SUBJECT AND CONTENTS OF ROOFS AND BUILDINGS</small>	<b>25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO</b>	<b>SCALE :</b> N.T.S.
	<small>Architectural: W. Palmer, C.M.A.S.</small>	<b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	<b>DRAWN BY :</b> CWP
	<b>DATE</b> <small>(ISS-TO-YR)</small> 12-2-16	<b>ISSUED FOR</b> OWNER REVIEW	<b>CHK. BY :</b> CWP
12-8-16	TENDER	<b>SHEET SIZE :</b> 8.1/2"x11"	
	<b>DRAWING TITLE</b> ROOF DETAIL	<b>PROJECT FILE NO.</b> RBS16-67	
		<b>DRAWING NO.</b> DM-1	

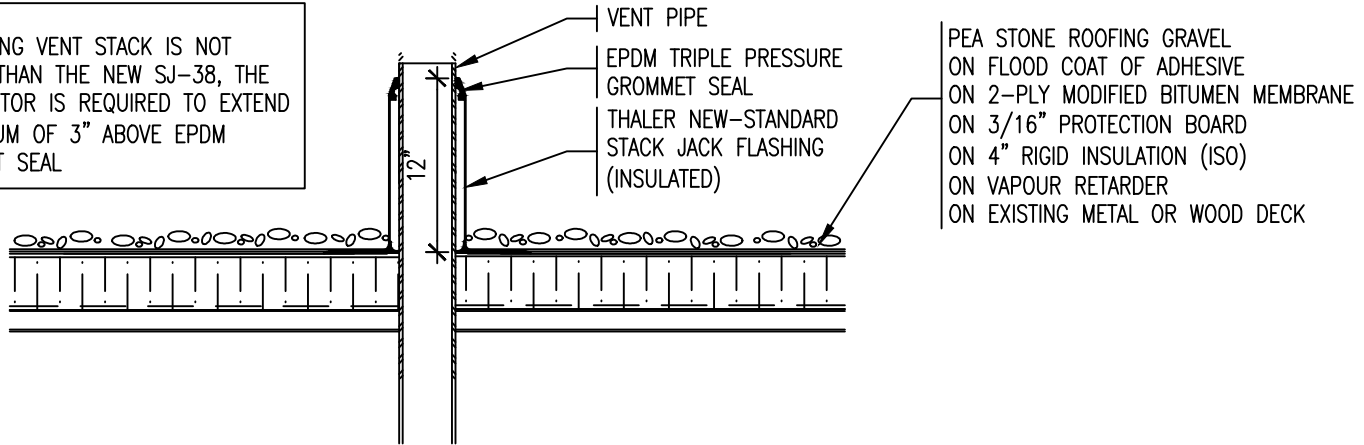


# ROOF DETAIL - ROOF DRAIN (ALL OTHER AREAS)

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF ASSESSMENT, DESIGN AND INSPECTION SERVICES          ROOFING CONTRACTORS (SIA/ASPCA MEMBER/ALMA MATER)          SUBJECTS AND CONSULTANTS OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.E.S.T.</small> <small>1607 Glen Road          Toronto, Ontario M8Z 1K2</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SCALE : N.T.S.
	DRAWING TITLE ROOF DETAIL	DRAWN BY : CWP
DATE 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	CHK. BY : CWP
		SHEET SIZE : 8.1/2"x11"
		PROJECT FILE NO. RBS16-67
		DRAWING NO. DM-2

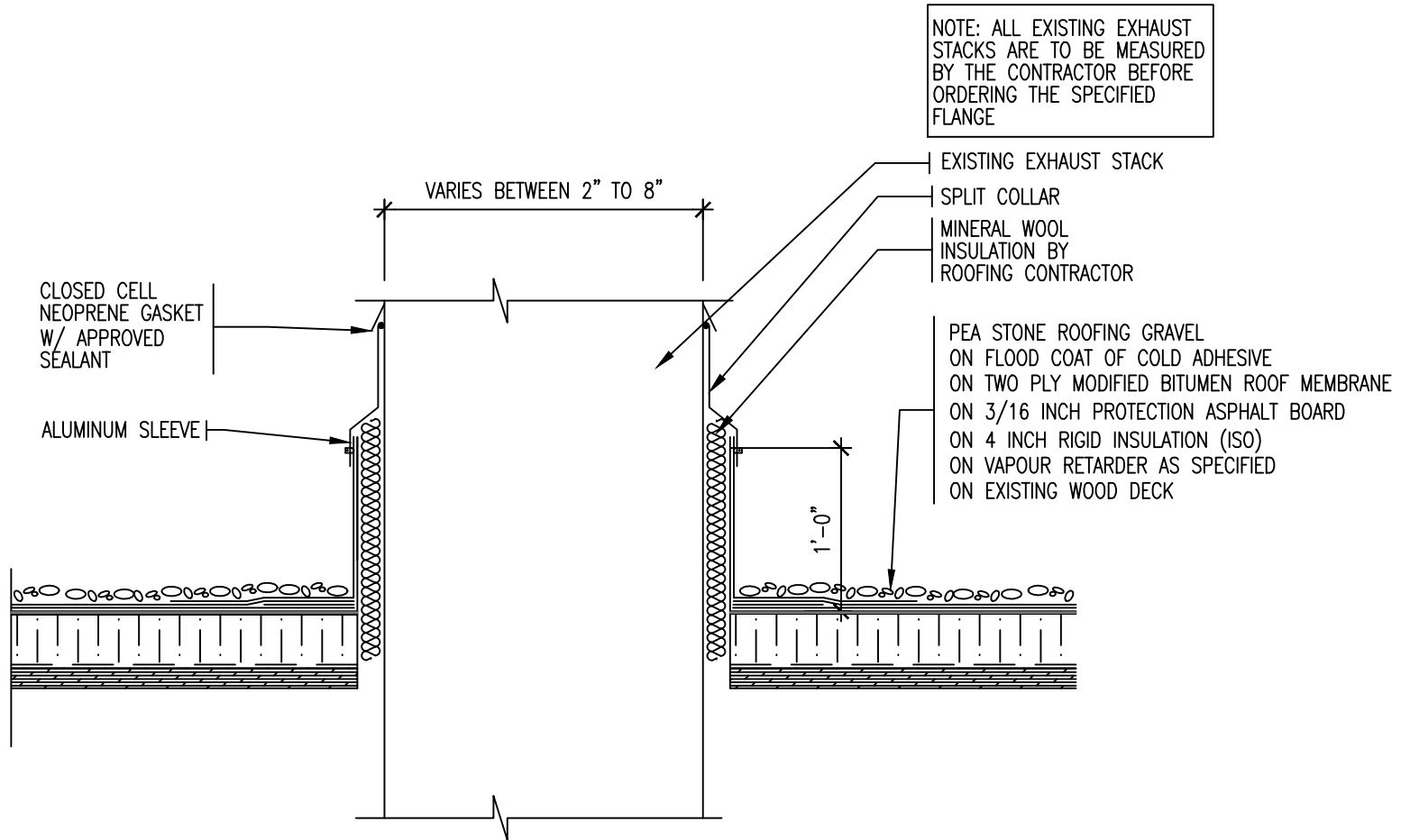
NOTE:  
IF EXISTING VENT STACK IS NOT HIGHER THAN THE NEW SJ-38, THE CONTRACTOR IS REQUIRED TO EXTEND A MINIMUM OF 3" ABOVE EPDM GROMMET SEAL



# ROOF DETAIL - VENT PIPE STACK

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1607 Glen Road          Toronto, Ontario M8Z 1X9</small>	<small>ROOF ASSESSMENT, DESIGN AND SUPERVISION SERVICES</small> <small>INSULATION INSTALLATION (POLYURETHANE SPRAYED POLYURETHANE FOAM)</small> <small>SUBJECTS AND CONSULTANTS OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.E.S.</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT 25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	DATE : DECEMBER 2016 SCALE : N.T.S. DRAWN BY : CWP
	<small>1607 Glen Road          Toronto, Ontario M8Z 1X9</small>	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
	DATE <small>(MM-DD-YY)</small> 12-2-16 OWNER REVIEW 12-8-16 TENDER	ISSUED FOR ROOF DETAIL	PROJECT FILE NO. RBS16-67 DRAWING NO. DM-3



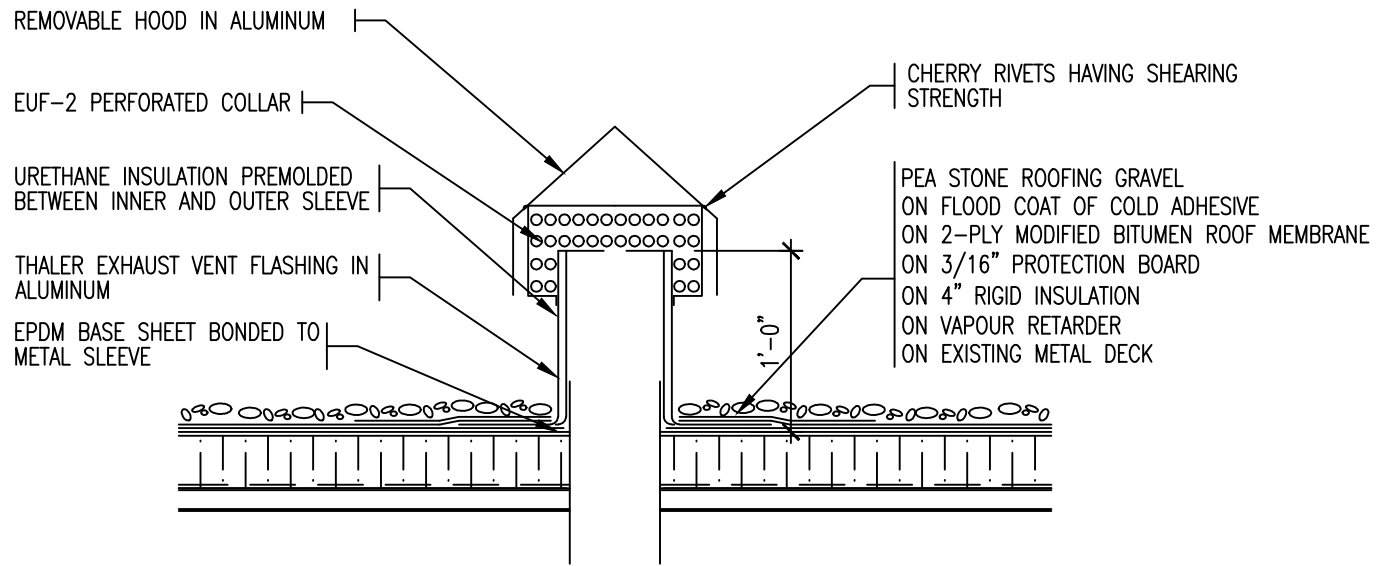
NOTE: ALL EXISTING EXHAUST STACKS ARE TO BE MEASURED BY THE CONTRACTOR BEFORE ORDERING THE SPECIFIED FLANGE

# TYPICAL HOT EXHAUST STACK DETAIL

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF REPAIRS, ROOFING AND INSULATION SERVICES          ROOFING CONTRACTORS (SINCE 1978)          SUBJECTS AND CONSULTANTS OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.E.S.</small> <small>1607 Glen Road          Toronto, Ontario M8Z 1K2</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	SCALE : N.T.S.
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DRAWN BY : CWP
	DRAWING TITLE ROOF DETAIL	CHK. BY : CWP
DATE <small>(MM-DD-YY)</small> 12-2-16	ISSUED FOR OWNER REVIEW	SHEET SIZE : 8.1/2"x11"
12-8-16 TENDER	PROJECT FILE NO. RBS16-67	DRAWING NO. DM-4

NOTE: ALL EXISTING EXHAUST STACKS ARE TO BE MEASURED BY THE CONTRACTOR BEFORE ORDERING THE SPECIFIED FLANGE



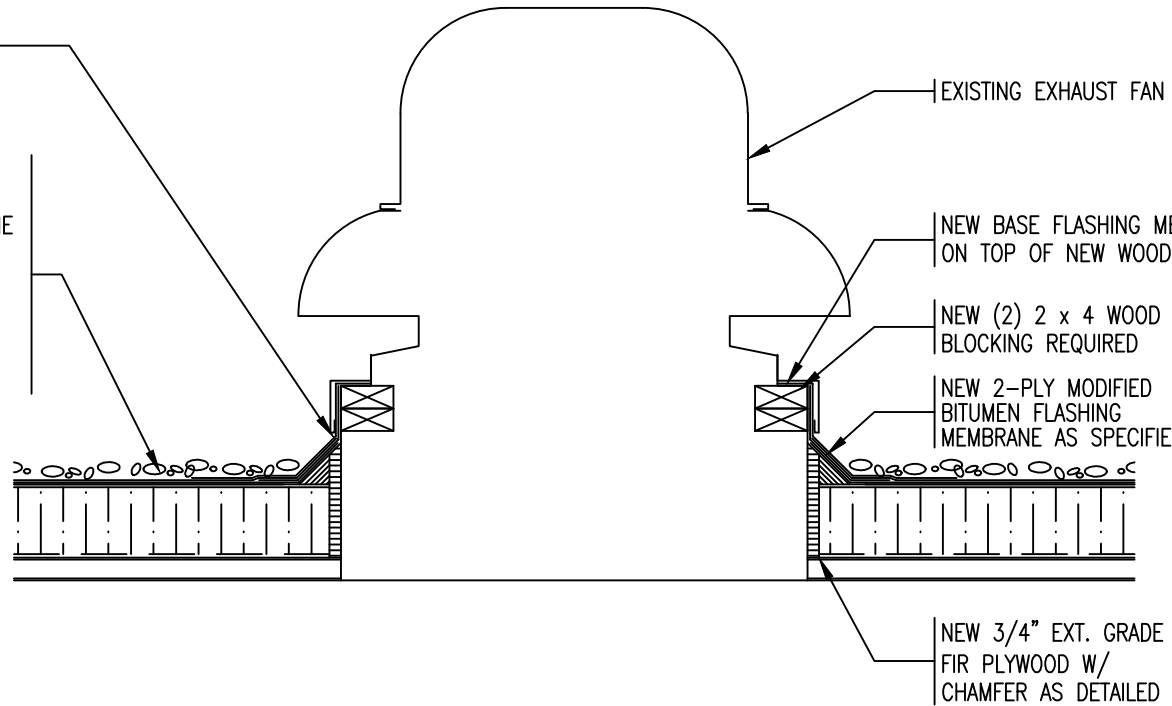
# EXHAUST VENT FLASHING DETAIL

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1607 Glen Road          Toronto, Ontario M8Z 1X9</small>	<small>WE'VE ASSISTED, DESIGNED AND SUPERVISED PROJECTS          THROUGHOUT ONTARIO (AND NEARBY PROVINCES)          SUBJECT TO CONDITIONS OF BIDS AND AGREEMENTS</small> <small>Christopher W. Palmer, C.B.S.</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	<small>1607 Glen Road          Toronto, Ontario M8Z 1X9</small>	25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	SCALE : N.T.S.
	<small>1607 Glen Road          Toronto, Ontario M8Z 1X9</small>	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DRAWN BY : CWP
	<small>1607 Glen Road          Toronto, Ontario M8Z 1X9</small>	DRAWING TITLE ROOF DETAIL	CHK. BY : CWP
DATE (MM-DD-YY) 12-2-16	ISSUED FOR OWNER REVIEW	PROJECT FILE NO. RBS16-67	SHEET SIZE : 8.1/2"x11"
12-8-16	TENDER	DRAWING NO. DM-5	

NEW PREFINISHED METAL  
COUNTER FLASHING AS  
DETAILED

PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF COLD ADHESIVE  
ON TWO PLY MODIFIED BITUMEN ROOF MEMBRANE  
ON 3/16 INCH PROTECTION ASPHALT BOARD  
ON TAPERED INSULATION AS NOTED  
ON 4 INCH RIGID INSULATION (ISO)  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING METAL OR WOOD DECK



EXISTING EXHAUST FAN

NEW BASE FLASHING MEMBRANE CARRIED  
ON TOP OF NEW WOOD BLOCKING

NEW (2) 2 x 4 WOOD  
BLOCKING REQUIRED

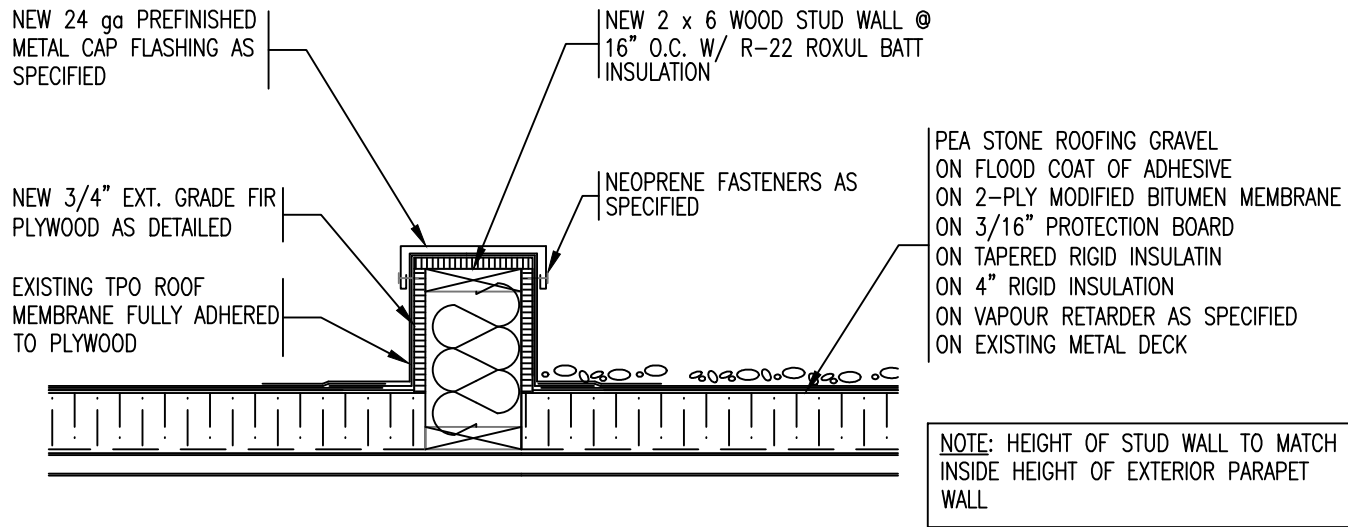
NEW 2-PLY MODIFIED  
BITUMEN FLASHING  
MEMBRANE AS SPECIFIED

NEW 3/4" EXT. GRADE  
FIR PLYWOOD W/  
CHAMFER AS DETAILED

## DETAIL - EXHAUST FAN

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1607 Glen Road Honey, Ontario M2H 3G2</small>	<small>ROOF ASSESSMENT, DESIGN AND SUPERVISION SERVICES</small> <small>INSULATION SPECIALISTS (POLYURETHANE SPRAY/FORCE APPLIED)</small> <small>SUBJECTS AND CONDITIONS OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.B.S.</small>	<b>PROJECT</b> ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT 25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	<b>DATE :</b> DECEMBER 2016 <b>SCALE :</b> N.T.S. <b>DRAWN BY :</b> CWP
	<small>1607 Glen Road Honey, Ontario M2H 3G2</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> <small>(MM-DD-YY)</small> 12-2-16 12-8-16	<b>ISSUED FOR</b> OWNER REVIEW TENDER	<b>DRAWING TITLE</b> ROOF DETAIL



# ROOF DETAIL - CONTROL JOINT

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1607 Glen Road          Toronto, Ontario M8Z 1X2          Tel: (416) 738-3885          Fax: (416)738-0757</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	SCALE : N.T.S.
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DRAWN BY : CWP
DATE <small>(ISS-TO-YY)</small> 12-2-16	ISSUED FOR OWNER REVIEW	CHK. BY : CWP
DATE <small>(ISS-TO-YY)</small> 12-8-16	ISSUED FOR TENDER	SHEET SIZE : 8.1/2"x11"
	DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS16-67
		DRAWING NO. <b>DM-7</b>



NEW 24ga PREFINISHED METAL  
CAP FLASHING AS SPECIFIED

NEW 2 x 10 AND 2 x 4 WOOD  
BLOCKING W/ NEW 3/4" FIR  
PLYWOOD SCREWED TO EXISTING  
PLYWOOD AS DETAILED

BASE SHEET FLASHING  
MEMBRANE CARRIED TO  
BOTTOM OF NEW 3/4" FIR  
PLYWOOD

CONT. METAL HOOK STRIP  
AS DETAILED

EXISTING SPLIT FACE  
CONCRETE BLOCK TO REMAIN

NEOPRENE FASTENERS AS  
SPECIFIED

EXISTING 2 x 12  
WOOD BLOCKING  
EXISTING 2 x 8  
WOOD BLOCKING

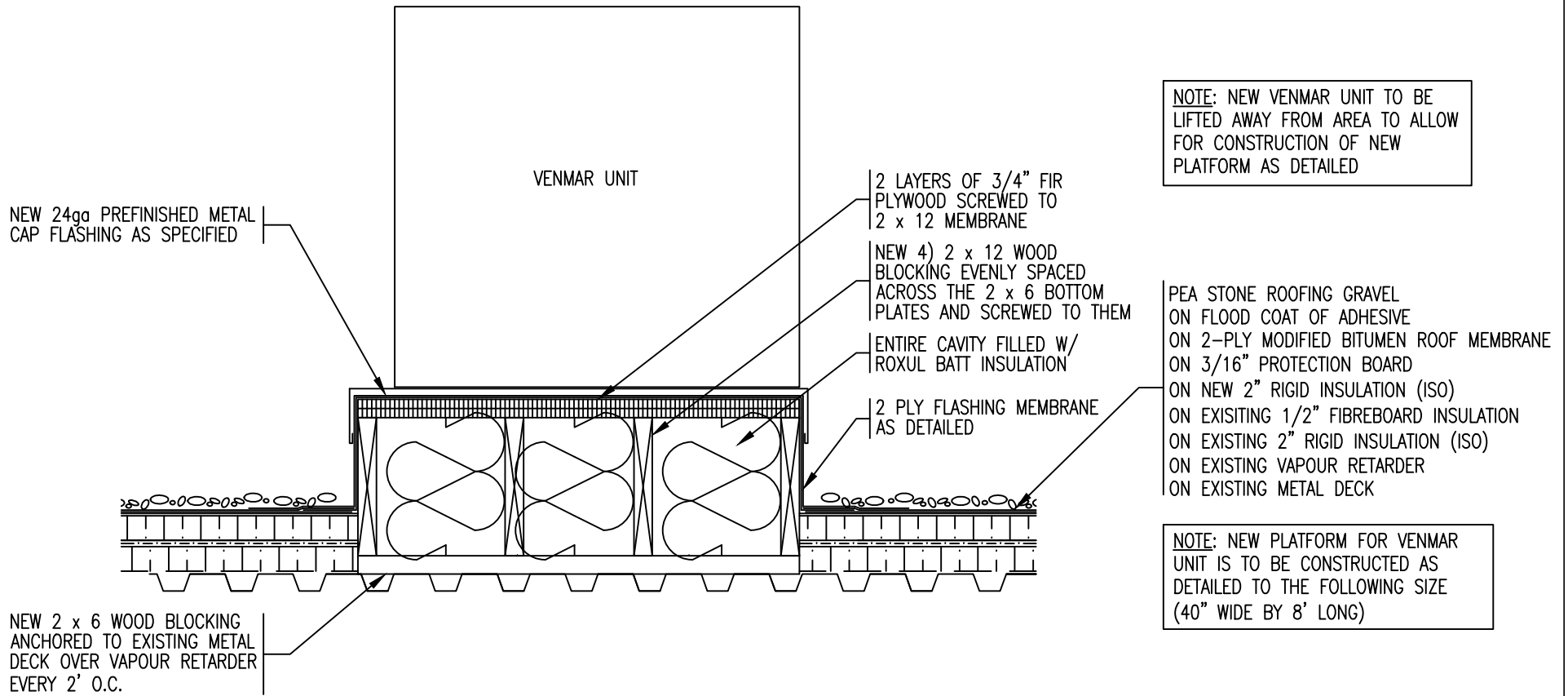
PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF ADHESIVE  
ON 2-PLY MODIFIED BITUMEN ROOF MEMBRANE  
ON 3/16" PROTECTION BOARD  
ON NEW 2" RIGID INSULATION (ISO)  
ON EXISTING 1/2" FIBREBOARD INSULATION  
ON EXISTING 2" RIGID INSULATION (ISO)  
ON EXISTING VAPOUR RETARDER  
ON EXISTING METAL DECK

NOTE: EXISTING WOOD BLOCKING WITH  
PLYWOOD TO REMAIN. NEW WOOD  
BLOCKING AND PLYWOOD IS NOW  
SHOWN IN BOLD LINES

# ROOF PERIMETER DETAIL - AREA 'A'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1607 Glen Road Honey, Ontario M2H 3G9 Tel: (905) 728-3885 Fax: (905)728-0727</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016	
	<small>ROOF MEMBRANES, FLASHING AND DRAINAGE PRODUCTS          INSULATION MATERIALS (POLYURETHAN FOAMS/FOAM PRODUCTS)          SURFACES AND COMPONENTS OF ROOFS AND WALLS</small> Client: <b>Christopher W. Palmer, C.M.A.S.</b>	25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	SCALE : N.T.S.
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD		DRAWN BY : CWP
DATE <small>(MM-DD-YY)</small> 12-2-16	ISSUED FOR OWNER REVIEW	CHK. BY : CWP	
DATE <small>(MM-DD-YY)</small> 12-8-16	ISSUED FOR TENDER	SHEET SIZE : 8.1/2"x11"	
	DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS16-67	
		DRAWING NO. <b>DM-8</b>	



# ROOF DETAIL @ VENMAR UNIT ON AREA 'A'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1001 Glen Road          Toronto, Ontario M8Z 1X9</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SCALE : N.T.S.
	DRAWING TITLE ROOF DETAIL	DRAWN BY : CWP
DATE 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	CHK. BY : CWP
		SHEET SIZE : 8.1/2"x11"
		PROJECT FILE NO. RBS16-67
		DRAWING NO. DM-9

NOTE: EXISTING 2-PLY ROOF MEMBRANE IS REQUIRED TO BE REMOVED FROM ROOF AREA PRIOR TO INSTALLING NEW RIGID INSULATION, PROTECTION BOARD, NEW ROOF MEMBRANE W/ PEA STONE ON TOP

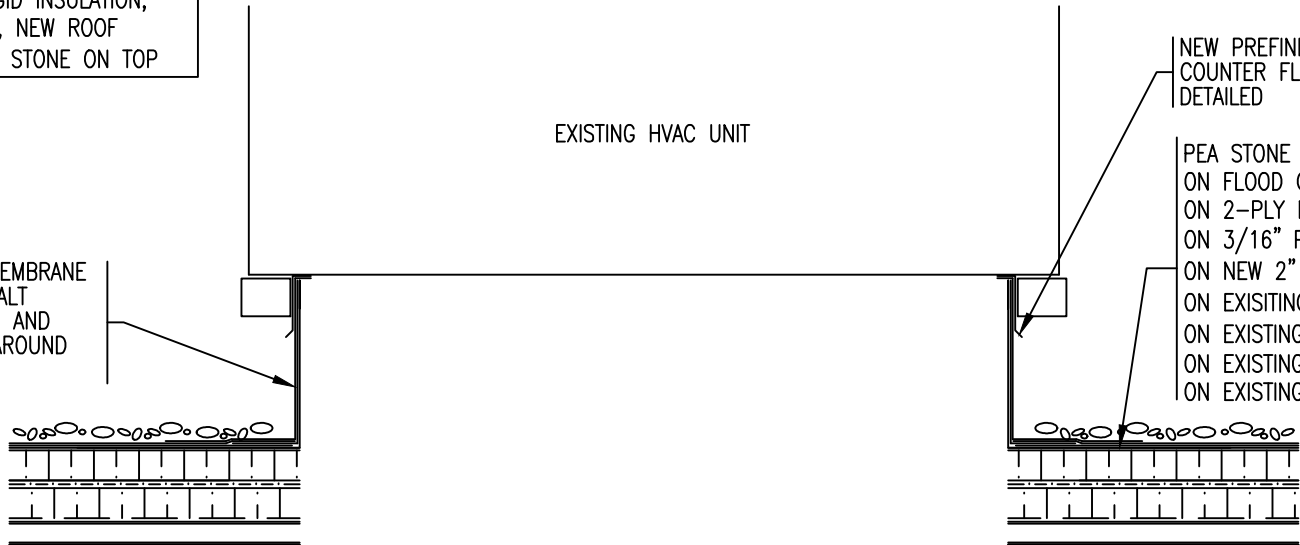
NOTE: EXISTING ROOF TOP UNIT IS REQUIRED TO BE LIFTED TO ALLOW FOR APPLICATION OF BASE SHEET FLASHING MEMBRANE ALONG W/ METAL COUNTER FLASHING ON TOP OF ROOF CURB

2 PLY FLASHING MEMBRANE ADHERED TO ASPHALT PROTECTION BOARD AND RIGID INSULATION AROUND ROOF CURB

EXISTING HVAC UNIT

NEW PREFINISHED METAL COUNTER FLASHING AS DETAILED

PEA STONE ROOFING GRAVEL ON FLOOD COAT OF ADHESIVE ON 2-PLY MODIFIED BITUMEN ROOF MEMBRANE ON 3/16" PROTECTION BOARD ON NEW 2" RIGID INSULATION (ISO) ON EXISTING 1/2" FIBREBOARD INSULATION ON EXISTING 2" RIGID INSULATION (ISO) ON EXISTING VAPOUR RETARDER ON EXISTING METAL DECK



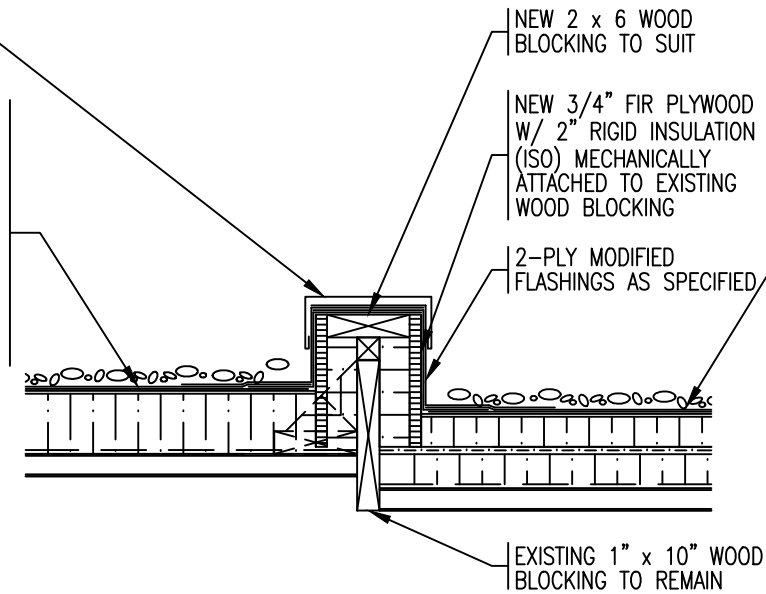
# ROOF DETAIL FOR HVAC UNIT ON AREA 'A'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1607 Glen Road          Aurora, Ontario M1G 3G2          Tel: (905) 738-3885          Fax: (905) 738-0757</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016	
	<small>NOT RESPONSIBLE FOR ANY AND ALL INFORMATION PROVIDED          UNLESS SPECIFICALLY NOTED OTHERWISE/OTHER PROVIDED          SUBJECT AND CONDITIONS OF BIDDING AND CONTRACT</small> Client: <b>Christopher W. Palmer, C.E.S.</b>	25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	SCALE : N.T.S.
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD		DRAWN BY : CWP
DATE <small>(MM-DD-YY)</small> 12-2-16	ISSUED FOR OWNER REVIEW	CHK. BY : CWP	
DATE <small>(MM-DD-YY)</small> 12-8-16	ISSUED FOR TENDER	SHEET SIZE : 8.1/2"x11"	
	DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS16-67	
		DRAWING NO. <b>DM-10</b>	

NEW 24ga PREFINISHED METAL  
CAP FLASHING AS DETAILED W/  
NEOPRENE FASTENERS ON EACH  
SIDE

PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF COLD ADHESIVE  
ON TWO PLY MODIFIED BITUMEN ROOF MEMBRANE  
ON 3/16 INCH PROTECTION ASPHALT BOARD  
ON TAPERED INSULATION AS NOTED  
ON 4 INCH RIGID INSULATION (ISO)  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING METAL DECK



PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF ADHESIVE  
ON 2-PLY MODIFIED BITUMEN ROOF MEMBRANE  
ON 3/16" PROTECTION BOARD  
ON NEW 2" RIGID INSULATION (ISO)  
ON EXISTING 1/2" FIBREBOARD INSULATION  
ON EXISTING 2" RIGID INSULATION (ISO)  
ON EXISTING VAPOUR RETARDER  
ON EXISTING METAL DECK

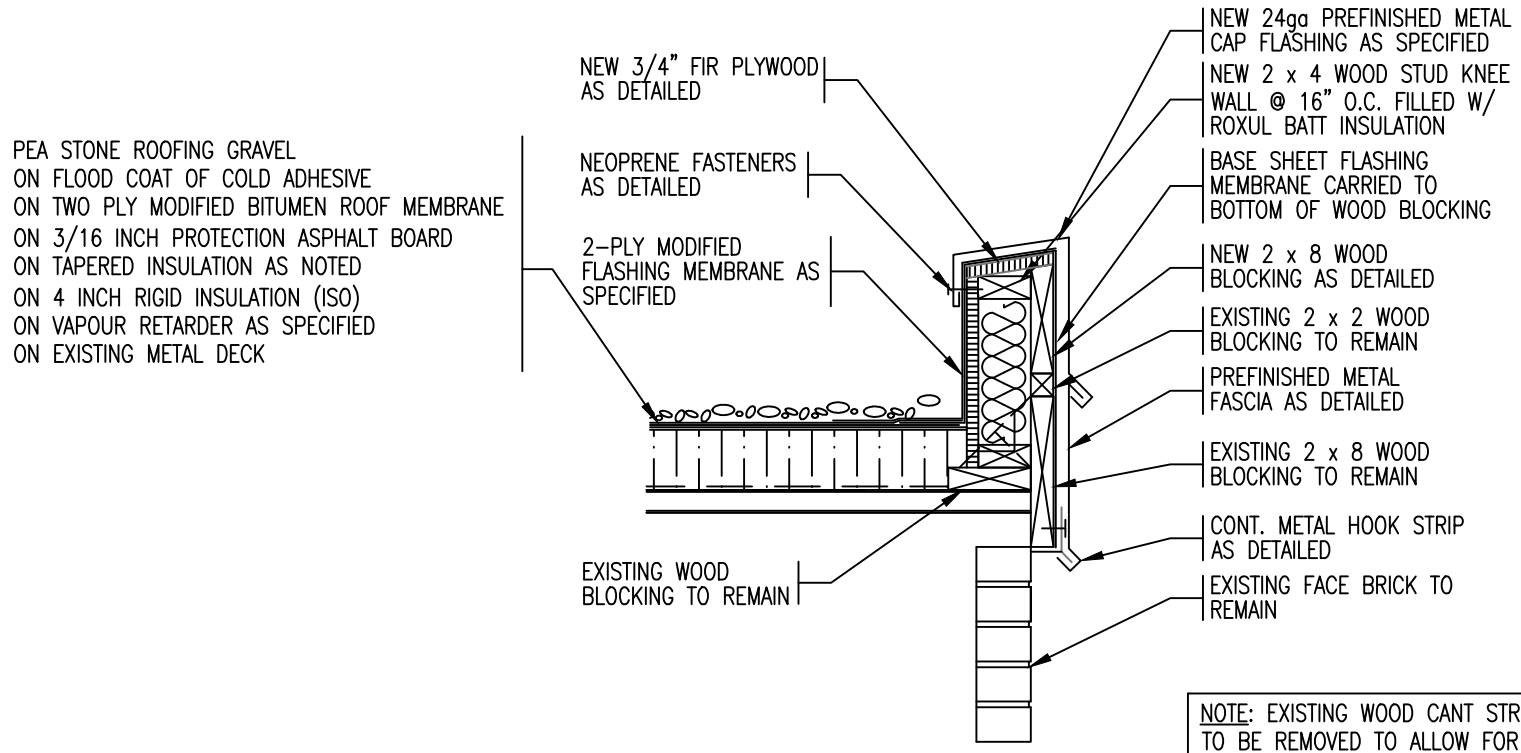
NOTE: EXISTING ROOF SYSTEM ON  
ROOF AREA 'B' IS TO BE REMOVED  
COMPLETELY DOWN TO THE METAL  
ROOF DECK PRIOR TO INSTALLING  
THE NEW ROOF SYSTEM AS DESIGNED

NOTE: EXISTING 2-PLY ROOF  
MEMBRANE IS REQUIRED TO BE  
REMOVED FROM ROOF AREA 'A'  
PRIOR TO INSTALLING NEW RIGID  
INSULATION, PROTECTION BOARD, NEW  
ROOF MEMBRANE W/ PEA STONE ON  
TOP

# ROOF PERIMETER DETAIL - BETWEEN AREA 'B' AND 'A'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> R B S 1607 Glen Road Hemel, Ontario, M2H 3G2 Tel: (905) 739-3363 Fax: (905) 739-0757		PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT 25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	DATE : DECEMBER 2016 SCALE : N.T.S. DRAWN BY : CWP
CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD		CHK. BY : CWP SHEET SIZE : 8.1/2"x11"	
DATE (ISS-REV) 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS16-67 DRAWING NO. DM-11



NOTE: EXISTING WOOD CANT STRIP  
TO BE REMOVED TO ALLOW FOR  
INSTALLATION OF KNEE WALL AS  
DETAILED

# ROOF PERIMETER DETAIL - NORTH AND SOUTH WALL OF AREA 'B'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>WE'VE GOT YOU COVERED FROM DESIGN TO CONSTRUCTION</small> <small>1000 Glen Road, Toronto, Ontario M8Z 1X9</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT 25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	DATE : DECEMBER 2016 SCALE : N.T.S. DRAWN BY : CWP
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
	DATE 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER

PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF ADHESIVE  
ON 2-PLY MODIFIED BITUMEN MEMBRANE  
ON 3/16" PROTECTION BOARD  
ON 4" RIGID INSULATION  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING METAL DECK

NEW 24ga PREFINISHED METAL CAP  
FLASHING AS SPECIFIED

NEW 2 x 4 WOOD STUD WALL @ 16"  
O.C. W/ ROXUL BATT INSULATION (3/4"  
FIR PLYWOOD OF EACH SIDE)

SLOPE

NEW 3/4" FIR PLYWOOD  
ACROSS THE ENTIRE PARAPET

WOOD SHIM TO SUIT

NEW (3) 2 x 4 WOOD  
BLOCKING AS DETAILED

BASE SHEET FLASHING  
MEMBRANE CARRIED 1"  
BEYOND BLOCKING

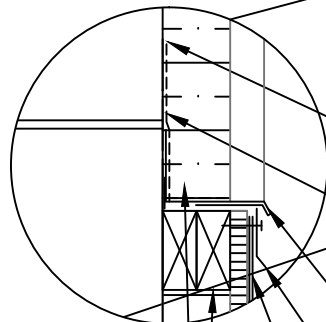
CONT. METAL HOOK STRIP

NEW AD300R PREFINISHED  
METAL SIDING AS  
SPECIFIED OVER NEW 3"  
WALL CAVITY RIGID  
INSULATION AS SPECIFIED

NEW 3" Z-BARS AS  
SPECIFIED EVERY 2' O.C.

PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF ADHESIVE  
ON 2-PLY MODIFIED BITUMEN MEMBRANE  
ON 3/16" PROTECTION BOARD  
ON 4" RIGID INSULATION  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING WOOD DECK

NOTE: EXISTING WOOD CANT STRIP  
ALONG W/ PLYWOOD FASCIA TO BE  
REMOVED AS DETAILED TO ALLOW FOR  
NEW KNEEWALL



NEW POLYBITUMEN SEALANT  
AS SPECIFIED

NEW BLUESKIN THRU-WALL  
FLASHING MEMBRANE OVER  
METAL DRIP EDGE TO ENSURE  
WALL TIGHT SEAL

NEW PREFINISHED METAL DRIP  
EDGE SECURED TO CONC.  
BLOCK

NEW PREFINISHED METAL  
COUNTER FLASHING AS DETAILED

NEW 3" WALL CAVITY RIGID  
INSULATION AS SPECIFIED

NEW (2) 2 x 4 WOOD  
BLOCKING TO EXISTING  
CONC. BLOCK WALL

NEW 2-PLY MODIFIED BITUMEN  
FLASHING MEMBRANE ON NEW 3/4"  
FIR PLYWOOD OVER WALL CAVITY  
RIGID INSULATION

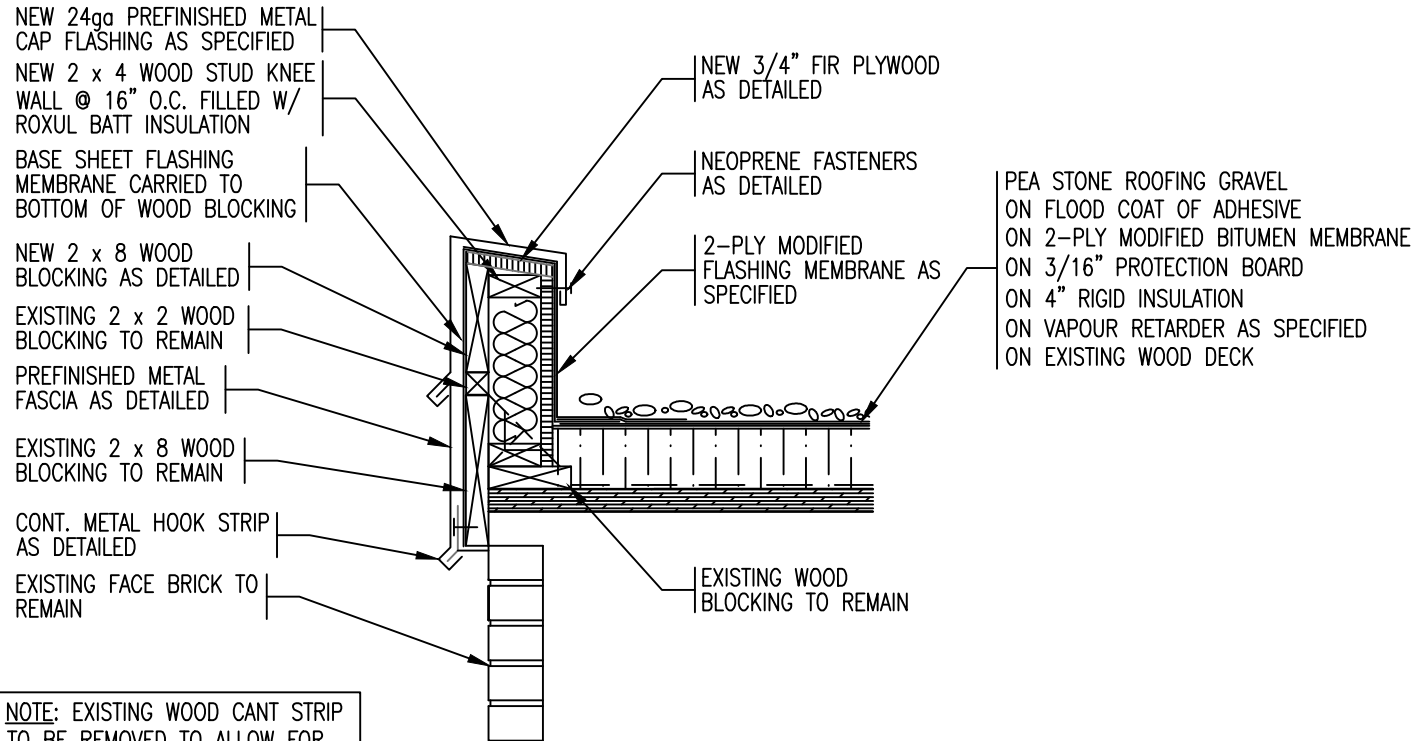
12" MIN.

EXISTING CONC. BLOCK WALL

# ROOF PERIMETER DETAIL - BETWEEN 'B' AND 'I'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>RBS</b> <small>WEATHER RESISTANT WALLS AND ROOFING PRODUCTS          INSULATION SPECIALISTS (POLYURETHANE SPRAY/FORCE APPLIED)          SUBJECTS AND CONSULTANTS OF ROOFS AND WALLS</small> <small>1407 Glen Road          Toronto, Ontario M8Z 1K2</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT  25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	DATE : DECEMBER 2016  SCALE : N.T.S.
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DRAWN BY : CWP  CHK. BY : CWP  SHEET SIZE : 8.1/2"x11"
DATE 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE ROOF DETAIL  PROJECT FILE NO. RBS16-67 DRAWING NO. DM-13



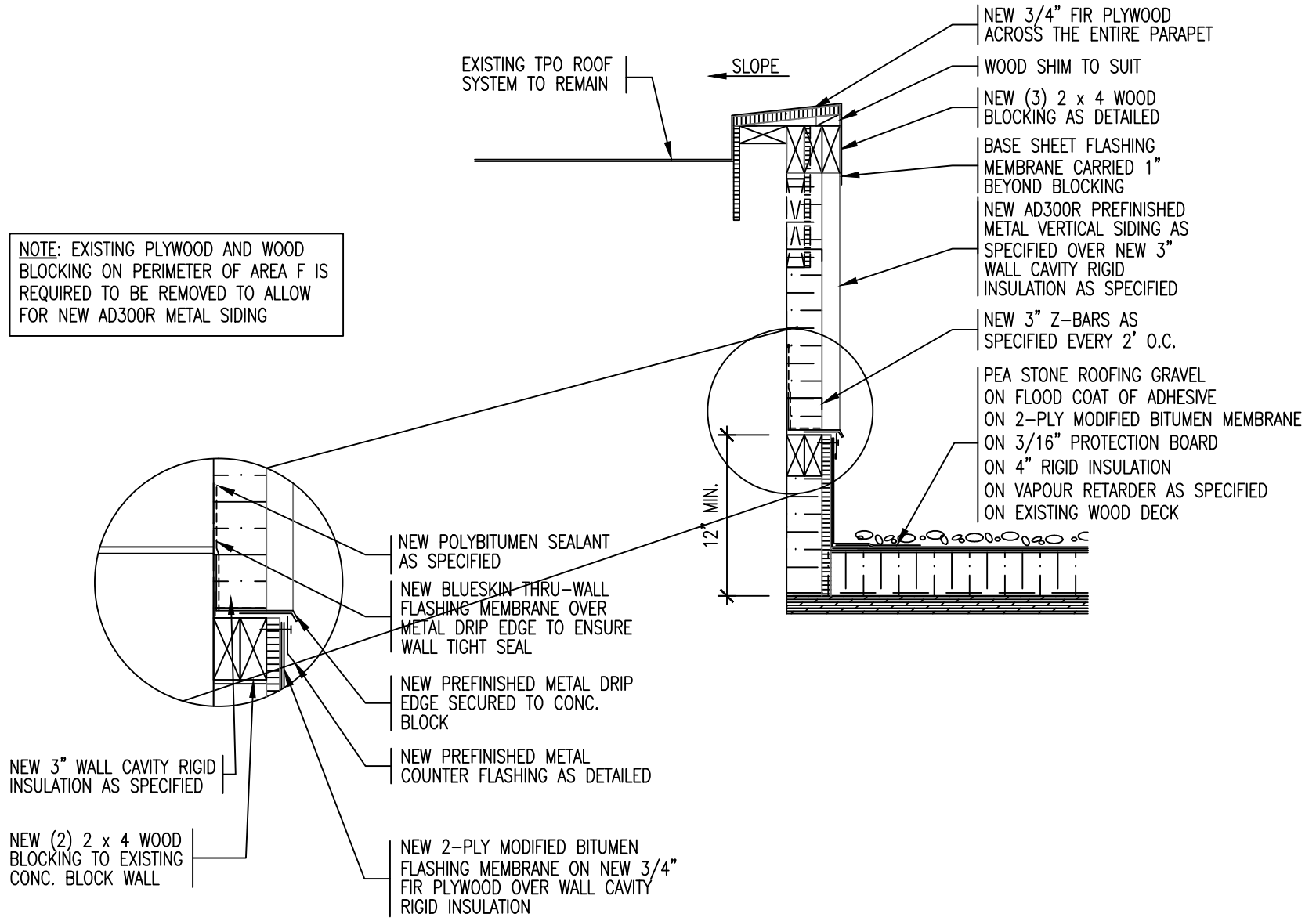
**NOTE:** EXISTING WOOD CANT STRIP TO BE REMOVED TO ALLOW FOR INSTALLATION OF KNEE WALL AS DETAILED

# ROOF PERIMETER DETAIL - AREA 'I'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>WEATHER RESISTANT SYSTEMS AND ROOFING PRODUCTS          INSULATION SPECIALISTS (POLYURETHANE FOAM/ROCK WOOL FIBRE)          ROOFING AND CONTRACTORS OF ROOFS AND WALLS</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016 SCALE : N.T.S.
	25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	DRAWN BY : CWP
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP
<small>1607 Glen Road          Toronto, Ontario M8Z 1G2</small>	<small>TEL: (416) 738-3885          FAX: (416) 738-0757</small>	SHEET SIZE : 8.1/2"x11"
DATE <small>(DATE-20-YY)</small> 12-2-16	ISSUED FOR OWNER REVIEW	PROJECT FILE NO. RBS16-67
12-8-16	TENDER	DRAWING NO. DM-14

NOTE: EXISTING PLYWOOD AND WOOD BLOCKING ON PERIMETER OF AREA F IS REQUIRED TO BE REMOVED TO ALLOW FOR NEW AD300R METAL SIDING



# ROOF PERIMETER DETAIL - BETWEEN AREA 'F' AND 'I'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>RBS</b> <small>1607 Glen Road Rexdale, Ontario M9L 2K1</small> <small>1-800-778-3888 Fax (905) 709-0707</small>	<b>PROJECT</b> ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT 25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	<b>DATE :</b> DECEMBER 2016 <b>SCALE :</b> N.T.S. <b>DRAWN BY :</b> CWP
	<b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	<b>CHK. BY :</b> CWP <b>SHEET SIZE :</b> 8.1/2"x11"
	<b>DRAWING TITLE</b> ROOF DETAIL	<b>PROJECT FILE NO.</b> RBS16-67 <b>DRAWING NO.</b> DM-15

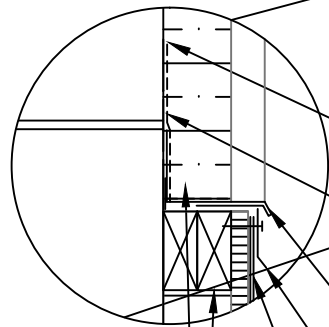


PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF ADHESIVE  
ON 2-PLY MODIFIED BITUMEN MEMBRANE  
ON 3/16" PROTECTION BOARD  
ON 4" RIGID INSULATION  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING METAL DECK

NEW 24ga PREFINISHED METAL CAP  
FLASHING AS SPECIFIED

NEW 2 x 6 WOOD STUD WALL @ 16"  
O.C. W/ ROXUL BATT INSULATION (3/4"  
FIR PLYWOOD OF EACH SIDE)

NOTE: EXISTING WOOD CANT STRIP  
ALONG W/ PLYWOOD FASCIA TO BE  
REMOVED AS DETAILED TO ALLOW FOR  
NEW KNEEWALL



NEW POLYBITUMEN SEALANT  
AS SPECIFIED

NEW BLUESKIN THRU-WALL  
FLASHING MEMBRANE OVER  
METAL DRIP EDGE TO ENSURE  
WALL TIGHT SEAL

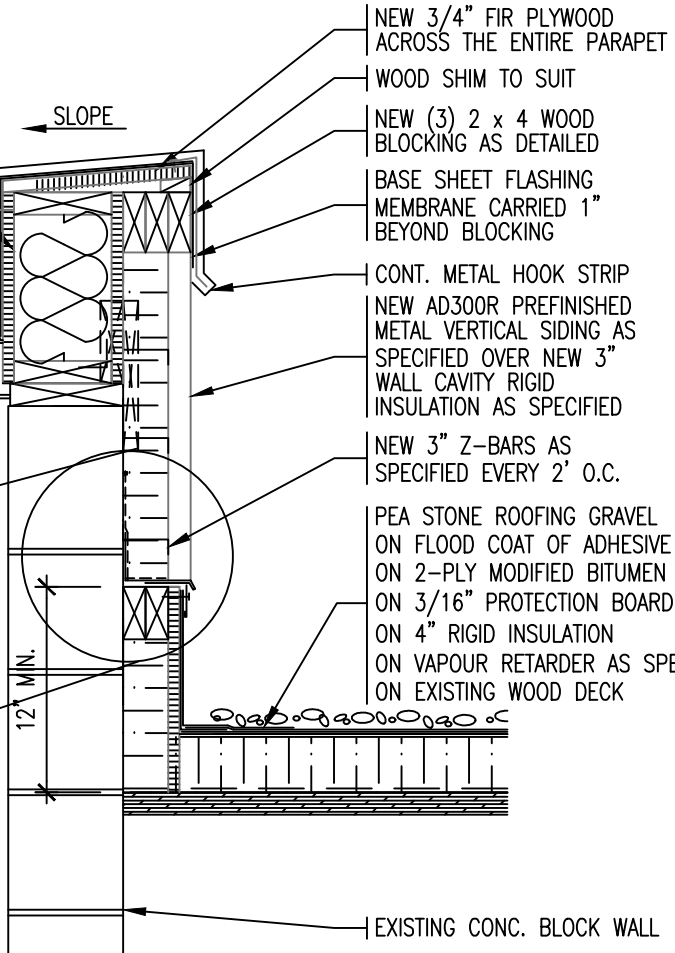
NEW PREFINISHED METAL DRIP  
EDGE SECURED TO CONC.  
BLOCK

NEW PREFINISHED METAL  
COUNTER FLASHING AS DETAILED

NEW 3" WALL CAVITY RIGID  
INSULATION AS SPECIFIED

NEW (2) 2 x 4 WOOD  
BLOCKING TO EXISTING  
CONC. BLOCK WALL

NEW 2-PLY MODIFIED BITUMEN  
FLASHING MEMBRANE ON NEW 3/4"  
FIR PLYWOOD OVER WALL CAVITY  
RIGID INSULATION



NEW 3/4" FIR PLYWOOD  
ACROSS THE ENTIRE PARAPET

WOOD SHIM TO SUIT

NEW (3) 2 x 4 WOOD  
BLOCKING AS DETAILED

BASE SHEET FLASHING  
MEMBRANE CARRIED 1"  
BEYOND BLOCKING

CONT. METAL HOOK STRIP

NEW AD300R PREFINISHED  
METAL VERTICAL SIDING AS  
SPECIFIED OVER NEW 3"  
WALL CAVITY RIGID  
INSULATION AS SPECIFIED

NEW 3" Z-BARS AS  
SPECIFIED EVERY 2' O.C.

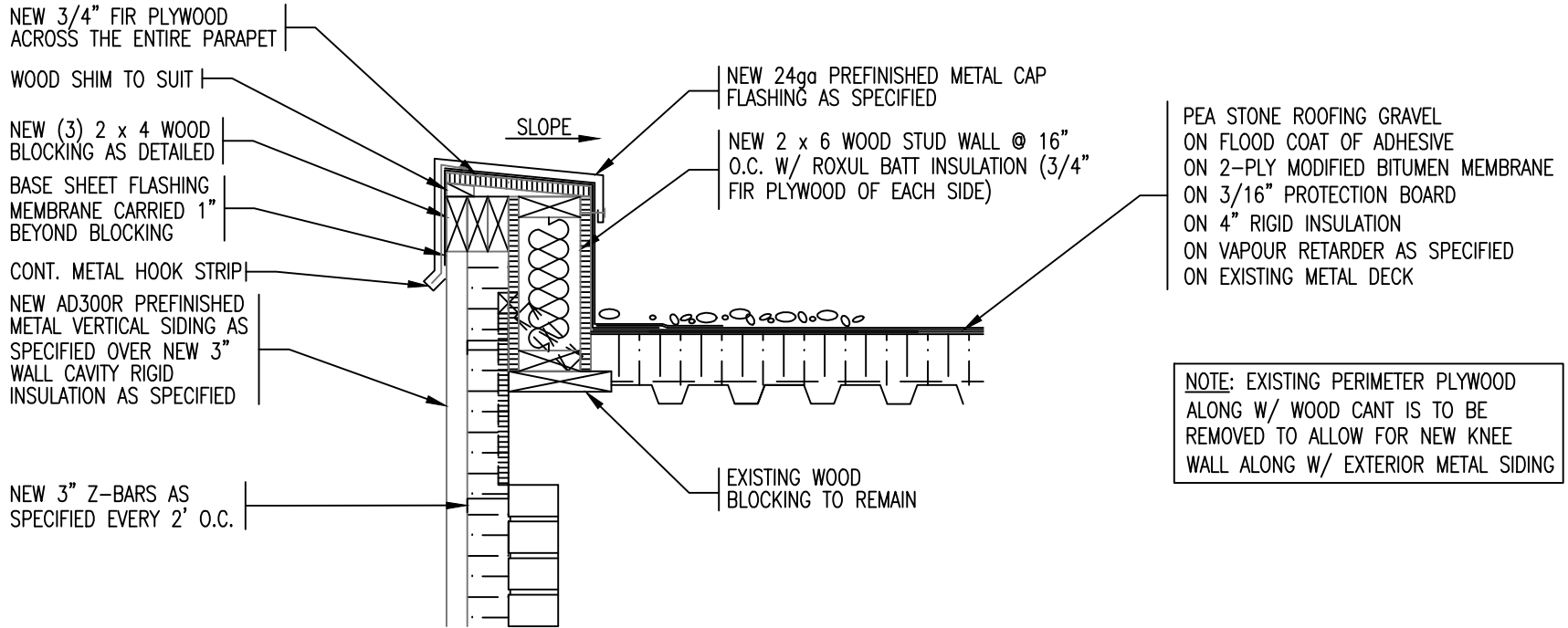
PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF ADHESIVE  
ON 2-PLY MODIFIED BITUMEN MEMBRANE  
ON 3/16" PROTECTION BOARD  
ON 4" RIGID INSULATION  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING WOOD DECK

EXISTING CONC. BLOCK WALL

# ROOF PERIMETER DETAIL - BETWEEN AREA 'G' AND 'H'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>RBS</b> <small>WEATHER-RESISTANT CLADDING AND INTERIOR FINISHES          INSULATION SPECIALISTS (POLYURETHANE SPRAY/FORCE APPLIED)          SUBJECTS AND CONSULTANTS OF ROOFS AND WALLS</small> <small>Christopher W. Palmer, C.B.S.</small> <small>1607 Glen Road          Toronto, Ontario M6H 1G0 Tel: (416) 738-3885          Fax: (416) 738-0757</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016 SCALE : N.T.S.
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DRAWN BY : CWP CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
DATE (12-2-16)	ISSUED FOR OWNER REVIEW	PROJECT FILE NO. RBS16-67
DATE 12-8-16	TENDER	DRAWING NO. DM-16



# ROOF PERIMETER DETAIL - AREA 'E'

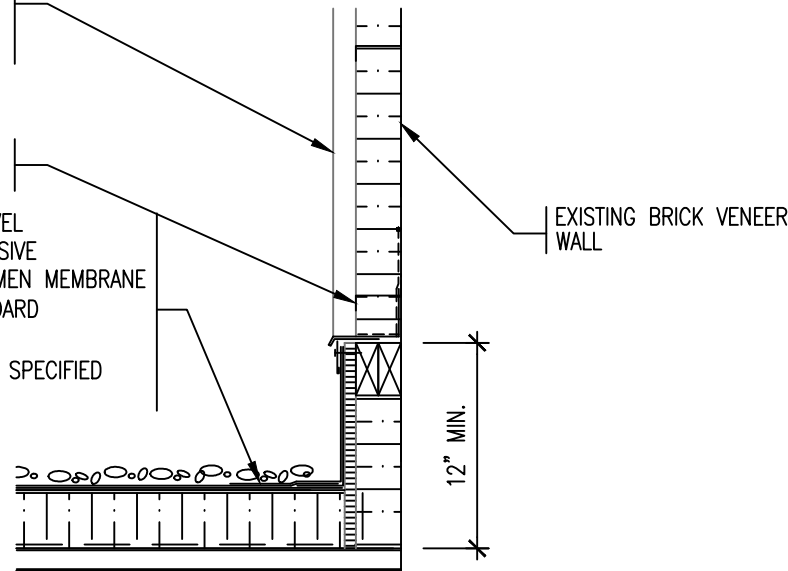
SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>WEATHER RESISTANT SYSTEMS AND ROOFING PRODUCTS          INSULATION SPECIALISTS (POLYURETHANE SPRAY/FORCE APPLIED PRODUCTS)          SURFACES AND COMPONENTS OF ROOFS AND BUILDINGS</small> <small>Christophorus W. Palmer, C.B.S.</small> <small>1607 Glen Road          Toronto, Ontario M8Z 1G9</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	SCALE : N.T.S.
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DRAWN BY : CWP
	DRAWING TITLE ROOF DETAIL	CHK. BY : CWP
DATE <small>(DATE-20-YY)</small> 12-2-16 OWNER REVIEW 12-8-16 TENDER	PROJECT FILE NO. RBS16-67	SHEET SIZE : 8.1/2"x11"
		DRAWING NO. <b>DM-17</b>

NEW AD300R PREFINISHED  
METAL VERTICAL SIDING AS  
SPECIFIED OVER NEW 3"  
WALL CAVITY RIGID  
INSULATION AS SPECIFIED

NEW 3" Z-BARS AS  
SPECIFIED EVERY 2' O.C.

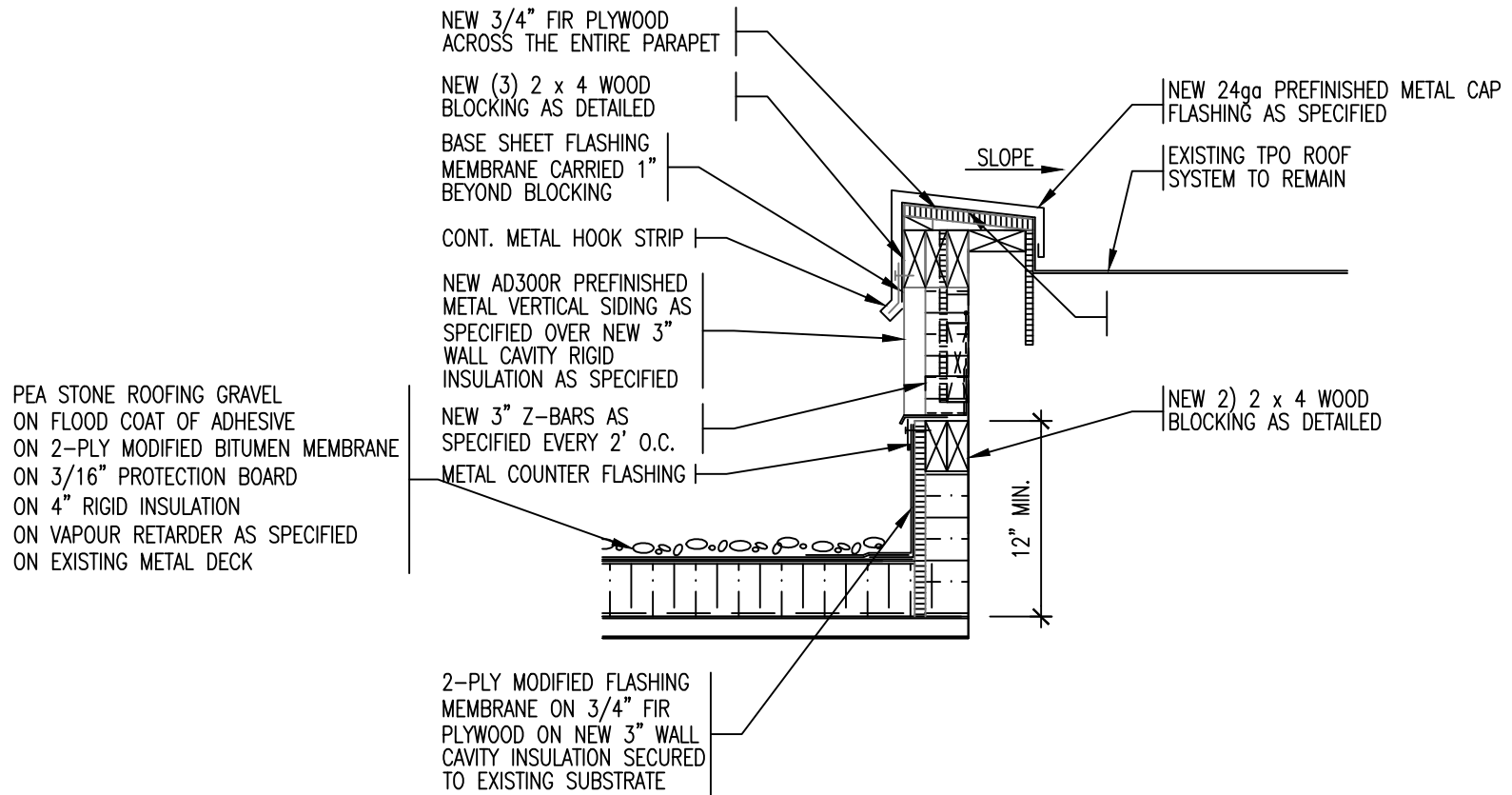
PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF ADHESIVE  
ON 2-PLY MODIFIED BITUMEN MEMBRANE  
ON 3/16" PROTECTION BOARD  
ON 4" RIGID INSULATION  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING METAL DECK



# ROOF DETAIL - BETWEEN AREA 'J' AND 'E'

SCALE : 1" = 1'-0"

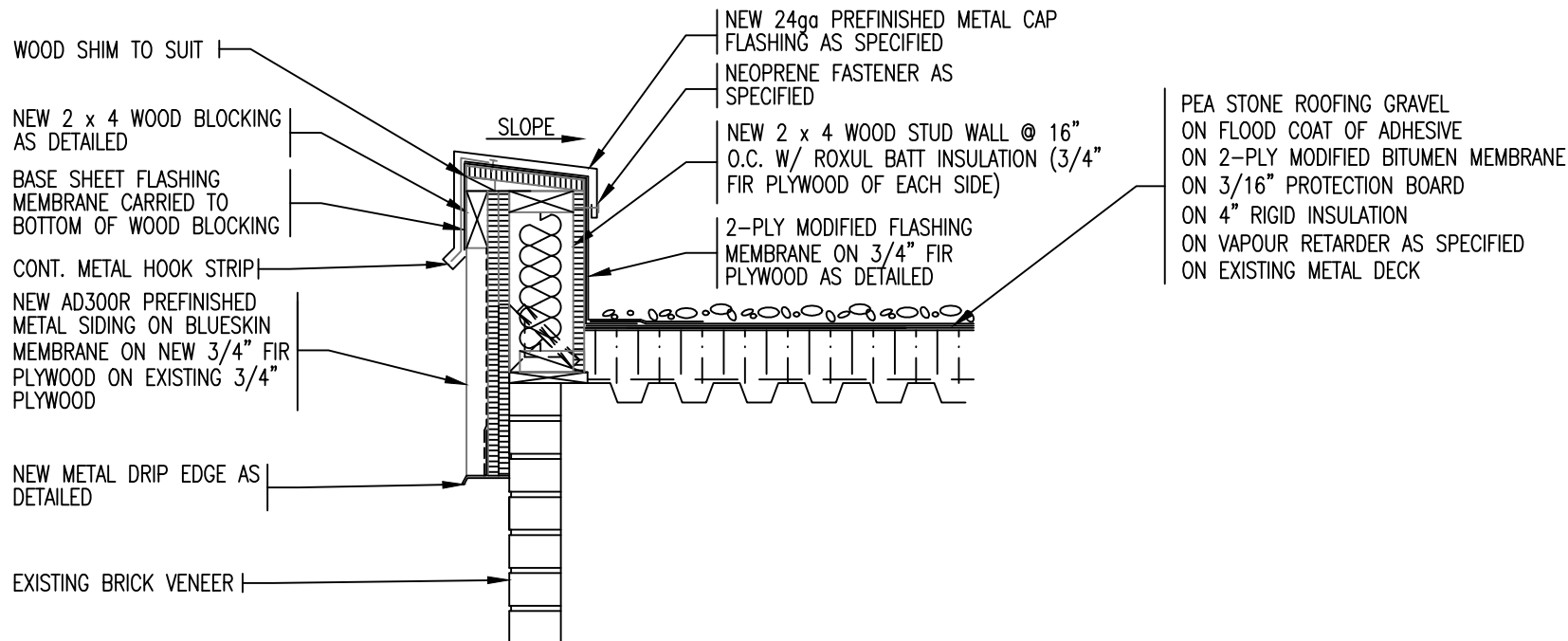
<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> ROOF ASSESSMENT, DESIGN AND SUPERVISION SERVICES <b>B</b> BUSINESS DEVELOPMENT (NEW/REPAIR ROOFS/WATER PROTECTION) <b>S</b> SURVEY AND CONSULTING OF ROOFS AND BUILDINGS <small>1607 Glen Road Riverside, Ontario M8Z 1X2</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT 25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	DATE : DECEMBER 2016 SCALE : N.T.S. DRAWN BY : CWP
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
	DATE <small>(DATE-20-YY)</small> 12-2-16 OWNER REVIEW 12-8-16 TENDER	DRAWING TITLE ROOF DETAIL



# ROOF PERIMETER DETAIL - BETWEEN AREA 'J' AND 'F'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1607 Glen Road          Rexdale, Ontario M9L 1K1</small>	<small>WE'VE ASSURED, ORDER AND SERVICE PROGRAMS          INSURE QUALITY (BY/OUR OWNERS/UNDER PROVISION)          SUBJECT AND CONDITIONS OF BIDS AND ORDERS</small> <small>Christopher W. Palmer, C.B.S.</small>	<b>PROJECT</b> ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT 25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	<b>DATE :</b> DECEMBER 2016 <b>SCALE :</b> N.T.S. <b>DRAWN BY :</b> CWP	
	<small>1607 Glen Road          Rexdale, Ontario M9L 1K1</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> <small>(ISS-TO-YY)</small> 12-2-16	<b>ISSUED FOR</b> OWNER REVIEW	<b>DRAWING TITLE</b> ROOF DETAIL	<b>PROJECT FILE NO.</b> RBS16-67 <b>DRAWING NO.</b> DM-19
	12-8-16	TENDER		

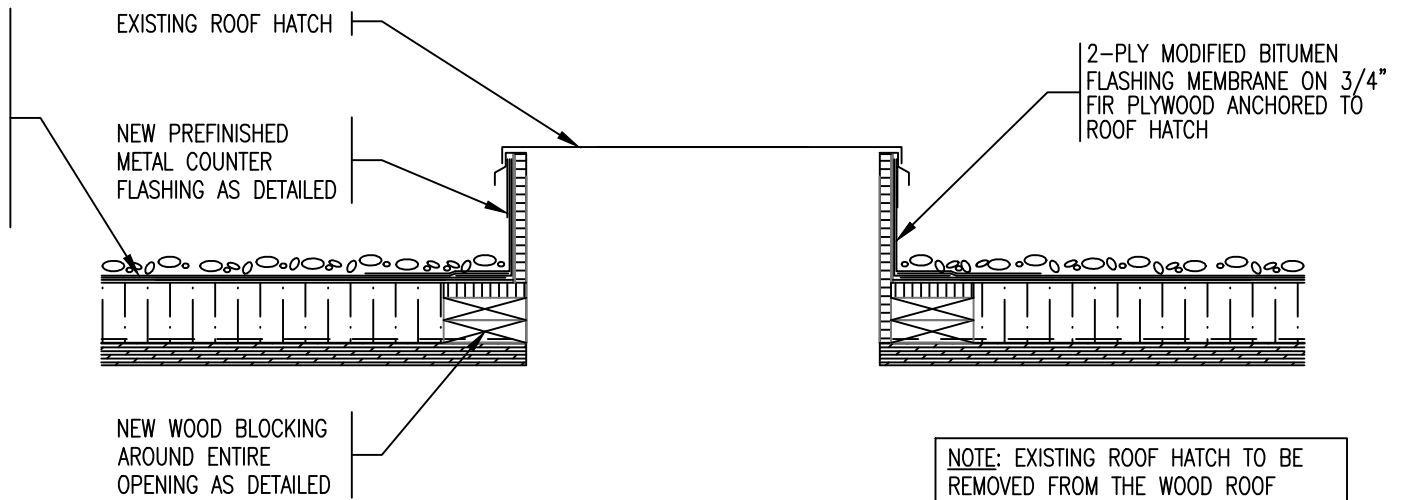


# ROOF PERIMETER DETAIL - AREA 'J'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1000 Glen Road          Toronto, Ontario M8Z 1X2</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	SCALE : N.T.S.
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DRAWN BY : CWP
<small>1600 Glen Road          Toronto, Ontario M8Z 1X2</small>	<small>16 (416) 738-3383          Fax (416) 738-0757</small>	CHK. BY : CWP
DATE (MM-DD-YY) 12-2-16	ISSUED FOR OWNER REVIEW	SHEET SIZE : 8.1/2"x11"
12-8-16	TENDER	PROJECT FILE NO. RBS16-67 DRAWING NO. DM-20

PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF ADHESIVE  
ON 2-PLY MODIFIED BITUMEN MEMBRANE  
ON 3/16" PROTECTION BOARD  
ON 4" RIGID INSULATION  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING WOOD DECK



NOTE: EXISTING ROOF HATCH TO BE REMOVED FROM THE WOOD ROOF DECK TO ALLOW FOR INSTALLATION OF NEW WOOD BLOCKING TO HEIGHT OF NEW RIGID INSULATION AND THEN INSTALL ROOF HATCH OF TOP

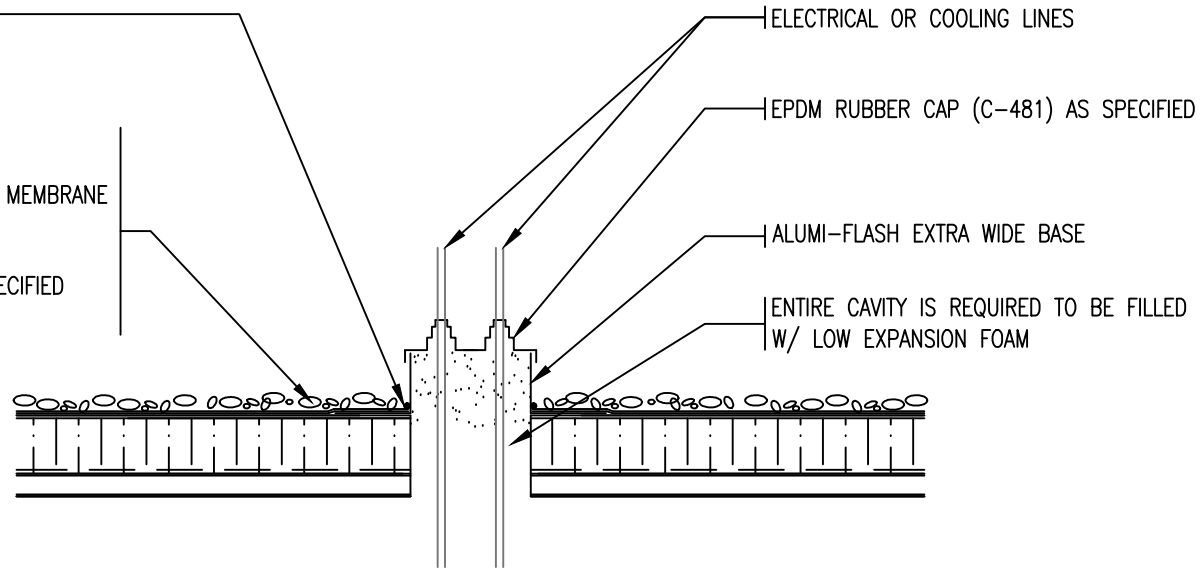
# ROOF HATCH DETAIL - AREA 'I'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1601 Glen Road          Huron, Ontario N2R 1K0          Tel: (519) 739-3885          Fax: (519)739-4077</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT 25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	DATE : DECEMBER 2016 SCALE : N.T.S. DRAWN BY : CWP
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
	DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS16-67 DRAWING NO. DM-21
	DATE 12-2-16 OWNER REVIEW 12-8-16 TENDER	ISSUED FOR OWNER REVIEW TENDER

APPROVED MASTIC FOR  
ADDITIONAL SEAL

PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF ADHESIVE  
ON 2-PLY MODIFIED BITUMEN MEMBRANE  
ON 3/16" PROTECTION BOARD  
ON 4" RIGID INSULATION  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING METAL DECK



ELECTRICAL OR COOLING LINES

EPDM RUBBER CAP (C-481) AS SPECIFIED

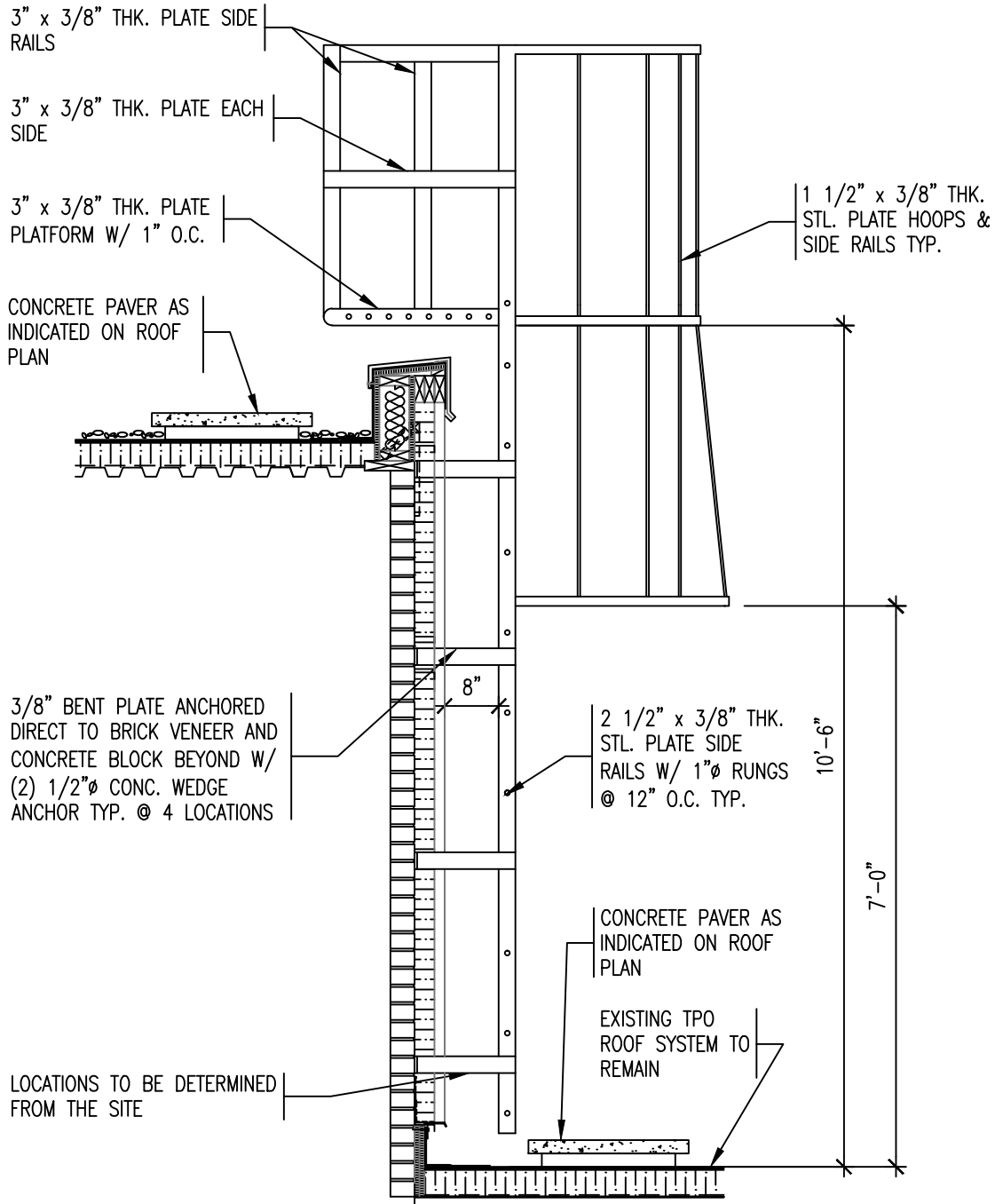
ALUMI-FLASH EXTRA WIDE BASE

ENTIRE CAVITY IS REQUIRED TO BE FILLED  
W/ LOW EXPANSION FOAM

# ROOF DETAIL - ELECTRICAL / COOLING LINE PENETRATIONS

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1001 Glen Road          Toronto, Ontario M8Z 1K2</small>	<small>WE'VE ASSURED, BUILT AND MAINTAINED PROJECTS</small> <small>DESIGN CHALLENGES (AND/OR NEW CONCEPTS)</small> <small>SUBJECTS AND CONDITIONS OF WORK ARE DIVERSE</small> <small>Christopher W. Palmer, C.B.S.</small> <small>16 (416) 738-3885 Fax (416)738-4707</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT 25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	DATE : DECEMBER 2016 SCALE : N.T.S. DRAWN BY : CWP	
	<small>DATE (MM-DD-YY)</small> 12-2-16 OWNER REVIEW 12-8-16 TENDER	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11" PROJECT FILE NO. RBS16-87 DRAWING NO. DM-22
	DRAWING TITLE ROOF DETAIL			

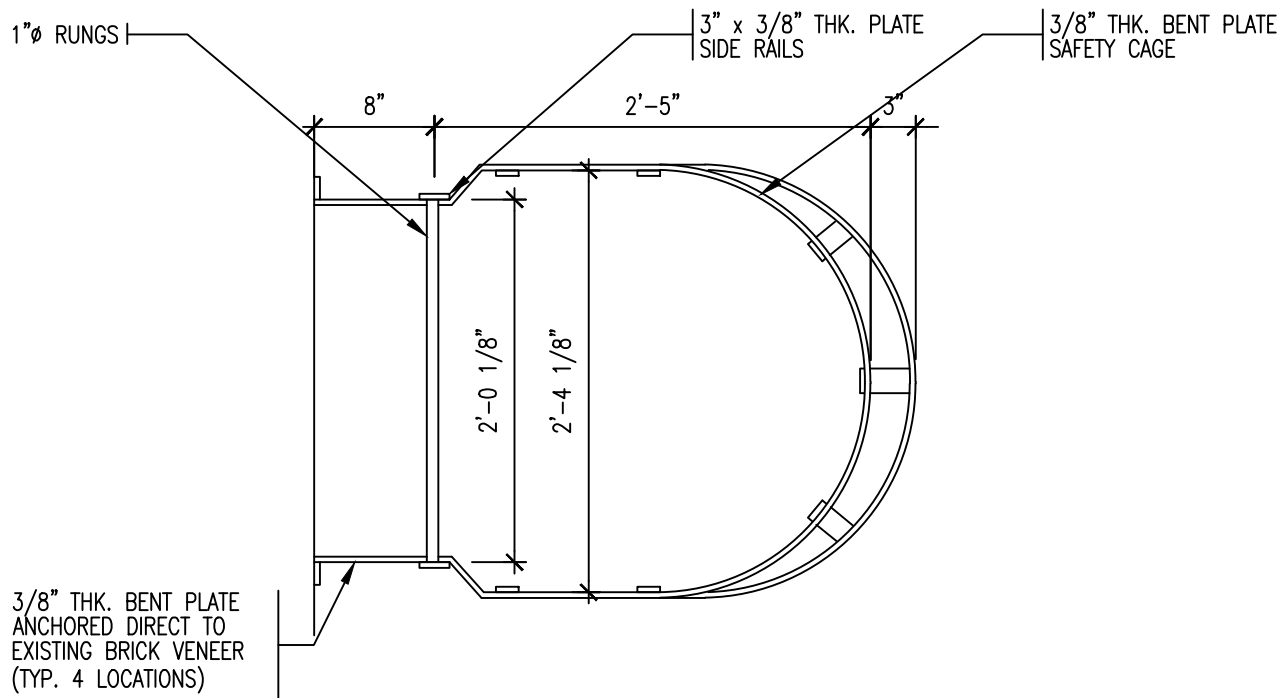


# WALL LADDER DETAIL FOR AREA 'E'

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

<b>REMLAP BUILDING SERVICES INC.</b> <b>RBS</b> <small>ROOF SURVEILLANCE, DESIGN AND INSPECTION PROGRAMS          BUILDING ENVELOPE (EN/ROOF ENERGY/WATER PROGRAMS)          STRONG AND COORDINATORS OF ROOFS AND BALCONIES</small> <small>Christopher W. Feltman, C.E.B.</small> <small>1407 Glen Road          North York, Ontario M2H 1S9</small>		<b>PROJECT</b> ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT 25 MAPLE STREET SOUTH, RIDGETOWN ONTARIO	<b>DATE :</b> DECEMBER 2016 <b>SCALE :</b> N.T.S. <b>DRAWN BY :</b> CWP <b>CHK. BY :</b> CWP <b>SHEET SIZE :</b> 8.1/2"x11" <b>DRAWING NO.</b>
<b>DATE</b> 12-2-16 12-8-16	<b>ISSUED FOR</b> OWNER REVIEW TENDER	<b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD <b>DRAWING TITLE</b> ROOF DETAIL	<b>PROJECT FILE NO.</b> RBS16-67 <b>DRAWING NO.</b> DM-23





# ROOF LADDER DETAIL PLAN - AREA 'E'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> ROOF REPAIRS, ROOFING AND ROOFING PRODUCTS <b>B</b> BRICKWORK (W/WORK DONE/UNDER PROGRESS) <b>S</b> SUDS AND CLEANING OF ROOFS AND BUILDINGS <small>1607 Glen Road          Rexdale, Ontario M9L 1R2          Tel: (905) 728-3282          Fax: (905) 728-0727</small>	PROJECT ST. MICHAEL CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016 SCALE : N.T.S.
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DRAWN BY : CWP CHK. BY : CWP
	DRAWING TITLE ROOF DETAIL	SHEET SIZE : 8.1/2"x11" PROJECT FILE NO. RBS16-67 DRAWING NO. DM-23a
DATE (ISS-REV) 12-2-16 OWNER REVIEW 12-6-16 TENDER	ISSUED FOR OWNER REVIEW TENDER	

# ROOF REPLACEMENT

FOR

GOOD SHEPHERD CATHOLIC SCHOOL

4 EDITH STREET

THAMESVILLE, ONTARIO

NOP 2K0

**PROJECT No. 642-CP1704**

## ENCLOSED DRAWINGS

RGS-1 Key Roof Plan

RGS-1a Existing and Design Roof System List

RGS-2 Enlarged Roof Plan – Area ‘A’ and ‘B’

RGS-3 Enlarged Roof Plan – Area ‘C’, ‘E’ and Part of ‘D’

RGS-4 Enlarged Roof Plan – Area ‘D’

DGS-1 Roof Drain Detail

DGS-2 Vent Pipe Stack Detail

DGS-3 Gooseneck Exhaust Fan Detail

DGS-4 Typical Hot Exhaust Stack Detail

DGS-5 Exhaust Vent Flashing Detail

DGS-6 Exhaust Fan Detail

DGS-7 Roof Hatch Detail

DGS-8 HVAC Detail

DGS-9 Roof Perimeter Detail – Area ‘A’

DGS-10 Roof Perimeter Detail – Area ‘B’ and ‘A’

DGS-11 Roof Perimeter Detail – Area ‘B’

DGS-12 Existing Skylight Detail – Area ‘B’

DGS-13 Roof Top Unit Detail – Area ‘B’

DGS-14 Roof Perimeter Detail – Area ‘D’ and ‘B’

DGS-15 Roof Drain Detail - Area ‘B’

DGS-16 Vent Pipe Stack Detail - Area ‘B’

DGS-17 Exhaust Fan Detail – Area ‘B’

DGS-18 Electrical/Cooling Line Penetrations – Area ‘B’

DGS-19 Electrical/Cooling Line Penetrations – Area ‘D’

DGS-20 Existing Skylight Detail – Area ‘D’

DGS-21 Roof Top Unit Detail – Area ‘D’

DGS-22 Abandoned Roof Curb Detail

DGS-23 Roof Hatch Detail

DGS-24 Roof Perimeter Detail – Between Area ‘I’ and ‘D’

DGS-25 Roof Perimeter Detail – Area ‘D’

DGS-26 Roof Perimeter Detail – Between Area ‘C’ and ‘D’

DGS-27 Roof Perimeter Detail – Area ‘D’ – Corrugated Siding Wall

DGS-28 Roof Perimeter Detail – Area ‘D’ – Curtain Wall

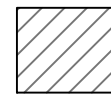
DGS-29 Roof Perimeter Detail – Between Area ‘E’ and ‘D’

DGS-30 Roof Perimeter Detail – Area ‘E’

DGS-31 Roof Perimeter Detail – Between Area ‘F’ and ‘E’

DGS-32 New Wall Ladder Detail – Between Area ‘D’ and ‘E’

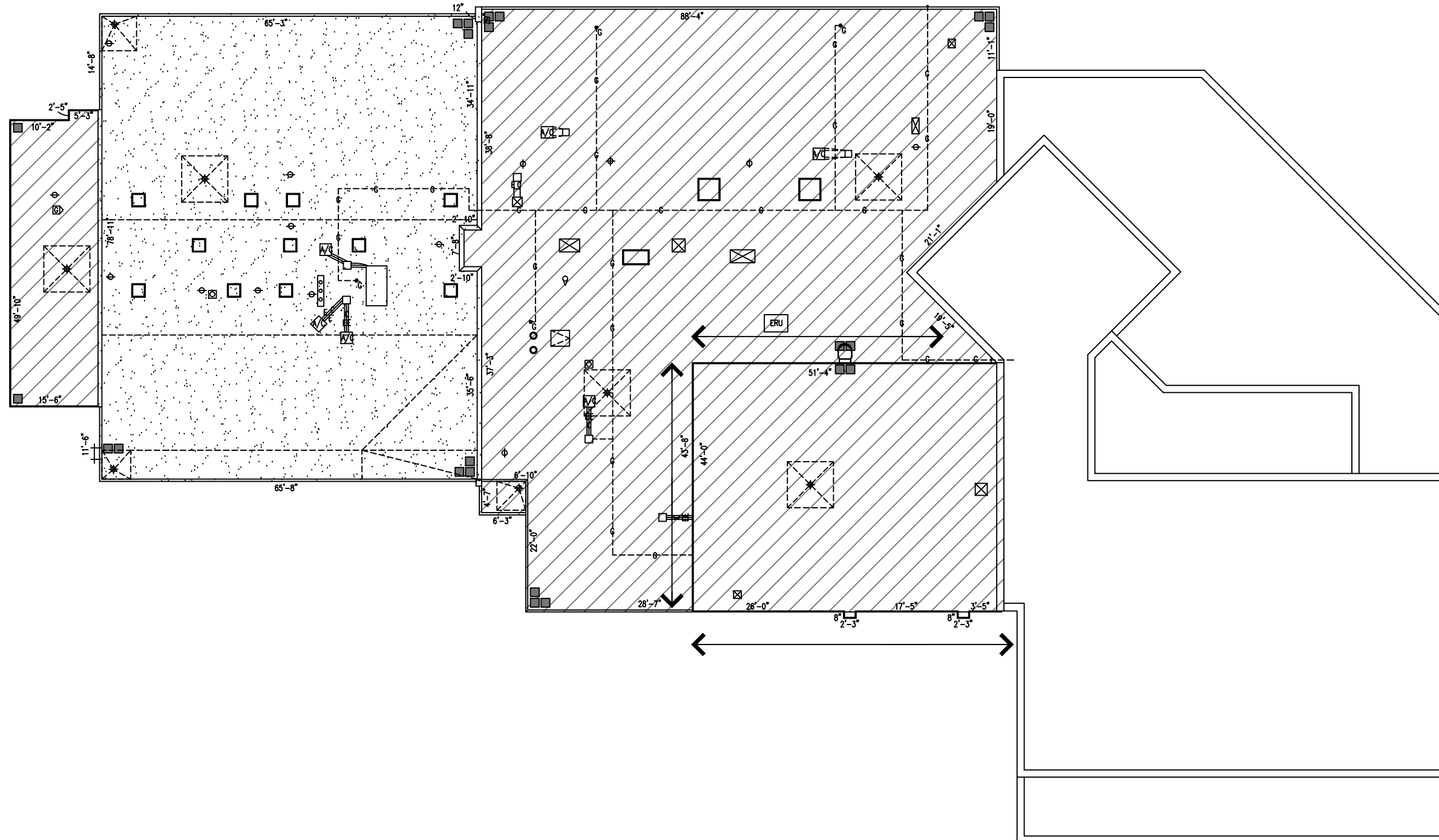
DGS-32a Roof Ladder Detail Plan



AREA TO BE REMOVED  
AND REPLACED  
COMPLETELY



EXISTING 2-PLY ROOF  
MEMBRANE TO BE  
REMOVED ONLY



## KEY ROOF PLAN

SCALE : 1" = 30'-0"

**REMLAP BUILDING SERVICES INC.**

**R B S**  
ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS  
BUILDING ENVELOPES (AIR/WAPOUR 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

DATE (MM-DD-YY)	ISSUED FOR
12-2-16	OWNER REVIEW
12-8-16	TENDER

PROJECT  
GOOD SHEPHERD CATHOLIC SCHOOL  
ROOF REPLACEMENT  
4 EDITH ST., THAMESVILLE ONTARIO

CLIENT  
ST. CLAIR CATHOLIC DISTRICT  
SCHOOL BOARD

DRAWING TITLE  
KEY ROOF PLAN

DATE : AUGUST 2016

SCALE : AS SHOWN

DRAWN BY : CWP

CHK. BY : CWP

SHEET SIZE : 11"x17"

PROJECT FILE NO. RBS16-66

DRAWING NO. **RGS-1**

**ROOF REPLACEMENT  
GOOD SHEPHERD CATHOLIC SCHOOL  
4 EDITH STREET, THAMESVILLE ONTARIO N0P 2K0**

---

**EXISTING ROOF SYSTEM**

Round River Ballast  
On Single Ply EPDM Membrane  
On ½ inch Fiberboard Insulation  
On Four Ply Roofing Felt w/Asphalt  
On ½ inch Fiberboard Insulation  
On Pea Stone Roofing Gravel  
On Four Ply Roofing Felt w/Asphalt  
On One inch Extruded Polystyrene Rigid Insulation  
On Metal Deck

**AREA 'A'**

Two Ply Modified Bitumen Granulated Surface Membrane  
On ½ inch Fiberboard Insulation  
On 2.7 inch Rigid Insulation (ISO)  
On Vapour Retarder  
On 5/8inch Gypsum Board  
On Wood Deck

**AREA 'B'**

Fully Adhered Single Ply EPDM Membrane  
On ½ inch Fiberboard Insulation  
On 3 Layers of one inch Extruded Polystyrene  
On Kraft Paper for Vapour Retarder  
On ½ inch Gypsum Board  
On Metal Deck (N-S Direction)

**AREA 'C'**

Fully Adhered Single Ply EPDM Membrane  
On ½ inch Plywood Substrate

**AREA 'D'**

Round River Ballast  
On Fully Adhered Single Ply EPDM Membrane  
On ½ inch Fiberboard Insulation  
On Four Ply Roofing Felt w/Asphalt  
On One inch Extruded Polystyrene Rigid Insulation  
On Metal Deck

**AREA 'E'****DESIGN ROOF SYSTEM**

Pea Stone Roofing Gravel  
On Flood Coat of Adhesive  
On 2-Ply Modified Bitumen Membrane  
On 3/16" Asphalt Protection Board  
On Tapered Insulation as Noted  
On 4" Rigid Insulation (ISO)  
On Vapour Retarder as Specified  
On Existing Metal Deck

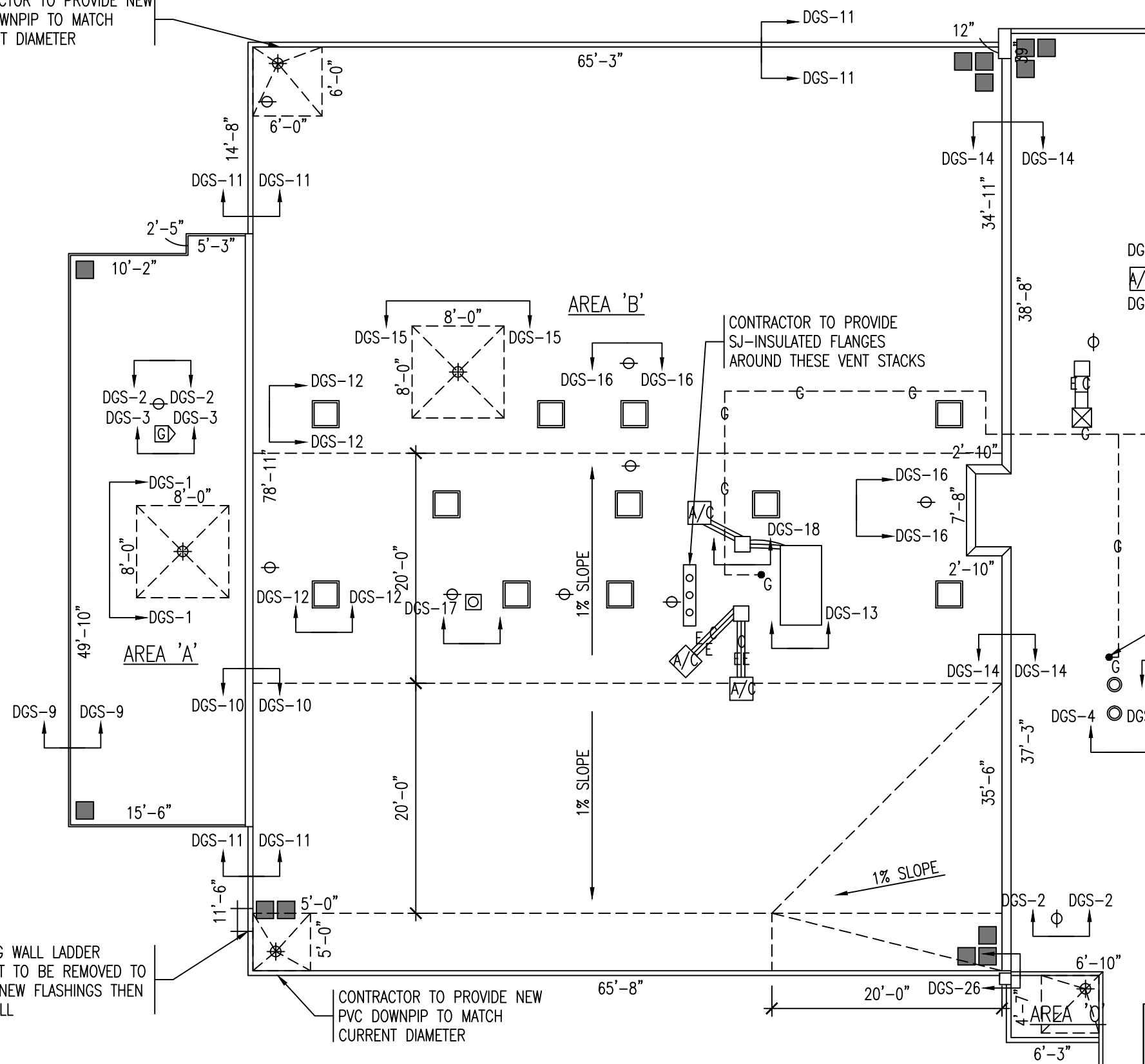
Pea Stone Roofing Gravel  
On Flood Coat of Adhesive  
On 2-Ply Modified Bitumen Membrane  
On 3/16" Asphalt Protection Board  
On Tapered Insulation as Noted  
On New 2" Rigid Insulation (ISO)  
On Existing 2.7" Rigid Insulation (ISO)  
On Existing Vapour Retarder  
On Existing Gypsum Board  
On Existing Wood Deck

Pea Stone Roofing Gravel  
On Flood Coat of Adhesive  
On 2-Ply Modified Bitumen Membrane  
On 3/16" Asphalt Protection Board  
On Tapered Insulation as Noted  
On 4" Rigid Insulation (ISO)  
On Vapour Retarder as Specified  
On Existing Metal Deck

Pea Stone Roofing Gravel  
On Flood Coat of Adhesive  
On 2-Ply Modified Bitumen Membrane  
On 3/16" Asphalt Protection Board  
On Tapered Insulation as Noted  
On New 2" Rigid Insulation (ISO)  
On Existing Wood Deck

Pea Stone Roofing Gravel  
On Flood Coat of Adhesive  
On 2-Ply Modified Bitumen Membrane  
On 3/16" Asphalt Protection Board  
On Tapered Insulation as Noted  
On 4" Rigid Insulation (ISO)  
On Vapour Retarder as Specified  
On Existing Metal Deck

CONTRACTOR TO PROVIDE NEW PVC DOWNPIP TO MATCH CURRENT DIAMETER



**LEGEND**

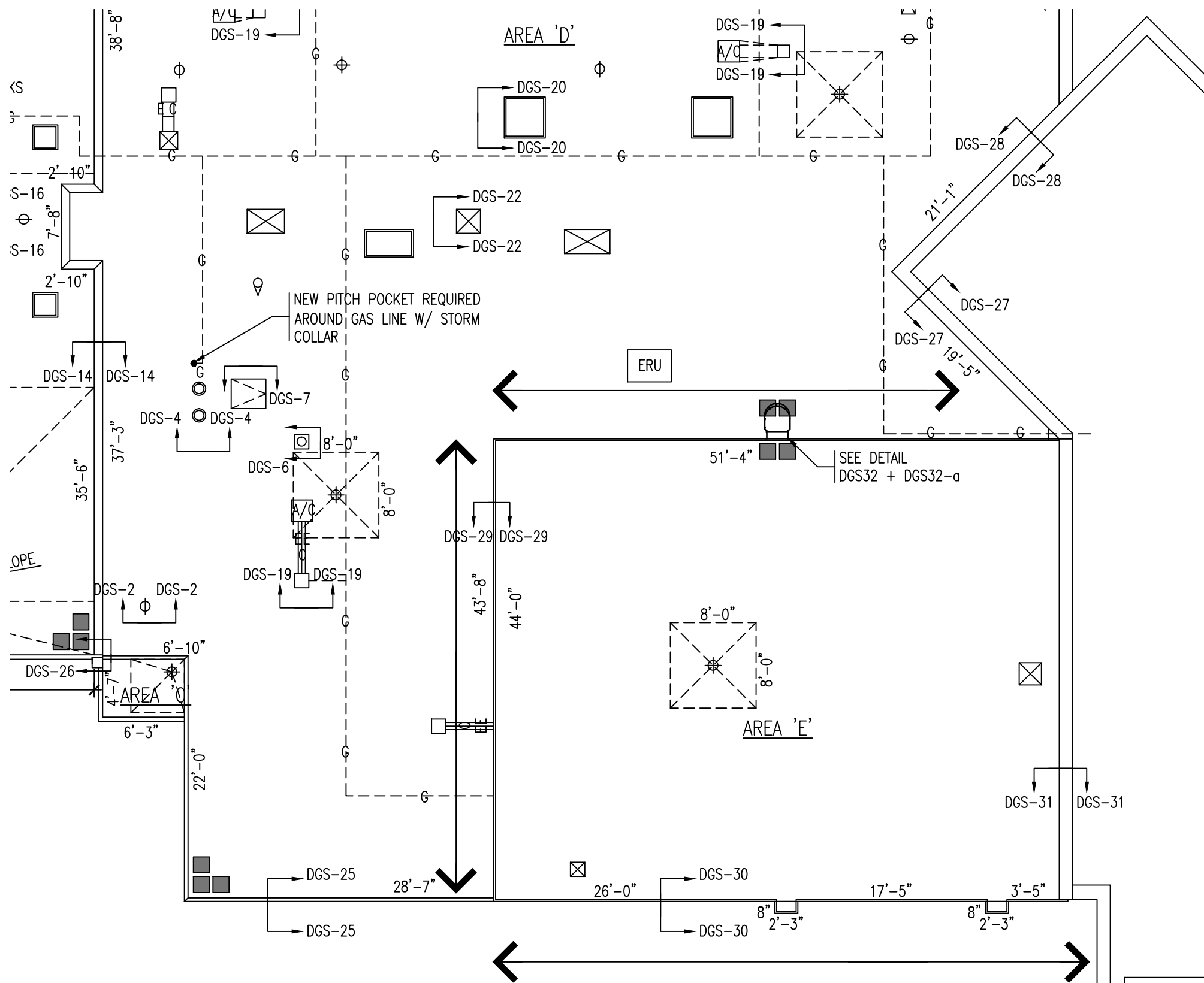
- ⊕ ROOF DRAIN
- ⊙ VENT PIPE STACK
- ⊠ EXHAUST FAN
- ≡ WALL LADDER
- ┌┐ BRACKET FOR EXTENSION LADDER
- ⊠ ABANDONED CURB TO BE ELIMINATED
- ⊙ HOT EXHAUST STACK
- ⊙ EXHAUST STACK W/ DIRECTION
- ⊠ GOOSE NECK EXHAUST FAN
- CJ- CONTROL JOINT
- CONCRETE PAVER W/ INSULATION CUSHION
- A/C CONDENSING UNIT (NEW CONCRETE PAVER W/ INSULATION CUSHION)

TAPERED INSULATION  
 ROOF DRAIN - 2% SLOPE  
 CRICKET - 1% SLOPE

**ENLARGED ROOF PLAN - ROOF PENETRATION AND DIMENSIONS**

SCALE : 3/32" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS BUILDING ENVELOPES (AIR/WATER BARRIER/WATER PROOFING) SURVEYS AND CONDITIONS OF ROOFS AND BUILDINGS Christopher W. Palmer, C.E.T. 1407 Gore Road, Harrow, Ontario N9R 1G0 Tel: (519) 738-3458 Fax: (519) 738-4797		PROJECT	DATE :
		GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT 4 EDITH ST., THAMESVILLE ONTARIO	AUGUST 2016
CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	ISSUED FOR	SCALE :	AS SHOWN
	OWNER REVIEW	DRAWN BY :	CWP
	TENDER	CHK. BY :	CWP
DATE (MM-DD-YY)	DRAWING TITLE	SHEET SIZE :	11"x17"
12-2-16	ENLARGED ROOF PLAN - ROOF	PROJECT FILE NO.	RBS16-66
12-8-16		DRAWING NO.	<b>RGS-2</b>



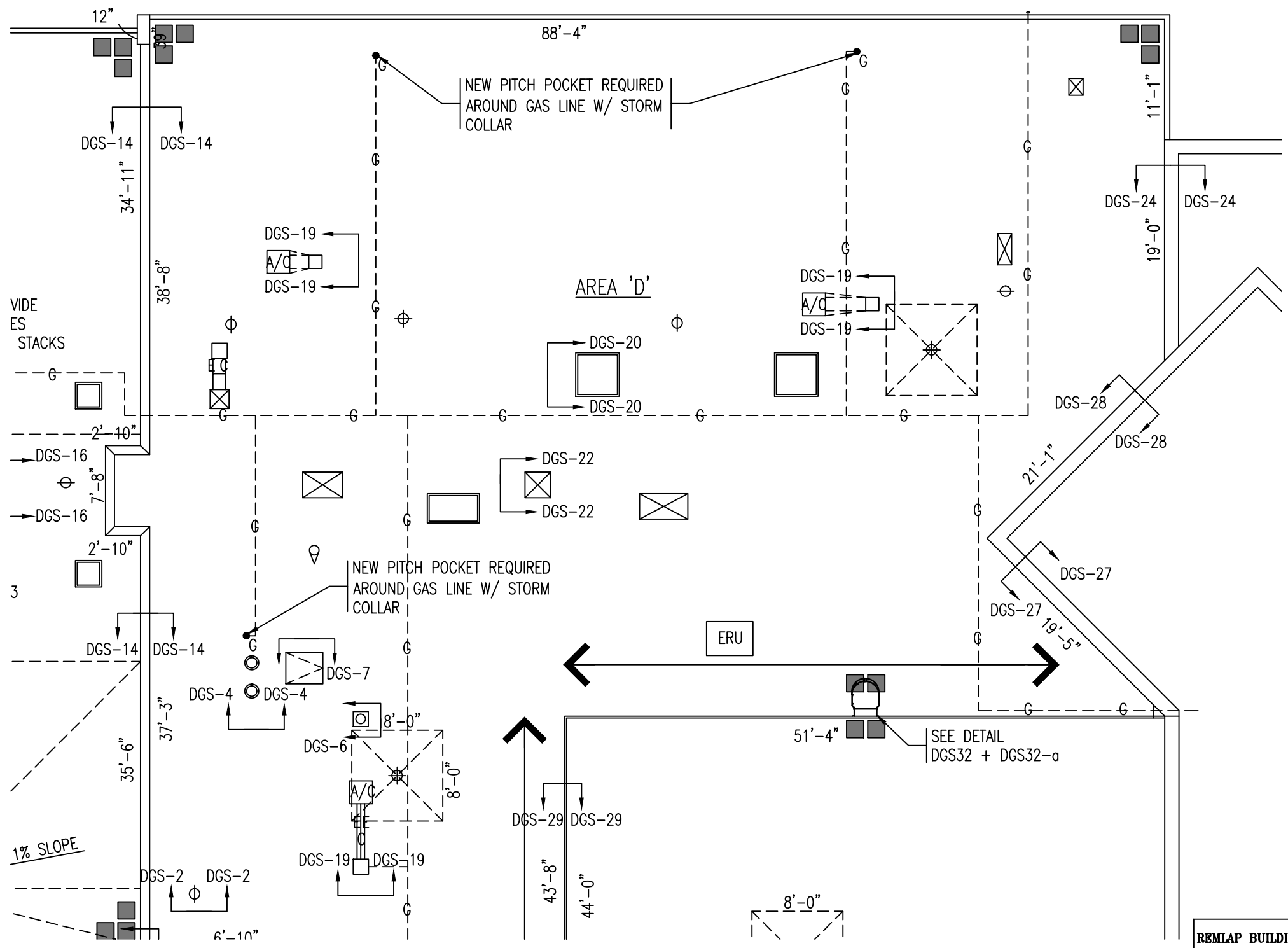
LEGEND	
	ROOF DRAIN
	VENT PIPE STACK
	EXHAUST FAN
	WALL LADDER
	BRACKET FOR EXTENSION LADDER
	ABANDONED CURB TO BE ELIMINATED
	HOT EXHAUST STACK
	EXHAUST STACK W/ DIRECTION
	GOOSE NECK EXHAUST FAN
	CONTROL JOINT
	CONCRETE PAVER W/ INSULATION CUSHION
	CONDENSING UNIT (NEW CONCRETE PAVER W/ INSULATION CUSHION)

TAPERED INSULATION  
 ROOF DRAIN - 2% SLOPE  
 CRICKET - 1% SLOPE

AREA OF WALL TO BE COVERED W/ NEW METAL SIDING

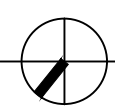
**ENLARGED ROOF PLAN - ROOF PENETRATION AND DIMENSIONS**  
 SCALE : 3/32" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS BUILDING ENVELOPES (AIR/WATER BARRIER/WATER PROOFING) SURVEYS AND CONDITIONS OF ROOFS AND BUILDINGS Christopher W. Palmer, C.E.T. 1407 Gore Road Harrow, Ontario N9R 1G0 Tel: (519) 738-3458 Fax: (519) 738-4787	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT 4 EDITH ST., THAMESVILLE ONTARIO	DATE : AUGUST 2016 SCALE : AS SHOWN DRAWN BY : CWP
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 11"x17"
DATE (MM-DD-YY) 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE ENLARGED ROOF PLAN - ROOF AREA 'C', 'E' + PART OF 'D'
		PROJECT FILE NO. RBS16-66 DRAWING NO. <b>RGS-3</b>



LEGEND	
	ROOF DRAIN
	VENT PIPE STACK
	EXHAUST FAN
	WALL LADDER
	BRACKET FOR EXTENSION LADDER
	ABANDONED CURB TO BE ELIMINATED
	HOT EXHAUST STACK
	EXHAUST STACK W/ DIRECTION
	GOOSE NECK EXHAUST FAN
	CONTROL JOINT
	CONCRETE PAVER W/ INSULATION CUSHION
	CONDENSING UNIT (NEW CONCRETE PAVER W/ INSULATION CUSHION)

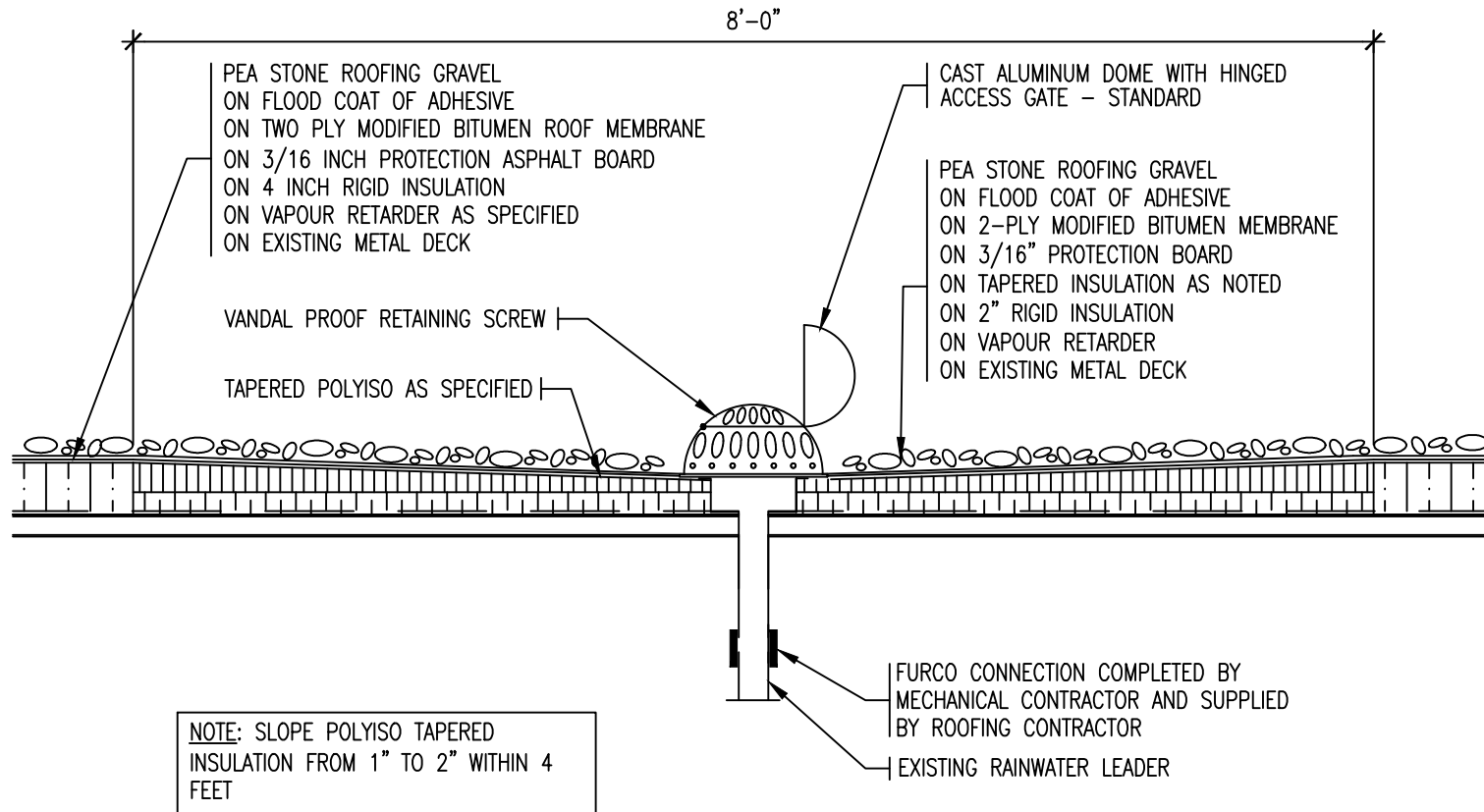
TAPERED INSULATION  
 ROOF DRAIN - 2% SLOPE  
 CRICKET - 1% SLOPE



# ENLARGED ROOF PLAN - ROOF PENETRATION AND DIMENSIONS

SCALE : 3/32" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS BUILDING ENVELOPES (AIR/WAPOUR BARRIER/WATER PROOFING) SURVEYS AND CONDITIONS OF ROOFS AND BUILDINGS Christopher W. Palmer, C.E.T. 1407 Gore Road Harrow, Ontario N9R 1G0 Tel: (519) 738-3458 Fax: (519) 738-4787	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT 4 EDITH ST., THAMESVILLE ONTARIO	DATE : AUGUST 2016 SCALE : AS SHOWN DRAWN BY : CWP
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 11"x17" PROJECT FILE NO. RBS16-66 DRAWING NO. <b>RGS-4</b>
DATE (MM-DD-YY) 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE ENLARGED ROOF PLAN - ROOF



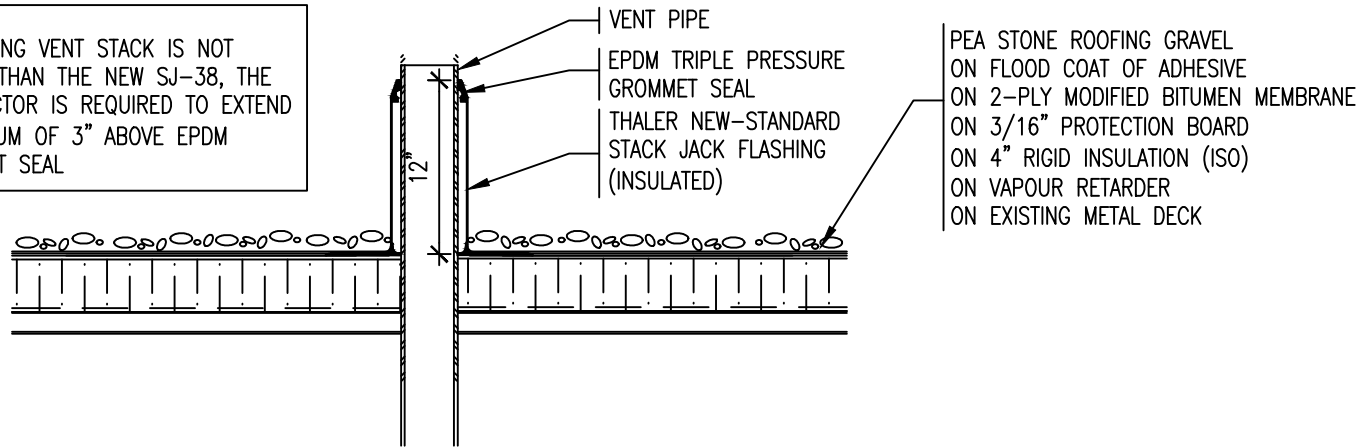
## ROOF DETAIL - ROOF DRAIN

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF ASSESSMENT, DESIGN AND INSPECTION SERVICES          INSULATION SPECIALISTS (POLYURETHANE/STYROFOAM PRODUCTS)          SURVEYS AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.E.S.</small> <small>1607 Glen Road          Toronto, Ontario M6H 1G9 Tel: (416) 736-3885          Fax: (416) 736-0757</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SCALE : N.T.S.
DATE <small>(ISS-20-17)</small> 12-2-16 OWNER REVIEW 12-8-16 TENDER	4 EDITH ST., THAMESVILLE ONTARIO	DRAWN BY : CWP
	DRAWING TITLE ROOF DETAIL	CHK. BY : CWP
		SHEET SIZE : 8.1/2"x11"
		PROJECT FILE NO. RBS16-66
		DRAWING NO. <b>DGS-1</b>



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



# ROOF DETAIL - VENT PIPE STACK

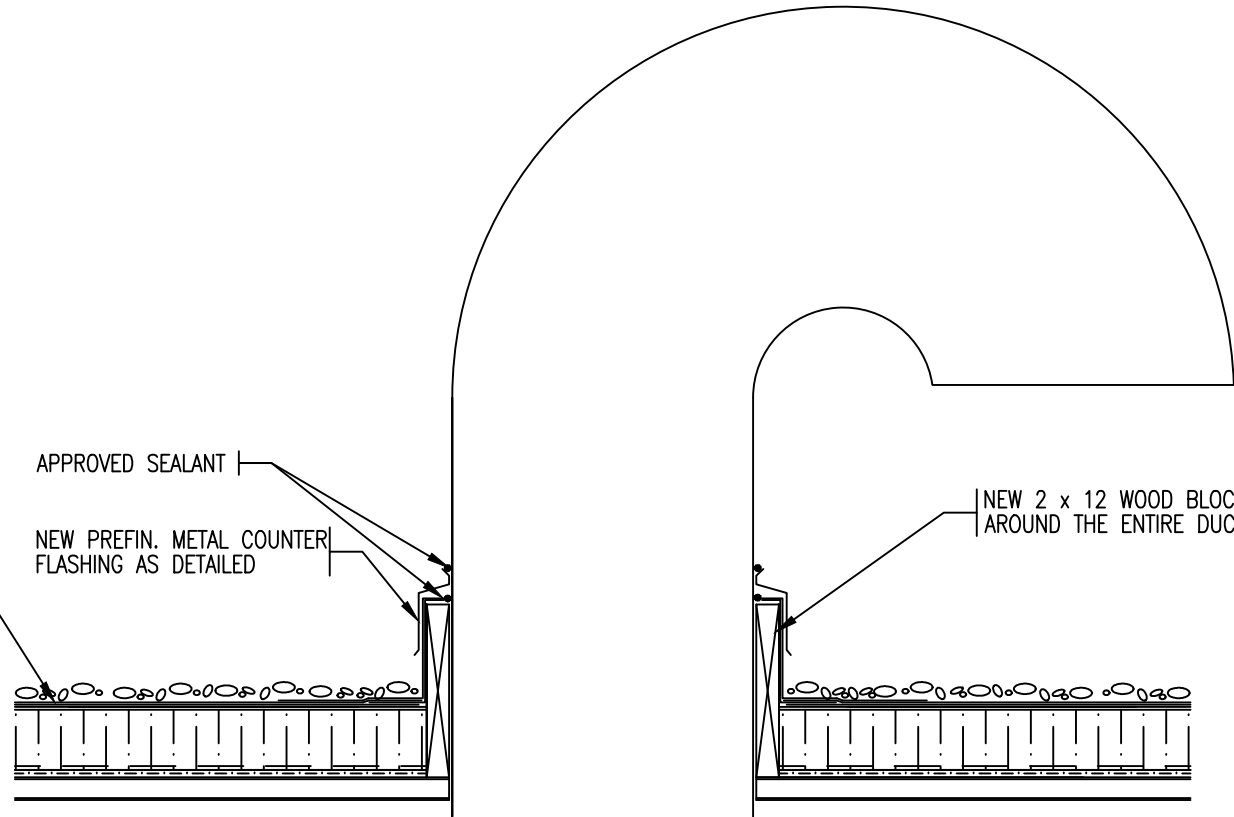
SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>RBS</b> <small>ROOF REPAIRS, ROOFING AND ROOFING PRODUCTS        INSULATION SPECIALISTS (POLYURETHANE FOAM/FOAM PRODUCTS)        SURFACES AND COMPONENTS OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.B.S.</small> <small>1607 Glen Road        Toronto, Ontario M8Z 1G9 Tel: (416) 738-3885        Fax: (416) 738-4077</small>	<b>PROJECT</b> GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT  4 EDITH ST., THAMESVILLE ONTARIO	<b>DATE :</b> DECEMBER 2016  <b>SCALE :</b> N.T.S.  <b>DRAWN BY :</b> CWP
	<b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	<b>CHK. BY :</b> CWP  <b>SHEET SIZE :</b> 8.1/2"x11"
	<b>DRAWING TITLE</b> ROOF DETAIL	<b>PROJECT FILE NO.</b> RBS16-66  <b>DRAWING NO.</b> DGS-2
	<b>DATE</b> <small>(MM-DD-YY)</small> 12-2-16	<b>ISSUED FOR</b> OWNER REVIEW TENDER

PEA STONE ROOFING GRAVEL  
 ON FLOOD COAT OF ADHESIVE  
 ON 2-PLY MODIFIED BITUMEN MEMBRANE  
 ON 3/16" PROTECTION BOARD  
 ON 4" RIGID INSULATION  
 ON VAPOUR RETARDER AS SPECIFIED  
 ON EXISTING METAL DECK

APPROVED SEALANT  
 NEW PREFIN. METAL COUNTER  
 FLASHING AS DETAILED

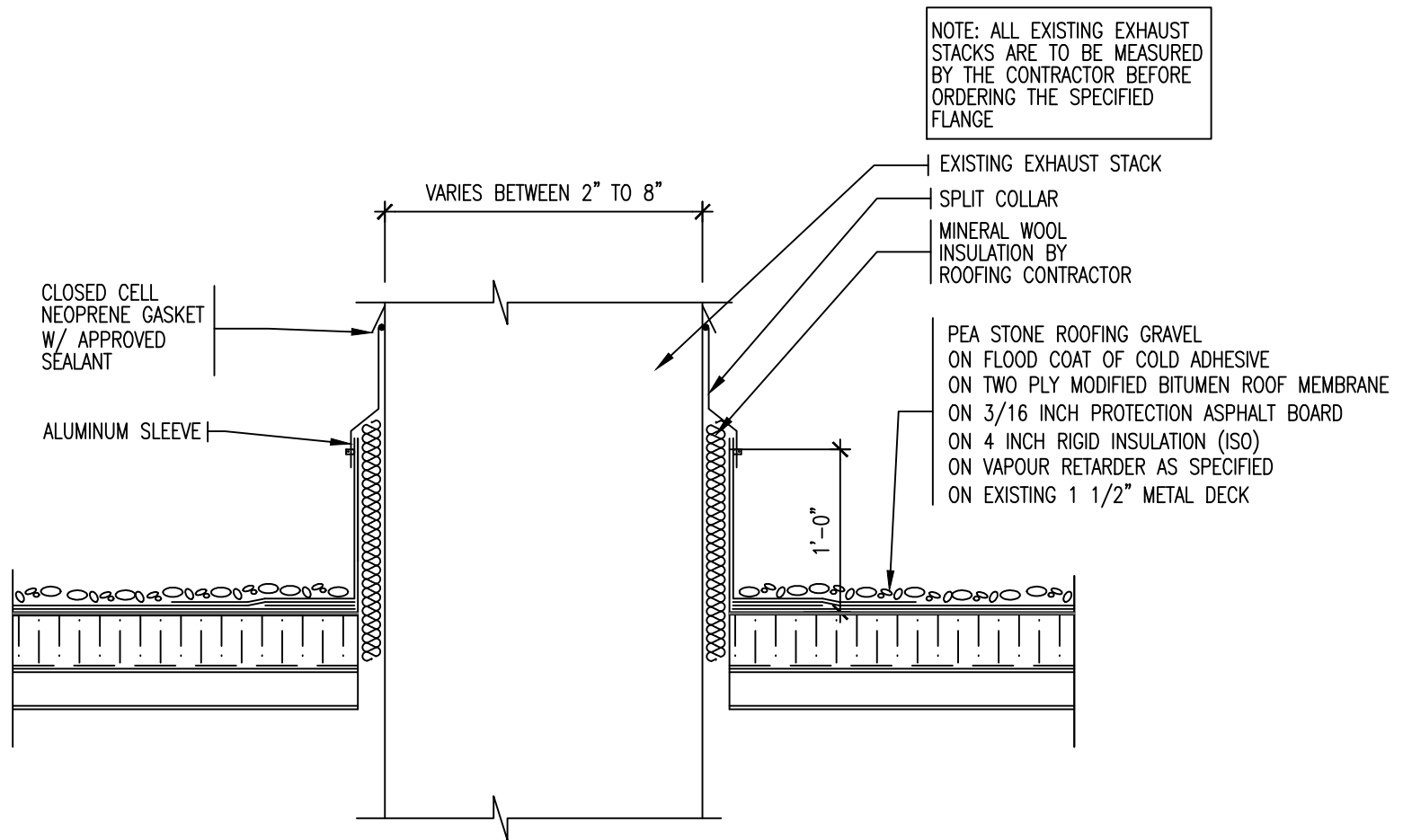
NEW 2 x 12 WOOD BLOCKING  
 AROUND THE ENTIRE DUCT



# DETAIL - GOOSENECK EXHAUST FAN

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <small>ROOF REPAIRS, ROOFING AND ROOFING PRODUCTS          INSULATION SPECIALISTS (W/WHOLESALE SUPPLIES/VENTS/FLASHING)          SUBJECTS AND CONSULTANTS OF ROOFS AND BUILDINGS</small> <small>1407 Glen Road          Toronto, Ontario M8Z 1K2</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SCALE : N.T.S.
	DRAWING TITLE ROOF DETAIL	DRAWN BY : CWP
DATE <small>(ISS-TO-YR)</small> 12-2-16	ISSUED FOR OWNER REVIEW	CHK. BY : CWP
DATE <small>(ISS-TO-YR)</small> 12-8-16	ISSUED FOR TENDER	SHEET SIZE : 8.1/2"x11"
		PROJECT FILE NO. RBS16-66
		DRAWING NO. <b>DGS-3</b>



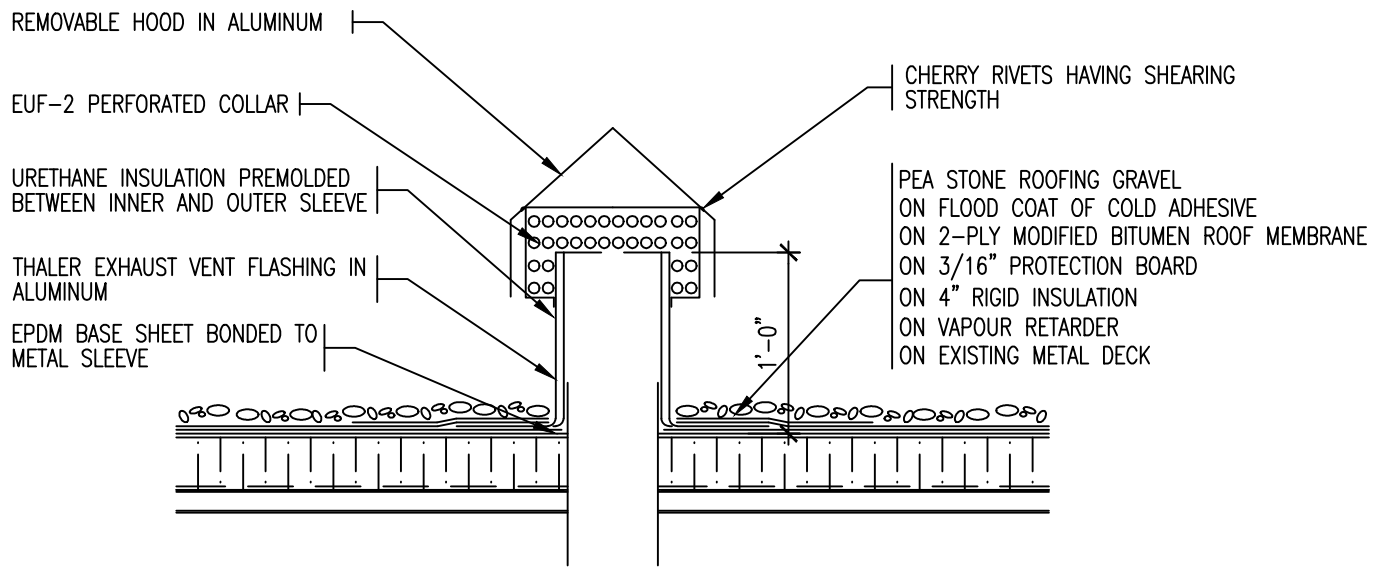
NOTE: ALL EXISTING EXHAUST STACKS ARE TO BE MEASURED BY THE CONTRACTOR BEFORE ORDERING THE SPECIFIED FLANGE

# TYPICAL HOT EXHAUST STACK DETAIL

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> BEST QUALITY SERVICE AND WORKMANSHIP GUARANTEED <b>B</b> BEST MATERIALS (W/WHOLESALE DISCOUNT PRICING) <b>S</b> SUBJECT AND COMPLETE OF ROOFS AND BUILDINGS <small>1607 Glen Road          Toronto, Ontario M8Z 1X9</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016 SCALE : N.T.S.
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DRAWN BY : CWP CHK. BY : CWP
	DRAWING TITLE ROOF DETAIL	SHEET SIZE : 8.1/2"x11" PROJECT FILE NO. RBS16-66 DRAWING NO. <b>DGS-4</b>
DATE 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	

NOTE: ALL EXISTING EXHAUST STACKS ARE TO BE MEASURED BY THE CONTRACTOR BEFORE ORDERING THE SPECIFIED FLANGE



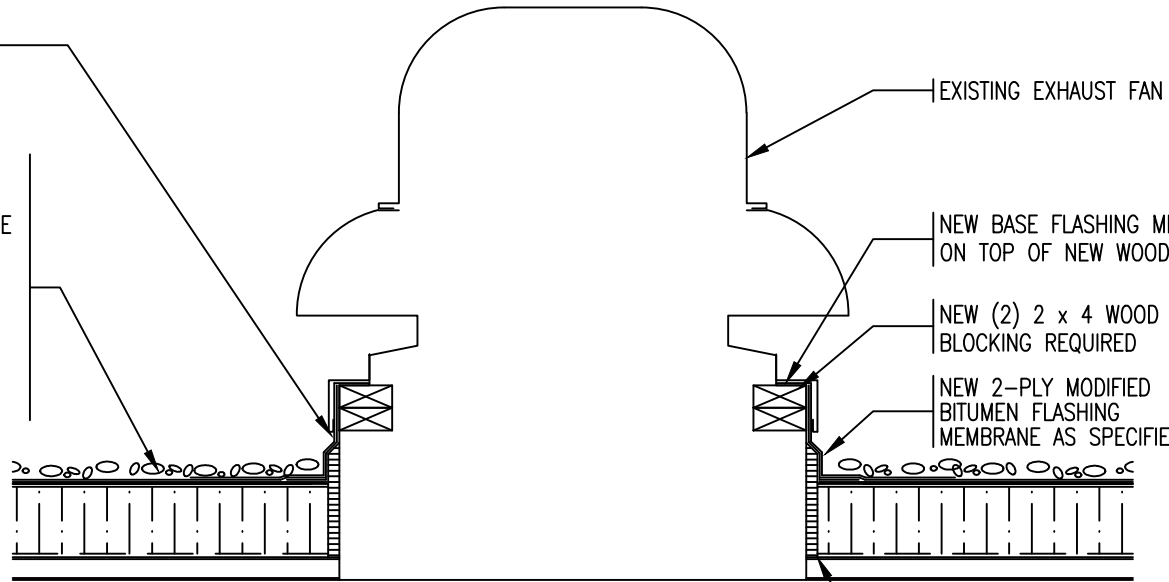
# EXHAUST VENT FLASHING DETAIL

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b>		PROJECT	DATE :	DECEMBER 2016
<b>R B S</b>	<small>ROOF ASSESSMENT, DESIGN AND INSPECTION SERVICES</small>	GOOD SHEPHERD CATHOLIC SCHOOL	SCALE :	N.T.S.
	<small>MECHANICAL INSTALLATION (HVAC/REFRIG/MECH/PLUMBING)</small>	ROOF REPLACEMENT	DRAWN BY :	CWP
	<small>SURVEY AND CONSULTING OF ROOFS AND BUILDINGS</small>	4 EDITH ST., THAMESVILLE ONTARIO	CHK. BY :	CWP
<small>Architectural: W. Palmer, C.B.S.</small>		CLIENT	SHEET SIZE :	8.1/2"x11"
<small>1687 Glen Road, Toronto, Ontario M8Z 1R2 Tel: (416) 738-3885 Fax: (416) 738-4077</small>		ST. CLAIR CATHOLIC DISTRICT	PROJECT FILE NO.	RBS16-66
		SCHOOL BOARD	DRAWING NO.	DGS-5
DATE	ISSUED FOR	DRAWING TITLE		
12-2-16	OWNER REVIEW	ROOF DETAIL		
12-8-16	TENDER			

NEW PREFINISHED METAL  
COUNTER FLASHING AS  
DETAILED

PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF COLD ADHESIVE  
ON TWO PLY MODIFIED BITUMEN ROOF MEMBRANE  
ON 3/16 INCH PROTECTION ASPHALT BOARD  
ON TAPERED INSULATION AS NOTED  
ON 4 INCH RIGID INSULATION (ISO)  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING METAL DECK



EXISTING EXHAUST FAN

NEW BASE FLASHING MEMBRANE CARRIED  
ON TOP OF NEW WOOD BLOCKING

NEW (2) 2 x 4 WOOD  
BLOCKING REQUIRED

NEW 2-PLY MODIFIED  
BITUMEN FLASHING  
MEMBRANE AS SPECIFIED

NEW 3/4" EXT. GRADE  
FIR PLYWOOD W/  
CHAMFER AS DETAILED

## DETAIL - EXHAUST FAN

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1607 Glen Road Hemel, Ontario N0B 1G0</small>	<small>ROOF ASSESSMENT, DESIGN AND SUPERVISION SERVICES</small> <small>INSULATION SPECIALIST (POLYURETHANE SPRAY/FORCE APPLIED)</small> <small>SURVEY AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.M.A.S.</small>	<b>PROJECT</b> GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT 4 EDITH ST., THAMESVILLE ONTARIO	<b>DATE :</b> DECEMBER 2016 <b>SCALE :</b> N.T.S. <b>DRAWN BY :</b> CWP
	<small>1607 Glen Road Hemel, Ontario N0B 1G0</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> <small>(2016-12-17)</small> 12-2-16 OWNER REVIEW 12-8-16 TENDER	<b>ISSUED FOR</b> TENDER	<b>DRAWING TITLE</b> ROOF DETAIL

PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF ADHESIVE  
ON 2-PLY MODIFIED BITUMEN MEMBRANE  
ON 3/16" PROTECTION BOARD  
ON 4" RIGID INSULATION  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING METAL DECK

EXISTING ROOF HATCH

NEW PREFINISHED  
METAL COUNTER  
FLASHING AS DETAILED

2-PLY MODIFIED BITUMEN  
FLASHING MEMBRANE ON 3/4"  
FIR PLYWOOD ANCHORED TO  
ROOF HATCH

NEW WOOD BLOCKING  
AROUND ENTIRE OPENING  
AS DETAILED (CONSISTS OF  
2) 2 x 6 W/ 2 LAYERS OF  
1/2" PLYWOOD)

NOTE: EXISTING ROOF HATCH TO BE  
REMOVED FROM THE METAL ROOF  
DECK TO ALLOW FOR INSTALLATION OF  
NEW WOOD BLOCKING TO HEIGHT OF  
NEW RIGID INSULATION AND THEN  
INSTALL ROOF HATCH OF TOP

# DETAIL - ROOF HATCH

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1607 Glen Road North, Oakville, ON L6L 1G0</small>	<small>ROOF ASSESSMENT, DESIGN AND INSPECTION SERVICES</small> <small>INSULATION INSTALLATION (POLYURETHANE SPRAY/FORCE APPLIED)</small> <small>SURVEY AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.B.S.</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT 4 EDITH ST., THAMESVILLE ONTARIO	DATE : DECEMBER 2016 SCALE : N.T.S. DRAWN BY : CWP
	<small>1607 Glen Road North, Oakville, ON L6L 1G0</small>	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
	DATE <small>(ISS-20-17)</small> 12-2-16 OWNER REVIEW 12-8-16 TENDER	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE ROOF DETAIL

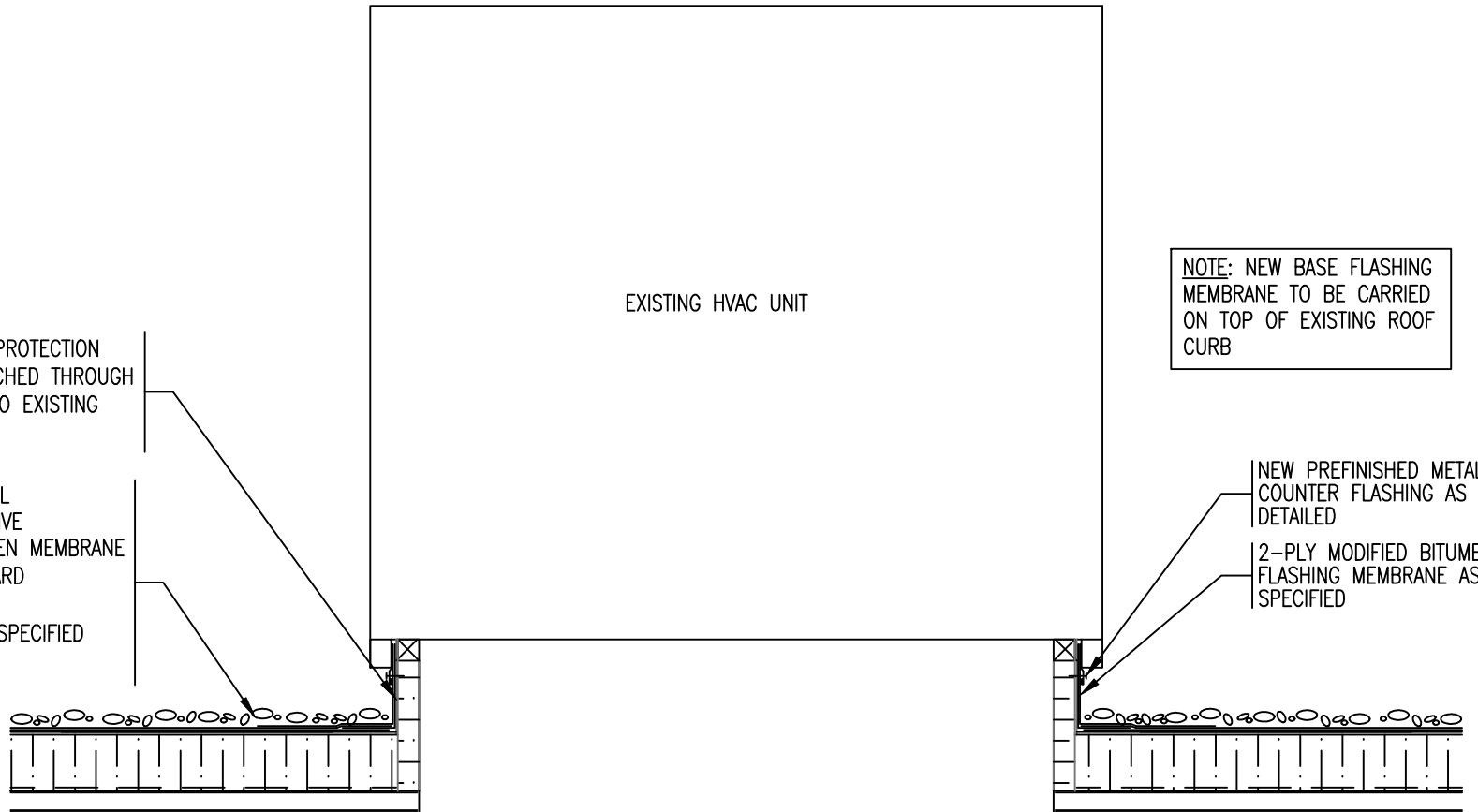
EXISTING HVAC UNIT

NOTE: NEW BASE FLASHING MEMBRANE TO BE CARRIED ON TOP OF EXISTING ROOF CURB

NEW 1/8" ASPHALT CORE PROTECTION BOARD MECHANICALLY ATTACHED THROUGH 1 1/2" RIGID INSULATION TO EXISTING METAL CURB

PEA STONE ROOFING GRAVEL ON FLOOD COAT OF ADHESIVE ON 2-PLY MODIFIED BITUMEN MEMBRANE ON 3/16" PROTECTION BOARD ON 4" RIGID INSULATION ON VAPOUR RETARDER AS SPECIFIED ON EXISTING METAL DECK

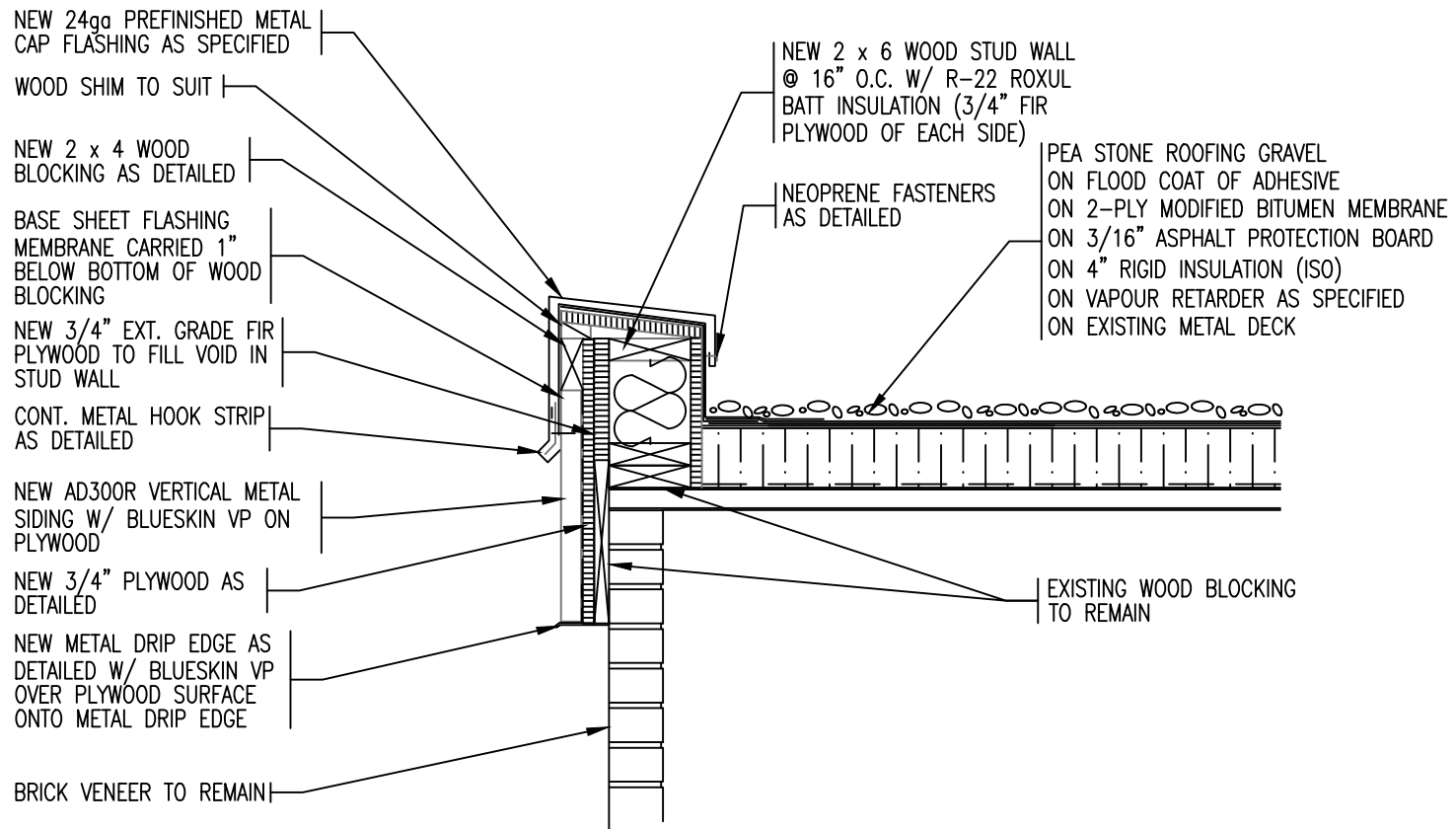
NEW PREFINISHED METAL COUNTER FLASHING AS DETAILED  
2-PLY MODIFIED BITUMEN FLASHING MEMBRANE AS SPECIFIED



# HVAC DETAIL - TYPICAL

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1607 Glen Road                  Aurora, Ontario M1R 1G1                  Tel: (905) 738-3888                  Fax: (905) 738-4757</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT 4 EDITH ST., THAMESVILLE ONTARIO	DATE : DECEMBER 2016 SCALE : N.T.S. DRAWN BY : CWP
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
	DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS16-66 DRAWING NO. <b>DGS-8</b>
DATE 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	

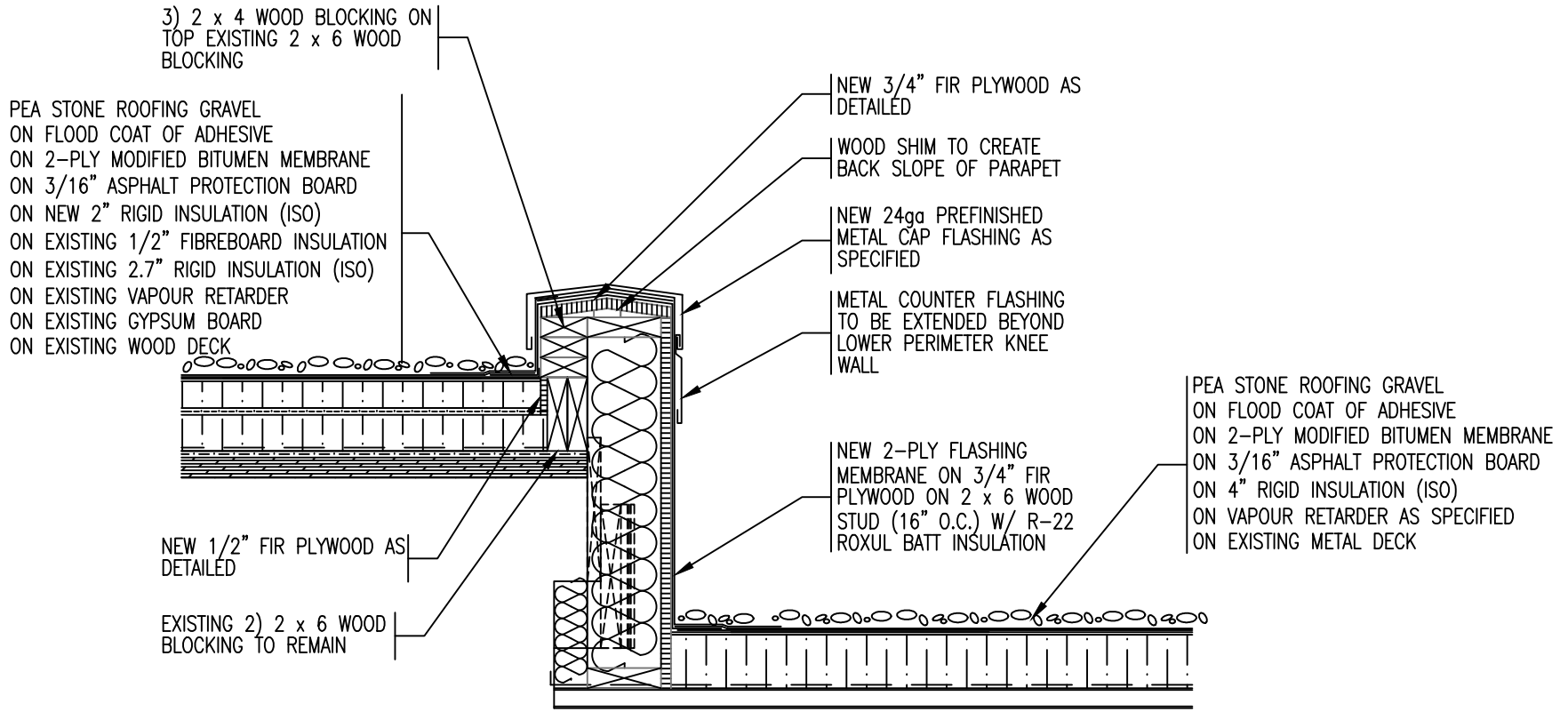


# ROOF PERIMETER DETAIL - AREA 'A'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1607 Glen Road          Toronto, Ontario M8Z 1X2</small>	<small>WE'VE ASSURED, BUILT AND MAINTAINED PROGRESS</small> <small>DESIGN CHALLENGES (POLYMER CONCRETE/STEEL PROFILES)</small> <small>SURVEY AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.B.S.</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT 4 EDITH ST., THAMESVILLE ONTARIO	DATE : DECEMBER 2016 SCALE : N.T.S. DRAWN BY : CWP
	<small>1607 Glen Road          Toronto, Ontario M8Z 1X2</small>	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11" PROJECT FILE NO. RBS16-66 DRAWING NO. DGS-9
DATE (ISS-YY)	ISSUED FOR	DRAWING TITLE	
12-2-16	OWNER REVIEW	ROOF DETAIL	
12-8-16	TENDER		



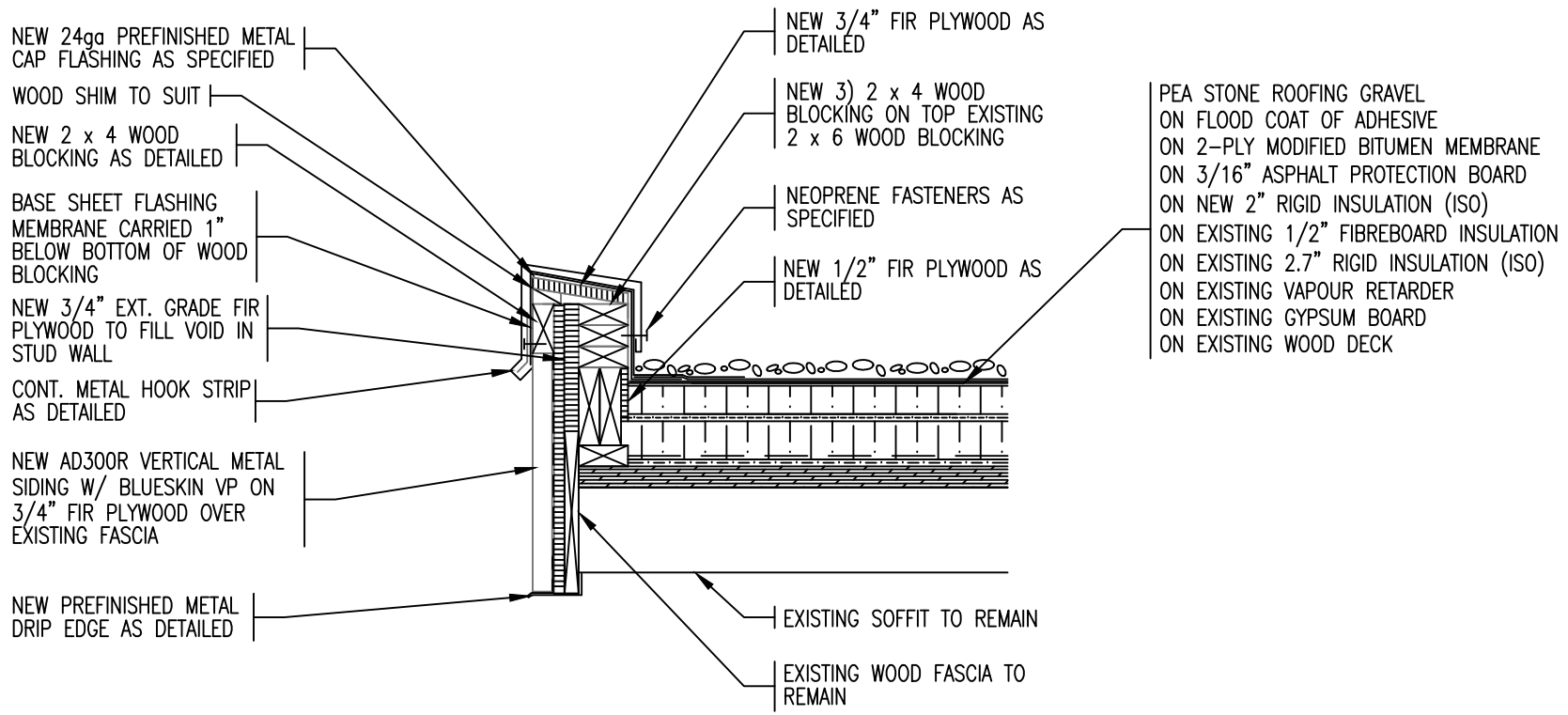


**NOTE:** EXISTING WOOD BLOCKING TO BE REMOVED ALONG W/ PLYWOOD TO ALLOW FOR INSTALLATION OF NEW KNEE WALL AS DETAILED

# ROOF PERIMETER DETAIL - AREA 'B' AND 'A'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>WEATHER RESISTANT CLADDING AND ROOFING PRODUCTS          INSULATION SPECIALISTS (POLYURETHANE FOAM/FOAM POLYSTYRENE)          SURFACES AND COMPONENTS OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.B.S.</small> <small>1607 Glen Road          Toronto, Ontario M8Z 1R2</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT  4 EDITH ST., THAMESVILLE ONTARIO	DATE : DECEMBER 2016
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SCALE : N.T.S.  DRAWN BY : CWP
DATE <small>(DATE-20-YY)</small> 12-2-16 OWNER REVIEW 12-8-16 TENDER	ISSUED FOR OWNER REVIEW TENDER	CHK. BY : CWP  SHEET SIZE : 8.1/2"x11"  PROJECT FILE NO. RBS16-66  DRAWING NO. <b>DGS-10</b>
DRAWING TITLE ROOF DETAIL		



# ROOF PERIMETER DETAIL - AREA 'B'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> ROOF REPAIRS, ROOFING AND ROOFING PRODUCTS <b>B</b> BRICKWORK, BLOCKWORK AND CONCRETE PRODUCTS <b>S</b> SIDERIES AND CONCRETE OF ROOFS AND BUILDINGS <small>1607 Glen Road        Toronto, Ontario M8Z 1K2        Tel: (416) 738-3885        Fax: (416) 738-4077</small>	<b>PROJECT</b> GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT	<b>DATE :</b> DECEMBER 2016
	<b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	<b>SCALE :</b> N.T.S.
	<b>DRAWING TITLE</b> ROOF DETAIL	<b>DRAWN BY :</b> CWP <b>CHK. BY :</b> CWP <b>SHEET SIZE :</b> 8.1/2"x11"
<b>DATE</b> 12-2-16 12-8-16	<b>ISSUED FOR</b> OWNER REVIEW TENDER	<b>PROJECT FILE NO.</b> RBS16-66 <b>DRAWING NO.</b> DGS-11

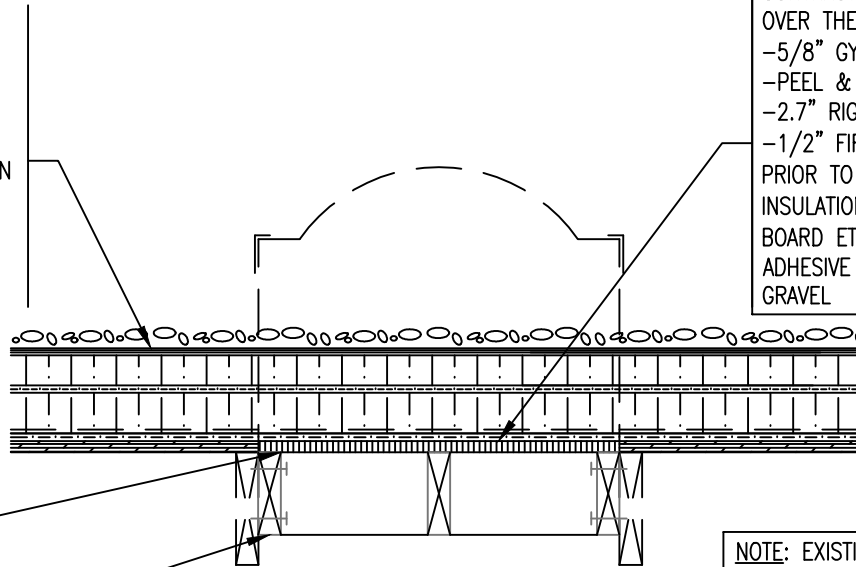
NOTE: EXISTING 2-PLY ROOF MEMBRANE TO BE PEELED FROM ORIGINAL FIBREBOARD PRIOR TO INSTALLING NEW RIGID INSULATION

PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF ADHESIVE  
ON 2-PLY MODIFIED BITUMEN MEMBRANE  
ON 3/16" ASPHALT PROTECTION BOARD  
ON NEW 2" RIGID INSULATION (ISO)  
ON EXISTING 1/2" FIBREBOARD INSULATION  
ON EXISTING 2.7" RIGID INSULATION (ISO)  
ON EXISTING VAPOUR RETARDER  
ON EXISTING GYPSUM BOARD  
ON EXISTING WOOD DECK

CONTRACTOR TO PROVIDE THE FOLLOWING OVER THE NEW 3/4" FIR PLYWOOD  
-5/8" GYPSUM BOARD  
-PEEL & STICK VAPOUR RETARDER  
-2.7" RIGID INSULATION (ISO)  
-1/2" FIBREBOARD INSULATION  
PRIOR TO INSTALLING NEW 2" RIGID INSULATION (ISO), ASPHALT, PROTECTION BOARD ETC. W/ ALL COMPONENTS W/ FOAM ADHESIVE TO THE PEA STONE ROOFING GRAVEL

NEW 3/4" FIR PLYWOOD IS REQUIRED MATCHING TOP OF EXISTING WOOD DECK

NEW 2 x 6 WOOD JOISTS SISTERED TO ORIGINAL MEMBERS

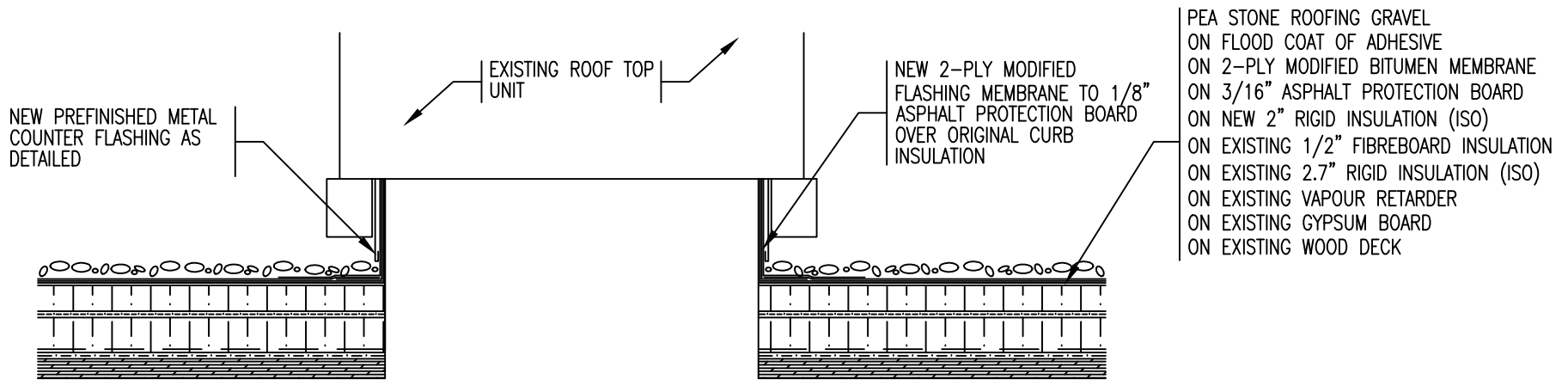


NOTE: EXISTING SKYLIGHT LENS AND CURB IS TO BE REMOVED COMPLETELY AND THEN THE OPENING IS REQUIRED TO BE CLOSED IN AS DETAILED

# EXISTING SKYLIGHT DETAIL - AREA 'B'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b>		PROJECT	DATE :	DECEMBER 2016
<b>R B S</b>	ROOF ASSESSMENT, DESIGN AND SUPERVISION PROVIDED	GOOD SHEPHERD CATHOLIC SCHOOL	SCALE :	N.T.S.
	SKYLIGHT REPLACEMENT (SEE/REFER DRAWINGS/NOTES PROVIDED)	ROOF REPLACEMENT	DRAWN BY :	CWP
	SUBJECT AND CONDITIONS OF ROOFS AND BUILDINGS	4 EDITH ST., THAMESVILLE ONTARIO	CHK. BY :	CWP
Christopher W. Palmer, C.B.S.P.		CLIENT	SHEET SIZE :	8.1/2"x11"
1607 Glen Road Hemel, Ontario N0R 1R0		ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	PROJECT FILE NO.	RBS16-66
DATE (08-25-17)	ISSUED FOR	DRAWING TITLE	DRAWING NO.	DGS-12
12-2-16	OWNER REVIEW	ROOF DETAIL		
12-6-16	TENDER			



NEW PREFINISHED METAL  
COUNTER FLASHING AS  
DETAILED

EXISTING ROOF TOP  
UNIT

NEW 2-PLY MODIFIED  
FLASHING MEMBRANE TO 1/8"  
ASPHALT PROTECTION BOARD  
OVER ORIGINAL CURB  
INSULATION

PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF ADHESIVE  
ON 2-PLY MODIFIED BITUMEN MEMBRANE  
ON 3/16" ASPHALT PROTECTION BOARD  
ON NEW 2" RIGID INSULATION (ISO)  
ON EXISTING 1/2" FIBREBOARD INSULATION  
ON EXISTING 2.7" RIGID INSULATION (ISO)  
ON EXISTING VAPOUR RETARDER  
ON EXISTING GYPSUM BOARD  
ON EXISTING WOOD DECK

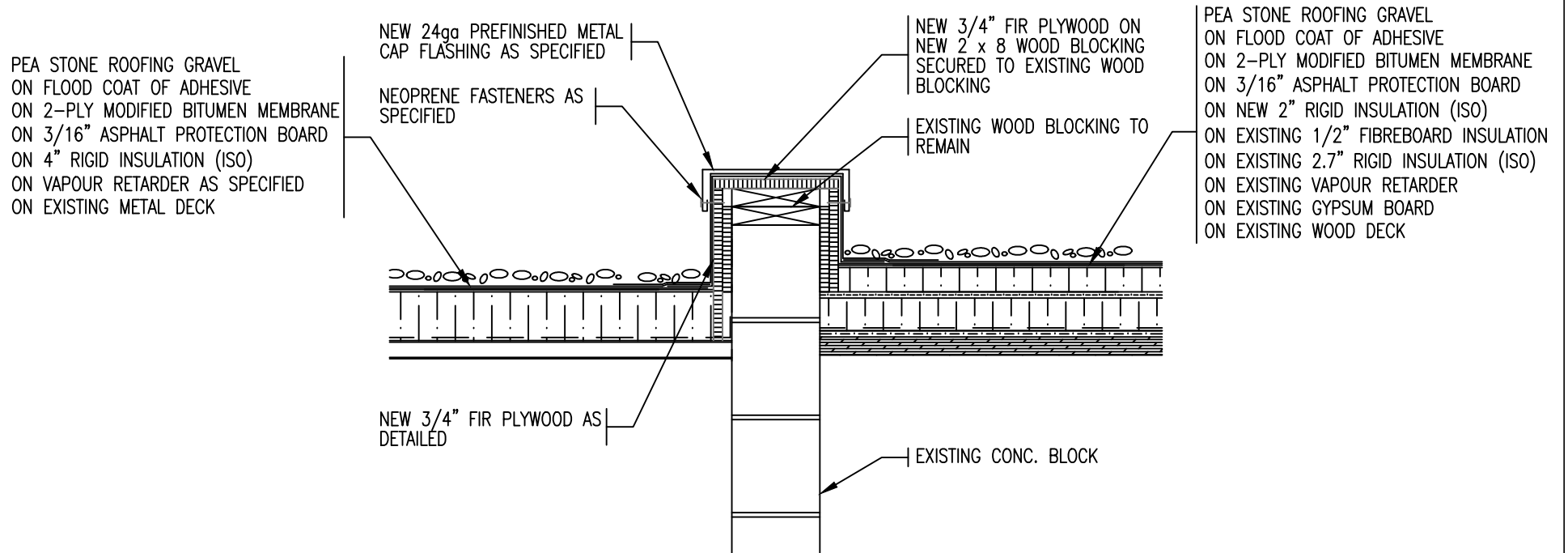
NOTE: ROOF TOP UNIT TO BE LIFTED  
TO ALLOW FOR BASE FLASHING  
MEMBRANE ALONG W/ METAL  
COUNTER FLASHING TO BE INSTALLED  
ON TOP OF ROOF CURB

NOTE: EXISTING 2-PLY ROOF  
MEMBRANE TO BE PEELED FROM  
ORIGINAL FIBREBOARD PRIOR TO  
INSTALLING NEW RIGID INSULATION

# ROOF TOP UNIT DETAIL - AREA 'B'

SCALE : 1" = 1'-0"

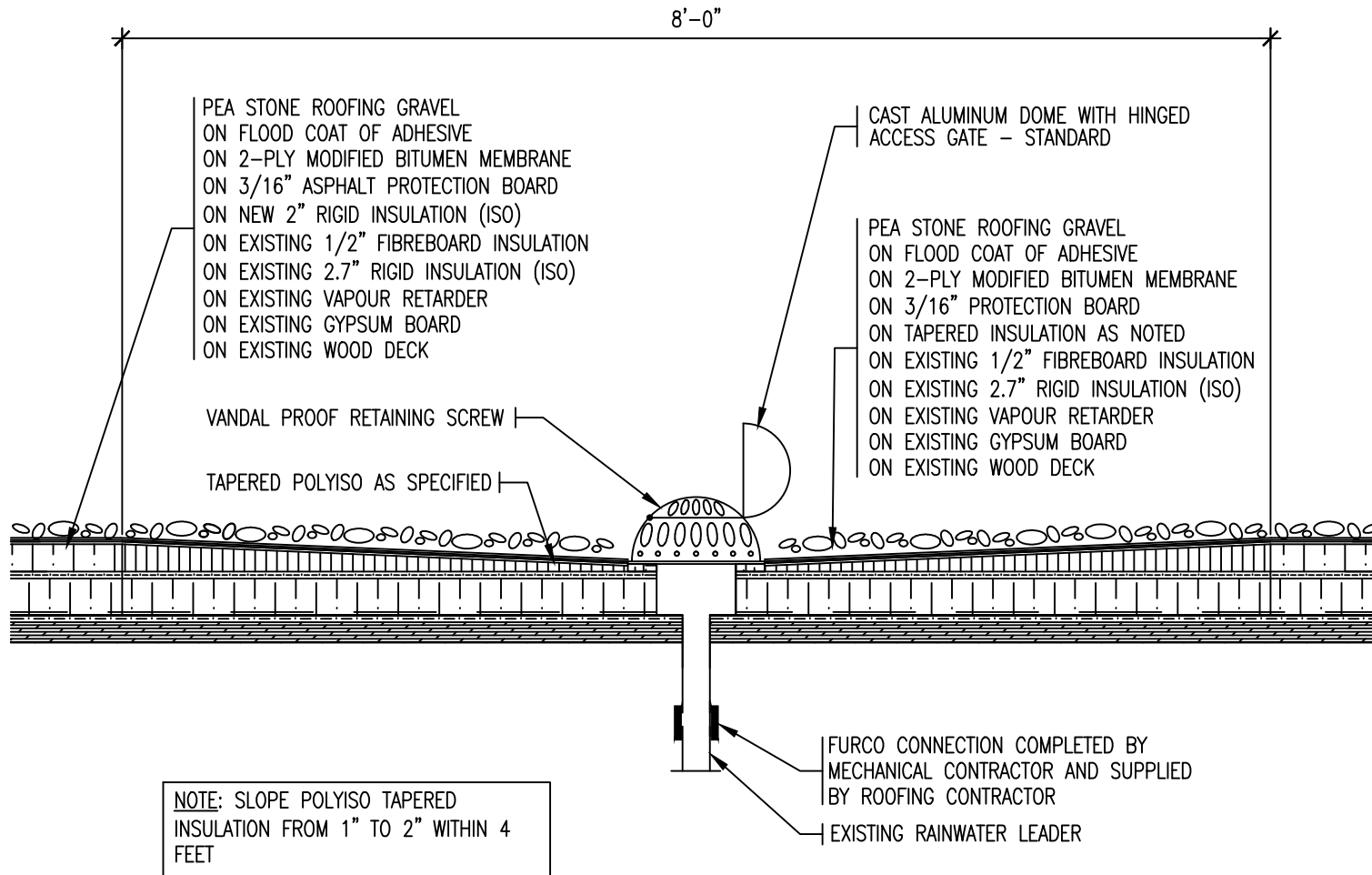
<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>WE'VE ALWAYS BEEN THE BEST AT WHAT WE DO</small> <small>1000 Glen Road Thames, Ontario N5M 1K0</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SCALE : N.T.S.
	DRAWING TITLE ROOF DETAIL	DRAWN BY : CWP
	PROJECT FILE NO. RBS16-66	CHK. BY : CWP
DATE (DD-MM-YY) 12-2-16	ISSUED FOR OWNER REVIEW	SHEET SIZE : 8.1/2"x11"
DATE 12-8-16	TENDER	DRAWING NO. <b>DGS-13</b>



# ROOF PERIMETER DETAIL - AREA 'D' AND 'B'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF ASSESSMENT, DESIGN AND REPAIRS PROGRAM          INSULATION SPECIALIST (POLYURETHAN SPRAY/FORCE PROGRAM)          SURVEY AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.B.S.P.</small> <small>1607 Glen Road          Toronto, Ontario M8Z 1K2</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SCALE : N.T.S.
	DRAWING TITLE ROOF DETAIL	DRAWN BY : CWP
DATE <small>(MM-DD-YY)</small> 12-2-16	ISSUED FOR OWNER REVIEW	CHK. BY : CWP
DATE <small>(MM-DD-YY)</small> 12-8-16	ISSUED FOR TENDER	SHEET SIZE : 8.1/2"x11"
		PROJECT FILE NO. RBS16-66
		DRAWING NO. <b>DGS-14</b>

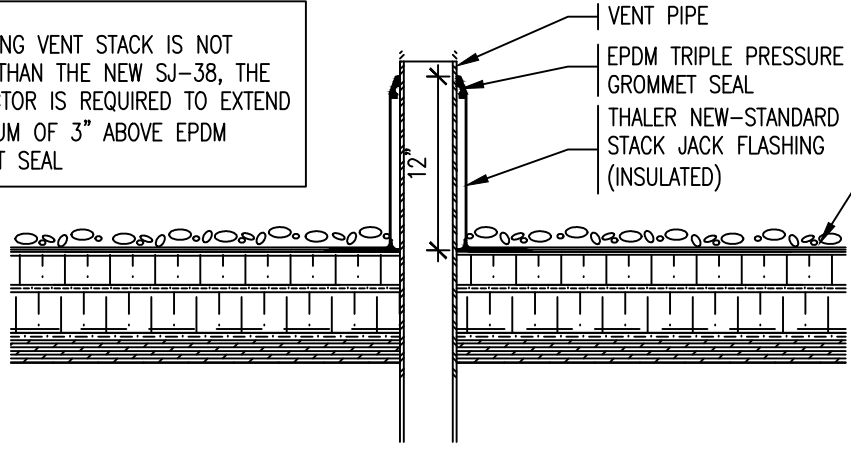


# ROOF DETAIL - ROOF DRAIN FOR AREA 'B'

SCALE : 1" = 1'-0"

<b>R B S</b> <small>REMLAP BUILDING SERVICES INC.          1001 Glen Road          Toronto, Ontario M8Z 1K2          Tel: (416) 738-3383          Fax: (416) 738-0737</small>	<small>PROFESSIONAL ENGINEER AND ARCHITECT REGISTRY OF ONTARIO</small> <small>REGISTERED ENGINEER (MECHANICAL) AND REGISTERED ARCHITECT</small> <small>SUBJECT AND CONTENTS OF THIS DRAWING</small> <small>Christopher W. Palmer, C.E.S.</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT 4 EDITH ST., THAMESVILLE ONTARIO	DATE : DECEMBER 2016 SCALE : N.T.S. DRAWN BY : CWP
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"	
DATE <small>(ISS-TO-YY)</small> 12-2-16 OWNER REVIEW 12-8-16 TENDER	ISSUED FOR ROOF DETAIL	PROJECT FILE NO. RBS16-66 DRAWING NO. DGS-15	

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



PEA STONE ROOFING GRAVEL  
 ON FLOOD COAT OF ADHESIVE  
 ON 2-PLY MODIFIED BITUMEN MEMBRANE  
 ON 3/16" ASPHALT PROTECTION BOARD  
 ON NEW 2" RIGID INSULATION (ISO)  
 ON EXISTING 1/2" FIBREBOARD INSULATION  
 ON EXISTING 2.7" RIGID INSULATION (ISO)  
 ON EXISTING VAPOUR RETARDER  
 ON EXISTING GYPSUM BOARD  
 ON EXISTING WOOD DECK

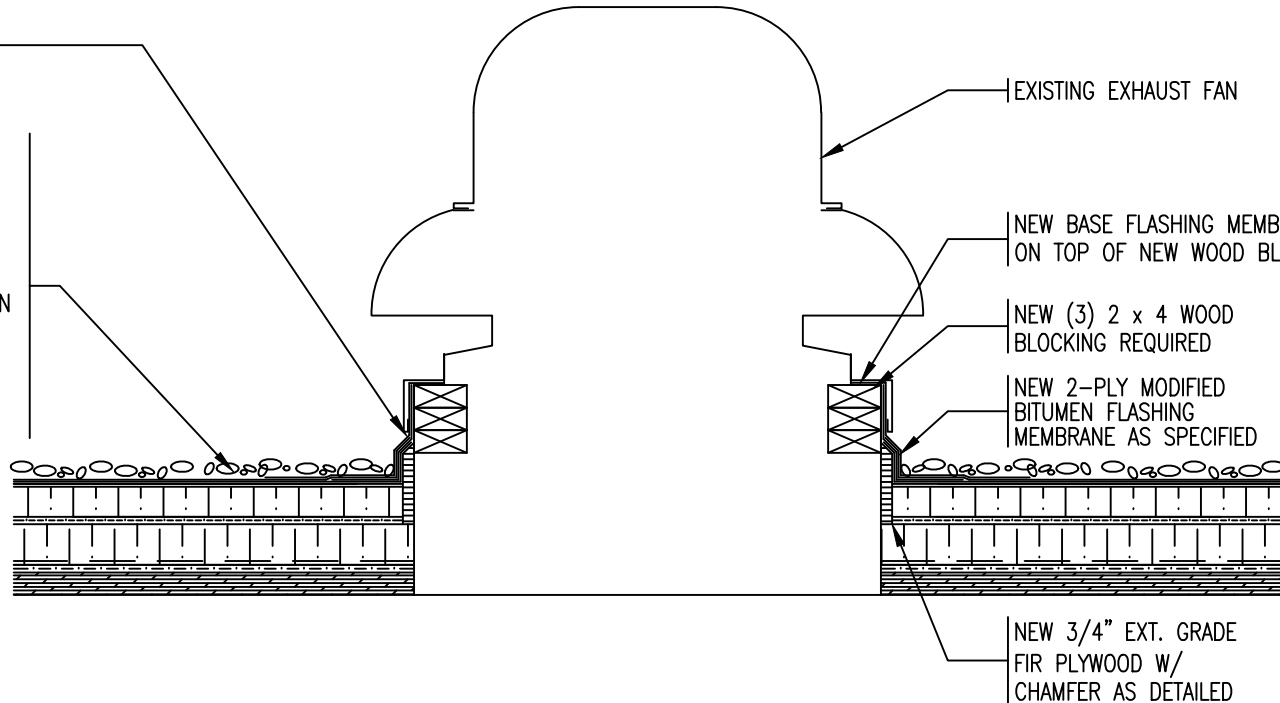
# ROOF DETAIL - VENT PIPE STACK FOR AREA 'B'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF ASSESSMENT, DESIGN AND INSPECTION SERVICES</small> <small>INSULATION INSTALLATION (POLYURETHAN FOAM/ROCK WOOL FIBRE FIBREGLASS)</small> <small>SURVEYS AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>Christophorus W. Palmer, C.B.S.P.</small> <small>1607 Glen Road</small> <small>160 Glen Road</small> <small>Thamesville, Ontario N5B 1G9</small> <small>Thamesville, Ontario N5B 1G9</small> <small>TEL: (519) 738-3383</small> <small>FAX: (519) 738-4737</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT  4 EDITH ST., THAMESVILLE ONTARIO	DATE :      DECEMBER 2016  SCALE :      N.T.S.  DRAWN BY :      CWP
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY :      CWP  SHEET SIZE :      8.1/2"x11"
	DRAWING TITLE ROOF DETAIL	PROJECT FILE NO.      RBS16-66 DRAWING NO.      DGS-16
DATE (DATE-20-YY) 12-2-16      OWNER REVIEW 12-8-16      TENDER	ISSUED FOR	

NEW PREFINISHED METAL  
COUNTER FLASHING AS  
DETAILED

PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF ADHESIVE  
ON 2-PLY MODIFIED BITUMEN MEMBRANE  
ON 3/16" ASPHALT PROTECTION BOARD  
ON NEW 2" RIGID INSULATION (ISO)  
ON EXISTING 1/2" FIBREBOARD INSULATION  
ON EXISTING 2.7" RIGID INSULATION (ISO)  
ON EXISTING VAPOUR RETARDER  
ON EXISTING GYPSUM BOARD  
ON EXISTING WOOD DECK



NEW 3/4" EXT. GRADE  
FIR PLYWOOD W/  
CHAMFER AS DETAILED

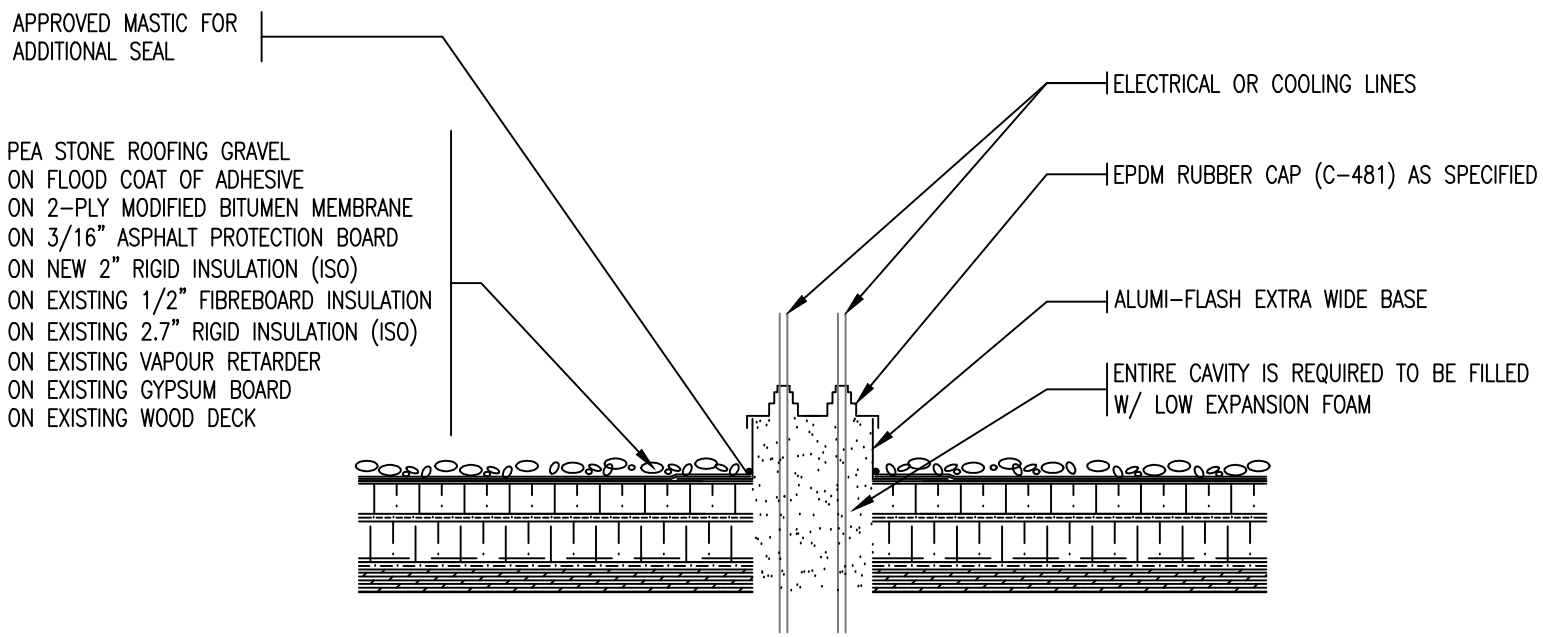
## DETAIL - EXHAUST FAN FOR AREA 'B'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1001 Glen Road Huron, Ontario N2R 1K0</small>	<small>ROOF ASSESSMENT, DESIGN AND SUPERVISION SERVICES</small> <small>INSULATION INSTALLATION (POLYURETHANE SPRAYED POLYSTYRENE)</small> <small>SUBJECTS AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.B.S.</small>	<b>PROJECT</b> GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT 4 EDITH ST., THAMESVILLE ONTARIO	<b>DATE :</b> DECEMBER 2016 <b>SCALE :</b> N.T.S. <b>DRAWN BY :</b> CWP
	<small>1001 Glen Road Huron, Ontario N2R 1K0</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> <small>(DATE-20-YY)</small> 12-2-16 12-8-16	<b>ISSUED FOR</b> OWNER REVIEW TENDER	<b>DRAWING TITLE</b> ROOF DETAIL



NOTE:  
 IT IS THE RESPONSIBILITY OF THE  
 ROOFING CONTRACTOR TO DISCONNECT  
 ALL CONDENSING UNITS BY AN  
 APPROVED CONTRACTOR TO ALLOW A  
 PROPER FLANGE AND SEAL AROUND  
 ALL ELECTRICAL AND COOLING LINES  
 PENETRATIONS FOR THIS PROJECT



# ROOF AREA 'B' - ELECTRICAL / COOLING LINE PENETRATIONS

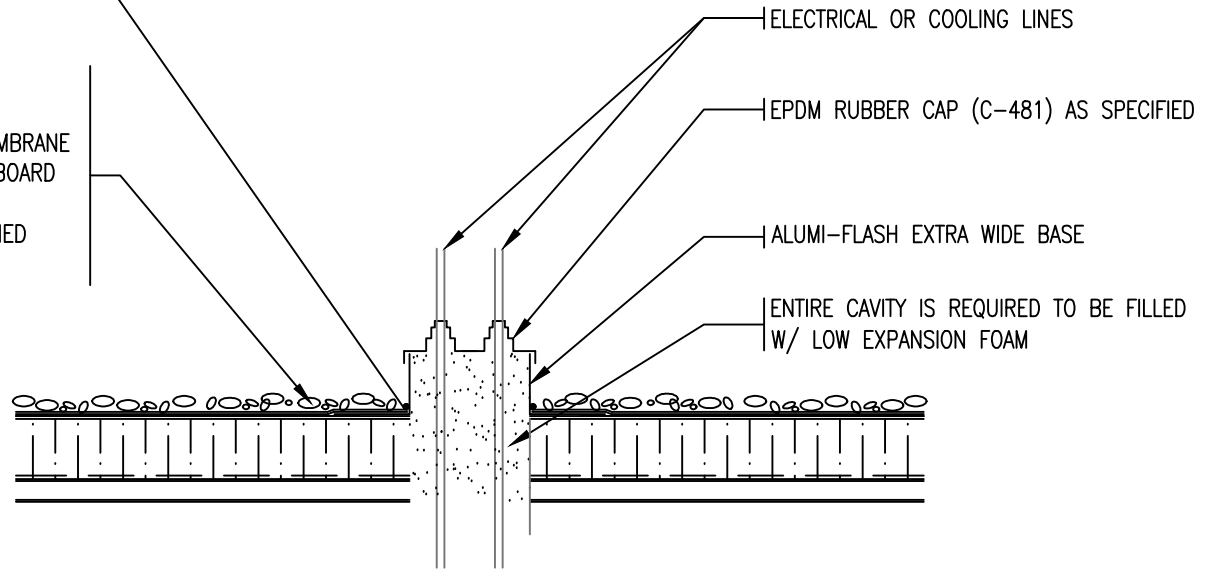
SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1007 Glen Road        Toronto, Ontario M8Z 1G2</small>	<small>ROOF ASSESSMENT, DESIGN AND SUPERVISION PROVIDED</small> <small>INSULATION INSTALLATION (POLYURETHANE FOAM/ROCK WOOL FIBRE)</small> <small>SUBJECTS AND CONDITIONS OF BIDDING AND BUILDING</small> <small>Christopher W. Palmer, C.B.S.</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT 4 EDITH ST., THAMESVILLE ONTARIO	DATE : DECEMBER 2016 SCALE : N.T.S. DRAWN BY : CWP	
	<small>1600 Glen Road        Toronto, Ontario M8Z 1G2</small>	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"	
	DATE (MM-DD-YY) 12-2-16 OWNER REVIEW 12-8-16 TENDER	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS16-66 DRAWING NO. DGS-18

NOTE:  
 IT IS THE RESPONSIBILITY OF THE  
 ROOFING CONTRACTOR TO DISCONNECT  
 ALL CONDENSING UNITS BY AN  
 APPROVED CONTRACTOR TO ALLOW A  
 PROPER FLANGE AND SEAL AROUND  
 ALL ELECTRICAL AND COOLING LINES  
 PENETRATIONS FOR THIS PROJECT

APPROVED MASTIC FOR  
 ADDITIONAL SEAL

PEA STONE ROOFING GRAVEL  
 ON FLOOD COAT OF ADHESIVE  
 ON 2-PLY MODIFIED BITUMEN MEMBRANE  
 ON 3/16" ASPHALT PROTECTION BOARD  
 ON 4" RIGID INSULATION (ISO)  
 ON VAPOUR RETARDER AS SPECIFIED  
 ON EXISTING METAL DECK



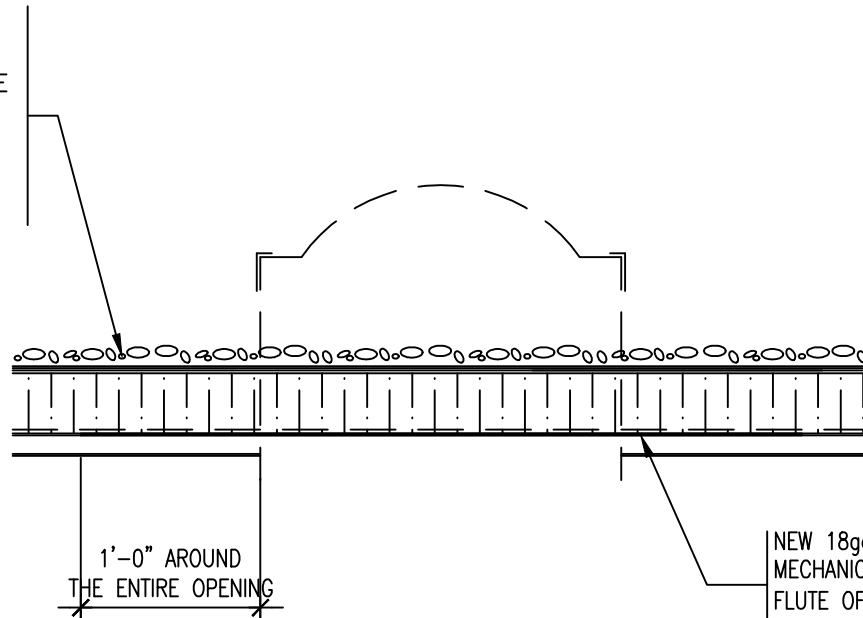
# ROOF AREA 'D' - ELECTRICAL / COOLING LINE PENETRATIONS

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF REPAIRS, ROOFING AND INSULATION PRODUCTS        INSULATION SPECIALISTS (POLYURETHANE FOAM/URETHANE FIBRE)        SUBJECTS AND CONSULTANTS OF ROOFS AND BUILDINGS</small> <small>1607 Glen Road        Toronto, Ontario M8Z 1G2</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SCALE : N.T.S.
<small>1607 Glen Road        Toronto, Ontario M8Z 1G2</small>	4 EDITH ST., THAMESVILLE ONTARIO	DRAWN BY : CWP
DATE (ISS-TO-YR) 12-2-16	ISSUED FOR OWNER REVIEW	CHK. BY : CWP
DATE 12-8-16	TENDER	SHEET SIZE : 8.1/2"x11"
	DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS16-66
		DRAWING NO. <b>DGS-19</b>

NOTE: EXISTING SKYLIGHT LENS AND CURB IS TO BE REMOVED COMPLETELY AND THEN THE OPENING IS REQUIRED TO BE COVERED OVER AS DETAILED

PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF ADHESIVE  
ON 2-PLY MODIFIED BITUMEN MEMBRANE  
ON 3/16" ASPHALT PROTECTION BOARD  
ON 4" RIGID INSULATION (ISO)  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING METAL DECK



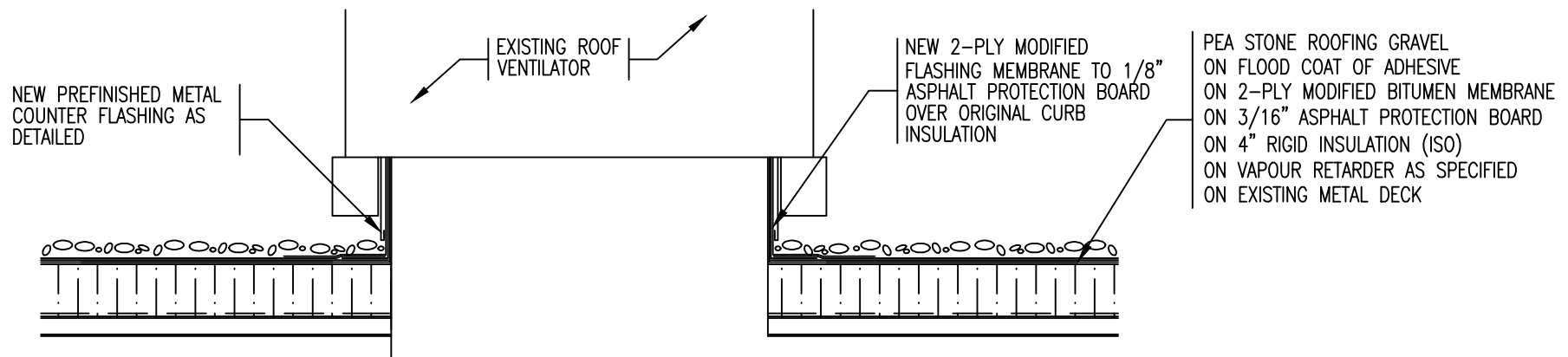
NEW 18ga GALVANIZED FLAT SHEET METAL MECHANICALLY ATTACHED TO EACH TOP FLUTE OF METAL DECK W/ 2) 3/4" SELF TAPPING SCREW @ EACH LOCATION

NOTE: CONTRACTOR TO PROVIDE 4 FOOT LONG 1 1/2" x 1 1/2" HSS DOWN THE MIDDLE OF OPENING AND THEN 18ga FLAT SHEET METAL FASTENED TO HSS MEMBER

# EXISTING SKYLIGHT DETAIL - AREA 'D'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> R B S 1607 Glen Road Hemel, Ontario, M2H 3G2 Tel: (905) 728-3282 Fax: (905)728-0727		PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT 4 EDITH ST., THAMESVILLE ONTARIO	DATE : DECEMBER 2016
CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SCALE : N.T.S.
DATE 12-2-16 12-8-16		DRAWING TITLE ROOF DETAIL	DRAWN BY : CWP
ISSUED FOR OWNER REVIEW TENDER			CHK. BY : CWP
			SHEET SIZE : 8.1/2"x11"
			PROJECT FILE NO. RBS16-66
			DRAWING NO. DGS-20



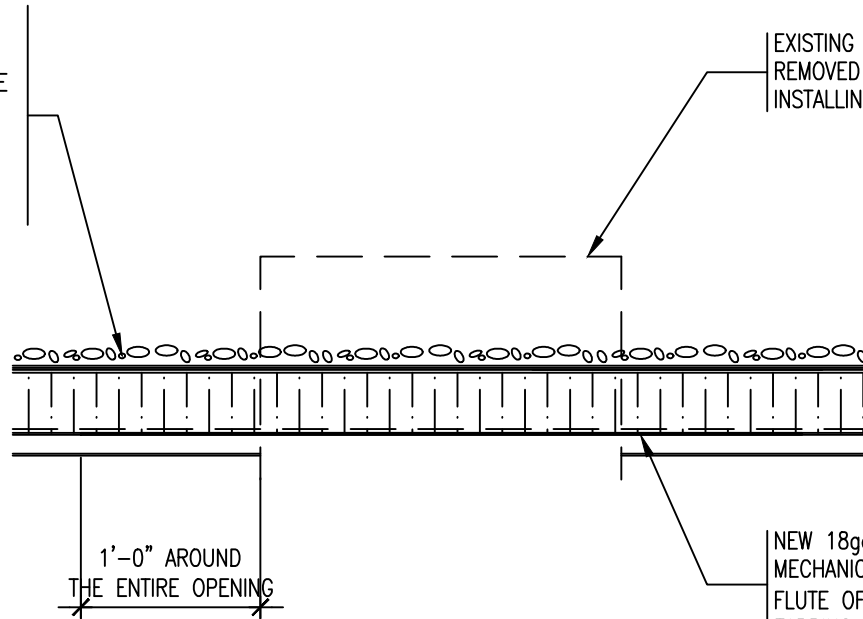
NOTE: ROOF VENTILATOR TO BE LIFTED TO ALLOW FOR BASE FLASHING MEMBRANE ALONG W/ METAL COUNTER FLASHING TO BE INSTALLED ON TOP OF ROOF VENTILATOR

# ROOF TOP UNIT DETAIL - AREA 'D'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF ASSESSMENT, DESIGN AND REPAIRS PROGRAM          INSULATION SPECIALIST (POLYURETHANE SPRAY/FORCE APPLIED)          SURVEYS AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>Christophorus W. Palmer, C.B.S.</small> <small>1607 Glen Road          Toronto, Ontario M8Z 1G2</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT 4 EDITH ST., THAMESVILLE ONTARIO	DATE : DECEMBER 2016
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SCALE : N.T.S. DRAWN BY : CWP
DATE <small>(ISS-20-17)</small> 12-2-16 OWNER REVIEW 12-8-16 TENDER	DRAWING TITLE ROOF DETAIL	CHK. BY : CWP SHEET SIZE : 8.1/2"x11" PROJECT FILE NO. RBS16-66 DRAWING NO. DGS-21

PEA STONE ROOFING GRAVEL  
 ON FLOOD COAT OF ADHESIVE  
 ON 2-PLY MODIFIED BITUMEN MEMBRANE  
 ON 3/16" ASPHALT PROTECTION BOARD  
 ON 4" RIGID INSULATION (ISO)  
 ON VAPOUR RETARDER AS SPECIFIED  
 ON EXISTING METAL DECK



EXISTING ABANDONED ROOF CURB TO BE  
 REMOVED BELOW METAL DECK PRIOR TO  
 INSTALLING SHEET METAL

NEW 18ga GALVANIZED FLAT SHEET METAL  
 MECHANICALLY ATTACHED TO EACH TOP  
 FLUTE OF METAL DECK W/ 2) 3/4" SELF  
 TAPPING SCREW @ EACH LOCATION

1'-0" AROUND  
 THE ENTIRE OPENING

NOTE: CONTRACTOR TO PROVIDE 4  
 FOOT LONG 1 1/2" x 1 1/2" HSS  
 DOWN THE MIDDLE OF OPENING AND  
 THEN 18ga FLAT SHEET METAL  
 FASTENED TO HSS MEMBER

# ABANDONED ROOF CURB DETAIL

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b>		PROJECT	DATE :	DECEMBER 2016
<b>R B S</b>	ROOF ASSESSMENT, DESIGN AND SUPERVISION PROVIDED	GOOD SHEPHERD CATHOLIC SCHOOL	SCALE :	N.T.S.
	ISSUES DEVELOPED (BY/WORK ORDER/OTHER PROVIDED)	ROOF REPLACEMENT	DRAWN BY :	CWP
	SUBJECT AND COMMENTS OF ROOFS AND BUILDINGS	4 EDITH ST., THAMESVILLE ONTARIO	CHK. BY :	CWP
Client: Christopher W. Palmer, C.B.S.		CLIENT	SHEET SIZE :	8.1/2"x11"
1607 Glen Road Huron, Ontario N2R 1K0 Tel: (519) 738-3385 Fax: (519)738-4707		ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	PROJECT FILE NO.	RBS16-66
DATE (MM-DD-YY)	ISSUED FOR	DRAWING TITLE	DRAWING NO.	DGS-22
12-2-16	OWNER REVIEW	ROOF DETAIL		
12-8-16	TENDER			

PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF ADHESIVE  
ON 2-PLY MODIFIED BITUMEN MEMBRANE  
ON 3/16" PROTECTION BOARD  
ON 4" RIGID INSULATION  
ON VAPOUR RETARDER AS SPECIFIED  
ON EXISTING METAL DECK

EXISTING ROOF HATCH

NEW PREFINISHED  
METAL COUNTER  
FLASHING AS DETAILED

2-PLY MODIFIED BITUMEN  
FLASHING MEMBRANE ON 3/4"  
FIR PLYWOOD ANCHORED TO  
ROOF HATCH

NEW WOOD BLOCKING  
AROUND ENTIRE OPENING  
AS DETAILED (CONSISTS OF  
2) 2 x 6 W/ 2 LAYERS OF  
1/2" PLYWOOD)

NOTE: EXISTING ROOF HATCH TO BE  
REMOVED FROM THE METAL ROOF  
DECK TO ALLOW FOR INSTALLATION OF  
NEW WOOD BLOCKING TO HEIGHT OF  
NEW RIGID INSULATION AND THEN  
INSTALL ROOF HATCH OF TOP

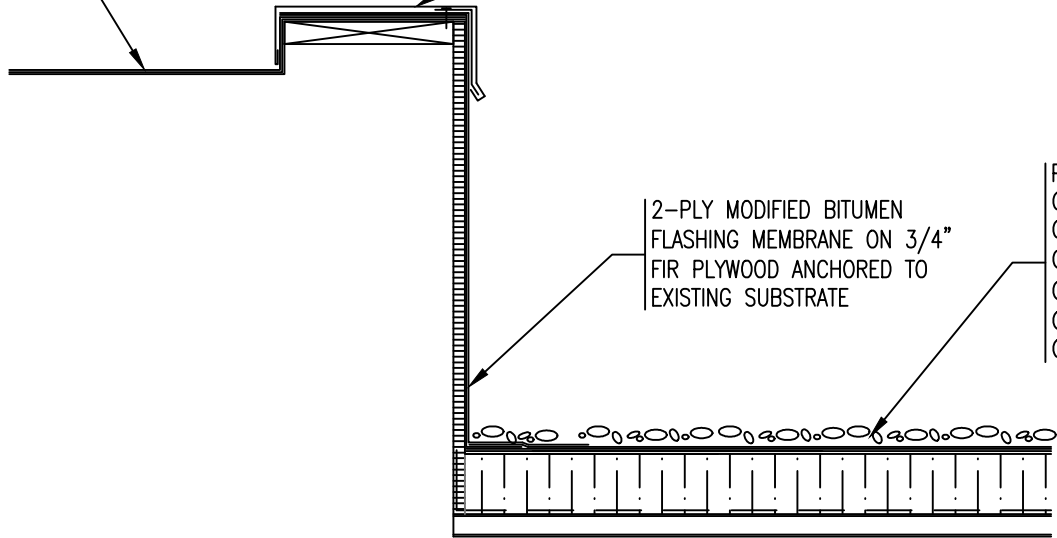
# ROOF DETAIL - ROOF HATCH

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> ROOF REPAIRS, ROOFING AND ROOFING PRODUCTS <b>B</b> BUSINESS DEVELOPMENT (NEW/EXISTING ROOFING PRODUCTS) <b>S</b> SURVEY AND CONSULTING OF ROOFS AND BUILDINGS <small>1607 Glen Road Riverside, Ontario M8Z 1X0</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT 4 EDITH ST., THAMESVILLE ONTARIO	DATE : DECEMBER 2016 SCALE : N.T.S. DRAWN BY : CWP
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
	DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS16-66 DRAWING NO. <b>DGS-23</b>
DATE 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	

EXISTING 2-PLY MODIFIED BITUMEN GRANULATED SURFACE ROOF SYSTEM TO REMAIN

NEW ANODIZED ALUMINUM METAL CAP FLASHING MATCHING EXISTING CAP FLASHING ON ROOF AREA 'I'



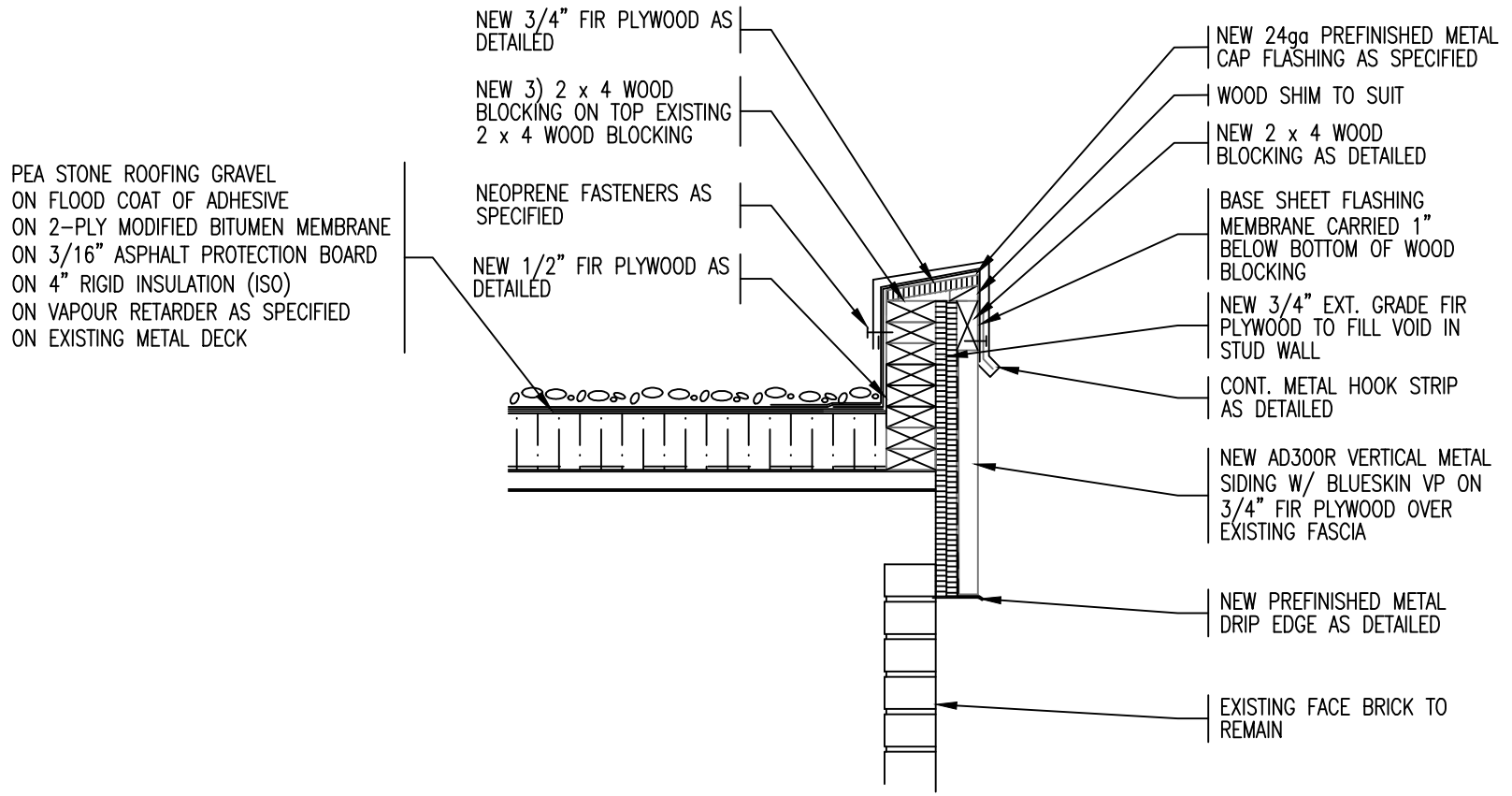
2-PLY MODIFIED BITUMEN FLASHING MEMBRANE ON 3/4" FIR PLYWOOD ANCHORED TO EXISTING SUBSTRATE

PEA STONE ROOFING GRAVEL ON FLOOD COAT OF ADHESIVE ON 2-PLY MODIFIED BITUMEN MEMBRANE ON 3/16" ASPHALT PROTECTION BOARD ON 4" RIGID INSULATION (ISO) ON VAPOUR RETARDER AS SPECIFIED ON EXISTING METAL DECK

# ROOF PERIMETER DETAIL - BETWEEN AREA 'I' AND 'D'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF ASSESSMENT, DESIGN AND INSPECTION SERVICES          ROOFING CONTRACTORS (SINCE 1978) / ROOFING CONTRACTORS (SINCE 1978)          SUBJECTS AND CONSULTANTS OF ROOFS AND BUILDINGS</small> <small>1407 Glen Road          Toronto, Ontario M8Z 1X9</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SCALE : N.T.S.
	DRAWING TITLE ROOF DETAIL	DRAWN BY : CWP
	PROJECT FILE NO. RBS16-66	CHECK BY : CWP
DATE (MM-DD-YY) 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	SHEET SIZE : 8.1/2"x11"
DRAWING NO. <b>DGS-24</b>		

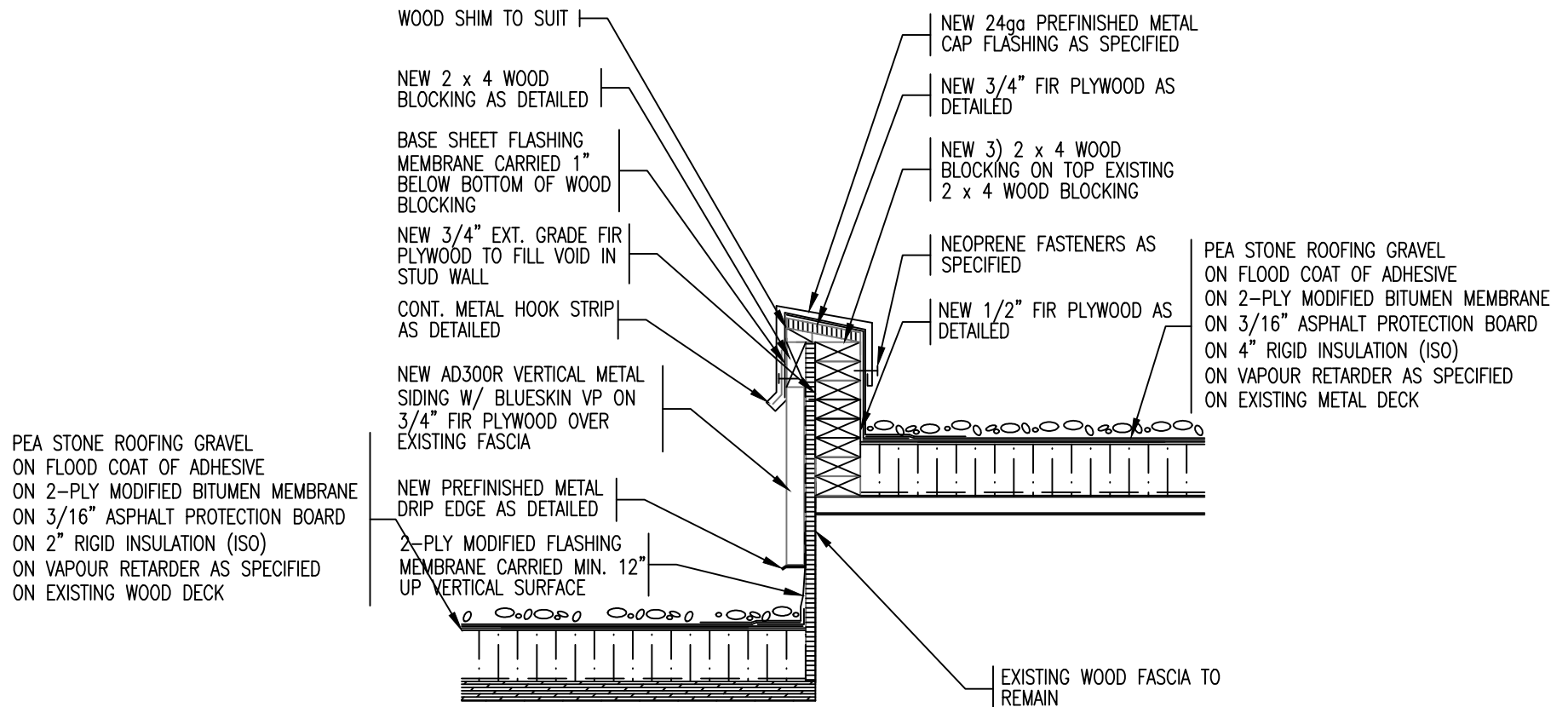


# ROOF PERIMETER DETAIL - AREA 'D'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF ASSESSMENT, DESIGN AND REPAIRS PROGRAM          INSURANCE QUALIFIED (POLYURETHANE MEMBRANE REPAIRS)          SURVEYS AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>Christophorus W. Palmer, C.B.S.</small> <small>1607 Glen Road          Toronto, Ontario M6H 1G9 Tel: (416) 738-3888 Fax: (416)738-0757</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	4 EDITH ST., THAMESVILLE ONTARIO
DATE <small>(ISS-20-17)</small> 12-2-16	ISSUED FOR OWNER REVIEW	DRAWN BY : CWP
12-8-16	TENDER	CHK. BY : CWP
	DRAWING TITLE ROOF DETAIL	SHEET SIZE : 8.1/2"x11"
		PROJECT FILE NO. RBS16-66
		DRAWING NO. <b>DGS-25</b>

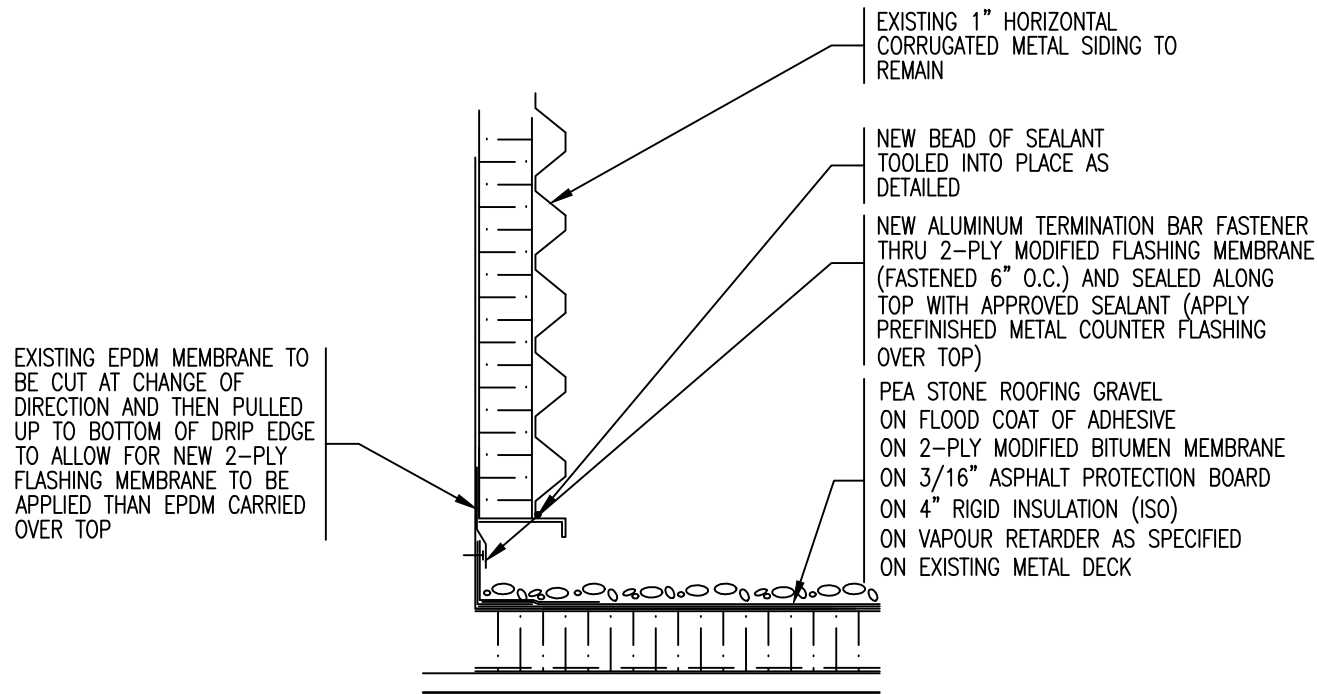




# ROOF PERIMETER DETAIL - AREA 'C' AND 'D'

SCALE : 1" = 1'-0"

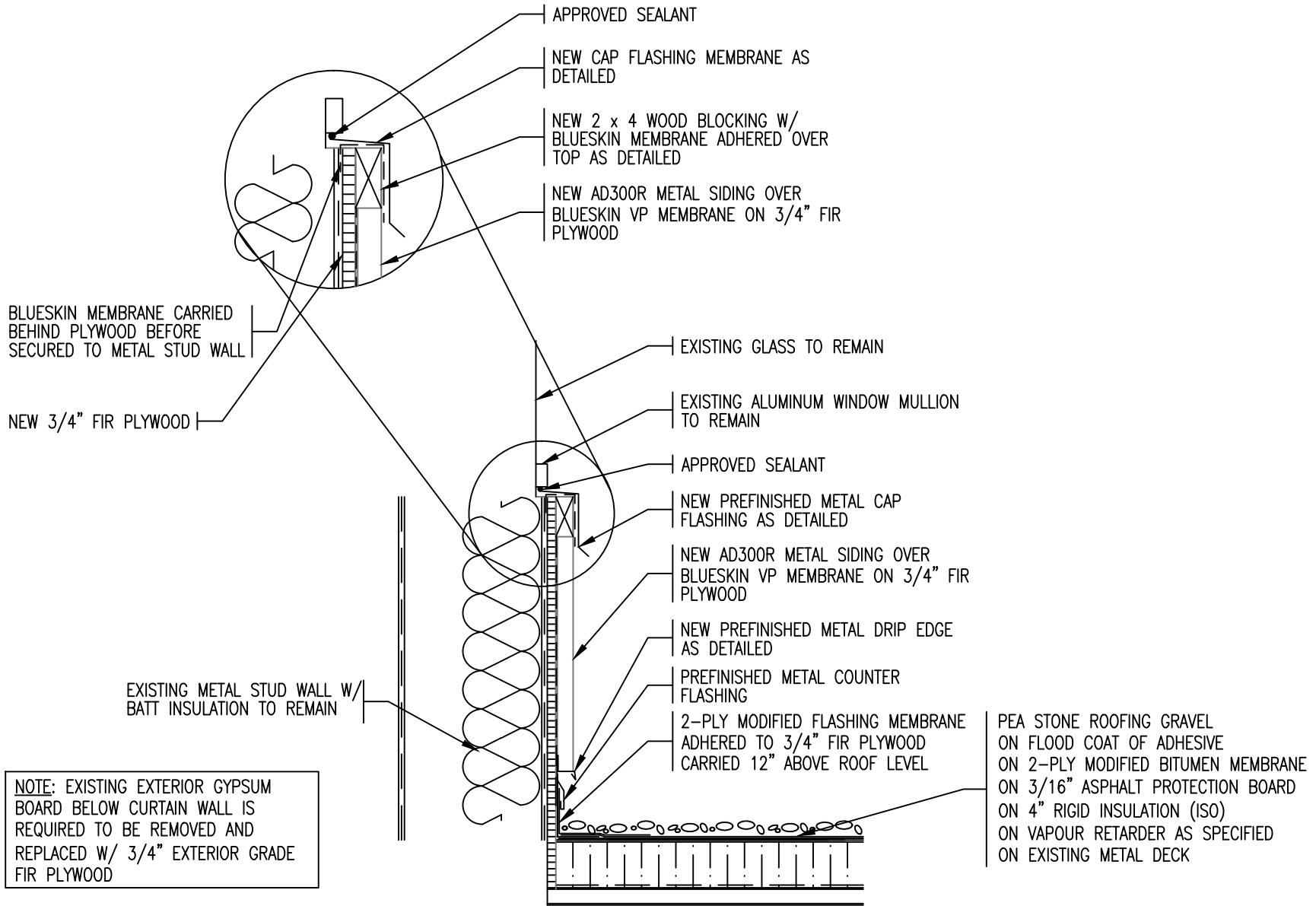
<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF REPAIRS, ROOFING AND ROOFING PRODUCTS          INSULATION SPECIALISTS (POLYURETHANE FOAM/ROCK WOOL FIBRE)          SURFACES AND COATINGS OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.M.A.S.</small> <small>1607 Glen Road          Toronto, Ontario M8Z 1G2</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SCALE : N.T.S.
	DRAWING TITLE ROOF DETAIL	DRAWN BY : CWP
DATE <small>(DATE-20-YY)</small> 12-2-16	ISSUED FOR OWNER REVIEW	CHK. BY : CWP
DATE <small>(DATE-20-YY)</small> 12-8-16	ISSUED FOR TENDER	SHEET SIZE : 8.1/2"x11"
		PROJECT FILE NO. RBS16-66
		DRAWING NO. <b>DGS-26</b>



# ROOF PERIMETER DETAIL - AREA 'D' CORRUGATED SIDING WALL

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF REPAIRS, ROOFING AND INTERIOR FINISHES          INSULATION SPECIALISTS (POLYURETHANE SPRAY/FORCE APPLIED)          SURVEYS AND CONSULTING OF ROOFS AND BUILDINGS</small> <small>Christopherson W. Palmer, C.B.S.P.</small> <small>1607 Glen Road          North, Okla. 800 500</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SCALE : N.T.S.
	DRAWING TITLE ROOF DETAIL	DRAWN BY : CWP
DATE <small>(MM-DD-YY)</small> 12-2-16	ISSUED FOR OWNER REVIEW	CHK. BY : CWP
DATE <small>(MM-DD-YY)</small> 12-8-16	ISSUED FOR TENDER	SHEET SIZE : 8.1/2"x11"
		PROJECT FILE NO. RBS16-66
		DRAWING NO. <b>DGS-27</b>

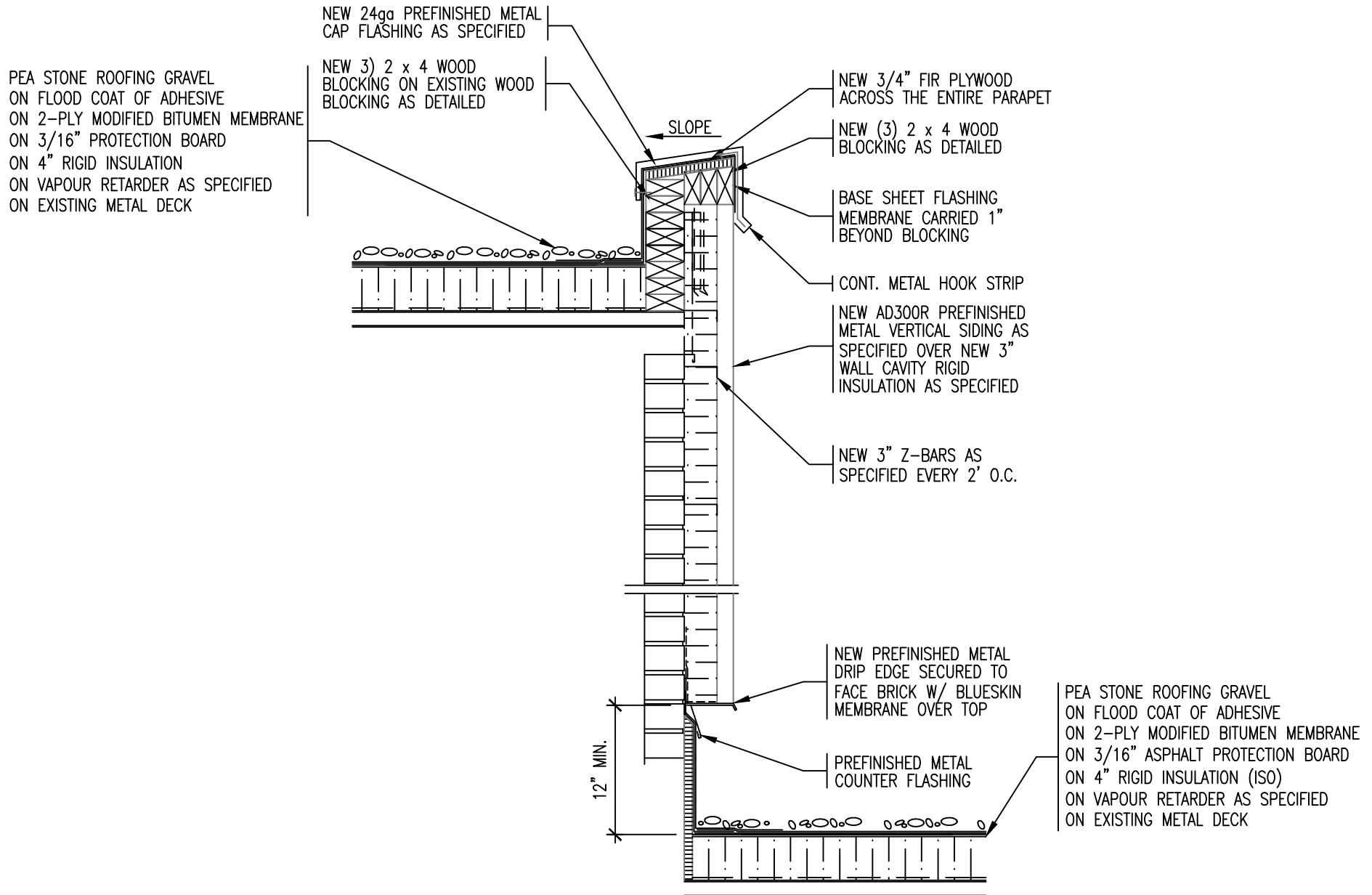


NOTE: EXISTING EXTERIOR GYPSUM BOARD BELOW CURTAIN WALL IS REQUIRED TO BE REMOVED AND REPLACED W/ 3/4" EXTERIOR GRADE FIR PLYWOOD

# ROOF PERIMETER DETAIL - AREA 'D' @ CURTAIN WALL

SCALE : 1" = 1'-0"

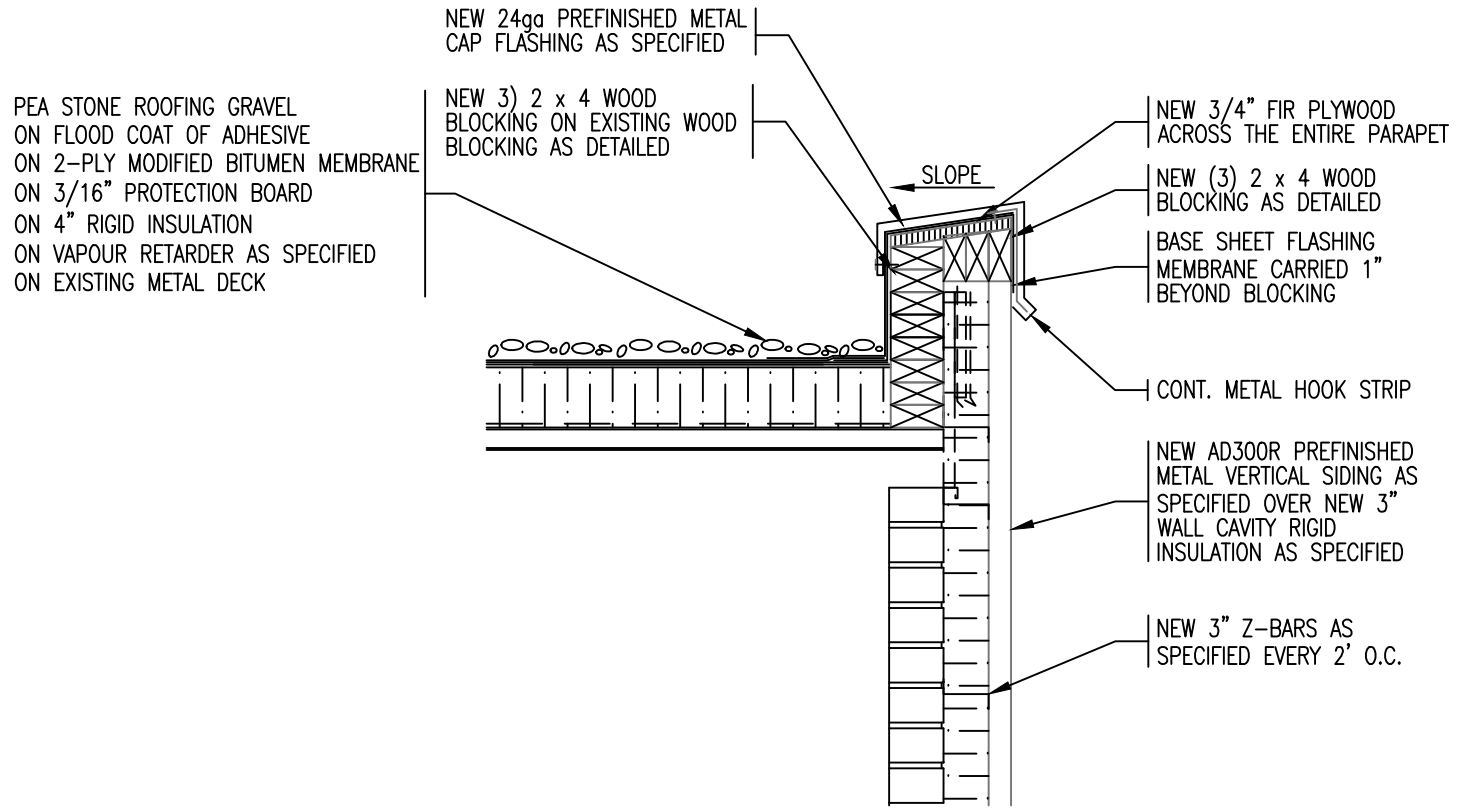
<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>WE'VE GOT YOU COVERED</small> <small>1000 Glen Road        Toronto, Ontario M8Z 1X9</small>	<small>WE'VE GOT YOU COVERED</small> <small>WE'VE GOT YOU COVERED</small> <small>WE'VE GOT YOU COVERED</small> <small>WE'VE GOT YOU COVERED</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT  4 EDITH ST., THAMESVILLE ONTARIO	DATE : DECEMBER 2016  SCALE : N.T.S.  DRAWN BY : CWP
	<small>1000 Glen Road        Toronto, Ontario M8Z 1X9</small>	<small>1000 Glen Road        Toronto, Ontario M8Z 1X9</small>	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD
DATE 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE ROOF DETAIL	



# ROOF PERIMETER DETAIL - BETWEEN AREA 'E' AND 'D'

SCALE : 1" = 1'-0"

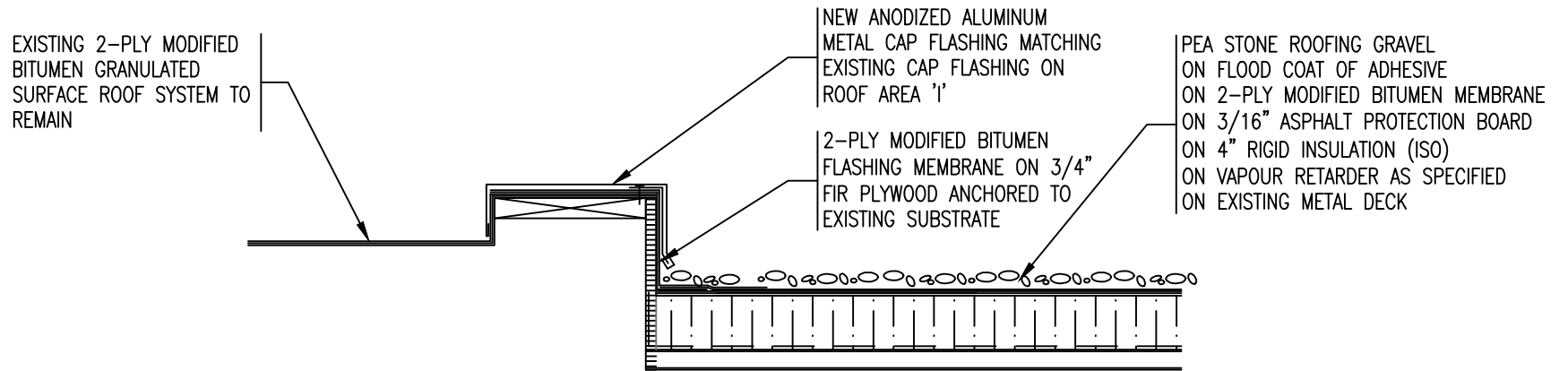
<b>REMLAP BUILDING SERVICES INC.</b> <b>RBS</b> <small>ROOF REPAIR, RENOVATION AND RESTORATION SERVICES</small> <small>GENERAL CONTRACTORS (S/O) / ROOFING CONTRACTORS</small> <small>SUBJECTS AND CONSULTANTS OF ROOFS AND BUILDINGS</small> <small>Chartered by W. Palmer, C.B.S.</small> <small>1607 Glen Road Toronto, Ontario M6H 1S3 Tel: (416) 738-3885 Fax: (416) 738-0727</small>	<b>PROJECT</b> GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT	<b>DATE :</b> DECEMBER 2016
	<b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	<b>SCALE :</b> N.T.S.
	<b>4 EDITH ST., THAMESVILLE ONTARIO</b>	<b>DRAWN BY :</b> CWP
<b>DATE</b> <small>(ISS-REV)</small> 12-2-16	<b>ISSUED FOR</b> OWNER REVIEW	<b>CHK. BY :</b> CWP
<b>DATE</b> <small>(ISS-REV)</small> 12-8-16	<b>ISSUED FOR</b> TENDER	<b>SHEET SIZE :</b> 8.1/2"x11"
<b>DRAWING TITLE</b> ROOF DETAIL		<b>PROJECT FILE NO.</b> RBS16-66
		<b>DRAWING NO.</b> DGS-29



# ROOF PERIMETER DETAIL - AREA 'E'

SCALE : 1" = 1'-0"

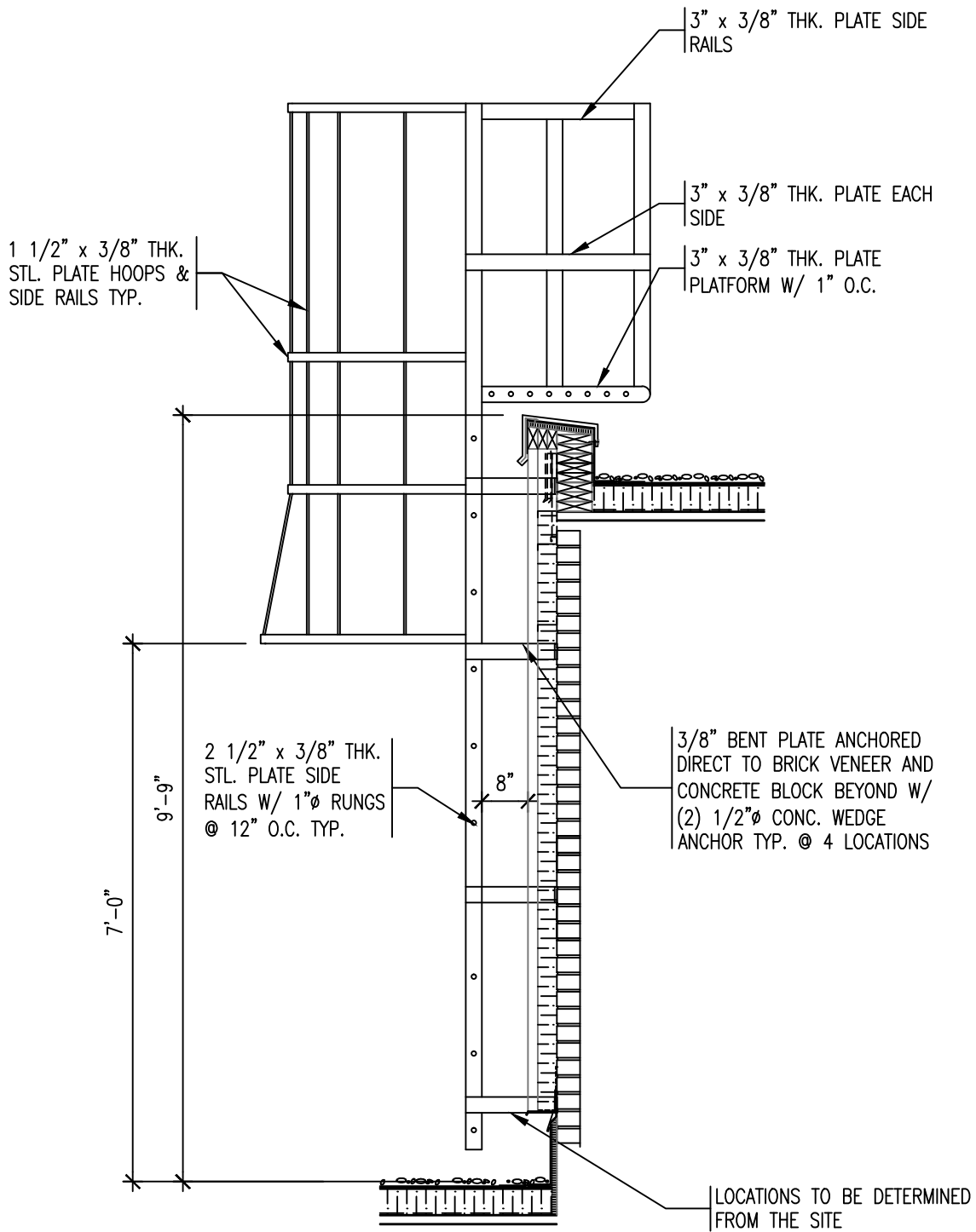
<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF ASSESSMENT, DESIGN AND INSPECTION SERVICES          ROOFING CONTRACTORS (SINCE 1978)          SUBJECTS AND CONDITIONS OF ROOFS AND BUILDINGS</small> <small>Christophorus W. Palmer, C.B.S.</small> <small>1607 Glen Road          Toronto, Ontario M6H 1K9 Tel: (416) 738-3885          Fax: (416) 738-0727</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT  4 EDITH ST., THAMESVILLE ONTARIO	DATE : DECEMBER 2016  SCALE : N.T.S.  DRAWN BY : CWP	
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP  SHEET SIZE : 8.1/2"x11"	
	DATE <small>(DATE-20-YY)</small> 12-2-16 OWNER REVIEW 12-8-16 TENDER	ISSUED FOR  DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS16-66  DRAWING NO. <b>DGS-30</b>



# ROOF PERIMETER DETAIL - BETWEEN AREA 'F' AND 'E'

SCALE : 1" = 1'-0"

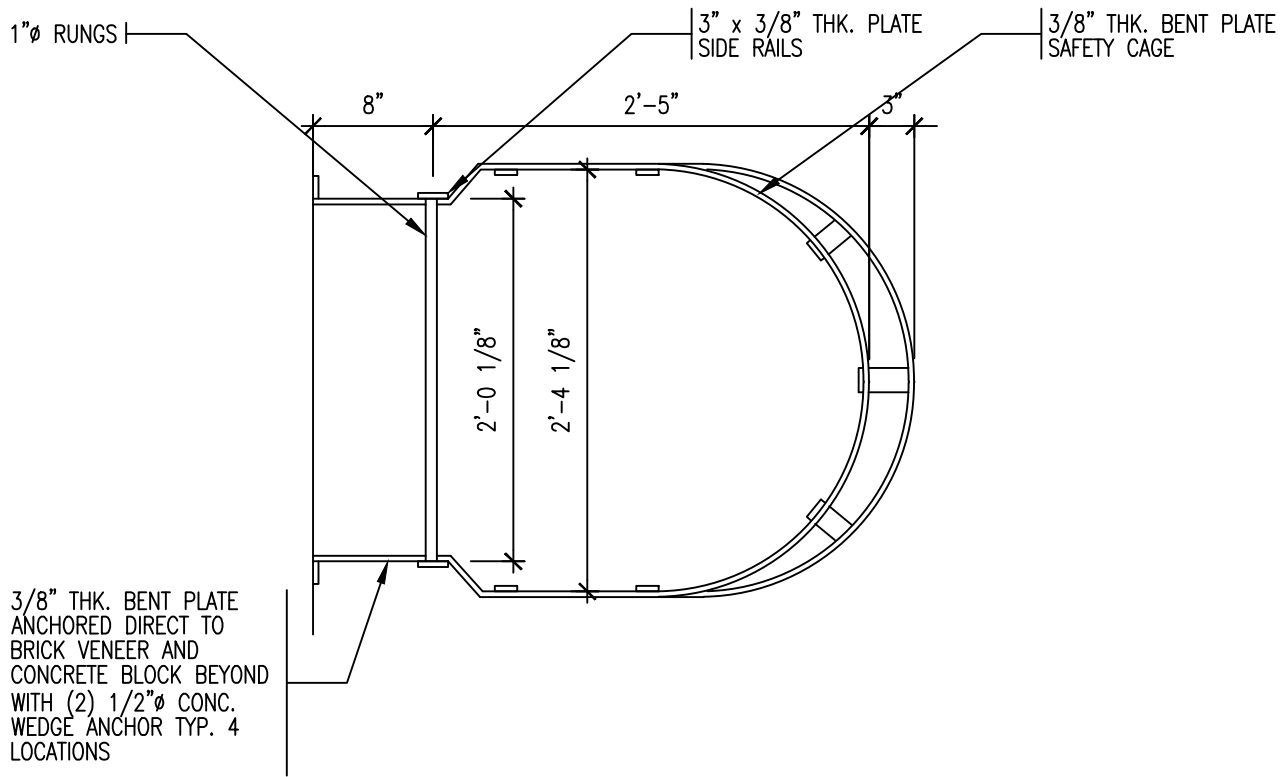
<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> ROOF REPAIRS, ROOFING AND ROOFING PRODUCTS <b>B</b> BUSINESS DEVELOPMENT (NEW/REPAIR ROOFING PRODUCTS) <b>S</b> SURVEY AND CONSULTING OF ROOFS AND BUILDINGS <small>1607 Glen Road        Toronto, Ontario M8Z 1K2        Tel: (416) 738-3883        Fax: (416) 738-0737</small>	<b>PROJECT</b> GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT 4 EDITH ST., THAMESVILLE ONTARIO	<b>DATE :</b> DECEMBER 2016 <b>SCALE :</b> N.T.S. <b>DRAWN BY :</b> CWP
	<b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	<b>CHK. BY :</b> CWP <b>SHEET SIZE :</b> 8.1/2"x11"
	<b>DRAWING TITLE</b> ROOF DETAIL	<b>PROJECT FILE NO.</b> RBS16-66 <b>DRAWING NO.</b> DGS-31
	<b>DATE</b> 12-2-16 12-8-16	<b>ISSUED FOR</b> OWNER REVIEW TENDER



# NEW WALL LADDER DETAIL - BETWEEN AREA 'D' AND 'E'

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

<b>REMLAP BUILDING SERVICES INC.</b> <b>R B S</b> <small>ROOF MAINTENANCE, INSPECTION AND REPAIR PROGRAMS          BUILDING ENVELOPE (DR/UPPER ENERGY/AIR/WEAT PROGRAM)          STRONG AND CORROSION OF ROOFS AND BUILDINGS</small> <small>Christopher W. Fellows, C.E.E.T.</small> <small>1407 Glen Road          North, Ontario M2H 1S9 Tel: (905) 739-3388 Fax: (905) 739-0707</small>		<b>PROJECT</b> GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT 4 EDITH ST., THAMESVILLE ONTARIO	<b>DATE :</b> DECEMBER 2016 <b>SCALE :</b> N.T.S. <b>DRAWN BY :</b> CWP <b>CHK. BY :</b> CWP <b>SHEET SIZE :</b> 8.1/2"x11" <b>DRAWING NO.</b> RBS16-66 <b>DGS-32</b>
<b>DATE</b> <small>(MM-DD-YY)</small> 12-2-16 12-8-16	<b>ISSUED FOR</b> OWNER REVIEW TENDER	<b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD <b>DRAWING TITLE</b> ROOF DETAIL	



# ROOF LADDER DETAIL PLAN

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> BEST QUALITY SERVICE AND WORKMANSHIP <b>B</b> BUILT TO LAST (24/HOUR SERVICE/REPAIRS) <b>S</b> SUBJECT AND COMPLETE TO CODES AND REGULATIONS <small>1607 Glen Road        Toronto, Ontario M8Z 1G2</small>	PROJECT GOOD SHEPHERD CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016 SCALE : N.T.S. DRAWN BY : CWP
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	4 EDITH ST., THAMESVILLE ONTARIO CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD
DATE (DATE-20-YY) 12-2-16 OWNER REVIEW 12-8-16 TENDER	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE ROOF DETAIL PROJECT FILE NO. RBS16-66 DRAWING NO. <b>DGS-32a</b>

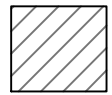
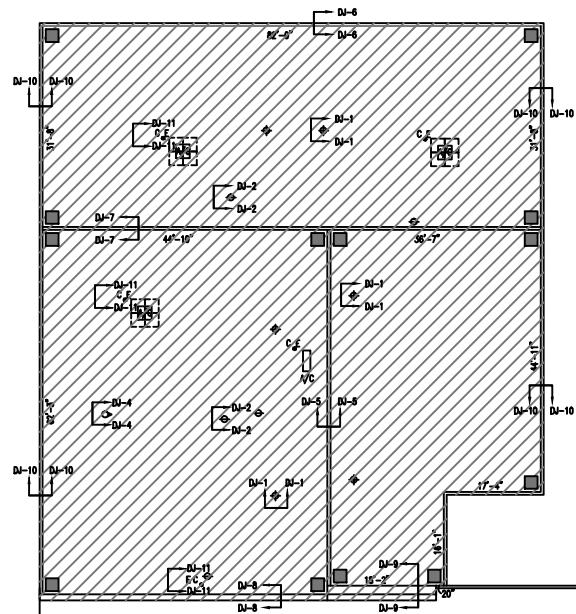


**ROOF REPLACEMENT**  
**FOR**  
ST. JOSEPH CATHOLIC SCHOOL  
43 ST. CLAIR STREET  
TILBURY, ONTARIO  
N0P 2L0  
**PROJECT No. 636-CP1704**

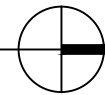
**ENCLOSED DRAWINGS**

RJ-1 Key Roof Plan  
RJ-1a Existing and Design Roof System List  
RJ-2 Enlarged Roof Plan

DJ-1 Roof Drain Detail  
DJ-2 Vent Pipe Stack Detail  
DJ-3 Exhaust Vent Flashing Detail  
DJ-4 Typical Hot Exhaust Stack Detail  
DJ-5 Roof Perimeter Detail – Between ‘B’ and ‘C’  
DJ-6 Roof Perimeter Detail – Area ‘A’  
DJ-7 Roof Perimeter Detail – Between ‘A’ and ‘B’  
DJ-8 Roof Perimeter Detail – Between ‘D’ and ‘B’  
DJ-9 Roof Perimeter Detail – Between ‘D’ and ‘C’  
DJ-10 Roof Perimeter Detail – North and South Elevation  
DJ-11 Roof Detail – Electrical/Cooling Line Penetrations



AREA TO BE  
REMOVED AND  
REPLACED



# KEY ROOF PLAN

SCALE : 1" = 30'-0"

<b>REMLAP BUILDING SERVICES INC.</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS BUILDING ENVELOPES (AIR/WATER BARRIER/WATER PROOFING) SURVEYS AND CONDITIONS OF ROOFS AND BUILDINGS Christopher W. Palmer, C.E.T. 1407 Gore Road, Huron, Ontario N0R 1G0 Tel: (519) 738-3458 Fax: (519) 738-4797		PROJECT ST. JOSEPH CATHOLIC SCHOOL ROOF REPLACEMENT 43 ST. CLAIR ST., TILBURY ONTARIO	DATE : DECEMBER 2016 SCALE : AS SHOWN DRAWN BY : CWP
		CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 11"x17"
DATE (MM-DD-YY) 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE KEY ROOF PLAN	PROJECT FILE NO. RBS16-68 DRAWING NO. <b>RJ-1</b>

**ROOF REPLACEMENT  
ST. JOSEPH CATHOLIC HIGH SCHOOL  
43 ST. CLAIR STREET, TILBURY ONTARIO N0P 2L0**

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**EXISTING ROOF SYSTEM**

**DESIGN ROOF SYSTEM**

**AREA 'A'**

Round River Ballast  
On 45 mil Fully Adhered EPDM  
On 5/8" T&G Plywood

Pea Stone Roofing Gravel  
On Flood Coat of Adhesive  
On Two Ply Modified Bitumen Membrane  
On 3/16" Asphalt Protection Board  
On Existing Wood Deck

**AREA 'B'**

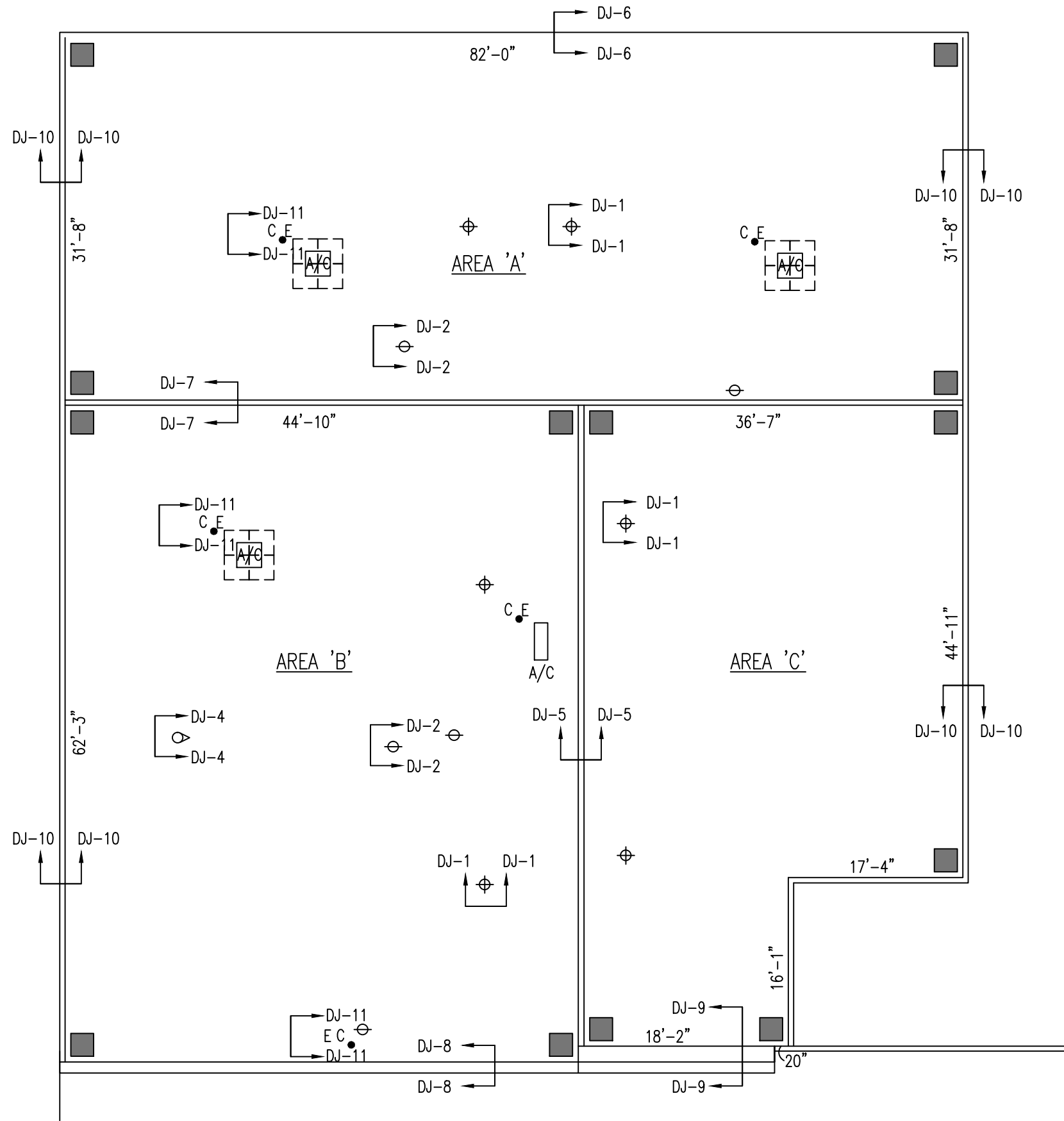
Round River Ballast  
On 45 mil Fully Adhered EPDM  
On 5/8" T&G Plywood

Pea Stone Roofing Gravel  
On Flood Coat of Adhesive  
On Two Ply Modified Bitumen Membrane  
On 3/16" Asphalt Protection Board  
On Existing Wood Deck

**AREA 'C'**

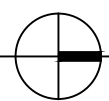
Round River Ballast  
On 45 mil Fully Adhered EPDM  
On 5/8" T&G Plywood

Pea Stone Roofing Gravel  
On Flood Coat of Adhesive  
On Two Ply Modified Bitumen Membrane  
On 3/16" Asphalt Protection Board  
On Existing Wood Deck



LEGEND	
	ROOF DRAIN
	VENT PIPE STACK
	EXHAUST FAN
	WALL LADDER
	BRACKET FOR EXTENSION LADDER
	ABANDONED CURB TO BE ELIMINATED
	HOT EXHAUST STACK
	EXHAUST STACK W/ DIRECTION
	GOOSE NECK EXHAUST FAN
	CONTROL JOINT
	CONCRETE PAVER W/ INSULATION CUSHION

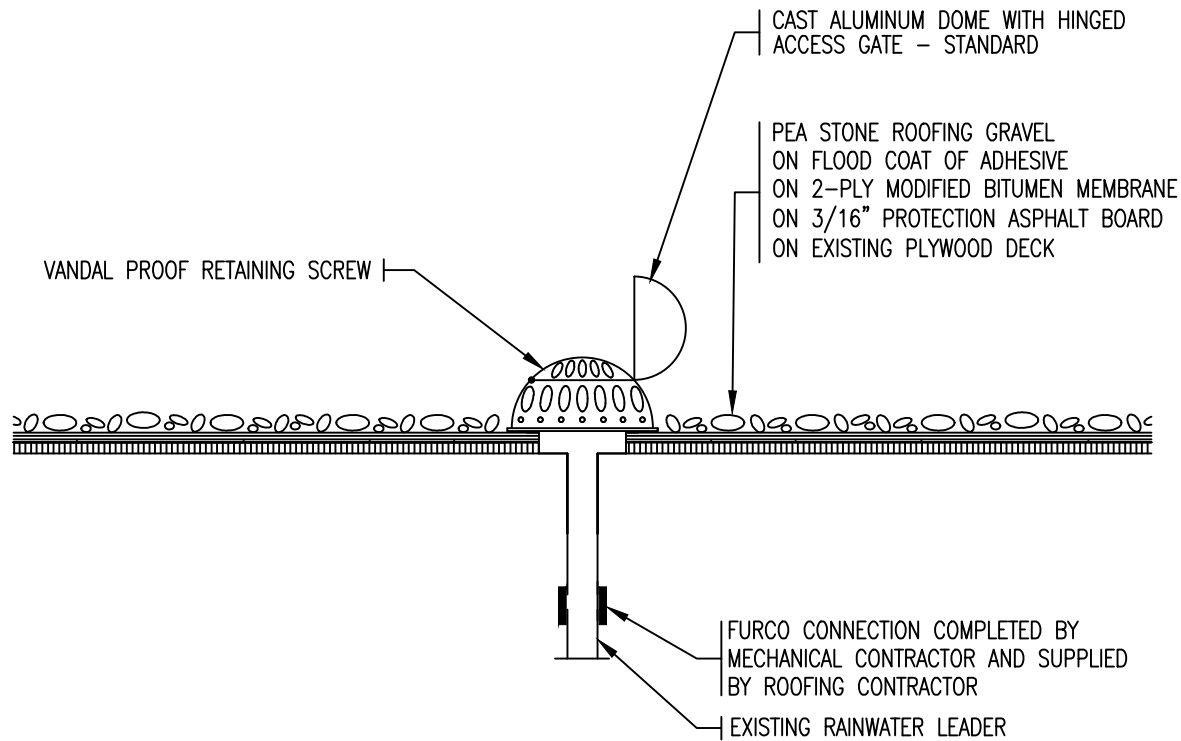
NOTE: IT IS THE RESPONSIBILITY OF THE ROOFING CONTRACTOR TO DISCONNECT ALL CONDENSING UNITS BY ALL APPROVED CONTRACTOR TO ALLOW A PROPER FLANGE AND SEAL AROUND ALL ELECTRICAL AND COOLING LINE PENETRATIONS FOR THIS PROJECT



# ENLARGED ROOF PLAN - ROOF PENETRATION AND DIMENSIONS

SCALE : 3/32" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> ROOF MAINTENANCE, DESIGN AND INSPECTION PROGRAMS BUILDING ENVELOPES (AIR/WAPOUR BARRIER/WATER PROOFING) SURVEYS AND CONDITIONS OF ROOFS AND BUILDINGS Christopher W. Palmer, C.E.T. 1407 Gore Road, Huron, Ontario N0R 1G0 Tel: (519) 738-3458 Fax: (519) 738-4787	PROJECT <b>ST. JOSEPH CATHOLIC SCHOOL ROOF REPLACEMENT</b> 43 ST. CLAIR ST., TILBURY ONTARIO	DATE : DECEMBER 2016 SCALE : AS SHOWN DRAWN BY : CWP
	CLIENT <b>ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD</b>	CHK. BY : CWP SHEET SIZE : 11"x17" PROJECT FILE NO. RBS16-68 DRAWING NO. <b>RJ-2</b>
DATE (MM-DD-YY) 12-2-16 12-8-16	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE <b>ENLARGED ROOF PLAN - ROOF</b>

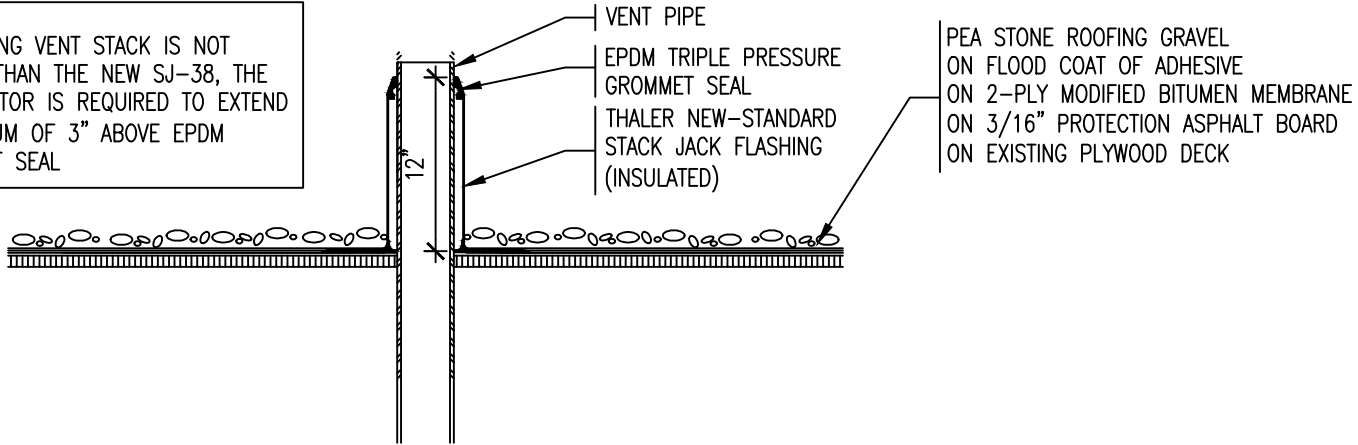


# ROOF DETAIL - ROOF DRAIN

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1607 Glen Road          Toronto, Ontario M8Z 1X9</small>	<small>ROOF MEMBRANES, FLASHING AND DRAINAGE PRODUCTS</small> <small>INSULATION MATERIALS (POLYURETHAN FOAMS/FOAM PRODUCTS)</small> <small>GLAZING AND COMPONENTS OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.B.S.</small>	PROJECT ST. JOSEPH CATHOLIC SCHOOL ROOF REPLACEMENT 43 ST. CLAIR ST., TILBURY ONTARIO	DATE : DECEMBER 2016 SCALE : N.T.S. DRAWN BY : CWP
	<small>1607 Glen Road          Toronto, Ontario M8Z 1X9</small>	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
	DATE <small>(MM-DD-YY)</small> 12-2-16 OWNER REVIEW 12-8-16 TENDER	ISSUED FOR ROOF DETAIL	PROJECT FILE NO. RBS16-68 DRAWING NO. DJ-1

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

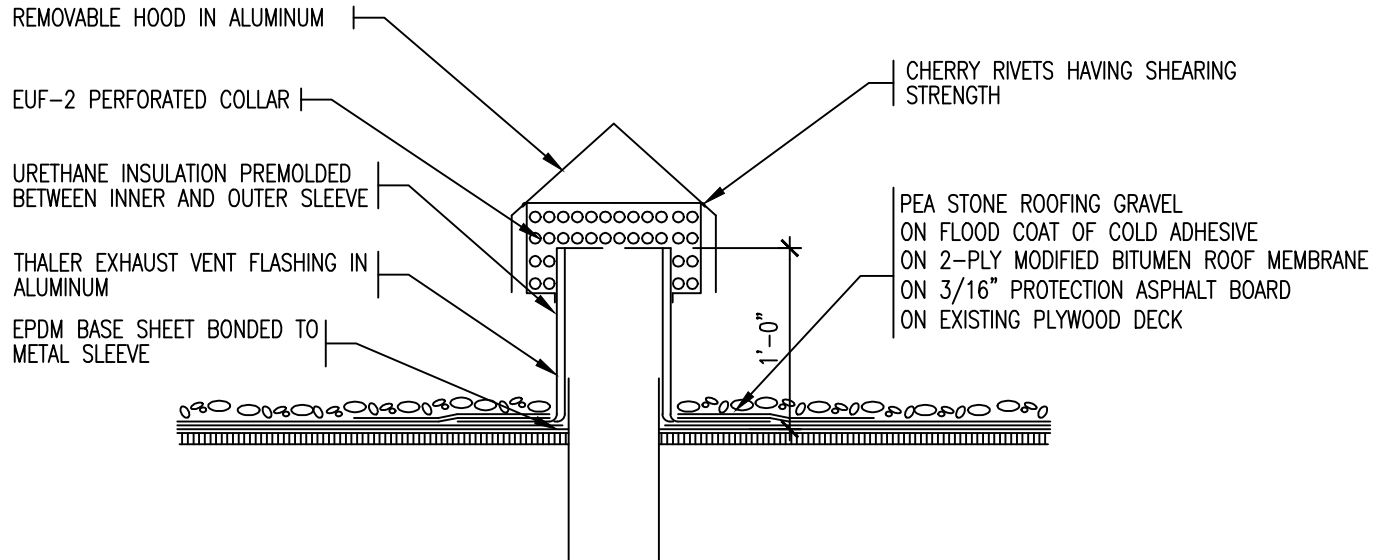


# ROOF DETAIL - VENT PIPE STACK

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1607 Glen Road        Aurora, Ontario M30 1G0</small>	<small>ROOF MEMBRANES, FLASHING AND DRAINAGE PRODUCTS</small> <small>INSULATION PRODUCTS (POLYURETHANE FOAM/FOAM POLYSTYRENE)</small> <small>SUBJECTS AND COMPONENTS OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.B.S.</small>	<b>PROJECT</b> ST. JOSEPH CATHOLIC SCHOOL ROOF REPLACEMENT 43 ST. CLAIR ST., TILBURY ONTARIO	<b>DATE :</b> DECEMBER 2016 <b>SCALE :</b> N.T.S. <b>DRAWN BY :</b> CWP
	<small>1607 Glen Road        Aurora, Ontario M30 1G0</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> <small>(MM-DD-YY)</small> 12-2-16 12-8-16	<b>ISSUED FOR</b> OWNER REVIEW TENDER	<b>DRAWING TITLE</b> ROOF DETAIL

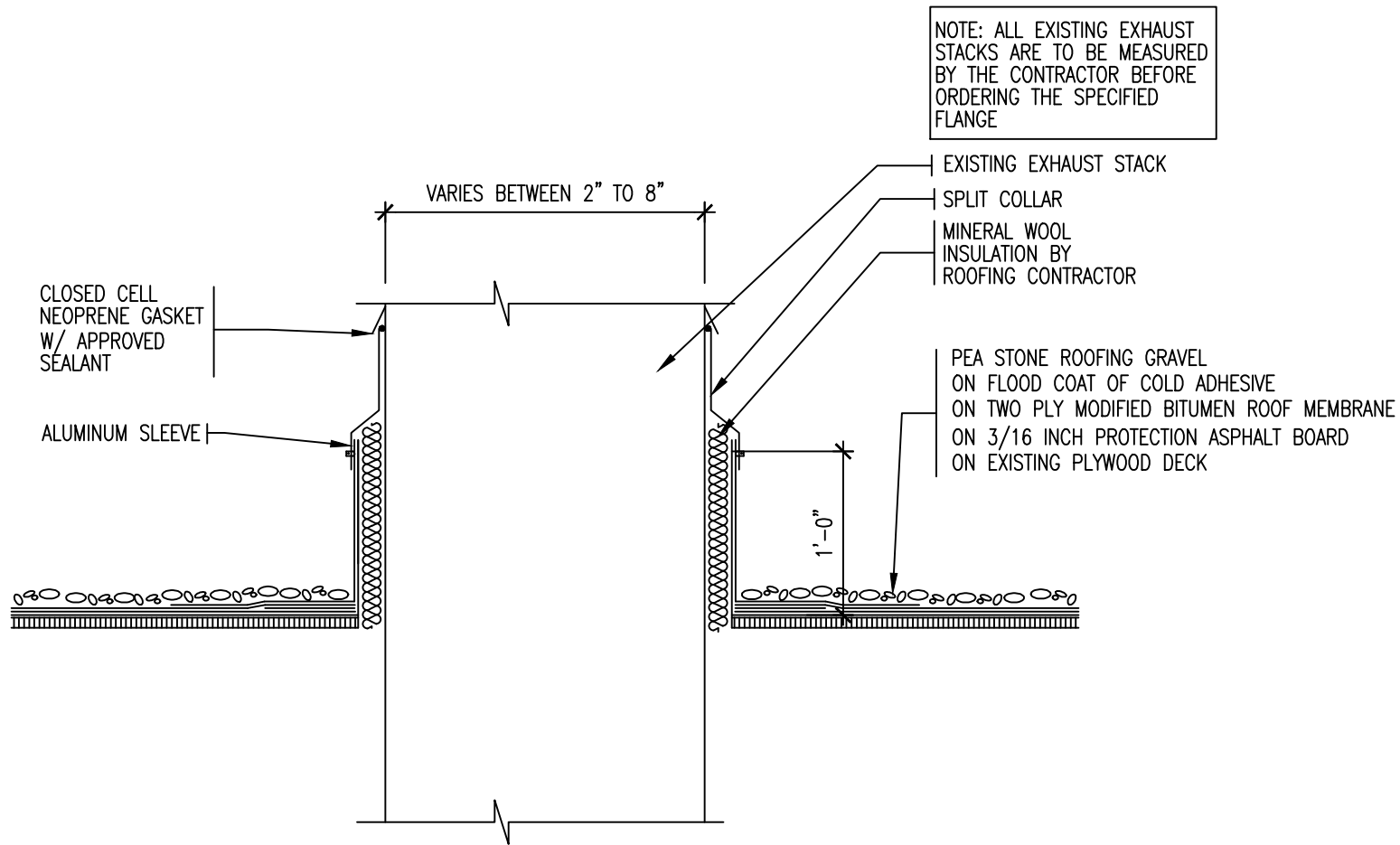
NOTE: ALL EXISTING EXHAUST STACKS ARE TO BE MEASURED BY THE CONTRACTOR BEFORE ORDERING THE SPECIFIED FLANGE



# EXHAUST VENT FLASHING DETAIL

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b>		PROJECT	DATE :	DECEMBER 2016
<b>R B S</b>	ROOF ASSESSMENT, DESIGN AND SUPERVISION PROVIDED	ST. JOSEPH CATHOLIC SCHOOL	SCALE :	N.T.S.
	ROOFING CONTRACTOR (BY/WHICH COMPANY/ENTER PROJECT)	ROOF REPLACEMENT	DRAWN BY :	CWP
	SUBJECT AND CONTENTS OF ROOFS AND BUILDINGS	43 ST. CLAIR ST., TILBURY ONTARIO	CHK. BY :	CWP
<small>1987 One Road Huron, Ontario N2R 1K0</small>		CLIENT	SHEET SIZE :	8.1/2"x11"
<small>160 (416) 738-3385 Fax (416)738-4707</small>		ST. CLAIR CATHOLIC DISTRICT	PROJECT FILE NO.	RBS16-68
DATE	ISSUED FOR	ROOF DETAIL	DRAWING NO.	DJ-3
12-2-16	OWNER REVIEW			
12-8-16	TENDER			

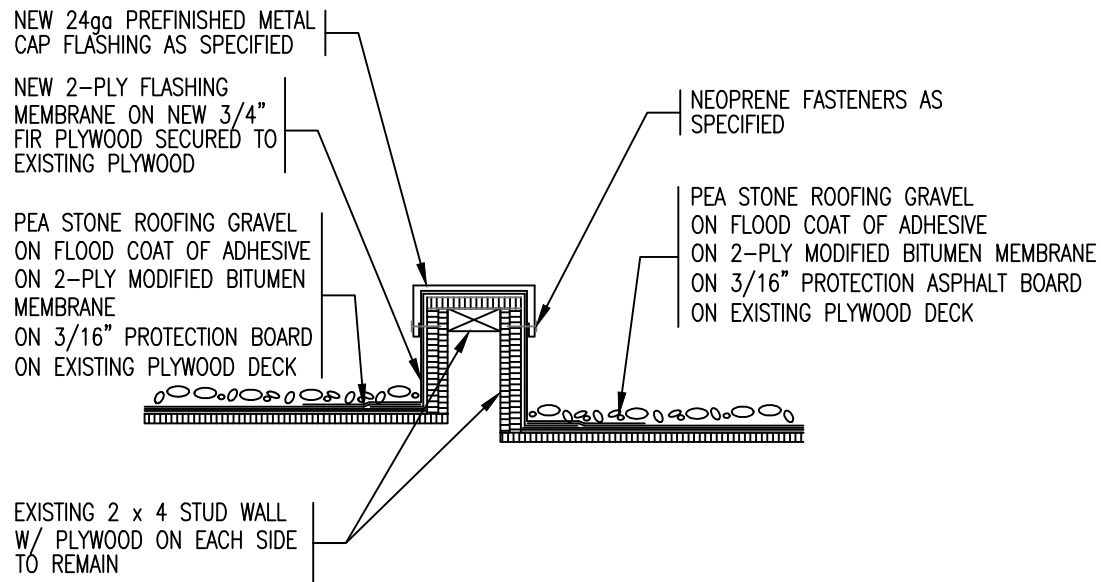


# TYPICAL HOT EXHAUST STACK DETAIL

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 (POLYURETHANE FOAM/URSA FIBRE)          SURFACES AND COATINGS OF ROOFS AND WALLS</small>	PROJECT ST. JOSEPH CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	SCALE : N.T.S.
<small>1607 Glen Road          Hamlet, Ontario K0K 1A0          Tel: (819) 738-3383          Fax: (819)738-4757</small>	43 ST. CLAIR ST., TILBURY ONTARIO	DRAWN BY : CWP
DATE <small>(MM-DD-YY)</small> 12-2-16	ISSUED FOR OWNER REVIEW	CHK. BY : CWP
DATE <small>(MM-DD-YY)</small> 12-8-16	ISSUED FOR TENDER	SHEET SIZE : 8.1/2"x11"
	DRAWING TITLE ROOF DETAIL	PROJECT FILE NO. RBS16-68
		DRAWING NO. DJ-4

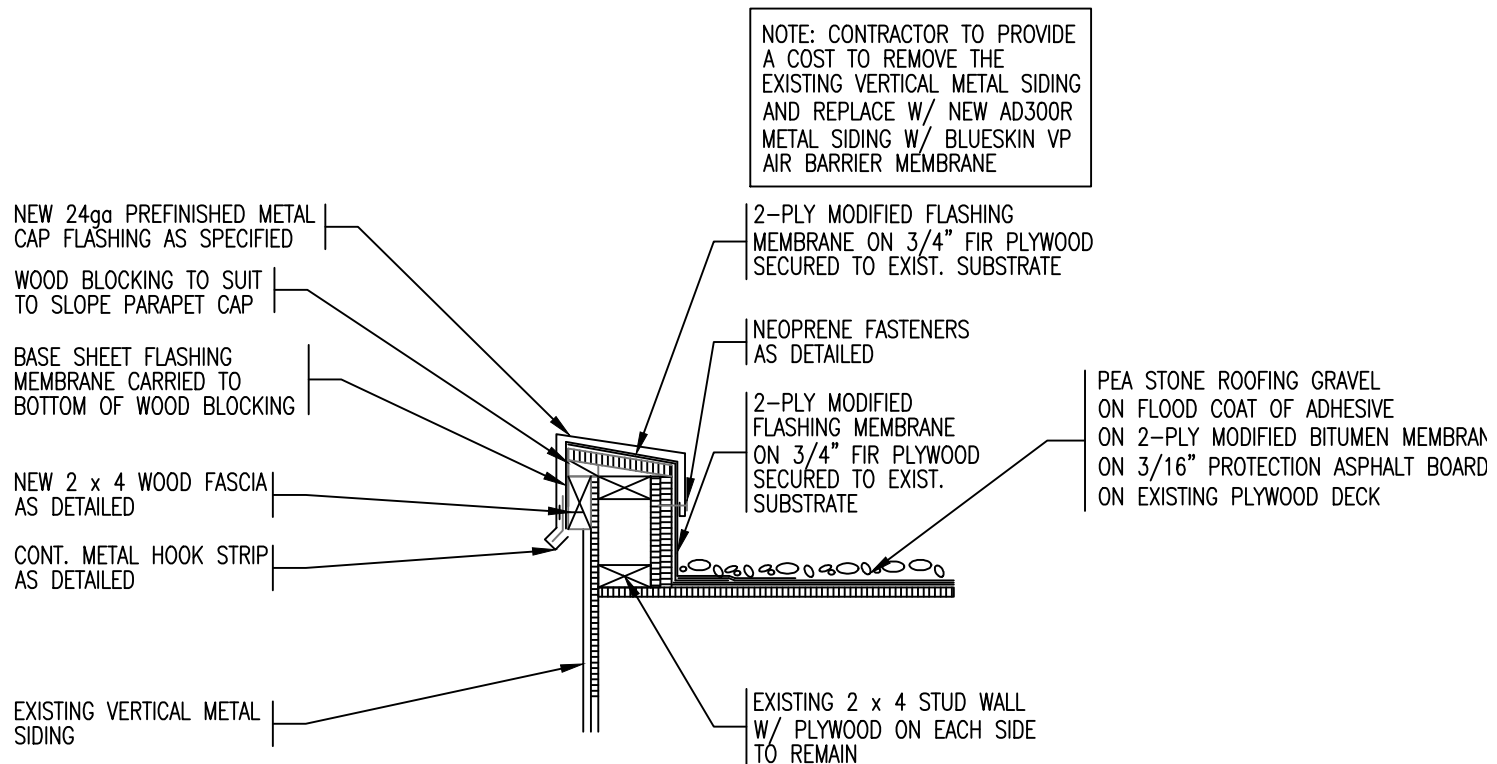




# ROOF PERIMETER DETAIL - BETWEEN 'B' AND 'C'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1607 Glen Road          Tilbury, Ontario N2R 1G0</small>	PROJECT ST. JOSEPH CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016
	<small>ROOF ASSESSMENT, DESIGN AND SUPERVISION PROVIDED          INSULATION INSTALLATION (POLYURETHANE FOAM/ROCK WOOL FIBRE)          SUBJECT AND CONDITIONS OF BIDDING AND BUILDING</small> Client: <b>St. Joseph's Catholic School Board</b>	43 ST. CLAIR ST., TILBURY ONTARIO
<small>1607 Glen Road          Tilbury, Ontario N2R 1G0</small>	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
DATE <small>(MM-DD-YY)</small> 12-2-16	ISSUED FOR OWNER REVIEW	PROJECT FILE NO. RBS16-68
12-8-16	TENDER	DRAWING NO. DJ-5



# ROOF PERIMETER DETAIL - AREA 'A'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> ROOF ASSESSMENT, DESIGN AND SUPERVISION SERVICES <b>B</b> BUSINESS DEVELOPMENT (NEW/REPAIR ROOFS/OTHER PROJECTS) <b>S</b> SURVEY AND CONSULTING OF ROOFS AND BUILDINGS <small>1807 Glen Road        Toronto, Ontario M8Z 1X9</small>	PROJECT ST. JOSEPH CATHOLIC SCHOOL ROOF REPLACEMENT	DATE : DECEMBER 2016 SCALE : N.T.S.
	CLIENT ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	DRAWN BY : CWP CHK. BY : CWP SHEET SIZE : 8.1/2"x11"
1605 Glen Road Toronto, Ontario M8Z 1X9 Tel: (416) 738-3888 Fax: (416)738-0737	43 ST. CLAIR ST., TILBURY ONTARIO	PROJECT FILE NO. RBS16-68 DRAWING NO. DJ-6
DATE (08-22-17) 12-2-16 OWNER REVIEW 12-8-16 TENDER	ISSUED FOR OWNER REVIEW TENDER	DRAWING TITLE ROOF DETAIL

NEOPRENE FASTENERS AS SPECIFIED

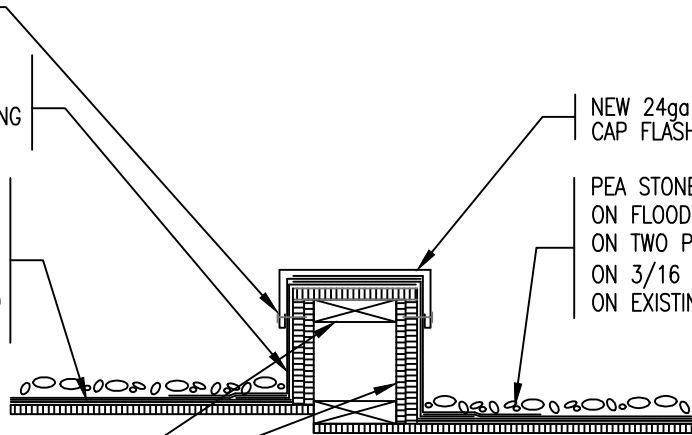
NEW 2-PLY FLASHING MEMBRANE ON NEW 3/4" FIR PLYWOOD SECURED TO EXISTING PLYWOOD

PEA STONE ROOFING GRAVEL ON FLOOD COAT OF ADHESIVE ON 2-PLY MODIFIED BITUMEN MEMBRANE ON 3/16" PROTECTION BOARD ON EXISTING PLYWOOD DECK

NEW 24ga PREFINISHED METAL CAP FLASHING AS SPECIFIED

PEA STONE ROOFING GRAVEL ON FLOOD COAT OF COLD ADHESIVE ON TWO PLY MODIFIED BITUMEN ROOF MEMBRANE ON 3/16 INCH PROTECTION ASPHALT BOARD ON EXISTING PLYWOOD DECK

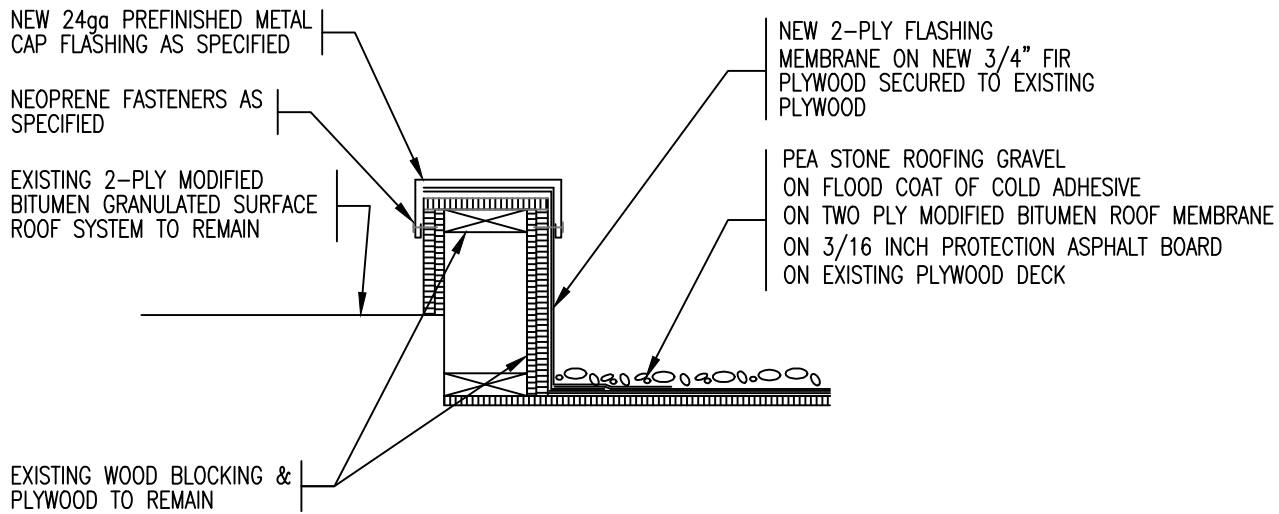
EXISTING 2 x 6 STUD WALL W/ PLYWOOD ON EACH SIDE TO REMAIN



# ROOF PERIMETER DETAIL - BETWEEN 'A' AND 'B'

SCALE : 1" = 1'-0"

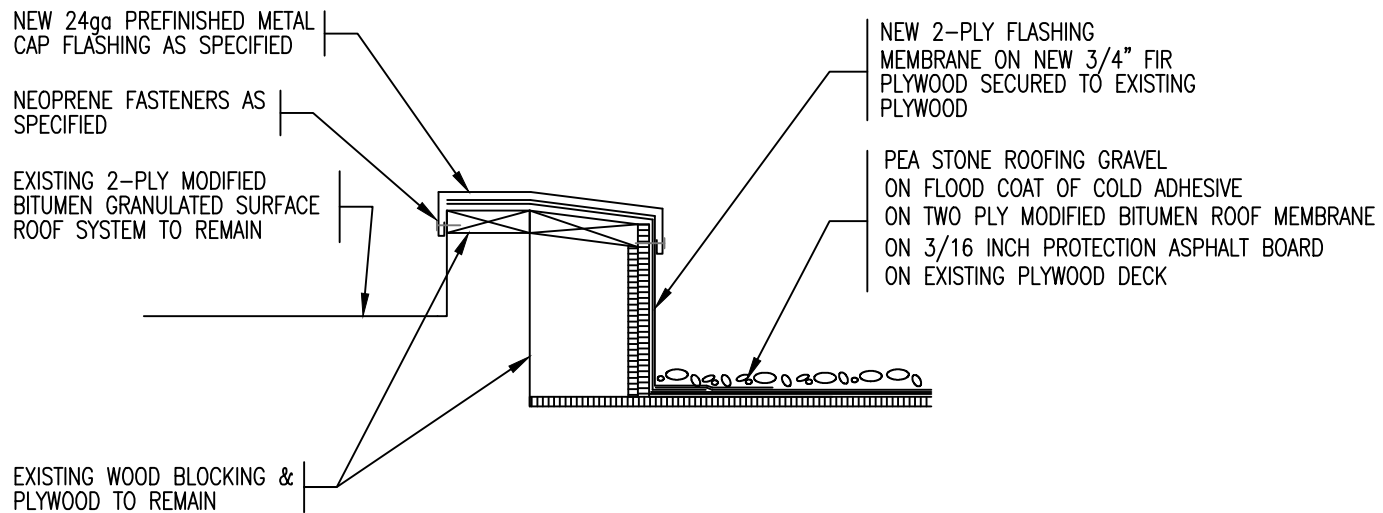
<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1001 Glen Road          Toronto, Ontario M8Z 1X9</small>	<b>PROJECT</b> ST. JOSEPH CATHOLIC SCHOOL ROOF REPLACEMENT	<b>DATE :</b> DECEMBER 2016
	<b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	<b>SCALE :</b> N.T.S.
	<b>43 ST. CLAIR ST., TILBURY ONTARIO</b>	<b>DRAWN BY :</b> CWP
	<small>1001 Glen Road          Toronto, Ontario M8Z 1X9</small>	<b>CHK. BY :</b> CWP
<b>DATE</b> <small>(MM-DD-YY)</small> 12-2-16	<b>ISSUED FOR</b> OWNER REVIEW	<b>SHEET SIZE :</b> 8.1/2"x11"
12-8-16	TENDER	<b>PROJECT FILE NO.</b> RBS16-68 <b>DRAWING NO.</b> DJ-7



# ROOF PERIMETER DETAIL - BETWEEN AREA 'D' AND 'B'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b>		PROJECT	DATE :	DECEMBER 2016
<b>R B S</b>	ROOF ASSESSMENT, DESIGN AND SUPERVISION PROVIDED	ST. JOSEPH CATHOLIC SCHOOL	SCALE :	N.T.S.
	MEASUREMENTS (BY/WORK ORDER RECEIVED)	ROOF REPLACEMENT	DRAWN BY :	CWP
	SUBJECT AND CONDITIONS OF ROOFS AND BUILDINGS	43 ST. CLAIR ST., TILBURY ONTARIO	CHK. BY :	CWP
Architectural: W. Palmer, C.B.S.		CLIENT	SHEET SIZE :	8.1/2"x11"
1607 Glen Road Tilbury, Ontario N0R 1R0		ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	PROJECT FILE NO.	RBS16-68
Tel: (519) 738-3282 Fax: (519) 738-4757		DRAWING TITLE	DRAWING NO.	DJ-8
DATE	ISSUED FOR			
12-2-16	OWNER REVIEW			
12-8-16	TENDER			



## ROOF PERIMETER DETAIL - BETWEEN AREA 'D' AND 'C'

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>ROOF MEMBRANES, FLASHING AND DRAINAGE PRODUCTS  INSULATED SHEATHING (POLYURETHANE CORES/FOAM FIBRE)  DORMERS AND COMPONENTS OF ROOFS AND BUILDINGS</small> <small>Christopher W. Palmer, C.E.S.</small> <small>1607 Glen Road  Huron, Ontario N2R 1G0</small> <small>Tel: (519) 738-3885  Fax: (519)738-4757</small>	<b>PROJECT</b> ST. JOSEPH CATHOLIC SCHOOL ROOF REPLACEMENT	<b>DATE :</b> DECEMBER 2016
	43 ST. CLAIR ST., TILBURY ONTARIO	<b>DRAWN BY :</b> CWP
	<b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	<b>CHK. BY :</b> CWP
<b>DATE</b> (2016-12-17)	<b>ISSUED FOR</b> 12-2-16 OWNER REVIEW 12-8-16 TENDER	<b>SHEET SIZE :</b> 8.1/2"x11" <b>PROJECT FILE NO.</b> RBS16-68 <b>DRAWING NO.</b> DJ-9

NEW 24ga PREFINISHED METAL  
CAP FLASHING AS SPECIFIED

NEW 2) 2 x 6 WOOD  
BLOCKING AS DETAILED

NEW 2-PLY FLASHING  
MEMBRANE ON NEW 3/4" FIR  
PLYWOOD SECURED TO EXISTING  
PLYWOOD

BASE SHEET FLASHING  
MEMBRANE CARRIED TO  
BOTTOM OF WOOD BLOCKING

NEOPRENE FASTENERS  
AS DETAILED

PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF COLD ADHESIVE  
ON TWO PLY MODIFIED BITUMEN ROOF MEMBRANE  
ON 3/16 INCH PROTECTION ASPHALT BOARD  
ON EXISTING PLYWOOD DECK

NEW 2 x 4 WOOD FASCIA  
AS DETAILED

CONT. METAL HOOK STRIP  
AS DETAILED

WOOD BLOCKING SHIM TO  
SUIT

EXISTING METAL SIDING  
TO REMAIN

EXISTING ALUMINUM  
PERFORATED SOFFIT TO  
REMAIN

EXISTING BRICK VENEER  
TO REMAIN

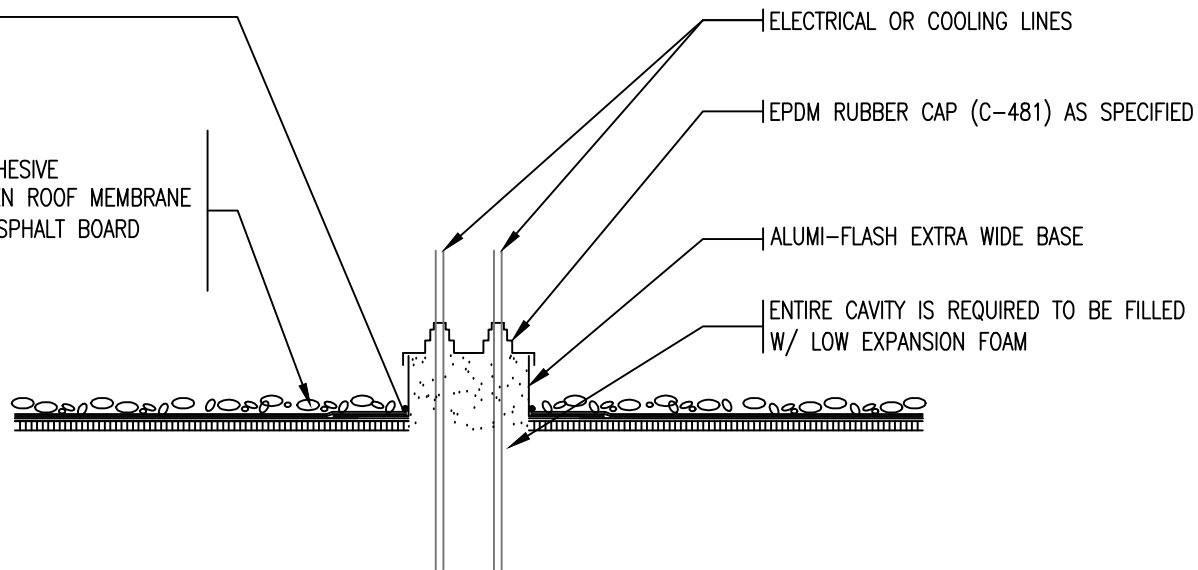
# ROOF PERIMETER DETAIL - NORTH AND SOUTH ELEVATION

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1607 Glen Road Rivers, Ontario N0B 1S0</small> <small>1st (416) 738-3885 Fax (416)738-4757</small>	<b>PROJECT</b> ST. JOSEPH CATHOLIC SCHOOL ROOF REPLACEMENT	<b>DATE :</b> DECEMBER 2016 <b>SCALE :</b> N.T.S. <b>DRAWN BY :</b> CWP
	<b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	<b>CHK. BY :</b> CWP <b>SHEET SIZE :</b> 8.1/2"x11"
	<b>DRAWING TITLE</b> ROOF DETAIL	<b>PROJECT FILE NO.</b> RBS16-68 <b>DRAWING NO.</b> DJ-10

APPROVED MASTIC FOR  
ADDITIONAL SEAL

PEA STONE ROOFING GRAVEL  
ON FLOOD COAT OF COLD ADHESIVE  
ON TWO PLY MODIFIED BITUMEN ROOF MEMBRANE  
ON 3/16 INCH PROTECTION ASPHALT BOARD  
ON EXISTING PLYWOOD DECK



ELECTRICAL OR COOLING LINES

EPDM RUBBER CAP (C-481) AS SPECIFIED

ALUMI-FLASH EXTRA WIDE BASE

ENTIRE CAVITY IS REQUIRED TO BE FILLED  
W/ LOW EXPANSION FOAM

# ROOF DETAIL - ELECTRICAL / COOLING LINE PENETRATIONS

SCALE : 1" = 1'-0"

<b>REMLAP BUILDING SERVICES INC.</b> <b>R</b> <b>B</b> <b>S</b> <small>1000 Glen Road          Toronto, Ontario M8Z 1X9</small>	<small>WE'VE ASSISTED, DESIGNED AND SUPERVISED PROJECTS          THROUGHOUT ONTARIO (AND NEARBY PROVINCES)          SUBJECTS AND CONDITIONS OF WORK ARE VARIOUS</small> <small>Christopher W. Palmer, C.B.S.</small>	<b>PROJECT</b> ST. JOSEPH CATHOLIC SCHOOL ROOF REPLACEMENT	<b>DATE :</b> DECEMBER 2016
	<small>43 ST. CLAIR ST., TILBURY ONTARIO</small>	<b>CLIENT</b> ST. CLAIR CATHOLIC DISTRICT SCHOOL BOARD	<b>SCALE :</b> N.T.S. <b>DRAWN BY :</b> CWP
	<small>1600 Glen Road          Toronto, Ontario M8Z 1X9</small>	<b>DRAWING TITLE</b> ROOF DETAIL	<b>CHK. BY :</b> CWP <b>SHEET SIZE :</b> 8.1/2"x11"
<b>DATE</b> <small>(MM-DD-YY)</small> 12-2-16	<b>ISSUED FOR</b> OWNER REVIEW	<b>PROJECT FILE NO.</b> RBS16-68	<b>DRAWING NO.</b> DJ-11
12-8-16	TENDER		



ST. CLAIR CATHOLIC  
DISTRICT SCHOOL BOARD

**APPENDIX A**

**CCDC 2- 2008  
Stipulated Price Contract**



**Supplementary Conditions**



The Standard Construction Document CCDC 2 2008 for a Stipulated Price Contract, English version, consisting of the Agreement Between *Owner* and *Contractor*, Definitions and General Conditions of the Stipulated Price Contract, Parts 1 to 12 inclusive, governing same is hereby made part of these *Contract Documents*, with the following amendments, additions and modifications:

## AGREEMENT BETWEEN OWNER AND CONTRACTOR

### ARTICLE A-3 – CONTRACT DOCUMENTS

3.1 Add the following to the list of *Contract Documents* in paragraph 3.1:

- Amendments to CCDC 2 – 2008
- *Drawings*
- *Specifications*
- Performance Bond
- Labour and Material Payment Bond

### ARTICLE A-5 – PAYMENT

5.1.3 Amend paragraph 5.1.3, in the first line, by deleting the words “...the issuance of the...” and replacing them with “...receipt of the *Consultant’s*...”

5.3.1 Delete paragraph 5.3.1 in its entirety and replace it with the following:

Interest

.1 Should either party fail to make payments as they become due under the terms of the Contract or in an award by arbitration or court, interest shall also become due and payable on such unpaid amounts at 0% above the prime rate. Such interest shall be compounded on a monthly basis. The prime rate shall be the rate of interest quoted by the Bank of Canada for prime business loans, as it may change from time to time.

### ARTICLE A-9 – CONFLICT OF INTEREST

Add new Article A-9 – Conflict of Interest:

- 9.1 The *Contractor*, all of the *Subcontractors* and *Suppliers* and any of their respective advisors, partners, directors, officers, employees, agents, and volunteers shall not engage in any activity or provide any services where such activity or the provision of such services creates a conflict of interest (actually or potentially, in the sole opinion of the *Owner*) with the provision of the *Work* pursuant to the *Contract*. The *Contractor* acknowledges and agrees that a conflict of interest, as described in this Article A-9, includes, but is not limited to, the use of *Confidential Information* where the *Owner* has not specifically authorized such use.
- 9.2 The *Contractor* shall disclose to the *Owner*, in writing, without delay, any actual or potential situation that may be reasonably interpreted as either a conflict of interest or a potential conflict of interest, including the retention of any *Subcontractor* or *Supplier* that is directly or indirectly affiliated with or related to the *Contractor*.
- 9.3 The *Contractor* covenants and agrees that it will not hire or retain the services of any employee or previous employee of the *Owner* where to do so constitutes a breach by such employee or previous employee of the *Owner’s* conflict of interest policy, as it may be amended from time to time, until after completion of the *Work* under the *Contract*.
- 9.4 It is of the essence of the *Contract* that the *Owner* shall not have direct or indirect liability to any *Subcontractor* or *Supplier*, and that the *Owner* relies on the maintenance of an arm's-length relationship between the *Contractor* and its *Subcontractors* and *Suppliers*. Consistent with this fundamental term of the *Contract*, the *Contractor* will not enter into any agreement or understanding with any *Subcontractor* or *Supplier*, whether as part of any contract or any written or oral collateral agreement, pursuant to which the parties thereto agree to cooperate in the presentation of a claim for payment against the *Owner*, directly or through the *Contractor*, where such claim is, in whole or in part, in respect of a disputed claim by the *Subcontractor* or *Supplier* against the *Contractor*, where the payment to the *Subcontractor* or *Supplier* by the *Contractor* is agreed to be conditional or contingent on the ability to recover those amounts or a portion thereof from the *Owner*, failing which the *Contractor* shall be saved harmless from all or a portion of those claims. The *Contractor* acknowledges that any such agreement would undermine the required arm's-length relationship and constitute a conflict of

interest. For greater certainty, the *Contractor* shall only be entitled to advance claims against the *Owner* for amounts pertaining to *Subcontractor* or *Supplier* claims where the *Contractor* has actually paid or unconditionally acknowledged liability for those claims or where those claims are the subject of litigation or binding arbitration between the *Subcontractor* or *Supplier* and the *Contractor* has been found liable for those claims.

- 9.5 Notwithstanding paragraph 7.1.2 of GC 7.1 - OWNER'S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR'S RIGHT TO CONTINUE WITH THE WORK, SUSPEND THE WORK OR TERMINATE THE CONTRACT, a breach of this Article by the *Contractor*, any of the *Subcontractors*, or any of their respective advisors, partners, directors, officers, employees, agents, and volunteers shall entitle the *Owner* to terminate the *Contract*, in addition to any other rights and remedies that the *Owner* has in the *Contract*, in law, or in equity.

## DEFINITIONS

Add the following new definitions:

### 27. Confidential Information

*Confidential Information* means all the information or material of the *Owner* that is of a proprietary or confidential nature, whether it is identified as proprietary or confidential or not, including but not limited to information and material of every kind and description (such as drawings and move-lists) which is communicated to or comes into the possession or control of the *Contractor* at any time, but *Confidential Information* shall not include information that:

- 1) is or becomes generally available to the public without fault or breach on the part of the *Contractor*, including without limitation breach of any duty of confidentiality owed by the *Contractor* to the *Owner* or to any third party, but only after that information becomes generally available to the public;
- 2) the *Contractor* can demonstrate to have been rightfully obtained by the *Contractor* from a third party who had the right to transfer or disclose it to the *Contractor* free of any obligation of confidence;
- 3) the *Contractor* can demonstrate to have been rightfully known to or in the possession of the *Contractor* at the time of disclosure, free of any obligation of confidence; or
- 4) is independently developed by the *Contractor* without use of any *Confidential Information*.

### 28. Construction Schedule

*Construction Schedule* means the schedule for the performance of the *Work* provided by the *Contractor* pursuant to GC 3.5, including any amendments to the *Construction Schedule* made pursuant to the *Contract Documents*.

### 29. Force Majeure

*Force Majeure* means any cause, beyond the *Contractor's* control, other than bankruptcy or insolvency, which prevents the performance by the *Contractor* of any of its obligations under the *Contract* and the event of *Force Majeure* was not caused by the *Contractor's* default or active commission or omission and could not be avoided or mitigated by the exercise of reasonable effort or foresight by the *Contractor*. *Force Majeure* includes *Labour Disputes*, fire, unusual delay by common carriers or unavoidable casualties, civil disturbance, acts, orders, legislation, regulations or directives of any government or other public authority, acts of a public enemy, war, riot, sabotage, blockage, embargo, lightning, earthquake, or acts of God.

### 30. Install

*Install* means install and connect. *Install* has this meaning whether or not the first letter is capitalized.

### 31. Labour Dispute

*Labour Dispute* means any lawful or unlawful labour problems, work stoppage, labour disruption, strike, job action, slow down, lock-outs, picketing, refusal to work or continue to work, refusal to supply materials, cessation or work or other labour controversy which does, or might, affect the *Work*.

**32. Overhead**

*Overhead* means all site and head office operations and facilities, all site and head office administration and supervision; all duties and taxes for permits and licenses required by the authorities having jurisdiction at the *Place of the Work*; all requirements of Division 1, including but not limited to submittals, warranty, quality control, insurance and bonding; calculations, testing and inspections; meals and accommodations; and, tools, expendables and clean-up costs.

**33. Request for Information/RFI**

*Request for Information* or *RFI* means written documentation sent by the *Contractor* to the *Owner* or to the *Owner's* representative or the *Consultant* requesting written clarification(s) and/or interpretation(s) of the *Drawings* and/or *Specifications*, *Contract* requirements and/or other pertinent information required to complete the *Work* of the *Contract* without applying for a change or changes to the *Work*.

**4.** Amend Definition 4 by adding the following to the end of the Definition:

For the purposes of the *Contract*, the terms “*Consultant*”, “*Architect*” and “*Engineer*” shall be considered synonymous.

**16.** Amend Definition 16 by adding the following to the end of the Definition:

*Provide* has this meaning whether or not the first letter is capitalized.

**GENERAL CONDITIONS OF THE STIPULATED PRICE CONTRACT**

1.0 Where a General Condition or paragraph of the General Conditions of the *Contract* is deleted by these amendments, the numbering of the remaining General Conditions or paragraphs shall remain unchanged, unless stated otherwise herein, and the numbering of the deleted item will be retained, unused.

**GC 1.1 CONTRACT DOCUMENTS**

1.1.6 Add the following to the end of paragraph 1.1.6:

The *Specifications* are divided into divisions and sections for convenience but shall be read as a whole and neither such division nor anything else contained in the *Contract Documents* will be construed to place responsibility on the *Owner* or the *Consultant* to settle disputes among the *Subcontractors* and *Suppliers* with respect to such divisions. The *Drawings* are, in part, diagrammatic and are intended to convey the scope of the *Work* and indicate general and appropriate locations, arrangements and sizes of fixtures, equipment and outlets. The *Contractor* shall obtain more accurate information about the locations, arrangements and sizes from study and coordination of the *Drawings*, including *Shop Drawings* and shall become familiar with conditions and spaces affecting those matters before proceedings with the *Work*. Where site conditions require reasonable minor changes in indicated locations and arrangements, the *Contractor* shall make such changes at no additional cost to the *Owner*. Similarly, where known conditions or existing conditions interfere with new installation and require relocation, the *Contractor* shall include such relocation in the *Work*. The *Contractor* shall arrange and install fixtures and equipment in such a way as to conserve as much headroom and space as possible. The schedules are those portions of the *Contact Documents*, wherever located and whenever issued, which compile information of similar content and may consist of drawings, tables and/or lists.

1.1.7 Amend paragraph 1.1.7.1 by adding “Amendments to CCDC 2 – 2008” before “the Agreement between the Owner and the Contractor” and deleting the reference to “Supplementary Conditions”.

Add new paragraphs 1.1.7.5, 1.1.7.6, 1.1.7.7, 1.1.7.8, 1.1.7.9 and 1.1.7.10 as follows:

- .5 noted materials and annotations on the *Drawings* shall govern over the graphic representation of the *Drawings*.
- .6 finishes in the room finish schedules shall govern over those shown on the *Drawings*.
- .7 Schedules of Division 01 – General Requirements of the *Specifications* shall form part of and be read in conjunction with the technical specification section as listed in the table of contents of the *Specifications*.

- .8 architectural drawings shall have precedence over structural, plumbing, mechanical, electrical and landscape drawings insofar as outlining, determining and interpreting conflicts over the required design intent of all architectural layouts and architectural elements of construction, it being understood that the integrity and installation of the systems designed by the *Consultant* or its sub-*Consultants* are to remain with each of the applicable drawing disciplines.
- .9 fixturing drawings provided by the *Owner* shall have precedence over architectural drawings insofar as outlining, determining and interpreting conflicts over the required design intent of all architectural layouts.
- .10 should reference standards contained in the *Specifications* conflict with the *Specifications*, the *Specifications* shall govern. Should reference standards and *Specifications* conflict with each other or if certain requirements of the *Specifications* conflict with other requirements of the *Specifications*, the more stringent requirements shall govern.

1.1.8 Delete paragraph 1.1.8 in its entirety and substitute as follows:

The *Consultant*, on behalf of the *Owner* shall provide the *Contractor* without charge, twelve ( 12 ) copies of the *Contract Documents*, exclusive of those required by jurisdictional authorities and the executed *Contract Documents*. Additional copies can be purchased by the *Contractor* at the *Consultant's* cost of reproduction, handling and sales tax.

1.1.11 Add new paragraph 1.1.11 as follows:

The *Contract Documents* shall be signed in triplicate (3) by the *Owner* and the *Contractor*, and each of the *Contractor*, the *Owner* and the *Consultant* shall retain one set of signed and sealed (if required by the governing law of the *Contract Documents*).

### GC 1.3 RIGHTS AND REMEDIES

1.3.2 Delete the word “No” from the beginning of paragraph 1.3.2 and substitute the words:

“Except with respect to the requirements set out in paragraphs 2.2.13, 6.4.1, 6.5.4, 6.6.1 and 8.2.2, no...”

### GC 1.4 ASSIGNMENT

Delete paragraph 1.4.1 in its entirety and replace with the following:

1.4.1 The *Contractor* shall not assign the *Contract*, or any portion thereof, without the prior written consent of the *Owner*, which consent may be unreasonably withheld. The *Owner* shall be entitled to assign the *Contract* to a corporation, partnership or other entity (the “Assignee”). Upon the assumption by the Assignee of the *Owner's* obligations under the *Contract*, the *Owner* shall be released from its obligations under the *Contract*.

### GC 1.5 EXAMINATION OF DOCUMENTS AND SITE

Add new GC 1.5 – EXAMINATION OF DOCUMENTS AND SITE as follows:

1.5.1 The *Contractor* declares and represents that in tendering for the *Work*, and in entering into a *Contract* with the *Owner* for the performance of the *Work*, it has either investigated for itself the character of the *Work* to be done and all local conditions, including the location of any utility which can be determined from the records or other information available at the offices of any person, partnership, corporation, including a municipal corporation and any board or commission thereof having jurisdiction or control over the utility that might affect its tender or its acceptance of the *Work*, or that, not having so investigated, the *Contractor* has assumed and does hereby assume all risk of conditions now existing or arising in the course of the *Work* which might or could make the *Work*, or any items thereof more expensive in character, or more onerous to fulfil, than was contemplated or known when the tender was made or the *Contract* signed.

1.5.2 The *Contractor* also declares that in tendering for the *Work* and in entering into this *Contract*, the *Contractor* did not and does not rely upon information furnished by the *Owner* or any of its agents or servants respecting the nature or confirmation of the ground at the site of the *Work*, or the location, character, quality or quantity of the materials to be removed or to be employed in the construction of *Work*, or the character of the construction machinery and equipment or facilities needed to perform the *Work*, or the general and local performance of the work under the *Contract* and expressly waives and releases the *Owner* from all claims with respect to the said information with respect to the *Work*.

## **GC 1.6 TIME IS OF THE ESSENCE OF THE CONTRACT**

Add new GC 1.6 - TIME IS OF THE ESSENCE OF THE CONTRACT as follows:

- 1.6.1 All time limits stated in the *Contract Documents* are of the essence of the *Contract*.

## **GC 2.2 ROLE OF THE CONSULTANT**

- 2.2.7 Delete the words “Except with respect to GC 5.1 – FINANCING INFORMATION REQUIRED OF THE OWNER” .

- 2.2.13 Amend paragraph 2.2.13 by the addition of the following to the end of that paragraph:

If, in the opinion of the *Contractor*, the *Supplemental Instruction* involves an adjustment in the *Contract Price* or in the *Contract Time*, it shall, within ten (10) *Working Days* of receipt of a *Supplemental Instruction*, provide the *Consultant* with a notice in writing to that effect. Failure to provide written notification within the time stipulated in this paragraph 2.2.13 shall be deemed an acceptance of the *Supplemental Instruction* by the *Contractor*, without any adjustment in the *Contract Price* or *Contract Time*.

- 2.2.19 Add new paragraph 2.2.1.9 as follows:

The *Consultant* or the *Owner*, acting reasonably, may from time to time require the *Contractor* to remove from the *Project* any personnel of the *Contractor*, including project managers, superintendents or *Subcontractors*. Such persons shall be replaced by the *Contractor* in a timely fashion to the satisfaction of the *Consultant* or the *Owner*, as the case may be, at no cost to the *Owner*.

## **GC 2.3 REVIEW AND INSPECTION OF THE WORK**

- 2.3.2 Amend paragraph 2.3.2 by adding the words “and *Owner*” after the words “*Consultant*” in the second and third lines.

- 2.3.3 Delete paragraph 2.3.3 in its entirety and replace it with the following:

The *Contractor* shall furnish promptly two copies to the *Consultant* and one copy to the *Owner* of all certificates and inspection reports relating to the *Work*.

- 2.3.4 Insert the word “review” after the word “inspections” in the first line of paragraph 2.3.4.

- 2.3.5 In the first line after “*Consultant*”, add “or the *Owner*”.

- 2.3.8 Add a new paragraph 2.3.8 as follows:

The *Consultant* will conduct periodic reviews of the *Work* in progress, to determine general conformance with the requirements of the *Contract Documents*. Such reviews, or lack thereof, shall not give rise to any claims by the *Contractor* in connection with construction means, methods, techniques, sequences and procedures, nor in connection with construction safety at the *Place of Work*, responsibility for which belongs exclusively to the *Contractor*.

## **GC 2.4 DEFECTIVE WORK**

- 2.4.1 Amend GC 2.4.1 by inserting “, the *Owner* and/or its agent” in the first sentence following “rejected by the *Consultant*”.

Add new paragraphs 2.4.1.1 and 2.4.1.2:

- 2.4.1.1 The *Contractor* shall rectify, in a manner acceptable to the *Owner* and the *Consultant*, all defective work and deficiencies throughout the *Work*, whether or not they are specifically identified by the *Consultant*.

- 2.4.1.2 The *Contractor* shall prioritize the correction of any defective work, which, in the sole discretion of the *Owner*, adversely affects the day to day operations of the *Owner* or which, in the sole discretion of the *Consultant*, adversely affects the progress of the *Work*.

- 2.4.2 Delete paragraph 2.4.2 in its entirety and replace it with the following:

The *Contractor* shall promptly pay the *Owner* for costs incurred by the *Owner*, the *Owner's* own forces or the *Owner's* other contractors, for work destroyed or damaged or any alterations necessitated by the *Contractor's* removal, replacement or re-execution of defective work. The *Owner* may request that the *Contractor* rectify any such deficiencies to other contractors' work, at the *Contractor's* expense.

Add new paragraph 2.4.4 as follows:

- 2.4.4 Neither acceptance of the *Work* by the *Consultant* or the *Owner*, nor any failure by the *Consultant* or the *Owner* to identify, observe or warn of defective *Work* or any deficiency in the *Work* shall relieve the *Contractor* from the sole responsibility for rectifying such defect or deficiency at the *Contractor's* sole cost, even where such failure to identify, observe or warn is negligent.

### **GC 3.1 CONTROL OF THE WORK**

3.1.3 Add a new paragraph 3.1.3 as follows:

Prior to commencing individual procurement, fabrication and construction activities, the *Contractor* shall verify at the *Place of the Work*, all relevant measurements and levels necessary for proper and complete fabrication, assembly and installation of the *Work* and shall further carefully compare such field measurements and conditions with the requirements of the *Contract Documents*. Where dimensions are not included or exact locations are not apparent, the *Contractor* shall immediately notify the *Consultant* in writing and obtain written instructions from the *Consultant* before proceedings with any part of the affected *Work*.

3.1.4 Add a new paragraph 3.1.4 as follows:

Notwithstanding the provisions of paragraphs 3.1.1 and 3.1.2, the *Owner* shall have access to the site at all times to monitor all aspects of construction. Such access shall in no circumstances affect the obligations of the *Contractor* to fulfill its contractual obligations.

### **GC 3.2 CONSTRUCTION BY OWNER OR OTHER CONTRACTORS**

3.2.2.1 Delete paragraph 3.2.2.1 in its entirety.

3.2.2.2 Delete paragraph 3.2.2.2 in its entirety.

3.2.2.3 Delete paragraph 3.2.2.3 in its entirety.

3.2.2.4 Delete paragraph 3.2.2.4 in its entirety.

3.2.3.2 Delete paragraph 3.2.3.2 and replace it with the following:

Co-ordinate and schedule the activities and work of other contractors and *Owner's* own forces with the *Work* of the *Contractor* and connect as specified or shown in the *Contract Documents*.

3.2.3.4 Add new paragraph 3.2.3.4 as follows:

Subject to GC 9.4 CONSTRUCTION SAFETY, for the *Owner's* own forces and for other contractors, assume overall responsibility for compliance with all aspects of the applicable health and safety legislation in force at the *Place of the Work*, including all of the responsibilities of the "constructor", pursuant to the *Occupational Health and Safety Act* (Ontario)...

### **GC 3.3 TEMPORARY WORK**

3.3.2 In paragraph 3.3.2, in the second line after the words "where required by law", insert "or the *Consultant*".

### **GC 3.4 DOCUMENT REVIEW**

3.4.1 Delete paragraph 3.4.1 in its entirety and substitute new paragraph 3.4.1:

The *Contractor* shall review the *Contract Documents* and shall report promptly to the *Consultant* any error, inconsistency, or omission the *Contractor* may discover. Such review by the *Contractor* shall be undertaken with the standard of care described in paragraph 3.14.1 of the *Contract*. Except for its obligation to make such review and report the result, the *Contractor* does not assume any responsibility to the *Owner* or to the *Consultant* for the accuracy of the *Contract Documents*. Provided it has exercised the degree of care and skill described in this paragraph 3.4.1, the *Contractor* shall not be liable for damage or costs resulting from such errors, inconsistencies, or omissions in the *Contract Documents*, which the *Contractor* could not reasonably have discovered through the exercise of the required standard of care.

3.4.2 Add new paragraph 3.4.2. as follows:

If, at any time, the *Contractor* finds errors, inconsistencies, or omissions in the *Contract Documents* or has any doubt as to the meaning or intent of any part thereof, including laying out of the *Work*, the *Contractor* shall immediately notify the *Consultant*, and request instructions, a *Supplemental Instruction*, *Change Order*, or *Change Directive*, as the case may require, and the *Contractor* shall not proceed with the work affected until the *Contractor* has received such instructions, a *Supplemental Instruction*, *Change Order* or *Change Directive*. Neither the *Owner* nor the *Consultant* will be responsible for the consequences of any action of the *Contractor* based on oral instructions.

3.4.3 Add new paragraphs 3.4.3 and 3.4.4 as follows:

Errors, inconsistencies and/or omissions in the *Drawings* and/or *Specifications* which do not allow completion of the *Work* of the *Contract* shall be brought to the *Consultant's* attention prior to the execution of the *Contract* by means of an *RFI*.

3.4.4 Notwithstanding the foregoing, errors, inconsistencies, discrepancies and/or omissions shall not include lack of reference on the *Drawings* or in the *Specifications* to labour and/or *Products* that are required or normally recognized within respective trade practices as being necessary for the complete execution of the *Work*. The *Contractor* shall not use subsequent *RFIs*, issued during execution of the *Work* to establish a change and/or changes in the *Work* pursuant to Part 6 – CHANGES IN THE WORK.

### GC 3.5 CONSTRUCTION SCHEDULE

3.5.1 Delete paragraph 3.5.1 in its entirety and replace with the following:

The *Contractor* shall:

.1 within five (5) calendar days of receiving written confirmation of the award of the *Contract*, prepare and submit to the *Owner* and the *Consultant* for their review and acceptance, a construction schedule in the format indicated below that indicates the timing of the activities of the *Work* and provides sufficient detail of the critical events and their inter-relationship to demonstrate the *Work* will be performed in conformity with the *Contract Time* and in accordance with the *Contract Documents*. Such schedule is to include a delivery schedule for *Products* whose delivery is critical to the schedule for the *Work* or are required by the *Contract* to be included in a *Products* delivery schedule. The *Contractor* shall employ construction scheduling software, being the latest version of "Microsoft Project", that permits the progress of the *Work* to be monitored in relation to the critical path established in the schedule. The *Contractor* shall provide the schedule and any successor or revised schedules in both electronic format and hard copy. Once accepted by the *Owner* and the *Consultant*, the construction schedule submitted by the *Contractor* shall become the baseline construction schedule; and,

.2 provide the expertise and resources, such resources including manpower and equipment, as are necessary to maintain progress under the accepted baseline construction schedule or revised schedule accepted by the *Owner* pursuant to GC 3.5 CONSTRUCTION SCHEDULE; and,

.3 monitor the progress of the *Work* on a weekly basis relative to the baseline construction schedule, or any revised schedule accepted by the *Owner* pursuant to GC 3.5 CONSTRUCTION SCHEDULE, update and submit to the *Consultant* and *Owner* the electronic and hard copy schedule on a monthly basis, at a minimum, or as required by the *Consultant* and advise the *Consultant* and the *Owner* weekly in writing of any variation from the baseline or slippage in the schedule; and,

.4 provide overtime work without change to the *Contract Price* if such work is deemed necessary to meet the schedule; and,

.5 ensure that the *Contract Price* shall include all costs required to phase or stage the *Work*.

3.5.2 Add new paragraph 3.5.2 as follows:

If, at any time, it should appear to the *Owner* or the *Consultant* that the actual progress of the *Work* is behind schedule or is likely to become behind schedule, or if the *Contractor* has given notice of such to the *Owner* or the *Consultant* pursuant to subparagraph 3.5.1.3, the *Contractor* shall, either at the request of the *Owner* or the *Consultant*, or following giving notice pursuant to subparagraph 3.5.1.3, take appropriate steps to cause the actual progress of the *Work* to conform to the schedule or minimize the resulting delay. Within five (5) calendar days of the request by the *Owner* or the *Consultant* or the notice being given pursuant to subparagraph 3.5.1.3, the *Contractor* shall produce and present to the *Owner* and the *Consultant* a plan demonstrating how the *Contractor* will achieve the recovery of the last accepted schedule.

3.5.3 The *Contractor* is responsible for performing the *Work* within the *Contract Time*. Any schedule submissions revised from the accepted baseline construction schedule or revised schedule accepted by the *Owner* pursuant to GC 3.5 CONSTRUCTION SCHEDULE, during construction are not deemed to be approved extensions to the *Contract Time*. All extensions to the *Contract Time* must be made in accordance with the *Contract Documents*.

### GC 3.6 SUPERVISION

Delete paragraph 3.6.1 in its entirety and replace with the following:

3.6.1 The *Contractor* shall employ a competent full-time superintendent, acceptable to the *Owner* and *Consultant*, who shall be in full time attendance at the *Place of Work* while the *Work* is being performed. The superintendent shall not be changed by the *Contractor* without valid reason which shall be provided in writing and shall not be changed without prior consultation with and agreement by the *Owner* and the *Consultant*. The *Contractor* shall replace the superintendent within 7 *Working Days* of the *Owner's* written notification, if the superintendent's performance is not acceptable to the *Owner*. The *Contractor* shall provide the *Owner* and the *Consultant* with the names, addresses and telephone numbers of the superintendent referred to in this paragraph 3.6.1 and other responsible persons who may be contacted for emergency and other reasons during non-working hours.

Delete paragraph 3.6.2 in its entirety and replace with the following:

3.6.2 The superintendent, and any project manager appointed by the *Contractor*, shall represent the *Contractor* at the *Place of Work* and shall have full authority to act on written instructions given by the *Consultant* and/or the *Owner*. Instructions given to the superintendent or the project manager shall be deemed to have been given to the *Contractor* and both the superintendent and any project manager shall have full authority to act on behalf of the *Contractor* and bind the *Contractor* in matters related to the *Contract*.

3.6.3 Add new paragraph 3.6.3, 3.6.4, 3.6.5 and 3.6.6 as follows:

The *Owner* may, at any time during the course of the *Work*, request the replacement of the appointed representative(s). Immediately upon receipt of the request, the *Contractor* shall make arrangements to appoint an acceptable replacement, which is approved by the *Owner*.

3.6.4 The supervisory staff assigned to the *Project* shall also be fully competent to implement efficiently all requirements for scheduling, coordination, field engineering, reviews, inspections and submittals defined in the *Specifications*, and have minimum 5 years documented "Superintendent/Project Management" experience.

3.6.5 The *Consultant and Owner* shall reserve the right to review the record of experience and credentials of supervisory staff assigned to the *Project* prior to commencement of the *Work*.

3.6.6 A superintendent assigned to the *Work* shall be "Gold Seal Certified" as per the Canadian Construction Association; or a superintendent that can demonstrate the requisite experience and success related to the *Project* to the sole satisfaction of the *Owner*.

### GC 3.7 SUBCONTRACTORS AND SUPPLIERS

3.7.1.1 In paragraph 3.7.1.1 add to the end of the second line "including any warranties and service agreements which extend beyond the term of the *Contract*."



- 3.7.1.2 In subparagraph 3.7.1.2 after the words “the *Contract Documents*” insert the words “including any required surety bonding”.

Delete paragraph 3.7.2. in its entirety and replace with the following:

- 3.7.2 Substitution of any *Subcontractor* and/or *Suppliers* after submission of the *Contractor*'s bid will not be accepted unless a valid reason is given in writing to and approved by the *Owner*, whose approval may be arbitrarily withheld. The reason for substitution must be provided to the *Owner* and to the original *Subcontractor* and/or *Supplier* and the *Subcontractor* and/or *Supplier* shall be given the opportunity to reply to the *Contractor* and *Owner*. The *Contractor* shall be fully aware of the capability of each *Subcontractor* and/or *Supplier* included in its bid, including but not limited to technical ability, financial stability and ability to maintain the proposed construction schedule.

- 3.7.4 Change the word “shall” to “may” in the second line.

Add new paragraphs 3.7.7 and 3.7.8 as follows:

- 3.7.7 Where provided in the *Contract*, the *Owner* may assign to the *Contractor*, and the *Contractor* agrees to accept, any contract procured by the *Owner* for *Work* or services required on the *Project* that has been pre-tendered or pre-negotiated by the *Owner*, and upon such assignment, the *Owner* shall have no further liability to any party for such contract.
- 3.7.8 The *Contractor* covenants that each subcontract or supply contract which the *Contractor* enters into for the purpose of performing the *Work* shall expressly provide for the assignment thereof to the *Owner* (at the option of the *Owner*) and the assumption by the *Owner* of the obligations of the *Contractor* thereunder, upon the termination of the *Contract* and upon written notice by the *Owner* to the other parties to such subcontracts or supply contracts, without the imposition of further terms or conditions; provided, however, that until the *Owner* has given such notice, nothing herein contained shall be deemed to create any contractual or other liability upon the *Owner* for the performance of obligations under such subcontracts or supply contracts and the *Contractor* shall be fully responsible for all of its obligations and liabilities (if any) under such subcontracts and supply contracts.

### GC 3.8 LABOUR AND PRODUCTS

- 3.8.2 Delete paragraph 3.8.2 and substitute with the following:

*Products* provided shall be new and shall conform to all current applicable specifications of the Canadian Standards Association, Canadian Standards Board or General Standards Board, ASTM, National Building Code, provincial and municipal building codes, fire safety standards, and all governmental authorities and regulatory agencies having jurisdiction at the *Place of the Work*, unless otherwise specified. *Products* which are not specified shall be of a quality consistent with those specified and their use acceptable to the *Consultant*. *Products* brought on to the *Place of the Work* by the *Contractor* shall be deemed to be the property of the *Owner*, but the *Owner* shall be under no liability for loss thereof or damage thereto arising from any cause whatsoever. The said *Products* shall be at the sole risk of the *Contractor*. Workmanship shall be, in every respect, first class and the *Work* shall be performed in accordance with the best modern industry practice.

- 3.8.3 Amend paragraph 3.8.3 by adding the words, “..., agents, *Subcontractors* and *Suppliers*...” after the word “employees” in the first line.

Add new paragraphs 3.8.4, 3.8.5, 3.8.6, 3.8.7, 3.8.8, 3.8.9 and 3.8.10 as follows:

- 3.8.4 Upon receipt of a written notice from the *Consultant*, the *Contractor* shall immediately dismiss, from the *Place of the Work*, tradesmen and labourers whose *Work* is unsatisfactory to the *Consultant* or who are considered by the *Consultant* to be unskilled or otherwise objectionable.
- 3.8.5 The *Contractor* shall cooperate with the *Owner* and its representatives and shall take all reasonable and necessary actions to maintain stable and harmonious labour relations with respect to the *Work* at the *Place of the Work*, including cooperation to attempt to avoid *Work* stoppages, trade union jurisdictional disputes and other *Labour Disputes*. Any costs arising from labour disputes shall be at the sole expense of the *Contractor*.

- 3.8.7 The cost for overtime required beyond the normal *Working Day* to complete individual construction operations of a continuous nature, such as pouring or finishing of concrete or similar work, or *Work* that the *Contractor* elects to perform at overtime rates without the *Owner* requesting it, shall not be chargeable to the *Owner*.
- 3.8.8 All manufactured *Products* which are identified by their proprietary names or by part or catalogue number in the *Specifications* shall be used by the *Contractor*. No substitutes for such specified *Products* shall be used without the written approval of the *Owner* and the *Consultant*. Substitutes will only be considered by the *Consultant* when submitted in sufficient time to permit proper review and investigation. When requesting approval for the use of substitutes, the *Contractor* shall include in its submission any proposed change in the *Contract Price*. The *Contractor* shall use all proprietary *Products* in strict accordance with the manufacturer's directions. Where there is a choice of proprietary *Products* specified for one use, the *Contractor* may select any one of the *Products* so specified for this use.
- 3.3.9 No consideration will be given to claims by the *Contractor* of unsuitability or unavailability of any *Products*, nor to the *Contractor's* unwillingness to use, or to produce first class work with, any *Products*, or to provide the specified warranties or guarantees.
- 3.8.10 Materials, appliances, equipment and other *Products* are sometimes specified by reference to brand names, proprietary names, trademarks or symbols. In such cases, the name of a manufacturer, distributor, *Supplier* or dealer is sometimes given to assist the *Contractor* to find a source *Supplier*. This shall not relieve the *Contractor* from its responsibility from finding its own source of supply even if the source names no longer supplies the *Product* specified. If the *Contractor* is unable to obtain the specified *Product*, the *Contractor* shall supply a substitute product equal to or better than the specified *Product*, as approved by the *Consultant* with no extra compensation. Should the *Contractor* be unable to obtain a substitute *Product* equal to or superior to the specified *Product* and the *Owner* accepts a different *Product*, the *Contract Price* shall be adjusted accordingly, as approved by the *Consultant*.

### GC 3.9 DOCUMENTS AT THE SITE

- 3.9.1 Delete paragraph 3.9.1 in its entirety and substitute the following:

The *Contractor* shall keep one copy of the current *Contract Documents*, *Supplemental Instructions*, contemplated *Change Orders*, *Change Orders*, *Change Directives*, cash allowance disbursement authorizations, reviewed *Shop Drawings*, submittals, reports and records of meeting at the *Place of the Work*, in good order and available to the *Owner* and *Consultant*.

### GC 3.10 SHOP DRAWINGS

- 3.10.1 Delete paragraph 3.10.1 in its entirety and replace with the following:

The *Contractor* shall provide shop drawings as described in the *Contract Documents* and as the *Consultant* may reasonably request

- 3.10.9 Delete paragraph 3.10.9 in its entirety and substitute the following:

At the time of providing *Shop Drawings*, the *Contractor* shall advise the *Consultant* in writing of any deviations in *Shop Drawings* from the requirements of the *Contract Documents*. The *Consultant* shall indicate the acceptance of such deviation expressly in writing. Where manufacturers' literature is submitted in lieu of scaled drawings, it shall be clearly marked in ink, to indicate the specific items for which review is requested.

Add new paragraphs 3.10.13, 3.10.14, 3.10.15, 3.10.16, 3.10.17 and 3.10.18 as follows:

- 3.10.13 Reviewed *Shop Drawings* shall not authorize a change in the *Contract Price* and/or the *Contract Time*.
- 3.10.14 The *Contractor* shall prepare a *Shop Drawings* schedule acceptable to the *Owner* and the *Consultant* prior to the first application for payment. A draft of the proposed *Shop Drawings* schedule shall be submitted by the *Contractor* to the *Consultant* and the *Owner* for approval. The draft *Shop Drawings* schedule shall clearly indicate the phasing of *Shop Drawings* submissions. The *Contractor* shall periodically re-submit the *Shop Drawings* schedule to correspond to changes in the construction schedule.

- 3.10.15 Except where the parties have agreed to a different *Shop Drawings* schedule pursuant to paragraph 3.10.3, the *Contractor* shall comply with the requirements for *Shop Drawings* submissions stated in the *Specifications*.
- 3.10.16 The *Contractor* shall not use the term “by others” on *Shop Drawings* or other submittals. The related trade, *Subcontractor* or *Supplier* shall be stated.
- 3.10.17 Certain *Specifications* sections require the *Shop Drawings* to bear the seal and signature of a professional engineer. Such professional engineer must be registered in the jurisdiction of the *Place of the Work* and shall have expertise in the area of practice reflected in the *Shop Drawings*.
- 3.10.18 The *Consultant* will review and return *Shop Drawings* and submittals in accordance with the schedule agreed upon in paragraph 3.10.3, The *Contractor* shall allow the *Consultant* a minimum of 14 days to review *Shop Drawings* from the date of receipt. If resubmission of *Shop Drawings* is required, a further 14 day period is required for the *Consultant’s* review.

### GC 3.11 USE OF THE WORK

- 3.11.1 In the second line between the words “permits and “or” add”, by direction of the *Owner* or *Consultant*.
- 3.11.3 Add new paragraph 3.11.3 as follows:

The *Owner* shall have the right to enter or occupy the *Work* in whole or in part for the purpose of placing fittings and equipment, or for other use before *Substantial Performance of the Work*, if, in the opinion of the *Consultant*, such entry and occupation does not prevent or substantially interfere with the *Contractor* in the performance of the *Contract* within the *Contract Time*. Such entry or occupation shall neither be considered as acceptance of the *Work*, nor in any way relieve the *Contractor* from its responsibility to complete the *Contract*.

### GC 3.12 CUTTING AND REMEDIAL WORK

Add new paragraphs 3.12.5 and 3.12.6 as follows:

- 3.12.5 Unless specifically stated otherwise in the *Specifications*, the *Contractor* shall do all cutting and making good necessary for the proper installation and performance of the *Work*.
- 3.12.6 To avoid unnecessary cutting, the *Contractor* shall lay out its work and advise the *Subcontractors*, when necessary, where to leave holes for installation of pipes and other work.

### GC 3.13 CLEAN UP

- 3.13.1 At the end of the paragraph 3.13.1, add the following:

Remove accumulated waste and debris at least once a week as a minimum or as required by the nature of the *Work*.

- 3.13.2 In paragraph 3.13.2, in the fourth line add the word “materials” between the word “tools” and the words “*Construction Equipment*”.
- 3.13.3 In paragraph 3.13.3, in the first and second lines add the word “materials” between the word “tools” and the words “*Construction Equipment*”.

Add new paragraphs 3.13.4, 3.13.5, 3.13.6 and 3.13.7 as follows:

- 3.13.4 In the event that the *Contractor* fails to remove waste and debris as provided in this GC 3.13, then the *Owner* or the *Consultant* may give the *Contractor* twenty-four (24) hours written notice to meet its obligations respecting clean up. Should the *Contractor* fail to meet its obligations pursuant to this GC 3.13 within the twenty-four (24) hour period next following delivery of the notice, the *Owner* may remove such waste and debris and deduct from payments otherwise due to the *Contractor*, the *Owner’s* costs for such clean up, including a reasonable mark-up for administration costs.
- 3.13.5 The *Contractor* shall clean up garbage during and after construction, and maintain the site in a neat and orderly condition on a daily basis. Prior to leaving the site at the end of construction, the *Contractor* shall make good all damage to the building and its components caused by the performance of the *Work* or by any *Subcontractor* or *Supplier*. The *Contractor*

shall leave the site in a clean and finished state; remove all equipment and materials; remove all paint, stains, labels, dirt, etc. from the *Work*; and touch up all damaged painted areas.

3.13.6 Without limitation to or waiver of the *Owner's* other rights and remedies, the *Owner* shall have the right to back charge to the *Contractor* the cost of damage to the site caused by transportation in and out of the site by the *Contractor*, *Subcontractors* or *Suppliers*, if not repaired before final payment.

3.13.7 The *Contractor* shall dispose of debris at location and in a manner acceptable to the *Owner*, and authorities having jurisdiction in the area of the *Work* and the disposal area, and cover containers with tarpaulins tied in place to prevent scattering of debris on site and during transport.

#### **GC 3.14 CONTRACTOR STANDARD OF CARE**

Add a new General Condition 3.14 – CONTRACTOR STANDARD OF CARE as follows:

3.14.1 In performing its services and obligations under the *Contract*, the *Contractor* shall exercise the standard of care, skill and diligence that would normally be provided by an experienced and prudent contractor supplying similar services for similar projects. The *Contractor* acknowledges and agrees that throughout the *Contract*, the performance of the *Contractor's* obligations, duties and responsibilities shall be judged against this standard. The *Contractor* shall exercise the same standard of care, skill and diligence in respect of any *Products*, personnel or procedures which it may recommend to the *Owner*.

3.14.2 The *Contractor* further represents, covenants and warrants to the *Owner* that:

- .1 the personnel it assigns to the *Project* are appropriately experienced;
- .2 it has a sufficient staff of qualified and competent personnel to replace any of its appointed representatives, subject to the *Owner's* approval, in the event of death, incapacity, removal or resignation; and
- .3 there are no pending, threatened or anticipated claims, liabilities or contingent liabilities that would have a material effect on the financial ability of the *Contractor* to perform its work under the *Contract*.

#### **GC 3.15 OCCUPANCY OF THE WORK**

3.15.1 The *Owner* reserves the right to take possession of and use for any intended purpose any portion or all of the undelivered portion of the *Project* even though the *Work* may not be substantially performed, provided that such taking possession and use will not interfere, in any material way, with the progress of the *Work*. The taking of possession or use of any such portion of the *Project* shall not be deemed to be the *Owner's* acknowledgement or acceptance of the *Work* or the *Project*, nor shall it relieve the *Contractor* of any of its obligations under the *Contract*.

3.15.2 Whether the *Project* contemplates *Work* by way of renovations in buildings which will be in use or be occupied during the course of the *Work* or where the *Project* involves *Work* that is adjacent to a structure which is in use or is occupied, the *Contractor*, without in any way limiting its responsibilities under the *Contract*, shall take all reasonable steps to avoid interference with fire exits, building access and egress, continuity of electric power and all other utilities, to suppress dust and noise and to avoid conditions likely to propagate mould or fungus of any kind and all other steps reasonably necessary to promote and maintain the safety and comfort of the users and occupants of such structures or adjacent structures.

#### **GC 4.1 CASH ALLOWANCES**

4.1.1 Delete the second sentence in paragraph 4.1.1

4.1.4 Delete paragraph 4.1.4 in its entirety and substitute the following:

Where the actual cost of the *Work* under any cash allowance exceeds the amount of the allowance, any unexpended amounts from other cash allowances shall be reallocated, at the *Consultant's* direction, to cover the shortfall, and, in that case, there shall be no additional amount added to the *Contract Price* for overhead and profit. Only where the actual cost of the *Work* under all cash allowances exceeds the total amount of all cash allowances shall the *Contractor* be compensated for the excess incurred and substantiated, plus an amount for overhead and profit on the excess only, as set out in the *Contract Documents*.

4.1.5 Delete paragraph 4.1.5 in its entirety and substitute the following:

The net amount of any unexpended cash allowances, after providing for any reallocations as contemplated in paragraph 4.1.4, shall be deducted from the *Contract Price* by *Change Order* without any adjustment for the *Contractor's* overhead and profit on such amount.

Add new paragraphs 4.1.8 and 4.1.9 as follows:

4.1.8 The *Owner* reserves the right to call, or to have the *Contractor* call, for competitive bids for portions of the *Work*, which are to be paid for from cash allowances.

4.1.9 Cash allowances cover the net cost to the *Contractor* of services, *Products*, *Construction Equipment*, freight, unloading, handling, storage, installation, provincial sales tax, and other authorized expenses incurred in performing any *Work* stipulated under the cash allowances but does not include any *Value Added Taxes* payable by the *Owner* and the *Contractor*.

#### **GC 5.1 FINANCING INFORMATION REQUIRED OF THE OWNER**

5.1.1 Delete paragraph 5.1.1 in its entirety.

5.1.2 Delete paragraph 5.1.2 in its entirety.

#### **GC 5.2 APPLICATIONS FOR PROGRESS PAYMENT**

Delete paragraph 5.2.2 in its entirety and substitute the following:

5.2.2 Applications for payment shall be dated the last day of each payment period, which is the last day of the month or an alternative day of the month agreed in writing by the parties. The amount claimed shall be for the value, proportionate to the amount of the *Contract*, or work performed and *Products* delivered and incorporated into the *Work* at that date. No amount claimed shall include products delivered and incorporated into the work, unless the products are free and clear of all security interests, liens and other claims of third parties.

Each application for payment, except the first, shall include a statutory declaration, in the CCDC 9A – 2001 form, up to the date of the application for payment, in a form approved by the Consultant. Each application for payment (including the first), shall also include:

.1 A certificate, issued by an agency or firm providing workers' compensation insurance to the *Contractor*, verifying that coverage is in force at the time of making the application for payment, and that coverage will remain in force for at least sixty (60) days thereafter.

.2 A declaration by the *Contractor*, in a form approved by the *Consultant*, verifying that the performance of the *Work* is in compliance with all applicable regulatory requirements respecting environmental protection, first safety, public safety and occupational health and safety.

.3 A pre-approved schedule of values, supplied by the *Contractor*, for Divisions 1 through 14 of the *Work*, aggregating the total amount of the *Contract Price*.

.4 A separate pre-approved schedule of values, supplied by each *Subcontractor*, for each of Division 15, 16, and 17 of the *Work*, aggregating the total amount of the *Contract Price*.

.5 Invoices to support all claims against the cash allowance.

.6 An acceptable construction schedule pursuant to GC 3.5.

5.2.3 Amend paragraph 5.2.3 by adding the following to the end of that paragraph:

No amount claimed shall include *Products* delivered to the *Place of the Work* unless the *Products* are free and clear of all security interests, liens, and other claims of third parties.

5.2.7 Delete existing paragraph 5.2.7:

Add new paragraphs 5.2.7, and 5.2.8 as follows:

5.2.7 The *Contractor* shall prepare and maintain current as-built drawings which shall consist of the *Drawings* and *Specifications* revised by the *Contractor* during the *Work*, showing changes to the *Drawings* and *Specifications*, which current as-built drawings shall be maintained by the *Contractor* and made available to the *Consultant* for review with each application for progress payment. The *Consultant* shall retain a reasonable amount for the value of the as-built drawings not presented for review.

5.2.8 Prior to each application for payment, the *Contractor* and the *Consultant* shall jointly review the progress of the *Work*.

### GC 5.3 PROGRESS PAYMENT

5.3.1.2 In the first sentence amend as follows: After the words “issue to the *Owner*” delete “and copy to the *Contractor*”. After the words “after the receipt of the” add “complete”.

5.3.1.3 Delete subparagraph 5.3.1.3 in its entirety and substitute as follows:

the *Owner* shall make payment to the *Contractor* on account as provided in Article A-5 of the Agreement – PAYMENT no later than 30 calendar days after the date of a complete certificate of payment is issued by the *Consultant*

Add new paragraphs 5.3.2 and 5.3.3 as follows:

5.3.2 If the *Contractor* fails to provide all documentation as required by GC 5.2 – APPLICATIONS FOR PROGRESS PAYMENT, the *Contractor* or *Owner* shall be entitled to return the application for progress payment to the *Contractor* for completion. The 10 day review period by the *Consultant* and 30 day payment period by the *Owner* will commence upon receipt of a complete application for progress payment.

5.3.3 Payment will be mailed to the *Contractor*. The payment date shall be the date the cheque is mailed. Delay resulting from mail shall not be used in calculating payment date.

### GC 5.4 SUBSTANTIAL PERFORMANCE OF THE WORK

5.4.2 Delete paragraph 5.4.2 in its entirety and substitute the following:

The *Consultant* will review the *Work* to verify the validity of the application and shall promptly, and in any event, no later than 30 calendar days after receipt of the *Contractor's* complete deficiency list and application, the *Consultant* shall:

.1 prepare a final deficiency list incorporating all items to be completed or corrected. Each item is to have an indicated value for correction or completion. Determination of the value is defined in GC 5.10 – DEFICIENCY HOLDBACK. The final deficiency list complete with values is to be included with the *Consultant's* draft verification and shall be reviewed with the *Owner* prior to 5.4.2.2.

.2 having completed 5.4.2.1, the *Consultant* shall:

.1 advise the *Contractor* in writing that the *Work* or the designated portion of the *Work* is not substantially performed and give reasons why, or

.2 state the date of *Substantial Performance of the Work* in a certificate and issue a copy of that certificate to each the *Owner* and the *Contractor*.

5.4.3 Delete paragraph 5.4.3 in its entirety and substitute the following:

Following the issuance of the certificate of *Substantial Performance of the Work*, the following shall apply to completing the *Work*:

.1 *Contractor* is to complete the *Work* within sixty (60) calendar days.

.2 No payments will be processed between *Substantial Performance of the Work* and the completion of the *Work*.

- .3 The *Owner* reserves the right to contract out any or all unfinished *Work* if it has not been completed within sixty (60) days of *Substantial Performance of the Work* without prejudice to any other right or remedy and without affecting the warranty period. The cost of completing the *Work* shall be deducted from the *Contract Price*.

Add new paragraphs 5.4.4, 5.4.5 and 5.4.6:

- 5.4.4 Within the time prescribed by the construction/builder’s lien legislation in force at the *Place of the Work*, or where there is no legislation or no time prescribed, within a reasonable time of receiving a copy of the certificate of *Substantial Performance of the Work* signed by the *Consultant*, the *Contractor* shall take whatever steps are required to publish or post a signed copy of the certificate, as is required by such legislation. If the *Contractor* fails to comply with this provision, the *Owner* may take the required steps pursuant to the legislation and charge the *Contractor* for any costs so incurred.
- 5.4.5 Prior to submitting its written application for *Substantial Performance of the Work*, the *Contractor* shall submit to the *Consultant* all:
  - .1 guarantees;
  - .2 warranties;
  - .3 certificates;
  - .4 final testing and balancing reports;
  - .5 distribution system diagrams;
  - .6 spare parts;
  - .7 maintenance manuals;
  - .8 samples;
  - .9 reports and correspondence from authorities having jurisdiction in the *Place of the Work*;
  - .10 shop drawings;
  - .11 inspection certificates;
  - .12 marked-up record or as-built drawings from the construction trailer.

and other materials or documentation required to be submitted under the *Contract*, together with written proof acceptable to the *Owner* and the *Consultant* that the *Work* has been substantially performed in conformance with the requirements of municipal, governmental, and utility authorities having jurisdiction in the *Place of the Work*. The *Consultant* shall refuse to certify *Substantial Performance of the Work* if the submittals referred to in this paragraph 5.4.5 are not provided by the *Contractor*.

- 5.4.6 The *Contractor* shall submit full and complete digital record or as-built drawings to the *Consultant* within forty-five (45) days of the issuance of the certificate of *Substantial Performance of the Work* and the *Owner* shall be at liberty to withhold, from amounts otherwise payable to the *Contractor*, an amount not to exceed one (1) percent of the *Contract Price* as security for the obligation of the *Contractor* to deliver such digital record or as built drawings.

**GC 5.5 PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK**

5.5.1.1. Add to end of sentence “, and the application by the *Contractor* shall be accompanied by:

- .1 a certificate, issued by an agency or firm providing workers’ compensation insurance to the *Contractor*, verifying that coverage is in force at the time of making application for payment, and that coverage will remain in force for at least sixty (60) days thereafter; and,
- .2 a declaration by the *Contractor*, in a form approved by the *Consultant*, verifying performance of the *Work* in compliance with all applicable regulatory requirements respecting environmental protection, fire safety, public safety and occupational health and safety.

Add new subparagraph 5.5.1.3 as follows

- 5.5.1.3 submit a statement that no written notices of liens have been received by it

5.5.2 Amend paragraph 5.5.2 by adding the following sentence to the end of that paragraph:

A reserve fund may be retained by the *Owner* to secure the correction of deficiencies and/or warranty claims. Included in the reserve fund would be all *Consultant* and *Owner* costs related to the correction of deficiencies and/or warranty claims.

5.5.3 Delete paragraph 5.5.3 in its entirety.

5.5.5 Delete paragraph 5.5.5 in its entirety.

#### **GC 5.6 PROGRESSIVE RELEASE OF HOLDBACK**

Delete GC 5.6 in its entirety.

#### **GC 5.7 FINAL PAYMENT**

5.7.1 Delete paragraph 5.7.1 in its entirety and substitute as follows:

When the *Contractor* considers that the *Work* is completed, as defined in the lien legislation applicable to the *Place of the Work* or if such definition does not exist, in accordance with other applicable legislation, industry practice or provisions which may be agreed to between the parties, the *Contractor* shall submit an application for final payment. The *Contractor's* application for final payment shall be accompanied by any documents or materials not yet delivered pursuant to paragraph 5.4.5, together with complete and final as-built drawings and:

- .1 the *Contractor's* written request for release of the deficiency holdback, including a statement that no written notices of lien have been received by it;
- .2 a Statutory Declaration CCDC 9A-2001;
- .3 the evidence of workers' compensation compliance required by GC 10.4.1.

The *Work* shall be deemed not to be completed until all of the aforementioned documents have been delivered, and the *Owner* may withhold payment in respect of the delivery of any documents in an amount determined by the *Consultant* in accordance with the provisions of GC 5.8 - WITHHOLDING OF PAYMENT.

5.7.2 Delete from the first line of paragraph 5.7.2 the words, "calendar days" and substitute the words "*Working Days*".

5.7.4 Delete from the second line of paragraph 5.7.4 the words, " 5 calendar days after the issuance" and substitute the words "30 calendar days after receipt of".

#### **GC 5.8 WITHHOLDING OF PAYMENT**

Delete paragraph 5.8.1 and replace with the following:

5.8.1 If because of conditions reasonably beyond the control of the *Contractor*, there are items of work that cannot be performed, payment in full for that portion of the *Work* which has been performed as certified by the *Consultant* shall not be withheld or delayed by the *Owner* on account thereof, but the *Owner* may withhold, until the remaining portion of the *Work* is finished, only such an amount that the *Consultant* determines is sufficient and reasonable to cover the cost of performing such remaining work.

#### **GC 5.10 DEFICIENCY HOLDBACK**

Add a new General Condition 5.10 as follows:

5.10.1 Notwithstanding any provisions contained in the *Contract Documents* concerning certification and release of monies to the *Contractor*, the *Owner* reserves the right to establish a deficiency holdback, at the time of the review for *Substantial Performance*, based on a 200% dollar value of the deficiencies listed by the *Consultant*. The value of work outstanding for the calculation of *Substantial Performance of the Work* under the *Construction Lien Act* (Ontario) shall utilize the 100% dollar value. No individual deficiency will be valued at less than two hundred dollars (\$200.00). The *Owner* shall retain the entire deficiency holdback amount until completion of all of the deficiencies listed by the *Consultant* to the satisfaction of the *Consultant*.

#### **GC 6.1 OWNER'S RIGHT TO MAKE CHANGES**



Add new paragraphs 6.1.3, 6.1.4, 6.1.5, 6.1.6, 6.1.7 and 6.1.8 as follows:

- 6.1.3 The *Contractor* agrees that changes resulting from construction coordination, including but not limited to, site surface conditions, site coordination, and *Subcontractor and Supplier* coordination are included in the *Contract Price* and the *Contractor* shall be precluded from making any claim for a change in the *Contract Price* as a result of such changes.
- 6.1.4 Labour costs shall be actual, prevailing rates at the *Place of the Work* paid to workers, plus statutory charges on labour including WSIB, unemployment insurance, Canada pension, vacation pay, hospitalization and medical insurance. The *Contractor* shall provide these rates, when requested by the *Consultant*, for review and/or agreement.
- 6.1.5 Quotations for changes to the *Work* shall be accompanied by itemized breakdowns together with detailed, substantiating quotations or cost vouchers from *Subcontractors* and *Suppliers*, submitted in a format acceptable to the *Consultant* and including any costs associated with extensions in *Contract Time*.
- 6.1.6 When both additions and deletions covering related *Work* or substitutions are involved in a change to the *Work*, payment, including *Overhead* and profit, shall be calculated on the basis of the net difference, if any, with respect to that change in the *Work*.
- 6.1.7 No extension to the *Contract Time* shall be granted for changes in the *Work* unless the *Contractor* can clearly demonstrate that such changes significantly alter the overall construction schedule submitted at the commencement of the *Work*. Extensions of *Contract Time* and all associated costs, if approved pursuant to GC 3.4.2, are to be included in the relevant *Change Order*.
- 6.1.8 When a change in the *Work* is proposed or required, the *Contractor* shall within 10 calendar days submit to the *Consultant* for review a claim for a change in *Contract Price* and/or *Contract Time*. Should 10 calendar days be insufficient to prepare the submission, the *Contractor* shall within 5 calendar days, advise the *Consultant* in writing of the proposed date of submission of the claim. Claims submitted after the dates prescribed herein will not be considered.

## **GC 6.2 CHANGE ORDER**

- 6.2.1 Add after the last sentence in the paragraph:

The adjustment in the *Contract Time* and the *Contract Price* shall include an adjustment, if any, for delay or for the impact that the change in the *Work* has on the *Work* of the *Contractor*, and once such adjustment is made, the *Contractor* shall be precluded from making any further claims for delay or impact with respect to the change in the *Work*.

Add new paragraph 6.2.3 as follows:

- 6.2.3 The value of a change shall be determined in one or more of the following methods as directed by the *Consultant*.
- .1 by estimate and acceptance of a lump sum;
- .2 by negotiated unit prices which include the *Contractor's Overhead* and profit, or;
- .3 by the actual cost to the *Owner*, such costs to be the actual cost after all credits included in the change have been deducted, plus the following ranges of mark-up on such costs:
- .1 for *Change Orders* with a value of \$0 to \$15,000 the total *Subcontractor/Supplier* mark-up including *Overhead* and profit shall be 10% and the total *Contractor* mark-up including overhead and profit shall be 5%.
- .2 For *Change Orders* in excess of \$15,000, the total *Subcontractor/Supplier* mark-up including *Overhead* and profit shall be 5% and the total *Contractor* mark-up including *Overhead* and profit shall be 3%.

Add new paragraph 6.2.4 as follows:

6.2.4 All quotations will be submitted in a complete manner listing:

- .1 quantity of each material,
- .2 unit cost of each material,
- .3 man hours involved,
- .4 cost per hour,
- .5 *Subcontractor* quotations submitted listing items 1 to 4 above and item 6 below.
- .6 mark-up

Add new paragraph 6.2.5 as follows:

6.2.5 The *Owner* and the *Consultant* will not be responsible for delays to the *Work* resulting from late, incomplete or inadequately broken down valuations submitted by the *Contractor*.

### GC 6.3 CHANGE DIRECTIVE

6.3.6.1 Amend paragraph 6.3.6.1 by deleting the final period and adding as follows:

- .1 Ten percent (10%) for profit plus five percent (5%) for overhead on work by the *Contractor's* own forces up to the value of \$15,000 and five percent (5%) for profit plus three percent (3%) for *Overhead* on work by the *Contractor's* own forces in excess of \$15,000 and,
- .2 Ten percent (10%) fee on amounts paid to *Subcontractors* or *Suppliers* under subparagraph 6.3.7.9 for changes up to the value of \$15,000 and five percent (5%) on changes over \$15,000.

Unless a *Subcontractor's* or *Supplier's* price has been approved by the *Owner*, the *Subcontractor* or *Supplier* shall be entitled to its actual net cost as determined in accordance with paragraph 6.3.7, plus ten percent (10%) for profit and five percent (5%) for *Overhead* on such actual net cost for changes in the *Work*, up to the value of \$15,000 and five percent (5%) for profit and three percent (3%) for overhead on such actual net cost changes in the *Work* in excess of \$15,000.

6.3.6.2 Delete paragraph 6.3.6.2 and replace it with the following:

If a change in the *Work* results in a net decrease in the *Contract Price* in excess of \$15,000 the amount of the credit shall be the net cost, with deduction for *Overhead* and profit. If a change in the *Work* results in a net decrease in the *Contract Price* of \$15,000 or less, the amount of the credit shall be the net cost, without deduction for *Overhead* or profit.

6.3.7.1 In subparagraph 6.3.7.1 insert “while directly engaged in the work attributable to the change” after the words “in the direct employ of the *Contractor*”.

6.3.7 At the end of paragraph 6.3.7 add the following:

All other costs attributable to the change in the *Work* including the costs of all administrative or supervisory personnel are included in *Overhead* and profit calculated in accordance with the provisions of paragraph 6.1.5 of GC6.1 – OWNER'S RIGHT TO MAKE CHANGES.

### GC 6.4 CONCEALED OR UNKNOWN CONDITIONS

6.4.1 Delete paragraph 6.4.1 and replace with the following:

6.4.1.1 Prior to the submission of the bid on which the *Contract* was awarded, the *Contractor* confirms that it carefully investigated the *Place of the Work* and carried out such tests as it deemed appropriate and, in doing so, applied to that investigation the degree of care and skill required by paragraph 3.14.1.

6.4.1.2 The *Contractor* is deemed to assume all risk of conditions or circumstances now existing or arising in the course of the *Work* which could make the work more expensive or more difficult to perform than was contemplated at the time the *Contract* was executed. No claim by the *Contractor* will be considered by the *Owner* or the *Consultant* in connection with

conditions which could reasonably have been ascertained by such investigation or other due diligence undertaken prior to the execution of the *Contract*.

- 6.4.2 Amend paragraph 6.4.2 by adding a new first sentence as follows:

Having regard to paragraph 6.4.1, if the *Contractor* believes that the conditions of the *Place of the Work* differ materially from those reasonably anticipated, differ materially from those indicated in the *Contract Documents* or were concealed from discovery notwithstanding the conduct of the investigation described in paragraph 6.4.1, it shall provide the *Owner* and the *Consultant* with *Notice in Writing* no later than five (5) *Working Days* after the first observation of such conditions.

Amend the existing second sentence of paragraph 6.4.2 in the second line, following the word “materially” by adding the words “or were concealed from discovery notwithstanding the conduct of the investigation described in paragraph 6.4.1,”

- 6.4.3 Delete paragraph 6.4.3 in its entirety and substitute the following:

If the *Consultant* makes a finding pursuant to paragraph 6.4.2 that no change in the *Contract Price* or the *Contract Time* is justified, the *Consultant* shall report in writing the reasons for this finding to the *Owner* and the *Contractor*.

Add new paragraph 6.4.5 as follows:

- 6.4.5 No claims for additional compensation or for an extension of *Contract Time* shall be allowed if the *Contractor* fails to give *Notice in Writing* to the *Owner* or *Consultant*, as required by paragraph 6.4.2.

## **GC 6.5 DELAYS**

- 6.5.1 Delete the words after the word “for” in the fourth line of paragraph 6.5.1, and add the words “...reasonable direct costs directly flowing from the delay, but excluding any consequential, indirect or special damages (including, without limitation, loss of profits, loss of opportunity or loss of productivity).”

- 6.5.2 Delete the words after the word “for” in the fourth line of paragraph 6.5.2, and add the words “...reasonable direct costs directly flowing from the delay, but excluding any consequential, indirect or special damages (including, without limitation, loss of profits, loss of opportunity or loss of productivity).”

- 6.5.3 Delete paragraph 6.5.3 in its entirety and replace with the following:

If the *Contractor* is delayed in the performance of the *Work* by *Force Majeure*, then the *Contract Time* shall be extended for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor*. The extension of time shall not be less than the time lost as a result of the event causing the delay, unless the *Contractor* agrees to a shorter extension. The *Contractor* shall not be entitled to payment for costs incurred by such delays unless such delays result from the actions of the *Owner*.

Delete paragraph 6.5.4 in its entirety and replace with the following:

- 6.5.4 No extension or compensation shall be made for delay or impact on the *Work* unless notice in writing of a claim is given to the *Consultant* not later than ten (10) *Working Days* after the commencement of the delays or impact on the *Work*, provided however, that, in the case of a continuing cause of delay or impact on the *Work*, only one notice of claim shall be necessary.

Add new paragraphs 6.5.6, 6.5.7 and 6.5.8 as follows:

- 6.5.6 If the *Contractor* is delayed in the performance of the *Work* by an act or omission of the *Contractor* or anyone directly or indirectly employed or engaged by the *Contractor*, or by any cause within the *Contractor's* control, then the *Contract Time* may be extended for such reasonable time as the *Owner* may decide in consultation with the *Consultant* and the *Contractor*. The *Owner* shall be reimbursed by the *Contractor* for all reasonable costs incurred by the *Owner* as the result of such delay, including, but not limited to, the cost of all additional services required by the *Owner* from the *Consultant* or any sub-consultants, project managers, or others employed or engaged by the *Owner*, and in particular, the costs of the *Consultant's* services during the period between the date of *Substantial Performance of the Work* stated in Article A-1 herein, as the same may be extended through the provision of these General Conditions, and any later or actual date of *Substantial Performance of the Work* achieved by the *Contractor*.

- 6.5.7 Without limiting the obligations of the *Contractor* described in GC 3.2 – CONSTRUCTION BY OWNER OR OTHER CONTRACTORS or GC 9.4 – CONSTRUCTION SAFETY, the *Owner* or *Consultant* may, by notice in writing, direct the *Contractor* to stop the *Work* where the *Owner* or *Consultant* determines that there is an imminent risk to the safety of persons or property at the *Place of the Work*. In the event that the *Contractor* receives such notice, it shall immediately stop the *Work* and secure the site. The *Contractor* shall not be entitled to an extension of the *Contract Time* or to an increase in the *Contract Price* unless the resulting delay, if any, would entitle the *Contractor* to an extension of the *Contract Time* or the reimbursement of the *Contractor's* costs as provided in paragraphs 6.5.1, 6.5.2 or 6.5.3.
- 6.5.8 No claim for delay shall be made and the *Contract Time* shall not be extended due to climatic conditions or arising from the *Contractor's* efforts to maintain the *Contract* schedule.

**GC 6.6 CLAIMS FOR A CHANGE IN THE CONTRACT PRICE**

Delete GC 6.6 in its entirety.

**GC 7.1 OWNER'S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR'S RIGHT TO CONTINUE WITH THE WORK OR TERMINATE THE CONTRACT**

Revise the heading to read **“OWNER'S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR'S RIGHT TO CONTINUE WITH THE WORK, SUSPEND THE WORK OR TERMINATE THE CONTRACT”**

Delete paragraph 7.1.2 and replace with the following:

- 7.1.2 If the *Contractor* should neglect to prosecute the *Work* properly, fails or neglects to maintain the latest schedule provided pursuant to GC 3.5, or otherwise fails to comply with the requirements of the *Contract*, and if the *Consultant* has given a written statement to the *Contractor* that sufficient cause exists to justify such action, the *Owner* may notify the *Contractor*, in writing, that the *Contractor* is in default of the *Contractor's* contractual obligations and instruct the *Contractor* to correct the default in the five (5) *Working Days* immediately following the receipt of such notice.

Add a new subparagraph 7.1.3.4 as follows:

- 7.1.3.4 An “acceptable schedule” as referred to in subparagraph 7.1.3.2. means a schedule approved by the *Consultant* and the *Owner* wherein the default can be corrected within the balance of the *Contract Time* and shall not cause delay to any other aspect of the *Work* or the work of other contractors, and in no event shall it be deemed to give a right to extend the *Contract Time*.

- 7.1.4.1 Delete sentence and replace with the following:

Correct such default and deduct the cost, including *Owner's* expenses, thereof from any payment then or thereafter due the *Contractor*.

- 7.1.5.3 In subparagraph 7.1.5.3 delete the words: “however, if such cost of finishing the *Work* is less than the unpaid balance of the *Contract Price*, the *Owner* shall pay the *Contractor* the difference;”

Delete paragraph 7.1.6 in its entirety and add new paragraphs 7.1.6, 7.1.7, 7.1.8, 7.1.9 and 7.1.10 as follows:

- 7.1.6 In addition to its right to terminate the Contract set out herein, the *Owner* may terminate this *Contract* at any time for any other reason and without cause upon giving the *Contractor* fifteen (15) *Working Days Notice in Writing* to that effect. In such event, the *Contractor* shall be entitled to be paid for all *Work* performed including reasonable profit, for loss sustained upon *Products* and *Construction Equipment*, and such other damages as the *Contractor* may have sustained as a result of the termination of the *Contract*, but in no event shall the *Contractor* be entitled to be compensated for any loss of profit on unperformed portions of the *Work*, or indirect, special, or consequential damages incurred.
- 7.1.7 The *Owner* may suspend *Work* under this *Contract* at any time for any reason and without cause upon giving the *Contractor Notice in Writing* to that effect. In such event, the *Contractor* shall be entitled to be paid for all *Work* performed to the date of suspension and be compensated for all actual costs incurred arising from the suspension, including reasonable profit, for loss sustained upon *Products* and *Construction Equipment*, and such other damages as the *Contractor*

may have sustained as a result of the suspension of the *Work*, but in no event shall the *Contractor* be entitled to be compensated for any indirect, special, or consequential damages incurred. In the event that the suspension continues for more than thirty (30) calendar days, the *Contract* shall be deemed to be terminated and the provisions of paragraph 7.1.6 shall apply.

- 7.1.8 In the case of either a termination of the *Contract* or a suspension of the *Work* under GC 7.1 - OWNER'S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR'S RIGHT TO CONTINUE WITH THE WORK, SUSPEND THE WORK, OR TERMINATE THE CONTRACT or GC 7.2 - CONTRACTOR'S RIGHT TO SUSPEND THE WORK OR TERMINATE THE CONTRACT, the *Contractor* shall use its best commercial efforts to mitigate the financial consequences to the *Owner* arising out of the termination or suspension, as the case may be.
- 7.1.9 Upon the resumption of the *Work* following a suspension under GC 7.1 - OWNER'S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR'S RIGHT TO CONTINUE WITH THE WORK, SUSPEND THE WORK OR TERMINATE THE CONTRACT or GC 7.2 - CONTRACTOR'S RIGHT TO SUSPEND THE WORK OR TERMINATE THE CONTRACT, the *Contractor* will endeavour to minimize the delay and financial consequences arising out of the suspension.
- 7.1.10 The *Contractor's* obligations under the *Contract* as to quality, correction, and warranty of the *Work* performed by the *Contractor* up to the time of termination or suspension shall continue after such termination of the *Contract* or suspension of the *Work*.

**GC 7.2 CONTRACTOR'S RIGHT TO SUSPEND THE WORK OR TERMINATE THE CONTRACT**

- 7.2.2 Delete paragraph 7.2.2 in its entirety.
- 7.2.3.1 Delete subparagraph 7.2.3.1 in its entirety.
- 7.2.3.2 Delete subparagraph 7.2.3.2 in its entirety
- 7.2.3.3 Delete subparagraph 7.2.3.3 in its entirety.
- 7.2.3.4 In subparagraph 7.2.3.4, delete the words "except for GC 5.1 - FINANCING INFORMATION REQUIRED OF THE OWNER".

Re-number paragraph 7.2.5 as paragraph 7.2.6. Add a new paragraph 7.2.5 as follows:

- 7.2.5 If the default cannot be corrected within the 5 *Working Days* specified in paragraph 7.2.4, the *Owner* shall be deemed to have cured the default if it:
  - .1 commences correction of the default within the specified time;
  - .2 provides the *Contractor* with an acceptable schedule for such correction; and,
  - .3 completes the correction in accordance with such schedule.

Delete paragraph 7.2.6 entirely and replace with the following:

- 7.2.6 If the *Contractor* terminates the *Contract* under the conditions described in GC 7.2 – CONTRACTOR'S RIGHT TO SUSPEND THE WORK OR TERMINATE THE CONTRACT, the *Contractor* shall be entitled to be paid for all *Work* performed to the date of termination, as determined by the *Consultant*. The *Contractor* shall also be entitled to recover the direct costs associated with termination, including the costs of demobilization and losses sustained on *Products* and *Construction Equipment*. The *Contractor* shall not be entitled to any recovery for any special, indirect or consequential losses, including loss of profit.

Add new paragraphs 7.2.7, 7.2.8 and 7.2.9 as follows

- 7.2.7 The *Contractor* shall not be entitled to give notice of the *Owner's* default or terminate the *Contract* in the event the *Owner* withholds certificates or payment or both in accordance with the *Contract* because of:

- (a) the *Contractor's* failure to pay all legitimate claims promptly, or
- (b) the failure of the *Contractor* to discharge construction liens which are registered against the title to the *Place of the Work*.

7.2.8 The *Contractor's* obligations under the *Contract* as to quality, correction and warranty of the *Work* performed by the *Contractor* up to the effective date of termination shall continue in force and shall survive termination by the *Contractor* in accordance with paragraph 7.2.4.

7.2.9 If the *Contractor* suspends the *Work* or terminates the *Contract* as provided for in GC 7.2 – CONTRACTOR'S RIGHT TO SUSPEND THE WORK OR TERMINATE THE CONTRACT, the *Contractor* shall ensure the site and the *Work* are left in a safe, secure condition as required by authorities having jurisdiction at the *Place of the Work* and the *Contract Documents*.

#### **GC 8.1 AUTHORITY OF THE CONSULTANT**

Delete paragraph 8.3.1 in its entirety and substitute as follows:

8.1.3 If a dispute is not resolved promptly, the *Consultant* will give such instruction as in the *Consultant's* opinion are necessary for the proper performance of the *Work* and to prevent delays pending settlement of the dispute. The parties shall act immediately according to such instructions, it being understood that by doing so neither party will jeopardize any claim the party may have.

#### **GC 8.2 NEGOTIATION, MEDIATION AND ARBITRATION**

8.2.1 Amend paragraph 8.2.1 by changing part of the second line from "shall appoint a *Project Mediator*" to "may appoint a *Project Mediator*, except that such an appointment shall only be made if both the *Owner* and the *Contractor* agree."

8.2.4 Amend paragraph 8.2.4 by changing part of the second line from "the parties shall request the *Project Mediator*" to "and subject to paragraph 8.2.1 the parties may request the *Project Mediator*".

Delete paragraphs 8.2.6, 8.2.7 and 8.2.8 in their entirety.

Add new paragraph 8.2.6 as follows:

8.2.6 The dispute may be finally resolved by arbitration under the Rules for Arbitration of Construction Disputes as provided in CCDC 40 in effect at the time of bid closing, provided that both the *Contractor* and the *Owner* agree. If the *Contractor* and the *Owner* agree to resolve the dispute by arbitration, the arbitration shall be conducted in the jurisdiction of the *Place of the Work*.

#### **GC 9.1 PROTECTION OF WORK AND PROPERTY**

Delete subparagraph 9.1.1.1 in its entirety and substitute the following:

9.1.1.1 errors in the *Contract Documents* which the *Contractor* could not have discovered applying the standard of care described in paragraph 3.14.1;

Delete paragraph 9.1.2 in its entirety and substitute as follows:

9.1.2 Before commencing any *Work*, the *Contractor* shall determine the locations of all underground or hidden utilities and structures indicated in or inferable from the *Contract Documents*, or that are inferable from an inspection of the *Place of the Work* exercising the degree of care and skill described in paragraph 3.14.1.

Add new paragraph 9.1.5 as follows:

9.1.5 With respect to any damage to which paragraphs 9.1.3 or 9.1.4 apply, the *Contractor* shall neither undertake to repair or replace any damage whatsoever to the work of other contractors, or to adjoining property, nor acknowledge that the same was caused or occasioned by the *Contractor*, without first consulting the *Owner* and receiving written instructions as to the course of action to be followed from either the *Owner* or the *Consultant*. Where, however, there is danger to life, the environment, or public safety, the *Contractor* shall take such emergency action as it deems necessary to remove the danger.

## GC 9.2 TOXIC AND HAZARDOUS SUBSTANCES

Add a new subparagraph 9.2.5.5 as follows:

9.2.5.5 in addition to the steps described in subparagraph 9.2.5.3, take any further steps it deems necessary to mitigate or stabilize any conditions resulting from encountering toxic or hazardous substances or materials.

9.2.6 Add the following to paragraph 9.2.6, after the word “responsible” in the second line:

...or whether any toxic or hazardous substances or materials already at the *Place of the Work* (and which were then harmless or stored, contained or otherwise dealt with in accordance with legal and regulatory requirements) were dealt with by the *Contractor* or anyone for whom the *Contractor* is responsible in a manner which does not comply with legal and regulatory requirements, or which threatens human health and safety or the environment, or material damages to the property of the *Owner* or others,...

9.2.8 Add the following to paragraph 9.2.8, after the word “responsible” in the second line:

...or whether any toxic or hazardous substances or materials already at the *Place of the Work* (and which were then harmless or stored, contained or otherwise dealt with in accordance with legal and regulatory requirements) were dealt with by the *Contractor* or anyone for whom the *Contractor* is responsible in a manner which does not comply with legal and regulatory requirements, or which threatens human health and safety or the environment, or material damages to the property of the *Owner* or others,...

Add new paragraphs 9.2.10 and 9.2.11 as follows:

9.2.10 The *Contractor*, *Subcontractors* and *Suppliers* shall not bring on to the *Place of the Work* any toxic or hazardous substances and materials except as required in order to perform the *Work*. If such toxic or hazardous substances or materials are required, storage in quantities sufficient to allow work to proceed to the end of any current work week only shall be permitted. All such toxic and hazardous materials and substances shall be handled and disposed of only in accordance with all laws and regulations that are applicable at the *Place of the Work*.

9.2.11 The *Contractor* shall indemnify and hold harmless the *Owner*, its parent, subsidiaries and affiliates, the *Consultant* and their respective partners, officers, directors, agents and employees from and against any and all liabilities, costs, expenses, and claims resulting from bodily injury, including death, and damage to property of any person, corporation or other body politic, that arises from the use by the *Contractor*, *Subcontractors* and *Suppliers* of any toxic or hazardous substances or materials at the *Place of the Work*.

## GC 9.4 CONSTRUCTION SAFETY

Delete paragraph 9.4.1 in its entirety and substitute as follows:

9.4.1 The *Contractor* shall be solely responsible for construction safety at the *Place of the Work* and for compliance with the rules, regulations, and practices required by the applicable construction health and safety legislation and shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the *Work*.

Add new paragraphs 9.4.2 to 9.4.10 as follows:

9.4.2 Prior to the commencement of the *Work*, the *Contractor* shall submit to the *Owner*:

- .1 the evidence of workers’ compensation compliance required by GC 10.4.1;
- .2 copies of the *Contractor’s* insurance policies having application to the *Project* or certificates of insurance, at the option of the *Owner*;
- .3 documentation setting out the *Contractor’s* in-house safety programs;
- .4 copies of any documentation or notices to be filed or delivered to the authorities having jurisdiction for the regulation of occupational health and safety at the *Place of the Work*.

- 9.4.3 The *Contractor* shall indemnify and save harmless the *Owner*, its agents, trustees, officers, directors, employees, consultants, successors, appointees, and assigns from and against the consequences of any and all safety infractions committed by the *Contractor* under the occupational health and safety legislation in force at the *Place of the Work* including the payment of legal fees and disbursements on a substantial indemnity basis.
- 9.4.4 The *Owner* undertakes to include in its contracts with other contractors and in its instructions to its own forces the requirement that the other contractor or its own forces, as the case may be, comply with the policies and procedures of and the directions and instructions from the *Contractor* with respect to occupational health and safety and related matters.
- 9.4.5 If the *Owner* is of the reasonable opinion that the *Contractor* has not taken such precautions as are necessary to ensure compliance with the requirements of paragraph 9.4.1, the *Owner* may take any remedial measures which it deems necessary, including stopping the performance of all or any portion of the *Work*, and the *Owner* may use its employees, the *Contractor*, any *Subcontractor* or any other contractors to perform such remedial measures.
- 9.4.6 The *Contractor* shall file any notices or any similar document required pursuant to the *Contract* or the safety regulations in force at the *Place of the Work*. This duty of the *Contractor* will be considered to be included in the *Work* and no separate payment therefore will be made to the *Contractor*.
- 9.4.7 Unless otherwise provided in the *Contract Documents*, the *Contractor* shall develop, maintain and supervise for the duration of the *Work* a comprehensive safety program that will effectively incorporate and implement all required safety precautions. The program shall, at a minimum, respond fully to the applicable safety regulations and general construction practices for the safety of persons or property, including, without limitation, any general safety rules and regulations of the *Owner* and any workers' compensation or occupational health and safety statutes or regulations in force at the *Place of the Work*.
- 9.4.8 The *Contractor* shall provide a copy of the safety program described in paragraph 9.4.7 hereof to the *Consultant* for delivery to the *Owner* prior to the commencement of the *Work*, and shall, ensure, as far as it is reasonably practical to do so, that every employer and worker performing work in respect of the *Project* complies with such program.
- 9.4.9 The *Contractor* shall arrange regular safety meetings, and shall supply and maintain, at its own expense, at its office or other well-known place at the job site, safety equipment necessary to protect the workers and general public against accident or injury as prescribed by the authorities having jurisdiction at the *Place of the Work*, including, without limitation, articles necessary for administering first-aid to any person and an emergency procedure for the immediate removal of any injured person to a hospital or a doctor's care.
- 9.4.10 The *Contractor* shall promptly report in writing to the *Owner* and the *Consultant* all accidents of any sort arising out of or in connection with the performance of the *Work*, whether on or adjacent to the job site, giving full details and statement of witnesses. If death or serious injuries or damages are caused, the accident shall be promptly reported by the *Contractor* to the *Owner* and the *Consultant* by telephone or messenger in addition to any reporting required under the applicable safety regulations.

#### **GC 9.5 MOULD**

Delete subparagraph 9.5.3.3 and replace with the following:

- 9.5.3.3 extend the *Contract Time* for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor* and the *Owner*. If, in the opinion of the *Consultant*, the *Contractor* has been delayed in performing the *Work* and/or has incurred additional costs under paragraph 9.5.1.2, the *Owner* shall reimburse the *Contractor* for the reasonable costs incurred as a result of the delay and as a result of taking those steps, and

#### **GC 10.1 TAXES AND DUTIES**

- 10.1.2 Amend paragraph 10.1.2 by adding the following sentence to the end of the paragraph:

For greater certainty, the *Contractor* shall not be entitled to any mark-up for overhead or profit on any increase in such taxes and duties and the *Owner* shall not be entitled to any credit relating to mark-up for overhead or profit on any decrease in such taxes. The *Contractor* shall provide a detailed breakdown of additional taxes if requested by the *Owner* in a form satisfactory to the *Owner*.



Add new paragraph 10.1.3 as follows:

- 10.1.3 Where the *Owner* is entitled to an exemption or a recovery of sales taxes, customs duties, excise taxes or *Value Added Taxes* applicable to the *Contract*, the *Contractor* shall, at the request of the *Owner*, assist with the application for any exemption, recovery or refund of all such taxes and duties and all amounts recovered or exemptions obtained shall be for the sole benefit of the *Owner*. The *Contractor* agrees to endorse over to the *Owner* any cheques received from the federal or provincial governments, or any other taxing authority, as may be required to give effect to this paragraph.

#### **GC 10.2 LAWS, NOTICES, PERMITS, AND FEES**

- 10.2.5 Amend paragraph 10.2.5 by addition the words “Subject to paragraph 3.4” at the beginning of the paragraph. Add the following to the end of the second sentence:

...and no further *Work* on the affected components of the *Contract* shall proceed until these directives have been obtained by the *Contractor* from the *Consultant*.

- 10.2.6 Amend paragraph 10.2.6 by adding the following sentence to the end of the paragraph:

In the event the *Owner* suffers loss or damage as a result of the *Contractor's* failure to comply with paragraph 10.2.5 and notwithstanding any limitations described in paragraph 12.1.1, the *Contractor* agrees to indemnify and to hold harmless the *Owner* and the *Consultant* from and against any claims, demands, losses, costs, damages, actions suits or proceedings resulting from such failure by the *Contractor*.

Add new paragraph 10.2.8 as follows:

- 10.2.8 The *Contractor* shall furnish all certificates that are required or given by the appropriate governmental authorities as evidence that the *Work* as installed conforms with the laws and regulations of authorities having jurisdiction, including certificates of compliance for the *Owner's* occupancy or partial occupancy. The certificates are to be final certificates giving complete clearance of the *Work*, in the event that such governmental authorities furnish such certificates.

#### **GC 10.4 WORKERS' COMPENSATION**

- 10.4.1 Delete paragraph 10.4.1 and replace with the following:

Prior to commencing the *Work*, and with each and every application for payment thereafter, including the *Contractor's* application for payment of the holdback amount following *Substantial Performance of the Work* and again with the *Contractor's* application for final payment, the *Contractor* shall provide evidence of compliance with workers' compensation legislation in force at the *Place of the Work*, including payments due thereunder.

#### **GC 11.1 INSURANCE**

Delete entirety of general condition and CCDC 41 and replace with the following:

- 11.1** Without restricting the generality of GC 12 – INDEMNIFICATION, the *Contractor* shall provide, maintain, and pay for the insurance coverages specified in GC 11.1 – INSURANCE. Unless otherwise stipulated, the duration of each insurance policy shall be from the date of commencement of the *Work* until the expiration of the warranty periods set out in the *Contract Documents*. Prior to commencement of the *Work* and upon the placement, renewal, amendment, or extension of all or any part of the insurance, the *Contractor* shall promptly provide the *Owner* with confirmation of coverage and, if required, a certified true copy of the policies certified by an authorized representative of the insurer together with copies of any amending endorsements.

##### **.1 General Liability Insurance**

General liability insurance shall be in the name of the *Contractor*, with the *Owner* and the *Consultant* named as additional insureds, with limits of not less than \$5,000,000.00 inclusive per occurrence for bodily injury, death, and damage to property, including loss of use thereof, for itself and each of its employees, *Subcontractors* and/or agents. The insurance coverage shall not be less than the insurance required by IBC Form 2100, or its equivalent replacement, provided that IBC Form 2100 shall contain the latest edition of the relevant CCDC endorsement form. To achieve the desired limit, umbrella,

or excess liability insurance may be used. All liability coverage shall be maintained for completed operations hazards from the date of *Substantial Performance of the Work*, as set out in the certificate of *Substantial Performance of the Work*, on an ongoing basis for a period of 6 years following *Substantial Performance of the Work*. Where the *Contractor* maintains a single, blanket policy, the addition of the *Owner* and the *Consultant* is limited to liability arising out of the *Project* and all operations necessary or incidental thereto. The policy shall be endorsed to provide the *Owner* with not less than 30 days' notice, in writing, in advance of any cancellation and of change or amendment restricting coverage.

**.2 Automobile Liability Insurance**

Automobile liability insurance in respect of licensed vehicles shall limits of not less than \$2,000,000.00 inclusive per occurrence for bodily injury, death and damage to property, covering all licensed vehicles *owned* or leased by the *Contractor*, and endorsed to provide the *Owner* with not less than 30 days' notice, in writing, in advance of any cancellation, change or amendment restricting coverage. Where the policy has been issued pursuant to a government-operated automobile insurance system, the *Contractor* shall provide the *Owner* with confirmation of automobile insurance coverage for all automobiles registered in the name of the *Contractor*.

**.3 Aircraft and Watercraft Liability Insurance [NTD: This can come out if N/A]**

Where determined necessary by the *Contractor*, acting reasonably, aircraft and watercraft liability insurance will be obtained in accordance with the provisions of paragraph 11.1.3. Aircraft and watercraft liability insurance with respect to owned or non-owned aircraft and watercraft if used directly or indirectly in the performance of the *Work*, including use of additional premises, shall be subject to limits of not less than \$2,000,000.00 inclusive per occurrence for bodily injury, death and damage to property, including loss of use thereof and limits of not less than \$2,000,000.00 for aircraft passenger hazard. Such insurance shall be in a form acceptable to the *Owner*. The policies shall be endorsed to provide the *Owner* with not less than 30 days' notice, in writing, in advance of cancellation, change or amendment restricting coverage.

**.4 Property and Boiler and Machinery Insurance**

(1) Builder's Risk property insurance shall be in the name of the *Contractor* with the *Owner* and the *Consultant* named as additional insureds. The policy shall insure against all risks of direct physical loss or damage to the property insured which shall include all property included in the *Work*, whether owned by the *Contractor* or the owner or owned by others, so long as the property forms part of the *Work*. The property insured also includes all materials and supplies necessary to complete the work, whether installed in the work temporarily or permanently, in storage on the project site, or in transit to the project site, as well as temporary buildings, scaffolding, falsework forms, hoardings, excavation, site preparation and similar work. The insurance shall be for not less than the sum of the amount of the contract price and the full value of products that are specified to be provided by the owner for incorporation into the work, if applicable, with the deductible of \$10,000.00 payable by the contractor. The insurance shall include the foregoing and, otherwise, shall not be less than the insurance required by IBC Form 4042 or its equivalent replacement provided that the IBC Form 4042 shall include the latest addition of the relevant CCDC endorsement form. The coverage shall be based on a completed value form and shall be maintained continuously until ten (10) days after the date of the final certificate of payment.

(2) Boiler and machinery insurance shall be in the name of the *Contractor*, with the *Owner* and the *Consultant* named as additional insureds, for not less than the replacement value of the boilers, pressure vessels and other insurable objects forming part of the *Work*. The insurance provided shall not be less than the insurance provided by the "Comprehensive Boiler and Machinery Form" and shall be maintained continuously from commencement of use or operation of the property insured and until 10 days after the date of the final certificate for payment.

(3) The policies shall allow for partial or total use or occupancy of the *Work*.

(4) The policies shall provide that, in the case of a loss or damage, payment shall be made to the *Owner* and the *Contractor* as their respective interests may appear. The *Contractor* shall act on behalf of the *Owner* for the purpose of adjusting the amount of such loss or damage payment with the insurers. When the extent of the loss or damage is determined, the *Contractor* shall proceed to restore the *Work*. Loss or damage shall not affect the rights and obligations of either party under the *Contract* except that the *Contractor* shall be entitled to such reasonable extension of the *Contract Time*, relative to the extent of the loss or damage, as determined by the *Owner*, in its sole discretion.

(5) The *Contractor* shall be entitled to receive from the *Owner*, in addition to the amount due under the *Contract*, the amount at which the *Owner's* interest in restoration of the *Work* has been appraised, such amount to be paid as the restoration of the *Work* proceeds and as provided in GC 5.2 – APPLICATIONS FOR PROGRESS PAYMENT and GC 5.3

– PROGRESS PAYMENT. In addition, the *Contractor* shall be entitled to receive from the payments made by the insurer the amount of the *Contractor's* interest in the restoration of the *Work*.

(6) In the case of loss or damage to the *Work* arising from the work of other contractors, or the *Owner's* own forces, the *Owner*, in accordance with the *Owner's* obligations under paragraph 3.2.2.4 of GC 3.2 – CONSTRUCTION BY OWNER OR OTHER CONTRACTORS, shall pay the *Contractor* the cost of restoring the *Work* as the restoration of the *Work* proceeds and as provided in GC 5.2 – APPLICATIONS FOR PROGRESS PAYMENT and GC 5.3 – PROGRESS PAYMENT.

**.5 Contractors' Equipment Insurance**

“All risks” contractors’ equipment insurance covering construction machinery and equipment used by the *Contractor* for the performance of the *Work*, excluding boiler insurance, shall be in a form acceptable to the *Owner* and shall not allow subrogation claims by the insurer against the *Owner*. The policies shall be endorsed to provide the *Owner* with not less than 30 days’ notice, in writing, in advance of cancellation, change or amendment restricting coverage. Subject to satisfactory proof of financial capability by the *Contractor* for self-insurance of his equipment, the *Owner* agrees to waive the equipment insurance requirement.

- 11.1.2 The *Contractor* shall be responsible for deductible amounts under the policies except where such amounts may be excluded from the *Contractor's* responsibility by the terms of GC 9.1 - PROTECTION OF WORK AND PROPERTY and GC 9.2 - DAMAGES AND MUTUAL RESPONSIBILITY.
- 11.1.3 Where the full insurable value of the *Work* is substantially less than the *Contract Price*, the *Owner* may reduce the amount of insurance required to waive the course of construction insurance requirement.
- 11.1.4 If the *Contractor* fails to provide or maintain insurance as required by the *Contract Documents*, then the *Owner* shall have the right to provide and maintain such insurance and provide evidence of same to the *Contractor*. The *Contractor* shall pay the costs thereof to the *Owner* on demand, or the *Owner* may deduct the amount that is due or may become due to the *Contractor*.
- 11.1.5 All required insurance policies shall be with insurers licensed to underwrite insurance in the jurisdiction of the *Place of the Work*.

**GC 11.2 CONTRACT SECURITY**

11.2.2 Delete paragraph after the word “provided” and replace with the following:

Such bonds shall be issued by a duly licensed surety company, which has been approved by the *Owner*, authorized to transact a business of suretyship in the province or territory of the *Place of the Work* and shall be maintained in good standing until the fulfillment of the *Contract*, including all warranty and maintenance periods set out in the *Contract Documents*.

Add new paragraph 11.2.3 as follows:

11.2.3 It is the intention of the parties that the performance bond shall be applicable to all of the *Contractor's* obligations in the *Contract Document* and, wherever a performance bond is provided with language which conflicts with this intention, it shall be deemed to be amended to comply. The *Contractor* represents and warrants to the *Owner* that it has provided its surety with a copy of the *Contract Documents* prior to the issuance of such bonds.

**GC 12.1 INDEMNIFICATION**

Delete General Condition 12.1 – INDEMNIFICATION in its entirety and substitute as follows:

12.1.1 The *Contractor* shall indemnify and hold harmless the *Owner*, its parent, subsidiaries and affiliates, the *Consultant* and their respective partners, trustees, officers, directors, agents and employees from and against any and all claims, liabilities, expenses, demands, losses, damages, actions, costs, suits, or proceedings (hereinafter called “claims”), whether in respect of claims suffered by the *Owner* or in respect of claims by third parties, that directly or indirectly arise out of, or are attributable to, the acts or omissions of the *Contractor*, its employees, agents, *Subcontractors*, *Suppliers* or any other persons for whom it is in law responsible (including, without limitation, claims that directly or indirectly arise out of, or are

attributable to, loss of use or damage to the *Work*, the *Owner's* property or equipment, the *Contractor's* property or equipment or equipment or property adjacent to the *Place of the Work* or death or injury to the *Contractor's* personnel).

12.1.2 The provisions of GC 12.1 - INDEMNIFICATION shall survive the termination of the *Contract*, howsoever caused and no payment or partial payment, no issuance of a final certificate of payment and no occupancy in whole or in part of the *Work* shall constitute a waiver or release of any of the provisions of GC 12.1.

## GC 12.2 WAIVER OF CLAIMS

12.2.1 In the fourth line, add the words “claims for delay pursuant to GC 6.5 DELAYS” after the word “limitation”. Add the words “(collectively “Claims”)” after “*Substantial Performance of the Work*” in the sixth line.

12.2.1.1 Change the word “claims” to “Claims” and change the word “claim” to “Claim”.

12.2.1.2 Change the word “claims” to “Claims”.

12.2.1.3 Delete paragraph in its entirety.

12.2.1.4 Change the word “claims” to “Claims”.

12.2.2 Change the words “in paragraphs 12.2.1.2 and 12.2.1.3” to “in paragraph 12.2.1.2”. Change the word “claims” to “Claims” in both instances and change the word “claim” to “Claim”.

12.2.3 Delete paragraph in its entirety.

12.2.4 Delete paragraph in its entirety.

12.2.5 Delete paragraph in its entirety.

12.2.6 Change the word “claim” to “Claim” in all instances in the paragraph.

12.2.7 Change “The party” to “The *Contractor*”. Change the word “claim” to “Claim” in all instances in the paragraph.

12.2.8 Change “under paragraphs 12.2.1 or 12.2.3” to “under paragraph 12.2.1”. Change both instances of the words “the party” to “the *Contractor*”. Change the word “claim” to “Claim” in all instances in the paragraph.

12.2.9 Delete paragraph 12.2.9 in its entirety.

12.2.10 Delete paragraph 12.2.10 in its entirety.

## GC 12.3 WARRANTY

12.3.2 Delete from the first line of paragraph 12.3.2 the word, “The” and substitute the words “Subject to paragraph 3.4.1, the...”

Add new paragraphs 12.3.7 to 12.3.12 as follows:

12.3.7 Where required by the *Contract Documents*, the *Contractor* shall provide a maintenance bond as security for the performance of the *Contractor's* obligations as set out in GC 12.3 WARRANTY.

12.3.8 The *Contractor* shall provide fully and properly completed and signed copies of all warranties and guarantees required by the *Contract Documents*, containing:

- .1 the proper name of the *Owner*;
- .2 the proper name and address of the *Project*;
- .3 the date the warranty commences, which shall be at the “date of *Substantial Performance of the Work*” unless otherwise agreed upon by the *Consultant* in writing.
- .4 a clear definition of what is being warranted and/or guaranteed as required by the *Contract Documents*; and
- .5 the signature and seal (if required by the governing law of the *Contract*) of the company issuing the warranty, countersigned by the *Contractor*.

- 12.3.9 Should any *Work* be repaired or replaced during the time period for which it is covered by the specified warranty, a new warranty shall be provided under the same conditions and for the same period as specified herein before. The new warranty shall commence at the completion of the repair or replacement.
- 12.3.10 The *Contractor* shall ensure that its *Subcontractors* are bound to the requirements of GC 12.3 – WARRANTY for the *Subcontractor's* portion of the *Work*.
- 12.3.11 The *Contractor* shall ensure that all warranties, guarantees or other obligations for *Work*, services or *Products* performed or supplied by any *Subcontractor*, *Supplier* or other person in connection with the *Work* are obtained and available for the direct benefit of the *Owner*. In the alternative, the *Contractor* shall assign to the *Owner* all warranties, guarantees or other obligations for *Work*, services or *Products* performed or supplied by any *Subcontractor*, *Supplier* or other person in connection with the *Work* and such assignment shall be with the consent of the assigning party, where required by law, or by the terms of that party's contract. Such assignment shall be in addition to, and shall in no way limit, the warranty rights of the *Owner* under the *Contract Documents*.
- 12.3.12 The *Contractor* shall commence or correct any deficiency within 2 Working Days after receiving a notice from the *Owner* or the *Consultant*, and shall complete the *Work* as expeditiously as possible, except in the case where the deficiency prevents maintaining security or where basic systems essential to the ongoing business of the *Owner* and/or its tenants cannot be maintained operational as designed. In those circumstances all necessary corrections and/or installations of temporary replacements shall be carried out immediately as an emergency service. Should the *Contractor* fail to provide this emergency service within 8 hours of a request being made during the normal business hours of the *Contractor*, the *Owner* is authorized, notwithstanding GC 3.1, to carry out all necessary repairs or replacements at the *Contractor's* expense.

## **PART 13 OTHER PROVISIONS**

Add new Part 13 OTHER PROVISIONS as follows:

### **GC 13.1 OWNERSHIP OF MATERIALS**

- 13.1.1 Unless otherwise specified, all materials existing at the *Place of the Work* at the time of execution of the *Contract* shall remain the property of the *Owner*. All *Work* and *Products* delivered to the *Place of the Work* by the *Contractor* shall be the property of the *Owner*. The *Contractor* shall remove all surplus or rejected materials as its property when notified in writing to do so by the *Consultant*.

### **GC 13.2 CONSTRUCTION LIENS**

- 13.2.1 In the event that a claim for lien is registered against the *Project* by a *Subcontractor*, *Sub-subcontractor* or *Supplier*, and provided the *Owner* has paid all amounts properly owing under the *Contract*, the *Contractor* shall, at its own expense:
- .1 within 10 calendar days, ensure that any and all claims for lien and certificates of action are discharged, released, or vacated by the posting of security or otherwise; and
  - .2 in the case of written notices of lien, ensure that such notices are withdrawn, in writing.
- 13.2.2 In the event that the *Contractor* fails to conform with the requirements of paragraph 13.2.1, the *Owner* may fulfil those requirements without *Notice in Writing* to the *Contractor* and set off and deduct from any amount owing to the *Contractor*, all costs and associated expenses, including the costs of posting security and all legal fees and disbursements associated with discharging or vacating the claim for lien or certificate of action and defending the action. If there is no amount owing by the *Owner* to the *Contractor*, then the *Contractor* shall reimburse the *Owner* for all of the said costs and associated expenses.
- 13.2.3 Notwithstanding any other provision in the *Contract*, the *Consultant* shall not be obligated to issue a certificate and the *Owner* shall not be obligated to make payment to the *Contractor* if, at the time such certificate or payment was otherwise due:
- .1 a claim for lien has been registered against the *Project* lands, or

- .2 if the *Owner* or mortgagee of the *Project* lands has received written notice of a lien or
  - .3 the *Owner* or *Consultant* reasonably believe that any party has purported to retain title to *Products* or materials in respect of which an application for payment has been made.
- 13.2.4 Without limiting the foregoing, the *Contractor* shall, if requested by the *Owner*, defend, indemnify and save the *Owner* harmless from the amount of all such claims and the costs of defending any and all actions commenced against the *Owner* pursuant to the construction/builder's lien legislation in force at the *Place of the Work*, including the legal costs of the *Owner*, unless the lien was a direct result of a breach of the *Contract* by the *Owner* or the non-payment by the *Owner* of a valid charge or claim under the *Contract*.
- 13.2.5 GC 13.2 – CONSTRUCTION LIENS does not apply to construction/builder's liens claimed by the *Contractor*.

**END OF AMENDMENTS TO CCDC 2 - 2008**