Addendum No. 1
July 20, 2023

Re-Bid Prosser Hamilton Lab Bldg Roof Replacement
Washington State University
Prosser, WA

Project No. 1933-2023
Washington State University
Facilities Services, Capital
Addendum No. 1
Date issued

Re-Bid Prosser Hamilton Lab Bldg Roof Replacement
Washington State University
Prosser, WA

Bid Date: August 3, 2023

1. This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated July 12, 2023, and any prior addenda, as noted below.

2. Please acknowledge receipt of this addendum on the Form of Proposal.

This Addendum consists of twenty-three total pages including the following Attachments:

<table>
<thead>
<tr>
<th>Attachment</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPO Roofing Substitution</td>
</tr>
<tr>
<td>Full Set Drawings</td>
</tr>
<tr>
<td>R-1 – Overflow Pipe Revision</td>
</tr>
<tr>
<td>R-2 – Overflow Pipe Revision</td>
</tr>
</tbody>
</table>

Changes to prior Addenda:
N/A

Changes to Bidding Requirements:
None

Changes to Specifications:
None

Approved Substitution Requests:

<table>
<thead>
<tr>
<th>Drawing or Specification</th>
<th>Item</th>
<th>Acceptable Substitution Manufacturer or Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>07 54 00</td>
<td>TPO Roofing</td>
<td>GAF TOP Membrane Roofing 60 Mils</td>
</tr>
</tbody>
</table>

Changes to Drawings:

DWG 1-1. Full Set Drawings

   Item 1. The drawings originally included in the advertisement were incomplete, bidders are to delete previously issued drawings and replace with complete set issued with this addendum.
DWG 1-2. Drawings A103 and A 104

Item 1. Add the following note: The design goal for the sloped roof system is a minimum roof slope of 3/8”/foot. As noted in specification Section 075323, 2.04, the design to the tapered roof system is the responsibility of the bidder and will be reviewed as a required submittal. The systems shall be designed to meet the requirements of the project details to the greatest extent possible.

DWG 1-3. R1 – Overflow Pipe Revision

Item 1. Provides clarification on the abs overflow pipe within C5 on Drawing A106.

DWG 1-4. R2 – Overflow Pipe Revision

Item 1. Provides clarification on the parapet condition within A1 on Drawing A106.

END OF ADDENDUM No. 1
CSI Form 1.5C

SUBSTITUTION REQUEST
(During the Bid Period)

Project: Prosser Hamilton Lab Roof Replacement

Substitution Request Number: 

From: Matt Stenshoel - GAF

To: Craig Beaumont

Date: 7/19/23

PDA

A/E Project Number: 

Re: Roofing Substitution Request

Contract For: 

Specification Title: TPO Roofing

Description: TPO Membrane Roofing 60 Mil

Section: 075400 Page: 4

Article/Paragraph: 2.01A

Proposed Substitution: GAF TPO Membrane Roofing 60 Mil

Manufacturer: GAF  
Address: 1 Campus Dr, Parsippany, NJ 07054  
Phone: 208-519-1878

Trade Name: GAF  
Model No.: 

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Matt Stenshoel - GAF

Signed by: Matt Stenshoel

Firm: 

Address: Mountain Region Territory Manager - Boise, ID

Telephone: 208-519-1878

A/E’s REVIEW AND ACTION

☑ Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution rejected - Use specified materials.
☐ Substitution Request received too late - Use specified materials.

Signed by: 

Date: 7/20/23

Supporting Data Attached: ☐ Drawings ☒ Product Data ☐ Samples ☐ Tests ☐ Reports ☐
Product Description:
GAF SA Vapor Retarder XL is a self-adhered, vapor-inhibiting membrane designed for use in approved roofing membrane assemblies. It’s composed of a tri-laminated woven polyethylene facer combined with an advanced, high-tack butyl rubber adhesive. The under-face is applied with a split silicone release film that is removed during installation. This uniquely durable product exhibiting high-tensile strength can be left exposed for up to 180 days when installed in accordance with published GAF specifications and details.*

Features and Benefits:
- ASTM E108 Class A and FM 4470 Class 1 Fire Ratings directly over steel deck***
- Designed to be self-sealing.
- Increased adhesion performance provides three times the peel strength compared to self-adhered modified bitumen vapor barriers.
- Use of a primer prior to installation is NOT required.
- Slip-resistant embossed walking surface.
- Extra-large roll size (603 square feet) results in fewer rolls and fewer field seams per job.
- Easy-to-peel, split-release film speeds the application process.
- Standard thickness is 31 mils; also available in 41 mils (contact your local GAF representative for details).
- Direct attachment at curbs and walls on TPO applications (refer to application instructions for approved adhesives).

Applicable Substrates:
GAF SA Vapor Retarder XL is designed to be applied to a variety of properly prepared decks or substrates:
- Steel
- Plywood/OSB
- HD ISO
- Concrete

Application:
GAF SA Vapor Retarder XL can be applied at temperatures as low as 25°F (-3.9°C) provided that the product has been stored in a heated area to ensure it is between 50°F – 100°F (10°C – 37.7°C) at time of installation. It is recommended that GAF SA Vapor Retarder XL be installed with minimum 3” (76.2 mm) side laps and 3” (76.2 mm) end laps.

Applicable Standards:
ASTM D5147, ASTM E2178, ASTM E96

* Refer to the appropriate application and specifications manual for the system being installed. Available at gaf.com.
** Values stated are approximate and subject to normal manufacturing variation. These values are not guaranteed and are provided solely as a guide.
*** Thicker/heavier product available by special request only and sold as SA Vapor Retarder XL40.
**** Refer to www.RoofNav.com for actual assemblies.
Description:

EnergyGuard™ Polyiso Insulation board is made of glass fiber-reinforced cellulosic felt (GRF) facers bonded to a core of polyisocyanurate foam.

Features and Benefits:

- Versatile — Approved component in single ply, BUR and modified bitumen systems, with a variety of attachment methods: mechanically attached, fully adhered, loose laid and ballasted
- Approved for direct application to steel decks
- High insulation value — polyiso insulation has the highest R-value per inch compared to any other type of non-polyiso insulation of equivalent thickness
- Because of its light weight, this material is easy to handle on the jobsite and installs quickly. Easy cutting in the field provides the installer with simplified fabricating on the roof deck
- Excellent dimensional stability, high moisture resistance and low water permeability

Panel Characteristics:

- Available in a variety of thicknesses from 1.0” (25.4 mm) to 4.6” (116 mm) to best suit your specifications
- Available in 4’ x 4’ (1.22 m x 1.22 m) and 4’ x 8’ (1.22 m x 2.44 m) boards
- Flute Fill and other special sizes are available upon request
- Other EnergyGuard™ products available – tapered, CGF facer and non-halogenated. See individual data sheets for more information

Codes & Compliance:

- Meets the requirements of ASTM C1289 Type II, Class 1, Grade 2 (20 psi) and also available in Grade 3 (25 psi)
- FM 4450 / 4470—consult RoofNav.com for specific assemblies
- UL listed to ANSI / UL 790, UL 263, UL 1256
- UL Evaluation Report UL ER1306-03
- See UL Product iQ for details
- Miami-Dade County Approved
- State of Florida Approved
- For additional information, contact GAF at 1-800-766-3411 or designservices@gaf.com

EnergyGuard™ Polyiso
Thermal Values:

<table>
<thead>
<tr>
<th>Size*</th>
<th>R-Value**</th>
<th>Max Flute Span (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0&quot; (25.4 mm)</td>
<td>5.7</td>
<td>2 5/8&quot; (66.7 mm)</td>
</tr>
<tr>
<td>1.2&quot; (30.5 mm)</td>
<td>6.8</td>
<td>2 5/8&quot; (66.7 mm)</td>
</tr>
<tr>
<td>1.5&quot; (38.1 mm)</td>
<td>8.6</td>
<td>4 3/8&quot; (111 mm)</td>
</tr>
<tr>
<td>1.75&quot; (44.5 mm)</td>
<td>10.0</td>
<td>4 3/8&quot; (111 mm)</td>
</tr>
<tr>
<td>2.0&quot; (51 mm)</td>
<td>11.4</td>
<td>4 3/8&quot; (111 mm)</td>
</tr>
<tr>
<td>2.2&quot; (59 mm)</td>
<td>12.6</td>
<td>4 3/8&quot; (111 mm)</td>
</tr>
<tr>
<td>2.3&quot; (58 mm)</td>
<td>13.2</td>
<td>4 3/8&quot; (111 mm)</td>
</tr>
<tr>
<td>2.5&quot; (64 mm)</td>
<td>14.4</td>
<td>4 3/8&quot; (111 mm)</td>
</tr>
<tr>
<td>2.6&quot; (66 mm)</td>
<td>15.0</td>
<td>4 3/8&quot; (111 mm)</td>
</tr>
<tr>
<td>2.8&quot; (71 mm)</td>
<td>16.2</td>
<td>4 3/8&quot; (111 mm)</td>
</tr>
<tr>
<td>3.0&quot; (76 mm)</td>
<td>17.4</td>
<td>4 3/8&quot; (111 mm)</td>
</tr>
<tr>
<td>3.2&quot; (81 mm)</td>
<td>18.6</td>
<td>4 3/8&quot; (111 mm)</td>
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<tr>
<td>3.5&quot; (89 mm)</td>
<td>20.5</td>
<td>4 3/8&quot; (111 mm)</td>
</tr>
<tr>
<td>3.7&quot; (94 mm)</td>
<td>21.7</td>
<td>4 3/8&quot; (111 mm)</td>
</tr>
<tr>
<td>4.0&quot; (102 mm)</td>
<td>23.6</td>
<td>4 3/8&quot; (111 mm)</td>
</tr>
<tr>
<td>4.3&quot; (109 mm)</td>
<td>25.4</td>
<td>4 3/8&quot; (111 mm)</td>
</tr>
<tr>
<td>4.5&quot; (114 mm)</td>
<td>26.6</td>
<td>4 3/8&quot; (111 mm)</td>
</tr>
<tr>
<td>4.6&quot; (117 mm)</td>
<td>27.1</td>
<td>4 3/8&quot; (111 mm)</td>
</tr>
</tbody>
</table>

* Other thicknesses available upon request.
** Long Term Thermal Resistance Values provide a 15-year time weighted average in accordance with CAN/ULC S770.

For optimal roof performance and to prevent thermal bridging GAF recommends installing two layers of Polyiso with staggered joints.

Visit gaf.com
Sustainability — for more information go to gaf.com/green

- Manufactured with EPA-compliant blowing agents containing no CFCs or HCFCs; has zero ozone depletion potential (ODP) and negligible global warming potential (GWP)
- GREENGUARD Gold
- Geen Circle Certified for recycled content
- Potential LEED Credits for Polyiso Use
- Health Product Declaration (HPD)
- Environmental Product Declaration (EPD) (Industry)

Typical Physical Property Data

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST METHOD</th>
<th>MINIMUM VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressive Strength (psi (kPa), min)*</td>
<td>ASTM D1621</td>
<td>Grade 2 – 20 psi (138kPa) Grade 3 – 25 psi (172kPa)</td>
</tr>
<tr>
<td>Dimensional Stability Change (length + width, max)**</td>
<td>ASTM D2126</td>
<td>≤2% max</td>
</tr>
<tr>
<td>Flexural Strength (psi (kPa), min)</td>
<td>ASTM C203</td>
<td>40 psi (275kPa)</td>
</tr>
<tr>
<td>Tensile Strength (psi (kPa), min)</td>
<td>ASTM C209</td>
<td>≥ 500 (24kPa)</td>
</tr>
<tr>
<td>Water Absorption (percent by volume, max)</td>
<td>ASTM E96</td>
<td>&lt;1.5%</td>
</tr>
<tr>
<td>Water Vapor Permeance (perm, max)</td>
<td>ASTM E96 / UL 723</td>
<td>&lt;1.5 perm (57.5ng/Pa•s•m²)</td>
</tr>
<tr>
<td>Service Temperature</td>
<td>ASTM E84 / UL 723</td>
<td>-100° to 250°F (-73.3° to 121.1°C)</td>
</tr>
<tr>
<td>Flame Spread† Index</td>
<td>ASTM E84 / UL 723</td>
<td>&lt; 75*</td>
</tr>
<tr>
<td>Smoke Developed Index</td>
<td>ASTM E84 / UL 723</td>
<td>&lt; 200*</td>
</tr>
</tbody>
</table>

* Foam Core.
** Stated dimensional stability tolerance: Board thickness shall not diminish by more than 2% max.
† These numerical ratings are not intended to reflect hazards presented by these or any other material under actual fire conditions.

Warnings and Limitations

- EnergyGuard™ Polyiso Insulation is a non-structural, non load-bearing material. It is not designed for direct traffic usage unless adequately protected.
- EnergyGuard™ Polyiso Insulation should be stored protected from the elements. Bundle wrap is not for use as waterproofing for boards. No more insulation should be installed than can be completely covered with roofing on the same day.
- As unprotected polyisocyanurate will burn, fire safety precautions should be observed wherever insulation products are used.
- Direct mopping of modified bitumen roofing or built-up roofing (BUR) to EnergyGuard™ Polyiso Insulation is not approved.
- Refer to PIMA Technical Bulletin No. 109 Storage and Handling Recommendations for Polyiso Roof Insulation at www.polyiso.org
- Refer to the application specifications in the current membrane manufacturer's application and specifications manual for proper installation procedures.
Sloped Polyiso with GRF Facers

EnergyGuard™ Tapered Polyiso Insulation is a sloped panel made of glass fiber-reinforced (GRF) cellulosic felt facers bonded to a core of polyisocyanurate foam.

Description:

Features and Benefits:

- Prevents ponding water when properly installed on a low-slope roof by providing slope via a series of both tapered and flat polyiso fill boards
- Versatile — approved component in single-ply, BUR, and modified bitumen systems, with a variety of attachment methods: mechanically attached, fully adhered, loose laid, ballasted
- Highest R-value per inch of any rigid board insulation
- Easy to install — lightweight, easy to cut, easy to handle

Panel Characteristics:

Sizes: 4' x 4' (1.22 m x 1.22 m) - 4' x 8' (1.22 m x 2.44 m) available upon request
Thickness: ½" - 4½" (12.7 mm - 114.3 mm) in a single layer
Slope: 1/16" (1.6 mm), 1/8" (3.2 mm), 3/16" (4.8 mm), 1/4" (6.35 mm), 3/8" (9.5 mm), ½" (12.7 mm)

Codes and Compliance:

- Meets the requirements of ASTM C1289 Type II, Class 1, Grade 2 (20 PSI) and Grade 3 (25 PSI)
- FM Approved consult RoofNav.com for specific assemblies
- Classified by UL in accordance with ANSI/UL 1256, UL 790 and UL 263. Refer to UL Product iQ for specific assemblies
- UL Evaluation Report UL ER1306-03
- Miami-Dade County Product Control Approved
- State of Florida Approved
- For additional information contact GAF at 877-423-7663 or designservices@gaf.com

Tapered Design Team:

Our Tapered Design Group specialists are available within your region to assist you in all aspects of preplanning, design, and training. Reach out at tdg@GAF.com or 866-207-7123.

Our services include:

- Conceptual design assistance
- Quote review and comparison
- Plan and spec review
- Alternate design recommendations
- Job startups, trainings, and presentations

Sustainability:

- Manufactured with EPA-compliant blowing agents containing no CFCs or HCFCs, zero ozone depletion potential (ODP) and negligible global warming potential (GWP)
- Green Circle Certified® for Recycled Content
- Potential LEED® Credits for Polyiso Use
- Health Product Declaration (HPD)
- Environmental Product Declaration (EPD) (Industry)

For more information go to gaf.com/green
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<td>20 psi (138 kPa) or 25 psi (172 kPa)</td>
</tr>
<tr>
<td>Dimensional Stability</td>
<td>ASTM D2126</td>
<td>&lt; 2%</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>ASTM C209</td>
<td>&lt; 1.5%</td>
</tr>
<tr>
<td>Moisture Vapor Transmission</td>
<td>ASTM E96</td>
<td>&lt; 1.5 Perm</td>
</tr>
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<td>Service Temperature</td>
<td></td>
<td>-100° to 250° F (-73.3° to 121.1°C)</td>
</tr>
<tr>
<td>Flame Spread Index</td>
<td>ASTM C84</td>
<td>&lt; 75</td>
</tr>
<tr>
<td>Smoke Developed Index</td>
<td>ASTM C84</td>
<td>&lt; 200</td>
</tr>
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<td>Flexural Strength</td>
<td>ASTM C203</td>
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<tr>
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<td>ASTM C209</td>
<td>≥500 24 kPa</td>
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</table>

*TYPICAL PHYSICAL PROPERTY DATA CHART*

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</tr>
<tr>
<td>Tensile Strength</td>
<td>ASTM C209</td>
<td>≥500 24 kPa</td>
</tr>
</tbody>
</table>

*Availability for these tapered panel systems may vary for each region.

**Foam core**

**Stated dimensional stability tolerance; board thickness shall not diminish by more than 2% max**
Why TPO
• Great Value—Excellent performance at a cost-effective price
• Excellent Seam Strength—Heat-welded seams provide greater seam strength to taped and other seams
• Long-term Weathering—Excellent long-term heat and UV resistance
• Energy Saving—Highly reflective and emissive white roof can help reduce energy costs and urban heat island effect
• CREST Energy Savings Calculator—See your potential savings at cool.gaf.com
• Versatile Application Method

Why GAF EverGuard® TPO
• Outperforms standard TPO in heat aging and UV tests—the best predictors of TPO performance
  - After accelerated heat aging at 275°F (135°C) for 105 days, EverGuard® TPO showed no cracking—while every one of the competitors’ samples had failed! See below:
    - UV testing—Greater than 2.5 times the industry standard [ASTM D6878 weather resistance test]
• Guarantees are available up to 25 years when using EverGuard® TPO 60 mil Membrane.*
• Easier to install due to:
  - Large welding window
  - Most complete line of accessories
  - 10' (3.05 m) wide sheets

Installation
EverGuard® TPO 60 mil Membrane is suitable for all types of single-ply systems:
• Mechanically Attached Application...for a quick and cost-effective system that can be installed practically year-round.
• RhinoBond® Application...can be applied without using adhesives and installed practically year round. Qualifies for the same guarantee length as an adhered system.*
• Adhered Application...can be installed with EverGuard® 1121 Solvent-Based Adhesive, EverGuard® Low VOC Adhesive, or EverGuard® WB181 Water-Based Adhesive for the smoothest appearance. Provides excellent wind uplift performance.

Accessories
Field fabrication of TPO accessories is time-consuming, costly, inconsistent, and can lead to unreliable details that compromise a watertight roofing system. EverGuard® TPO prefabricated accessories deliver consistent quality and eliminate the worry and problems often associated with field fabrication. They can also boost productivity up to 200%,** while reducing installed cost by up to 12%.

* See applicable guarantee for complete coverage and restrictions.
** Based on GAF estimate to field-fabricate flashing details.
## Applicable Standards

UL Listed, FM Approved, Miami-Dade County Product Control Approved, State of Florida Approved, CRRC Rated, Title 24 Compliant*, ENERGY STAR® Certified**, ASTM D6878.

### Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>ASTM Test Method</th>
<th>ASTM D6878 Minimum</th>
<th>EverGuard® Typical Test Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Thickness</td>
<td>ASTM D751</td>
<td>0.039&quot; (min.) (0.99 mm)</td>
<td>0.060&quot; (1.52 mm)</td>
</tr>
<tr>
<td>Breaking Strength</td>
<td>ASTM D751 Grab Method</td>
<td>220 lbf/in. (38.5 kn/m)</td>
<td>305 lbf x 290 lbf (454 x 432 kg/m)</td>
</tr>
<tr>
<td>Factory Seam Strength</td>
<td>ASTM D751</td>
<td>66 lbf (98.34 kg/m)</td>
<td>135 lbf (membrane failure) (201.1 kg/m)</td>
</tr>
<tr>
<td>Elongation at Break</td>
<td>ASTM D751</td>
<td>15%</td>
<td>30%</td>
</tr>
<tr>
<td>Heat Aging</td>
<td>ASTM D573</td>
<td>90% Retention of Breaking Strength and Elongation at Break</td>
<td>100%</td>
</tr>
<tr>
<td>Tear Strength</td>
<td>ASTM D751 Grab Method</td>
<td>55 lbf (81.95 kg/m)</td>
<td>75 lbf x 130 lbf (111.8 x 193.7 kg/m)</td>
</tr>
<tr>
<td>Puncture Resistance</td>
<td>FTM 101C Method 2031</td>
<td>Not Established</td>
<td>380 lb. (172 kg)</td>
</tr>
<tr>
<td>Cold Brittleness</td>
<td>ASTM D2137</td>
<td>40°C</td>
<td>40°C</td>
</tr>
<tr>
<td>Permeance</td>
<td>ASTM E96</td>
<td>Not Established</td>
<td>0.08 Perms</td>
</tr>
<tr>
<td>Dimensional Change</td>
<td>ASTM D1204 @158°F (70°C), 6 hrs.</td>
<td>+/-1%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>ASTM D471 @158°F (70°C), 1 week</td>
<td>+/-3.0% (top coating only)</td>
<td>0.7%</td>
</tr>
<tr>
<td>Hydrostatic Resistance</td>
<td>ASTM D751 Method D</td>
<td>Not Established</td>
<td>430 psi</td>
</tr>
<tr>
<td>Ozone Resistance</td>
<td>ASTM D1149</td>
<td>No visible deterioration @ 7 x magnification</td>
<td>No visible deterioration @ 7 x magnification</td>
</tr>
<tr>
<td>SRI (Solar Reflectance Index)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Initial/Aged</td>
<td>ASTM C1549</td>
<td>N/A</td>
<td>94/81 83 Aged Title 24</td>
</tr>
<tr>
<td>Reflectivity (white) Initial/Aged</td>
<td>ASTM E903</td>
<td>N/A</td>
<td>0.76/0.68</td>
</tr>
<tr>
<td>Emissivity (white) Initial/Aged</td>
<td>ASTM C1371</td>
<td>N/A</td>
<td>0.90/0.83 81.9% Reflectance</td>
</tr>
<tr>
<td>Weather Resistance</td>
<td>ASTM G155/D6878</td>
<td>10,080 KJ/(m² .nm) at 340 nm</td>
<td>&gt;25,000 KJ/(m² .nm) at 340 nm</td>
</tr>
<tr>
<td>Heat Aging</td>
<td>ASTM D573</td>
<td>240°F (115°C) for 32 weeks</td>
<td>60 weeks</td>
</tr>
<tr>
<td>Thickness Above Scrim</td>
<td>ASTM D7635</td>
<td>Min 30% of Total Thickness</td>
<td>22.1 mil (Nominal)</td>
</tr>
</tbody>
</table>

### Guarantee

Up to 25 years

*White, Energy Gray, and Energy Tan Membranes Only  
**ENERGY STAR® only valid in the U.S.

## Product Data

### Roll Size

<table>
<thead>
<tr>
<th>Roll Size</th>
<th>5’ x 100’</th>
<th>6’ x 100’</th>
<th>8’ x 100’</th>
<th>10’ x 100’</th>
<th>12’ x 100’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1.52 x 30.5 m)</td>
<td>(1.83 x 30.5 m)</td>
<td>(2.44 x 30.5 m)</td>
<td>(3.05 x 30.5 m)</td>
<td>(3.65 x 30.5 m)</td>
</tr>
<tr>
<td></td>
<td>(500 sq. ft. [46.5 sq.m])</td>
<td>(600 sq. ft. [55.74 sq.m])</td>
<td>(800 sq. ft. [74.3 sq.m])</td>
<td>(1,000 sq. ft. [92.9 sq.m])</td>
<td>(1,200 sq. ft. [111.48 sq.m])</td>
</tr>
<tr>
<td>Roll Weight</td>
<td>162 lb. (73.5 kg)</td>
<td>194.4 lb. (88.2 kg)</td>
<td>257 lb. (117 kg)</td>
<td>322 lb. (146.1 kg)</td>
<td>386.4 lb. (175.3 kg)</td>
</tr>
<tr>
<td>Colors</td>
<td>White, Tan, Gray</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Storage

Store rolls on their sides on pallets or shelving in a dry area.

### Safety Warning

Membrane rolls are heavy. Position and install by at least two people.

Note: Membrane rolls shipped horizontally on pallets, stacked pyramid-style and banded. Product sizes, dimensions, and widths are nominal values and are subject to normal manufacturing/packaging tolerance and variation.

*RhinoBond® is a registered trademark of OMG.*
Description
EverGuard® 1121 Bonding Adhesive is a contact-type bonding adhesive specially designed for bonding TPO single-ply roofing membranes and flashings to various roofing substrates. EverGuard® 1121 Bonding Adhesive is a general purpose rubber-based bonding adhesive for attaching TPO-based single-ply membranes to various substrates, including polyisocyanurate insulation and gypsum-based cover boards.

Features and Benefits
- Excellent coverage up to 70 sq ft per gallon of bonded membrane
- Fast-drying solvent system
- Easy application using roller or brush
- Spray application also possible
- High initial tack

Physical Properties
- **Base:** Synthetic polymer
- **Solvent:** Hydrocarbon blend
- **Flash Point:** 0°F [-18°C]
- **Weight/Gallon:** 7.4 lbs
- **Color:** Yellow
- **Viscosity:** 2,300 - 2,700 cps
- **Coverage:** 50-70 sq. ft./gallon
- **Total Solids:** 25% +/- 2.5%
- **Voc:** 611 grams/liter
- **Shelf Life:** 1 year, unopened
- **Open Time:** Up to 60 minutes
- **Dry Time:** 5 – 15 minutes
- **Application:** Roller, brush, or spray

Ordering Information
- **Item Number:** 77800OM
- **Packaging:** 5 gallon pails
- **Weight:** 37 lbs/pail
- **Shipping:** 45 pails per pallet
EverGuard® Diamond Pledge™
NDL Roof Guarantee

THE GUARANTEE/SOLE AND EXCLUSIVE REMEDY
GAF guarantees to you, the owner of the building described above, that GAF will provide "Edge To Edge" protection by repairing leaks through the GAF roofing membrane, liquid-applied membrane coating, built-up roofing, high wall waterproofing flashing, insulation, expansion joint covers, parapet accessories, and metal flashings used by the contractor of record that were designed and installed in accordance with an appropriate ES-1 certified edge detail (the "GAF Roofing Materials") resulting from a manufacturing defect, ordinary wear and tear, or workmanship in installing the GAF Roofing Materials. There is no dollar limit on covered repairs. Leaks caused by any non-GAF materials, such as the roof deck or non-GAF insulation, are not covered.

GUARANTEE PERIOD
This guarantee ends on the expiration date listed above. NOTE: Lexan® flashings are covered by this guarantee ONLY for the first ten years.

OWNER RESPONSIBILITIES
Preventive Maintenance and Repairs
A. You must perform regular inspections and maintenance and keep records of this work.
B. To keep this guarantee in effect, you must repair any conditions in the building structure resulting in water leakage or damage that are not included in the guarantee.
C. You may make temporary repairs to minimize damage to the building or its contents in an emergency, at your sole expense. These repairs will not result in cancellation of the guarantee as long as they are reasonable and customary and do not result in permanent damage to the GAF Roofing Materials.

EXCLUSIONS FROM COVERAGE
(e.g., items that are not caused by ordinary wear and tear or are beyond the control of GAF)
This guarantee does NOT cover conditions other than those listed. This guarantee also does NOT cover costs caused by any of the following:
1. Inadequate roof maintenance, that is, the failure to follow the Schedule Maintenance Checklist provided with this guarantee or any other list issued by GAF or GAF Roofing Services.
2. Unusual weather conditions or natural disasters, unless specifically covered by insurance.
3. Impact of foreign objects or physical damage caused by any intentional or negligent act, accident, misuse, or abuse.
4. Damage to the roof constructed of any non-GAF Roofing Materials due to movement, causing or other failure at the roof deck or building. Improper installation or failure of any non-GAF insulation or materials; condensation or infiltration of water at any point through or around the walls, ceiling, building structure, or surrounding materials except where high wall waterproofing flashings are installed.
5. Traffic of any nature on the roof unless used in accordance with GAF published application instructions.
6. Attacks by pests in the GAF Roofing Materials that have not resulted in leaks.
7. Changes in the use of the building or any repairs, installation of any overboarding, modifications, or additions to the GAF Roofing Materials after the roof is completed, unless written approval is obtained from GAF.
8. Exposure to sustained high-temperature conditions; however, for systems utilizing Events and Extremes TPO membrane, exposure in excess of 145°F.

TRANSFERABILITY
You may transfer or assign this guarantee to a subsequent owner of this building for the remaining term only if: (1) the request is in writing to GAF at the address listed below within 60 days after ownership transfer; (2) you make any repairs to the GAF Roofing Materials or other roofing or building components that are identified by GAF after an inspection as necessary to preserve the integrity of the GAF Roofing Materials; and (3) you pay an assignment fee of $500. This guarantee is NOT otherwise transferable or assignable by contract or operation of law, either directly or indirectly.

LIMITATION OF DAMAGES; MEDIATION; JURISDICTION; CHOICE OF LAW
This guarantee is EXPRESSLY IN LIEU of ANY OTHER GUARANTEE OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, and at no other obligations or liabilities of GAF, whether any claim against it is based upon negligence, breach of warranty, or any other theory. In no event shall GAF be liable for any CONSEQUENTIAL OR INCIDENTAL DAMAGES of any kind, including, but not limited to, interior or exterior damages and/or mold growth.

The parties agree that, as a condition precedent to litigation, any controversy or claim relating to this guarantee shall be first submitted to mediation before a mutually acceptable mediator unless GAF, at its sole option, elects to waive said requirement. In the event that mediation is unsuccessful, or is waived by GAF, the parties agree that neither one will commence or prosecute any lawsuit or proceedings other than before the appropriate state or federal court in the State of New Jersey. This guarantee shall be governed by the laws of the State of New Jersey, without regard to principles of conflicts of laws. Each party irrevocably consents to the jurisdiction and venue of the above identified courts.

NOTE: GAF shall have no obligation under this guarantee unless and until all bills for installation and supplies have been paid in full to the roofing contractor and materials suppliers, and the guarantee charge has been paid to GAF.

By:
Authorized Signature

GAF
1 CAMPUS DRIVE
PASSEY, NJ 08754

Visit gaf.com
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We protect what matters most
GENERAL DEMOLITION NOTES:

1. Before demolition, the design team will inspect the existing roof structure for any potential hazards or obstructions that may affect the safety of the site. All existing structural elements shall be left intact unless specified otherwise in the demolition plan.

2. The design team recommends wearing appropriate personal protective equipment (PPE) including hard hat, safety glasses, and hearing protection.

3. The design team will provide project-specific safety protocols and procedures.

4. Existing roof components, such as skylights, vents, and parapets, may require additional support or protection during demolition.

ABBREVIATION KEY:

A. REMOVE EXISTING ROOFING AND INSULATION DOWN TO EXISTING CONCRETE ROOF DECK
B. REMOVE AND LEGALLY DISPOSE OF ALL DEMOLITION DEBRIS; REMOVE FROM ROOF DAILY
C. PROTECT EXISTING ITEMS TO REMAIN, BE RELOCATED, RE-INSTALLED OR SALVAGED
D. DO NOT ALLOW DEMOLITION WORK TO ALTER THE INTEGRITY OF THE EXISTING STRUCTURE, MECHANICAL, PLUMBING OR ELECTRICAL FEATURES
E. PROTECT ALL ADJOINING BUILDINGS, LANDSCAPE AND EXISTING CONDITIONS DURING CONSTRUCTION
F. REMOVE AND LEGALLY DISPOSE OF ALL DEMOLITION DEBRIS; REMOVE FROM ROOF DAILY
G. PROTECT EXISTING ITEMS TO REMAIN, BE RELOCATED, RE-INSTALLED OR SALVAGED
H. DO NOT ALLOW DEMOLITION WORK TO ALTER THE INTEGRITY OF THE EXISTING STRUCTURE, MECHANICAL, PLUMBING OR ELECTRICAL FEATURES
I. PROTECT ALL ADJOINING BUILDINGS, LANDSCAPE AND EXISTING CONDITIONS DURING CONSTRUCTION
J. REMOVE EXISTING ROOFING AND INSULATION DOWN TO EXISTING CONCRETE ROOF DECK
K. REMOVE AND LEGALLY DISPOSE OF ALL DEMOLITION DEBRIS; REMOVE FROM ROOF DAILY
L. PROTECT EXISTING ITEMS TO REMAIN, BE RELOCATED, RE-INSTALLED OR SALVAGED
M. DO NOT ALLOW DEMOLITION WORK TO ALTER THE INTEGRITY OF THE EXISTING STRUCTURE, MECHANICAL, PLUMBING OR ELECTRICAL FEATURES
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X. PROTECT ALL ADJOINING BUILDINGS, LANDSCAPE AND EXISTING CONDITIONS DURING CONSTRUCTION
Y. REMOVE EXISTING ROOFING AND INSULATION DOWN TO EXISTING CONCRETE ROOF DECK
Z. REMOVE AND LEGALLY DISPOSE OF ALL DEMOLITION DEBRIS; REMOVE FROM ROOF DAILY
AA. PROTECT EXISTING ITEMS TO REMAIN, BE RELOCATED, RE-INSTALLED OR SALVAGED
BB. DO NOT ALLOW DEMOLITION WORK TO ALTER THE INTEGRITY OF THE EXISTING STRUCTURE, MECHANICAL, PLUMBING OR ELECTRICAL FEATURES
CC. PROTECT ALL ADJOINING BUILDINGS, LANDSCAPE AND EXISTING CONDITIONS DURING CONSTRUCTION

EXISTING ROOF SLOPE - APPROX. 1/4" PER FT. - BUILT UP OVER FLAT CONCRETE SLAB

EXISTING ROOF SLOPE - APPROX. 1/4" PER FT. - BUILT UP OVER FLAT CONCRETE SLAB

EXISTING ROOF SLOPE - APPROX. 1/4" PER FT. - BUILT UP OVER FLAT CONCRETE SLAB

REMOVE EXISTING ROOFING AND INSULATION DOWN TO EXISTING STRUCTURAL SUBSTRATA BELOW EXISTING ROOFING VARIES - SEE NOTES ON DEMOLITION PLAN.

PROTECT EXISTING ITEMS TO REMAIN, BE RELOCATED, RE-INSTALLED OR SALVAGED.

DO NOT ALLOW DEMOLITION WORK TO ALTER THE INTEGRITY OF THE EXISTING STRUCTURE, MECHANICAL, PLUMBING OR ELECTRICAL FEATURES.

PROTECT ALL ADJOINING BUILDINGS, LANDSCAPE AND EXISTING CONDITIONS DURING CONSTRUCTION.

REMOVE AND LEGALLY DISPOSE OF ALL DEMOLITION DEBRIS; REMOVE FROM ROOF DAILY.
1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION.

2. DO NOT SCALE DRAWINGS - FIELD VERIFY ALL DIMENSIONS AND CONDITIONS.

3. VERIFY ALL BUILDING UTILITIES, PLUMBING AND ELECTRICAL SERVING ROOF TOP EQUIPMENT PRIOR TO THE PERFORMANCE OF THE WORK, THE CONTRACTOR SHALL NOTIFY FACILITIES SERVICES - CAPITAL PLANNING AND DEVELOPMENT - PROJECT MANAGER FOR RESOLUTION.

4. VERIFY ALL BUILDING UTILITIES, PLUMBING AND ELECTRICAL SERVING ROOF TOP EQUIPMENT PRIOR TO THE START OF WORK. SHOULD EXISTING UTILITIES POSE A SAFETY THREAT OR INTERFERE WITH THE PERFORMANCE OF THE WORK, THE CONTRACTOR SHALL NOTIFY FACILITIES SERVICES - CAPITAL.

5. NEW WORK SHALL ALIGN/BLEND WITH AND TIE TO EXISTING REMAINING WORK TO REMAIN.

6. ALL MATERIALS SHALL BE NEW UNLESS NOTED OTHERWISE.

7. DO NOT CONCENTRATE MATERIAL LOADS ON EXISTING ROOF.

8. ASSUME THE BUILDINGS AND ADJACENT BUILDINGS WILL BE OCCUPIED DURING CONSTRUCTION AND MUST BE MAINTAINED OPERATIONAL. NOTIFY FACILITIES SERVICES - CAPITAL PLANNING AND DEVELOPMENT - PROJECT MANAGER FOR IMMEDIATE REVIEW.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WEATHER TIGHTNESS, SHALL INSPECT AND ACCEPT THE WORK.

TYPICAL ROOF ASSEMBLIES

A103 - SHEET 4 OF 4

FILE: C:\Users\cdbea\Dropbox\CAD Files\WSU_SW_2023\Hamilton Roof.dwg

1/8"=1'-0"
C1  TYPICAL PARAPET DETAIL - CONCRETE ROOF DECK

C5  TYPICAL PARAPET DETAIL - METAL ROOF DECK

A1  TYPICAL CURB DETAIL - SKYLIGHTS

A5  TYPICAL CURB DETAIL
Typical Roof Drain Detail - Concrete Roof Deck

C1

Typical Roof Drain Detail - Metal Roof Deck

C5

Overflow Scupper Detail

A1

Wall Base Detail at Penthouse

A5

Note: All existing roof drains piping is to be "snaked" to outlet point prior to installation of new roof drain inserts.

60 Mil Non-Reinforced EPDM Roofing Membrane - Wrap over roof edge as indicated

Pressure-Sensitive Elastomeric Flashing

6" Lap Sealant

5/8" Roof Board

Tapered Polyisocyanurate Insulation

40 Mil Composite Vapor Barrier

Ice and Water Shield @ Roof Drain Sump

Existing Concrete Roof Deck - Note Thickness Varies

Water Cut-Off Mastic

5/8" Roof Board

Tapered Polyisocyanurate Insulation

40 Mil Composite Vapor Barrier

EPDM Roofing Membrane

3/8"/Foot Roof Slope

Roof Drain

Aluminum Retrofit Roof Drain

NOTE: All existing roof drains piping is to be "snaked" to outlet point prior to installation of new roof drain inserts.

2" Dia. ABS Overflow Pipe - Invert to be 2" above R.D. Invert - Provide Screen on exposed ends

Cont. Sealant around Pipe Scupper Return

See Detail 1/A5 (TYP.)

Typical Parapet Condition - 2" Dia. ABS Pipe Overflow under insulation - Notch existing parapet as required

Existing Metal Roof Deck

5/8" Roof Board

Tapered Polyisocyanurate Insulation

(extend vapor barrier up concrete wall to roof termination)

Pressure Sensitive Adhesive

60 Mil Non-Reinforced EPDM Roofing Membrane - Bonding Adhesive

Existing Metal Roof Deck

Set in bonding adhesive

60 Mil Non-Reinforced EPDM Roofing Membrane - Wrap over roof edge as indicated

Existing Penthouse Wall

Pressure-sensitive Wall Construction

Field verify wall construction
OVERFLOW PIPE REVISION

3"=1'-0"  5/4/23
PROSSER HAMILTON LAB BLDG. ROOF REPLACEMENT