



HISTORIC PRESERVATION COMMISSION

Marc Elrich
County Executive

Robert K. Sutton
Chairman

Date: June 6, 2024

MEMORANDUM

TO: Rabbiah Sabbakhan, DPS Director Department of
Permitting Services

FROM: Chris Berger
Historic Preservation Section
Maryland-National Capital Park & Planning Commission

SUBJECT: Historic Area Work Permit #1070348 - Replacement roof

The Montgomery County Historic Preservation Commission (HPC) has reviewed the attached application for a Historic Area Work Permit (HAWP). This application was **approved** by the HPC staff.

The HPC staff has reviewed and stamped the attached construction drawings.

THE BUILDING PERMIT FOR THIS PROJECT SHALL BE ISSUED CONDITIONAL UPON ADHERENCE TO THE ABOVE APPROVED HAWP CONDITIONS AND MAY REQUIRE APPROVAL BY DPS OR ANOTHER LOCAL OFFICE BEFORE WORK CAN BEGIN.

Applicant: Mark Aebig
Address: 12 High St., Brookeville

This HAWP approval is subject to the general condition that the applicant will obtain all other applicable Montgomery County or local government agency permits. After the issuance of these permits, the applicant must contact this Historic Preservation Office if any changes to the approved plan are made. Once work is complete the applicant will contact Chris Berger at 301-495-4571 or chris.berger@montgomeryplanning.org to schedule a follow-up site visit.





HISTORIC PRESERVATION COMMISSION

HAWP # _____ at: _____

submitted _____

has been reviewed and determined that the proposal fits into the following category/categories:

Repair or replacement of a masonry foundation with new masonry materials that closely match the original in appearance;

Installation of vents or venting pipes in locations not visible from the public right-of-way;

New gutters and downspouts;

Removal of vinyl, aluminum, asbestos, or other artificial siding when the original siding is to be repaired and/or replaced in kind;

Removal of accessory buildings that are not original to the site or non-historic construction;

Repair or replacement of missing or deteriorated architectural details such as trim or other millwork, stairs or stoops, porch decking or ceilings, columns, railings, balusters, brackets shutters, etc., with new materials that match the old in design, texture, visual characteristics, and, where possible materials, so long as the applicant is able to provide one extant example, photographic evidence, or physical evidence that serves as the basis for the work proposed;

Construction of wooden decks that are at the rear of a structure and are not visible from a public right-of-way;

Roof replacement with -compatible roofing materials, or with architectural shingles replacing 3-Tab asphalt shingles;

Installation of storm windows or doors that are compatible with the historic resource or district;

Repair, replacement or installation of foundation-level doors, windows, window wells, and areaways, or foundation vents, venting pipes, or exterior grills that do not alter the character-defining features and/or the historic character of the resource;

Construction of fences that are compatible with the historic site or district in material, height, location, and design;

Fence is lower than 48" in front of rear wall plane;

Construction of walkways, parking pads, patios, driveways, or other paved areas that are not visible from a public right-of-way and measure no more than 150 square feet in size;

Replacement of existing walkways, parking pads, patios, driveways, or other paved areas with materials that are compatible with the visual character of the historic site and district and that are no greater than the dimensions of the existing hardscape;

Construction of small accessory buildings no larger than 250 square feet in size that are not visible from the public right-of-way;

Installations of skylights on the rear of a structure that will not be visible from the public right-of-way, and would not remove or alter character-defining roof materials;

Installation of solar panels and arrays in locations that are not readily visible from the public right-of-way or that are designed so as to have a minimal impact on the historic resource or the historic district (e.g., systems that are ground-mounted in areas other than the front or side yard of a corner lot, located on accessory or outbuildings, on non-historic additions, or on rear facing roof planes);

Installation of car charging stations in any location on a property or in the right-of-way;

Installation of satellite dishes;

Removal of trees greater than 6" in diameter (d.b.h.) that are dead, dying, or present an immediate hazard.

Removal of trees greater than 6" in diameter (d.b.h.) in the rear of the property that will not impact the overall tree canopy of the surrounding district or historic site;

Replacement tree required as a condition; and,

Other minor alterations that may be required by the Department of Permitting Services post-Commission approval that would have no material effect on the historic character of the property.

Staff finds the proposal complies with Chapter 24A, the Secretary of the Interior's Standards for Rehabilitation, and any additional requisite guidance. Under the authority of COMCOR No. 24A.04.01, this HAWP is approved by Christopher J. Berger on _____. The approval memo and stamped drawings follow.



APPLICATION FOR HISTORIC AREA WORK PERMIT
HISTORIC PRESERVATION COMMISSION
301.563.3400

FOR STAFF ONLY:
HAWP#
DATE ASSIGNED

APPLICANT:

Name:
Address:
Daytime Phone:
E-mail:
City:
Zip:
Tax Account No.:

AGENT/CONTACT (if applicable):

Name:
Address:
Daytime Phone:
E-mail:
City:
Zip:
Contractor Registration No.:

REVIEWED

By Chris Berger at 10:50 am, Jun 06, 2024

LOCATION OF BUILDING/PREMISE: MIHP # of Historic Property

Is it in a Historic District? Yes/District Name
No/Individual Site Name
Is there a Trust/Environmental Easement on the Property? If YES, include a copy of the Easement Holder supporting this application.
Are there other Approvals /Reviews Required as part of this Application? (Code, etc.?) If YES, include information on these reviews as follows:

APPROVED
Montgomery County
Historic Preservation Commission
[Signature]

Building Number:
Street:
Town/City:
Nearest Cross Street:
Lot:
Block:
Subdivision:
Parcel:

TYPE OF WORK PROPOSED: See the checklist on Page 4 to verify that all supporting items for proposed work are submitted with this application. Incomplete Applications will not be accepted for review. Check all that apply:

- New Construction
Addition
Demolition
Grading/Excavation
Deck/Porch
Fence
Hardscape/Landscape
Roof
Shed/Garage/Accessory Structure
Solar
Tree removal/planting
Window/Door
Other:

I hereby certify that I have the authority to make the foregoing application, that the application is correct and accurate and that the construction will comply with plans reviewed and approved by all necessary agencies and hereby acknowledge and accept this to be a condition for the issuance of this permit.

Signature of owner or authorized agent

Date

HAWP APPLICATION: MAILING ADDRESSES FOR NOTIFYING
[Owner, Owner's Agent, Adjacent and Confronting Property Owners]

Owner's mailing address

Owner's Agent's mailing address

REVIEWED

By Chris Berger at 10:50 am, Jun 06, 2024

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Description of Property: Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:

Description of Work Proposed: Please give an overview of the work to be undertaken:

REVIEWED

By Chris Berger at 10:50 am, Jun 06, 2024

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Historic Preservation Commission



Robert H. Miller

Work Item 1: _____	
Description of Current Condition:	Proposed Work:

Work Item 2: _____	
Description of Current Condition:	Proposed Work:

REVIEWED
By Chris Berger at 10:50 am, Jun 06, 2024

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Montgomery County
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Work Item 3: _____	
Description of Current Condition:	Proposed Work:

**HISTORIC AREA WORK PERMIT
CHECKLIST OF
APPLICATION REQUIREMENTS**

	Required Attachments						
Proposed Work	I. Written Description	2. Site Plan	3. Plans/Elevations	4. Material Specifications	5. Photographs	6. Tree Survey	7. Property Owner Addresses
New Construction	*	*	*	*	*	*	*
Additions/Alterations	*	*	*	*	*	*	*
Demolition	*	*	*		*		*
Deck/Porch	*	*	*	*	*	*	*
Fence/Wall	*	*	*	*	*	*	*
Driveway/Parking Area	*	*		*	*	*	*
Grading/Excavation/Landscaping	*	*		*	*	*	*
Tree Removal	*	*		*	*	*	*
Siding/ Roof Changes	*	*	*	*	*		*
Window/Door Changes	*	*	*	*	*		*
Masonry Repair/Repoint	*	*	*	*	*		*
Signs	*	*	*	*	*		*

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REVIEWED
By Chris Berger at 10:50 am, Jun 06, 2024

From: [Mark Aebig](#)
To: [Berger, Chris](#)
Subject: Re: 12 High Street, Brookeville - HAWP No. 1070348
Date: Monday, June 3, 2024 10:50:58 AM

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

The proposal from our contractor specs a McElroy 26 gauge 17" wide panel with a 1" seam height to be installed in historic fashion with 2" folded eave tails (drip edge), double rolled ridge and valleys

On Mon, Jun 3, 2024, 9:40 AM Berger, Chris <Chris.Berger@montgomeryplanning.org> wrote:

Good morning,

Yes, we still need specifications for the metal panel to be selected.

This will not be reviewed at the June 12 meeting, but it appears staff can approve administratively once you select a design for the metal panels.

Chris Berger, AICP

Cultural Resources Planner III

Montgomery County Planning Department

2425 Reedie Drive, 13th Floor, Wheaton, MD 20902

Chris.Berger@montgomeryplanning.org

Office: 301-495-4571

REVIEWED

By Chris Berger at 10:50 am, Jun 06, 2024

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From: Mark Aebig <aebigm@gmail.com>
Sent: Monday, June 3, 2024 8:16 AM
To: Berger, Chris <Chris.Berger@montgomeryplanning.org>
Subject: Re: 12 High Street, Brookeville - HAWP No. 1070348

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links,

or responding.

Mr Berger

Yes it will be a full replacement. Do you still need material from me.

Also I did not see this permit listed on the 6/12 agenda document on line. Is it going to be reviewed then?

Thanks

MAebig

On Wed, May 29, 2024, 10:48 AM Berger, Chris
<Chris.Berger@montgomeryplanning.org> wrote:

Thank you for these materials. It appears all the sections of roofs, including the existing standing seam roof section next to the steeple, will be replaced. Is that correct?

We also need the specifications for the specific metal panel to be installed. Perhaps it will be one of these: <https://www.berridge.com/products/standing-seam-systems/>

Chris Berger, AICP

Cultural Resources Planner III

Montgomery County Planning Department

2425 Reddie Drive, 13th Floor, Wheaton, MD 20902

Chris.Berger@montgomeryplanning.org

Office: 301-495-4571

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By Chris Berger at 10:50 am, Jun 06, 2024

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From: Mark Aebig <aebigm@gmail.com>
Sent: Tuesday, May 28, 2024 6:06 PM
To: Berger, Chris <Chris.Berger@montgomeryplanning.org>
Subject: Re: 12 High Street, Brookeville - HAWP No. 1070348

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links,

or responding.

On Tue, May 28, 2024, 2:37 PM Berger, Chris
<Chris.Berger@montgomeryplanning.org> wrote:

Hello,

Staff has received your application to replace the roof at Salem United Methodist Church, but we need more information before we can approve the work. Please provide the following:

- Photos of the existing roof.
- Specifications for the proposed roof.
- A roof plan that shows which areas of the roof will be changed, if not all sections of the building's roof will be replaced.

You can email me that information.

Chris Berger, AICP

Cultural Resources Planner III

Montgomery County Planning Department

2425 Reedie Drive, 13th Floor, Wheaton, MD 20902

Chris.Berger@montgomeryplanning.org

Office: 301-495-4571

REVIEWED

By Chris Berger at 10:50 am, Jun 06, 2024

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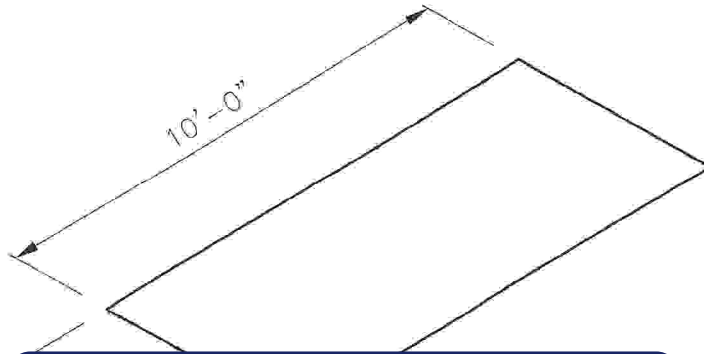
Montgomery County

Historic Preservation Commission



Flat Sheet / Slit Coil


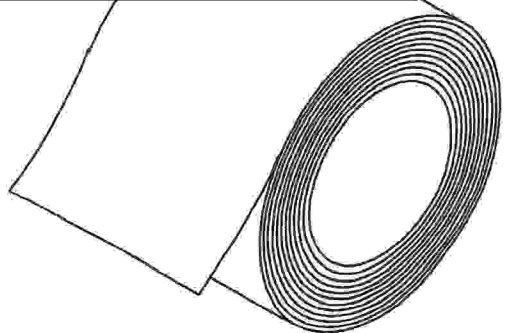
Product Data



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COIL STOCK

Applications

Steel Flat Sheets come in standard lengths of 10'-0" and standard widths of: 41 9/16", 44 1/2" and 48 3/8".

Aluminum Flat Sheets come in standard lengths of 10'-0" and standard widths of:

- 0.032" Aluminum - 41 9/16" and 48"
- 0.040" Aluminum - 48" only

Please contact your McElroy Metal representative for availability per producing plant.

Material

- Availability - *22 GA. ASTM A792 (50 ksi steel) AZ55 - Bare
 AZ50 - Painted
- 24 GA. ASTM A792 (50 ksi steel) AZ55 - Bare
 AZ50 - Painted
- 26 GA. ASTM A792 (50 ksi steel) AZ55 - Bare
 AZ50 - Painted
- **29 GA. ASTM A792 (37 ksi steel) AZ55 - Bare
 AZ50 - Painted
- 0.032" Aluminum ASTM B209 Alloy 3003 H14
- 0.040" Aluminum ASTM B206 Alloy 3003 H14

*Note: Check Availability with your McElroy Metal Representative.
 **Note: Available in 48 3/8" wide coil only.

Slit Coil

Master Coil Slitting in the following plants:
 Adelanto, CA
 Clinton, IL
 Houston, TX
 Peachtree City, GA
 Sunnyvale, TX
 Winchester, VA

Finishes

Acrylic Coated Galvalume®
 Fluoropolymer (Kynar 500® PVDF resin-based)
 Siliconized Polyester and Polyester

Oil canning is inherent in all metal and is not cause for rejection.

NOTE:

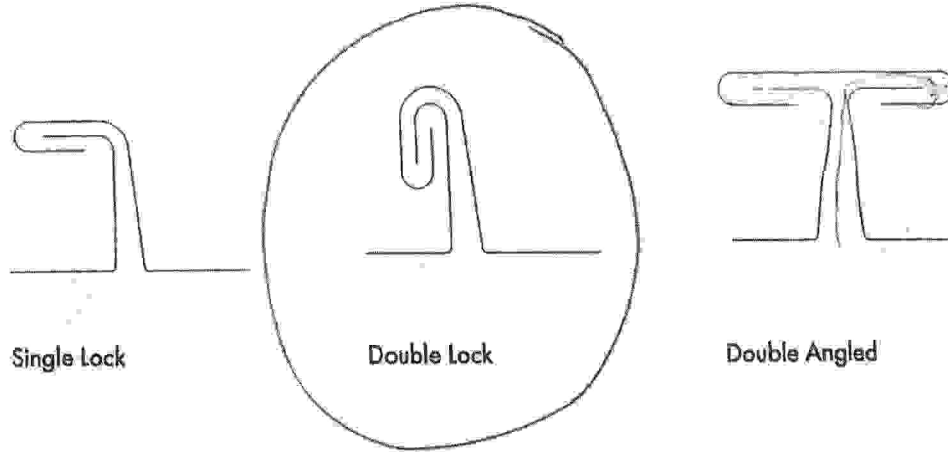
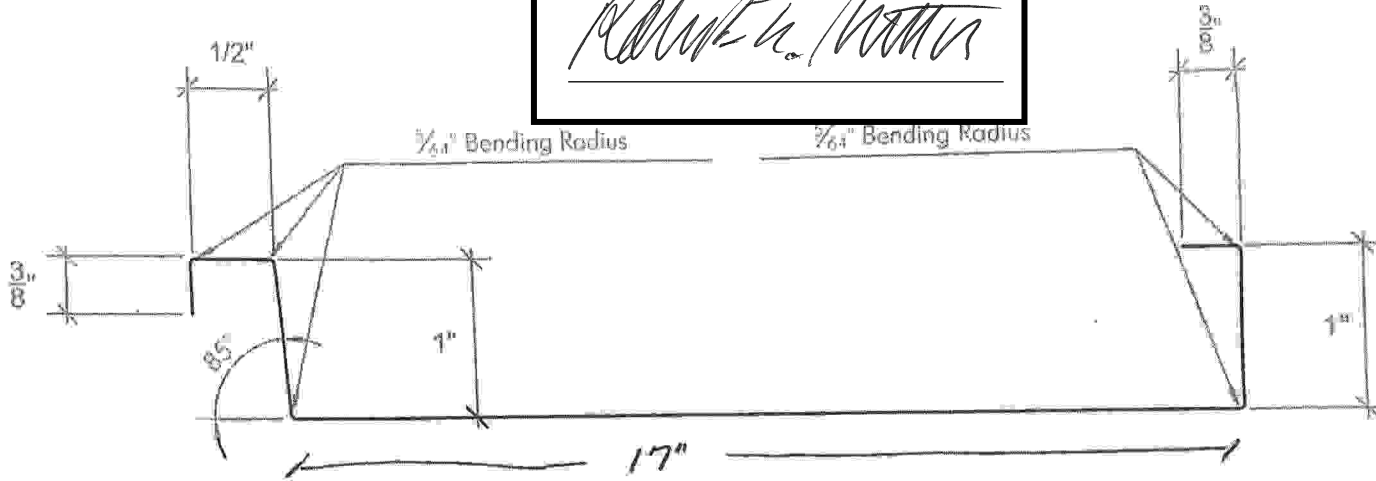
All data represented on this sheet may not be applicable to all widths and gauges. Please contact McElroy Metal for more information.

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By Chris Berger at 10:52 am, Jun 06, 2024

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on site pan formed crimped in place double lock
standing seam mill finish galvalume AZ55

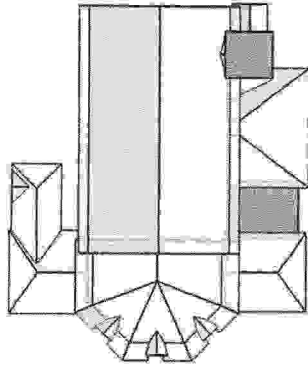
 RHEINZINK

SEAM TECHNIQUES, WORKSHOP A - BASICS
DETAILED CONSTRUCTION - SEAM DESIGNS

Scanned with CamScanner

12 High St, Brookeville, MD 20833-2500

Report: 49740986



In this 3D model, facets appear as semi-transparent to reveal overhangs.

Building: 3
PO: Neal Mccarty

PREPARED FOR

Contact: Joe Tozer
Company: ABC Supply Co.
Address: 15 Derwood Cir
Rockville, MD 20850-1263
Phone: 301-294-4000

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MEASUREMENTS

Total Roof Area =4,850 sq ft
Total Roof Facets =45
Predominant Pitch =16/12
Number of Stories >1
Total Ridges/Hips =297 ft
Total Valleys =85 ft
Total Rakes =148 ft
Total Eaves =369 ft
Total Penetrations =6
Total Penetrations Perimeter = 50 ft
Total Penetrations Area = 58 sq ft

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By Chris Berger at 10:50 am, Jun 06, 2024

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www.eagleview.com/Guarantee.aspx

IMAGES

The following aerial images show different angles of this structure for your reference.

Top View



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Robert H. ...

IMAGES

North Side



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By Chris Berger at 10:50 am, Jun 06, 2024

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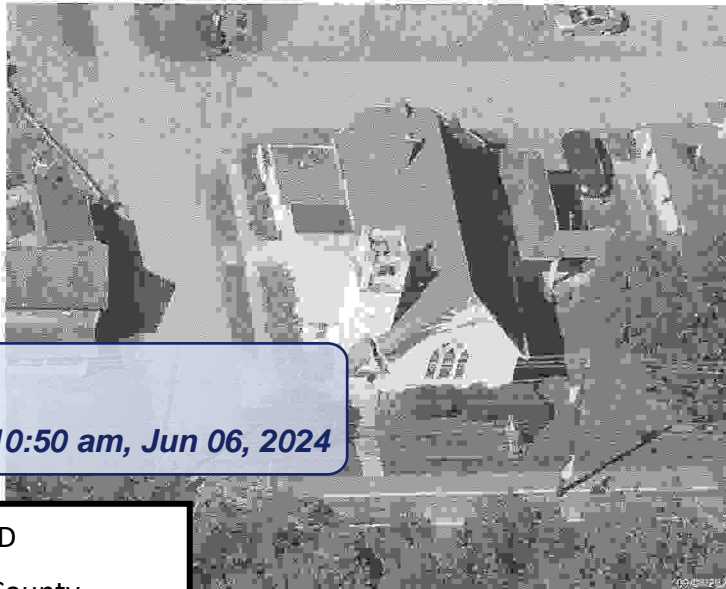


South Side



IMAGES

East Side



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West Side



12 High St, Brookeville, MD 20833-2500

Report: 49740986

LENGTH DIAGRAM

Total Line Lengths:

Ridges = 120 ft

Hips = 177 ft

Valleys = 85 ft

Rakes = 148 ft

Eaves = 369 ft

Flashing = 61 ft

Step flashing = 133 ft

Parapets = 0 ft

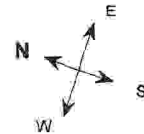
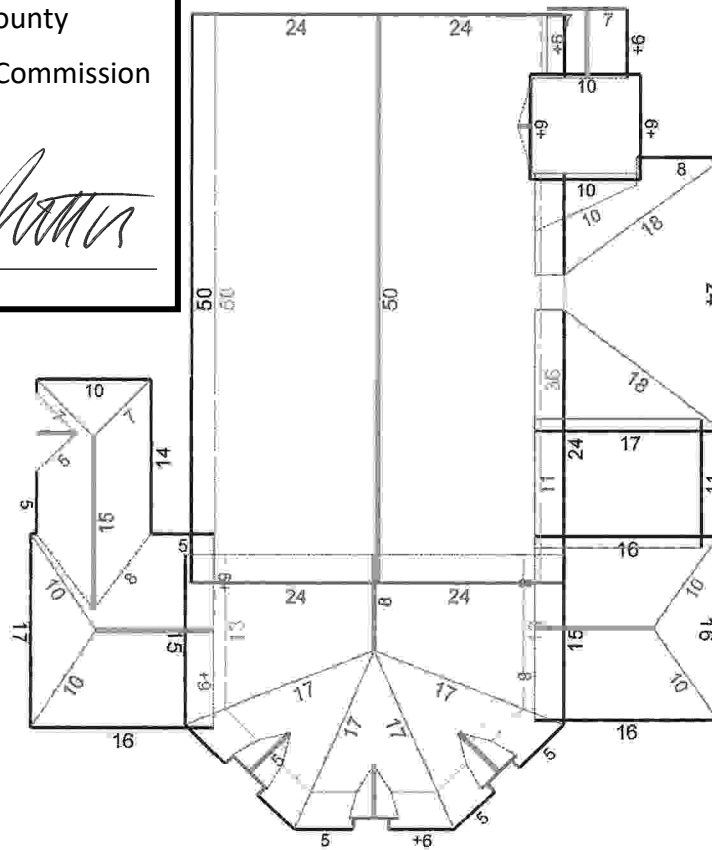
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Note: This diagram contains segment lengths (rounded to the nearest whole number) over 5.0 Feet. In some cases, segment labels have been removed for readability. Plus signs preface some numbers to avoid confusion when rotated (e.g. +6 and +9).

PITCH DIAGRAM

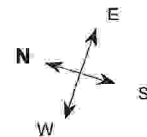
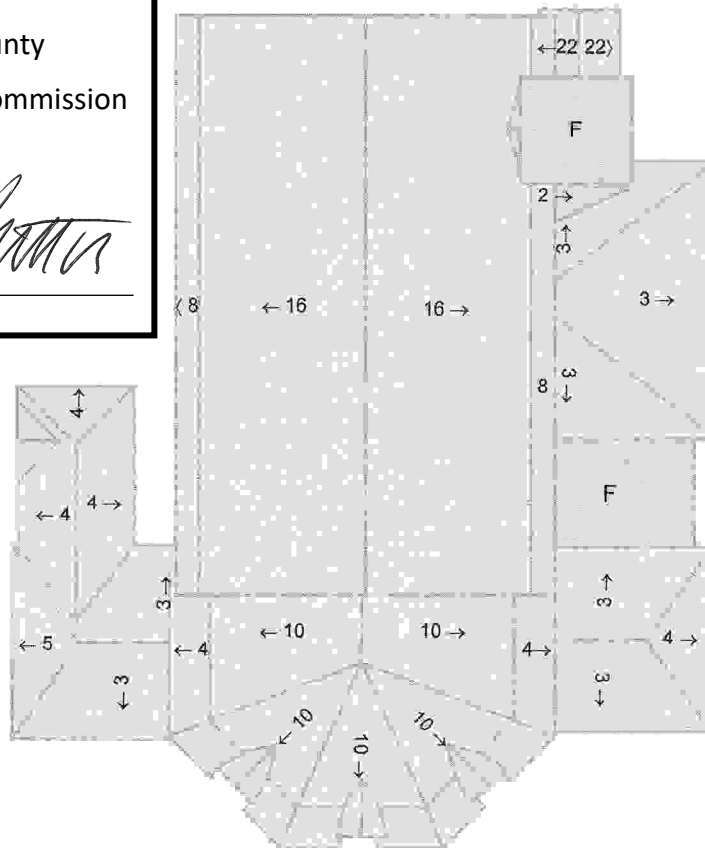
Pitch values are shown in inches per foot, and arrows indicate slope direction. The predominant pitch on this roof is 16/12

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By Chris Berger at 10:50 am, Jun 06, 2024

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Note: This diagram contains labeled pitches for facet areas larger than 20.0 square feet. In some cases, pitch labels have been removed for readability. Blue shading indicates a pitch of 3/12 and greater. Gray shading indicates flat, 1/12 or 2/12 pitches. If present, a value of "F" indicates a flat facet (no pitch).

AREA DIAGRAM

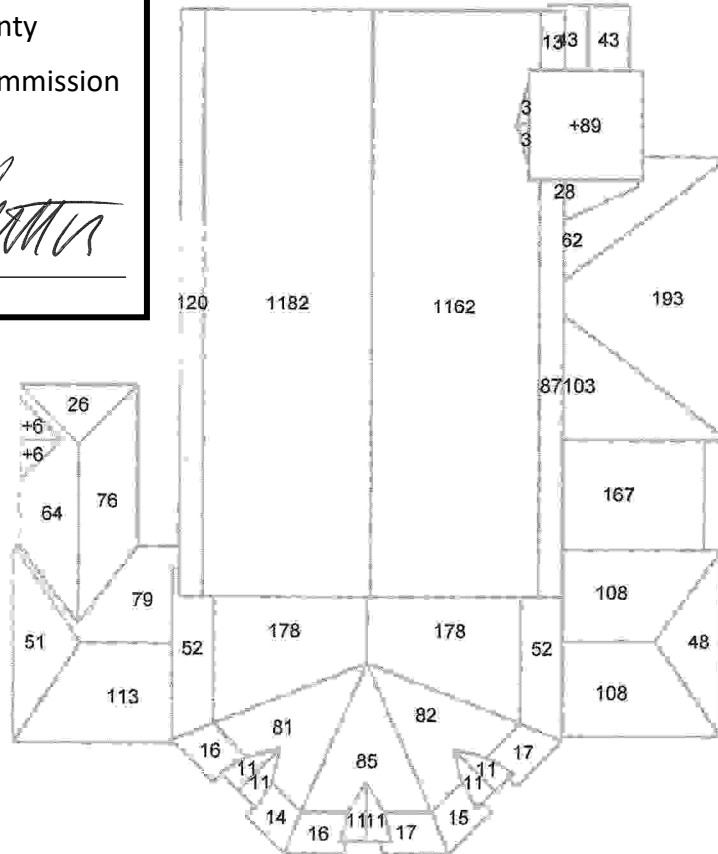
Total Area = 4,850 sq ft, with 45 facets.

REVIEWED

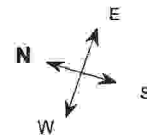
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Note: This diagram shows the square feet of each roof facet (rounded to the nearest Foot). The total area in square feet, at the top of this page, is based on the non-rounded values of each roof facet (rounded to the nearest square foot after being totaled).

NOTES DIAGRAM

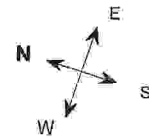
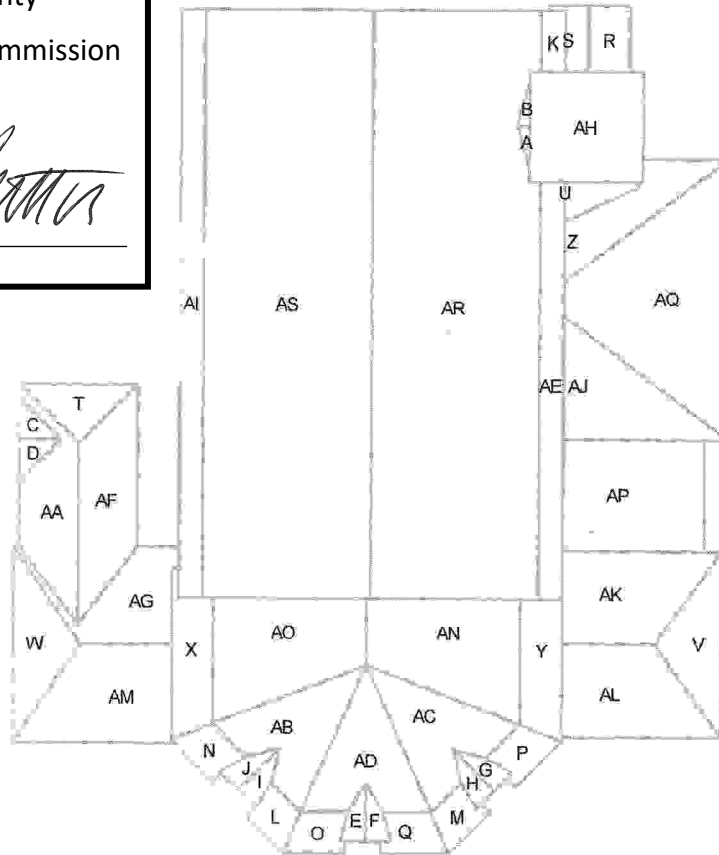
Roof facets are labeled from smallest to largest (A to Z) for easy reference.

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By Chris Berger at 10:50 am, Jun 06, 2024

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Note: This diagram also appears in the Property Owner Report.

PENETRATIONS NOTES DIAGRAM

Penetrations are labeled from smallest to largest for easy reference.

Total Penetrations = 6

Total Penetrations Area = 58 sq ft

Total Penetrations Perimeter = 50 ft

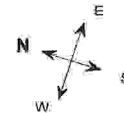
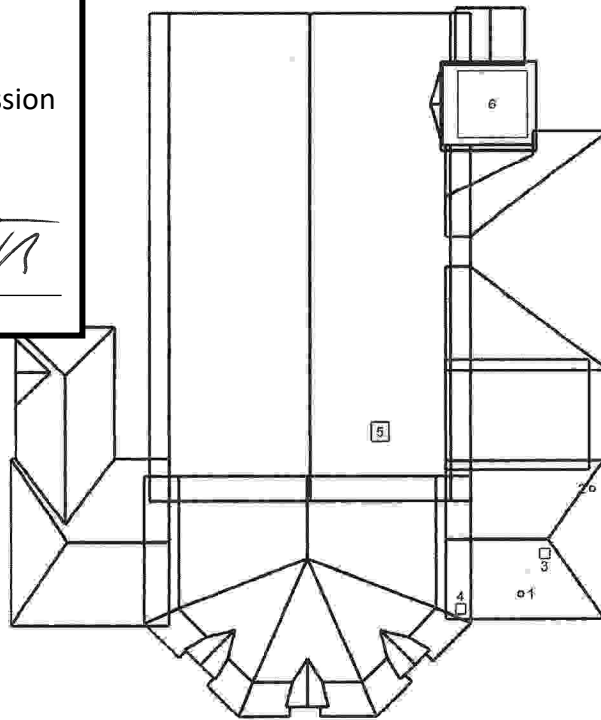
Total Roof Area Less Penetrations = 4,792 sq ft

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By Chris Berger at 10:50 am, Jun 06, 2024

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REPORT SUMMARY

All Structures

Areas per Pitch									
Roof Pitches	0/12	2/12	3/12	4/12	5/12	8/12	10/12	16/12	22/12
Area (sq ft)	255.7	27.9	765.9	425.6	56.5	219.5	604.1	2409.1	85.4
% of Roof	5.3%	0.6%	15.8%	8.8%	1.2%	4.5%	12.5%	49.7%	1.8%

The table above lists each pitch on this roof and the total area and percent (both rounded) of the roof with that pitch.

Waste Calculation Table							
Waste %	0%	10%	12%	15%	17%	20%	22%
4,850	5,335	5,432	5,577.5	5,674.5	5,820	5,917	
5	53.4	54.3	55.8	56.7	58.2	59.2	

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By Chris Berger at 10:50 am, Jun 06, 2024

This table shows the total roof area and squares (rounded up to the nearest decimal) based upon different waste percentages. The roofing techniques and your experience. Please consider this when calculating appropriate waste percentages. Note that only roof area is included in these waste calculations. Additional materials are not included.

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5	6					
6	49					
10	28					

3.0 Feet may need field verification. Accuracy is not guaranteed. The total total roof area.

- Areas and Pitches**
- 20 ft (11 Ridges)
 - ft (16 Hips).
 - Valleys = 85 ft (19 Valleys)
 - Rakes† = 148 ft (22 Rakes)
 - Eaves/Starter‡ = 369 ft (32 Eaves)
 - Drip Edge (Eaves + Rakes) = 517 ft (54 Lengths)
 - Parapet Walls = 0 (0 Lengths).
 - Flashing = 61 ft (14 Lengths)
 - Step flashing = 133 ft (22 Lengths)
 - Total Penetrations Area = 58 sq ft
 - Total Roof Area Less Penetrations = 4,792 sq ft
 - Total Penetrations Perimeter = 50 ft
 - Predominant Pitch = 16/12
 - Total Area (All Pitches) = 4,850 sq ft**

Property Location
Longitude = -77.0584591
Latitude = 39.1793227

Notes
This was ordered as a commercial property. There were no changes to the structure in the past four years.

Total Roof Facets = 45
Total Penetrations = 6

† Rakes are defined as roof edges that are sloped (not level).
‡ Eaves are defined as roof edges that are not sloped and level.

12 High St, Brookeville, MD 20833-2500

Report: 49740986

Online Maps

Online map of property

http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=12+High+St,Brookeville,MD,20833-2500

Directions from ABC Supply Co. to this property

http://maps.google.com/maps?f=d&source=s_d&saddr=15+Derwood+Cir,Rockville,MD,20850-1263&daddr=12+High+St,Brookeville,MD,20833-2500**REVIEWED***By Chris Berger at 10:50 am, Jun 06, 2024*

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12 High St, Brookeville, MD 20833-2500

Report: 49740986

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Contractors agree to always conduct a preliminary site survey to verify Roof Report ordered. In the event of an error in a Report, your sole remedy will be a refund of the fees paid by you to obtain this Report.

REVIEWED*By Chris Berger at 10:50 am, Jun 06, 2024*

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Historic Preservation Commission





Unpainted Galvalume™ Steel Fact Sheet

A Superior Building Material

ArcelorMittal Galvalume™ is a coated steel product that has proven its superior performance as a building material in extended field testing in a diverse range of corrosive environments. Its unique combination of durability, edge protection, and resistance to corrosion is at least twice that of galvanized steel.

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ArcelorMittal Galvalume™ is the exclusive producer in Canada. The Galvalume steel has a zinc coating of 50% zinc and 50% aluminum. Galvalume steel has a high strength and a high ductility that extends the life of Galvalume steel.

Galvalume steel reflects energy load on buildings and improved interior comfort.

From an aesthetic perspective, the fine spangle and gentle sheen of unpainted Galvalume offers a very attractive appearance.

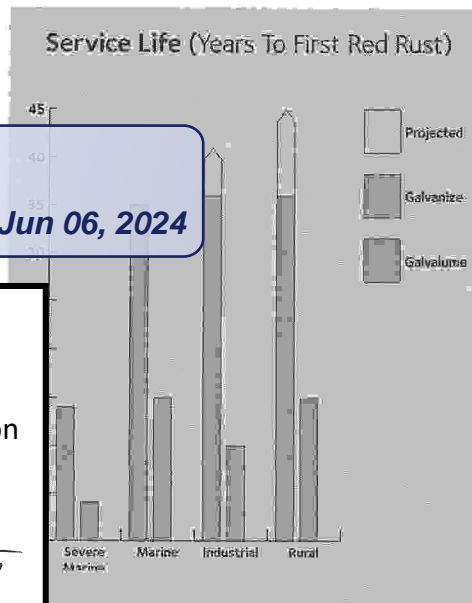
Product Characteristics

Proven Superior Corrosion Resistance

Galvalume steel sheet can be expected to provide at least twice the service life of traditional zinc-coatings of similar coating thickness under the same exposure conditions. This has been proven by actual exposure tests using flat coupon samples, conducted over 36 years in the U.S.A. and 15 years in Canada.

The tests covered a variety of environments ranging from rural to severe marine. The following chart, comparing the performance of Galvalume and galvanized

of equal coating thickness, shows that Galvalume has at least twice the service life versus galvanized.



Superior Cut Edge Protection

The aluminum and zinc in the coating combine to prevent corrosion at exposed edges. The zinc component of the Galvalume coating provides galvanic cut edge protection, while the aluminum component remains as a continuing barrier to corrosion.

Heat Reflectivity and Solar Reflectance (Energy Efficiency)

Bare, unpainted Galvalume has undergone extensive testing by the Oak Ridge National Laboratory (ORNL), to determine its solar reflective performance. Test results have qualified Galvalume as an approved roof product by the U.S. EPA – ENERGY STAR Program, for both low-slope and high-slope applications.

On newly manufactured Galvalume, heat reflectivity was rated above the minimum U.S. EPA requirement of 0.65. For

weathered roofs over three years of age, the overall solar reflectance also exceeded the minimum U.S. EPA requirement of 0.50 for maintenance reflectivity.

Enhanced Surface Treatment

ArcelorMittal offers a variety of surface treatments suited to specific manufacturing and application needs.

For unpainted applications, bare Galvalume Plus™ is available. Galvalume Plus has a clear, organic resin coating applied to both sides of Galvalume steel sheet, can be roll-formed without lubricants, and is delivered to the job site with an oil-free surface. See our Fact Sheet on Galvalume Plus for more information.

Unpainted Galvalume can also be passivated with a chemical treatment. With this treatment, Galvalume must be oiled with either vanishing or slushing oil.

If color is specified, Galvalume steel sheet can be ordered as pre-painted coil. This option offers an additional layer of paint protection in a wide assortment of attractive colors and paint systems. See our Fact Sheet on Pre-painted Galvalume Steel for more information.

Applications

Galvalume has many proven applications in Commercial, Industrial, Institutional, Agricultural, and Residential Construction.

- Low-slope structural roofing
- High-slope architectural roofing
- Cladding and siding
- Quonset Buildings
- Pre-engineered Steel Buildings
- Building Accessories
- Construction Tubular
- Structural Steel Framing
- Appliance Components
- Automotive Parts

Points to Remember

Compatibility with Dissimilar Metals

All materials that can be used in contact with galvanized steel sheet can be used with complete safety in contact with Galvalume. However, as with galvanized, contact of lead or copper with Galvalume steel must be avoided, as it can result in accelerated corrosion.

Galvalume and galvanized can be combined on the same building project, although it is not advisable because galvanized will likely exhibit corrosion before Galvalume. As a design practice, when both materials are in contact, always use Galvalume downstream from unpainted galvanized steel, otherwise accelerated corrosion of the galvanized can occur.

Handling and Storage

To preserve the surface, handling should only be done with clean, dry gloves. Do not slide sheets over rough surfaces or each other.

As with galvanized or painted steel, products should be stored in a dry, well-ventilated area.

steel in all finishes must be kept dry in transit. After transit, material should then be covered and stored off the ground, at a slight angle, to prevent water or condensation from being trapped between adjacent sheet surfaces.

If the bundles become wet, sheets should be separated, wiped with a clean cloth without delay and then placed so that air circulation completes the drying process. These procedures are recommended to avoid possible deterioration of the coating, which could result in non-uniform appearance.

Joining and Sealing

Recommended fasteners to be used on Galvalume steel sheet should have washers made of Neoprene or a similar material.

(See table below.) Fasteners containing lead or copper should not be used. Lead washers should also not be used on Galvalume.

For sealing, neutral cure silicone sealants should be used. Sealants containing acetic

acid or amines should not be used on Galvalume steel. Check with your sealant supplier for brand name recommendations.

Product Availability

Sizes Available

Thickness: 0.012" (0.30mm) to 0.090" (2.28mm)
Width: 49.5" (1257mm) maximum

Qualities

ASTM A792/792M
Commercial Steel
Structural Steel
Special Forming Steel
Helical Steel

Standard Coating Weights (Minimum Triple Spot)

AZ30, AZ50, AZ55, AZ60, & AZ 70 (0.30, 0.50, 0.55, 0.60, & 0.70 oz/ft² respectively)

AZM100, AZM150, AZM165, AZM180, & AZM210 (100, 150, 165, 180, & 210 g/m² respectively)

Galvalume sheet steel can also be ordered as a prepainted coil. Prepainted Galvalume offers an additional layer of paint protection in a wide assortment of attractive colours and paint systems. See our Fact Sheet on Prepainted Galvalume steel for more information.

Special Customer Note:

The Information in this Fact Sheet is provided for the general guidance of customers and does not imply any warranty. Information provided is based on research conducted by ArcelorMittal and other organizations. Interpretation and/or use of this information is the sole responsibility of the user.

TM – ArcelorMittal (Logo/Slogan) is a trademark of ArcelorMittal.

TM – Solutions in Steel is a trademark of ArcelorMittal Dofasco.

TM – Galvalume is a trademark of ArcelorMittal in Canada, and a trademark of BIEC International Inc. in the United States.

REVIEWED

By Chris Berger at 10:50 am, Jun 06, 2024

APPROVED

Montgomery County

Historic Preservation Commission



1. 300 Series stainless steel or 300 Series capped-stainless steel washer	2. Aluminum-zinc alloy cast or capped head used with neoprene-coated aluminum or Type 303 stainless washer	3. Nylon capped head over zinc coated carbon steel shank	4. 1.6 mil zinc coated steel, with additional organic or inorganic coating
1. 300 Series stainless steel or 300 Series capped-stainless steel washer combination	2. Aluminum-zinc alloy cast or capped head used with neoprene-coated aluminum or Type 303 stainless washer	3. Nylon capped head over zinc coated carbon steel shank	4. 1.6 mil zinc coated steel, with additional organic or inorganic coating
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✉ constructioninquiries@arcelormittal.ca

www.arcelormittal.com

GALVALUME
STEEL

KYNAR 500® OR HYLAR 5000™ COLORS & NATURAL METAL FINISHES

All Berridge-applied colors are premium fluoropolymer coatings produced with full strength Kynar 500® or Hylar 5000™ resin. Kynar 500® or Hylar 5000™ affords maximum exterior durability due to its outstanding resistance to ultraviolet radiation. Full-strength Kynar 500® or Hylar 5000™ color finishes carry a 20-year warranty against cracking, peeling and fading (not to exceed 5 N.B.S. units). These are the highest quality exterior finishes available!

BERRIDGE METALLIC FINISHES*

Metallic colors are processed and finished on Berridge's continuous coil-coating line. These proprietary finishes are available for all factory products, flat sheet, and coil. Flat sheets and coils in metallic finishes are available to sheet metal companies for fabrication of special profiles, shapes or flashing. Berridge Metallic Finishes include:

- COPPER-COTE™
- ANTIQUÉ COPPER-COTE
- CHAMPAGNE
- ZINC-COTE™
- LEAD-COTE™
- PREWEATHERED GALVALUME®

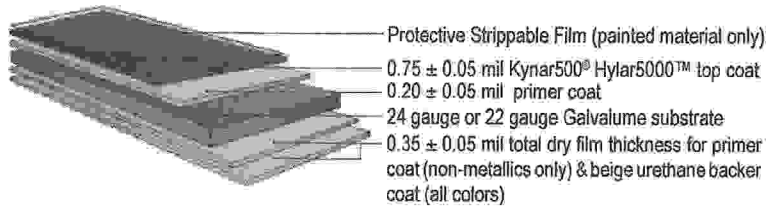
*Metallic finishes require a nominal surcharge.
REVIEWED
 By Chris Berger at 10:50 am, Jun 06, 2024

Acrylic-Coated Galvalume® (ACG) is a coated sheet product that combines the clear, acrylic surface treatment characteristics to enhance steel sheet. These coatings are excellent for oils, excellent for surface brightness and automatic decrease in surface brightness will by roll-coating a surfaces of the sheet.



Berridge owns and operates its own modern continuous coil coating line in San Antonio, Texas, painting both 48" and 42" wide Galvalume® master coils.

COATING SYSTEM



- Notes:**
1. Special colors and finishes are available. Please consult Berridge for pricing and delivery.
 2. Berridge metallic finishes are premium finishes and require a nominal surcharge.
 3. Galvalume® is a registered trademark of BIEC International, Inc.
 4. Kynar 500® is a registered trademark of Arkema, Inc.
 5. Hylar 5000™ is a registered trademark of Solvay Solexis.

24-GAUGE & 22-GAUGE* BERRIDGE PRODUCTS IN GALVALUME®

SHEET METAL MATERIAL

- A. Prefinished metal shall be Aluminum-Zinc Alloy Coated (AZ-50 Galvalume®) Steel Sheet, 24-Gauge or 22-Gauge*, ASTM 792-08, Grade 40, yield strength 40 ksi min.
- B. Finish shall be full strength Kynar 500® or Hylar 5000™ fluoropolymer coating applied by the manufacturer on a continuous coil coating line, with a top side dry film thickness of 0.75 ± 0.05 mil over 0.20 ± 0.05 mil primer coat, to provide a total top side dry film thickness of 0.95 ± 0.10 mil. Bottom side shall be coated with a primer and beige urethane coating with a total dry film thickness of 0.35 ± 0.05 mil. Finish shall conform to all tests for adhesion, flexibility, and longevity as specified by the Kynar 500® or Hylar 5000™ finish supplier.
- C. Strippable film shall be applied to the top side of all prefinished metal to protect the finish during fabrication, shipping and field handling. This strippable film MUST be removed immediately before installation.
- D. Unpainted metal shall be Aluminum-Zinc Alloy Coated (AZ-55 Acrylic Coated Galvalume®) Steel Sheet, 24-Gauge or 22-Gauge*, ASTM 792-08, Grade 40, yield strength 40 ksi min., with clear acrylic coating on both sides of material.
- E. Field protection must be provided by the contractor at the job site so stacked or coiled material is not exposed to weather and moisture.
- F. Flashing maybe factory fabricated or field fabricated. Unless otherwise specified all exposed adjacent flashing shall be of the same material and finish as panel system.

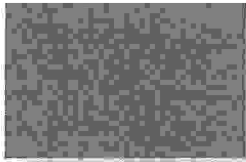
Note: The rolling process of sheet metal results in inherent surface unevenness referred to as "oil-canning." This condition is also caused by several factors including thermal expansion and contraction, dark colors, both medium and high-gloss finishes, and uneven substrate. "Oil-canning" in itself is not sufficient cause for material rejection.

*Not all products and colors are available in 22-Gauge.
 For complete specifications visit www.berridge.com



STANDARD COLORS

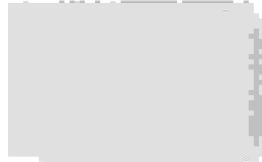
Due to limitations in the printing process, please request actual color chips for accurate color viewing.



BUCKSKIN



PARCHMENT



ALMOND



AGED BRONZE



SHASTA WHITE



FOREST GREEN



PATINA GREEN



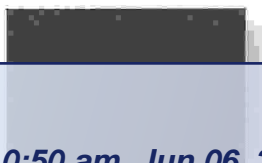
SIERRA TAN

REVIEWED

By Chris Berger at 10:50 am, Jun 06, 2024



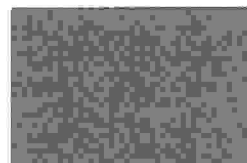
MEDIUM BRONZE



CHARCOAL GREY



HEMLOCK GREEN



BRISTOL BLUE



TERRA-COTTA

APPROVED

Montgomery County
Historic Preservation Commission



COPPER BROWN

MATTE BLACK



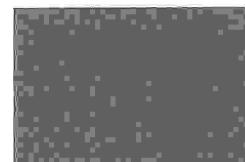
HARTFORD GREEN



ROYAL BLUE



COLONIAL RED



TEAL GREEN



BURGUNDY



DEEP RED

PREMIUM COLORS

Berridge premium colors require a nominal surcharge.



NATURAL WHITE



AWARD BLUE



CHAMPAGNE



COPPER-COTE™



ANTIQUÉ
COPPER-COTE

METALLIC COLORS

Berridge metallic colors are premium finishes which require a nominal surcharge.
Due to limitations in the printing process, please request actual color chips for accurate color viewing.

NATURAL METAL FINISH

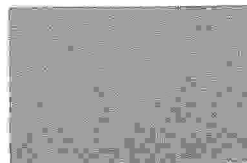
Berridge Acrylic-Coated Galvalume® is a coated sheet product that combines the corrosion resistance of GALVALUME® steel sheet with a clear, organic resin applied to the top side and bottom side of GALVALUME® substrate.



ACRYLIC-COATED
GALVALUME®



ZINC-COTE™



LEAD-COTE™



PREWEATHERED
GALVALUME®

All colors except Award Blue comply with LEED® v3 & Energy Star requirements for roof slopes greater than 2:12.

Almond complies with LEED® v3 requirements for low slopes.

Natural White complies with LEED® v3 & Energy Star requirements for low slopes.

KYNAR 500® HYLAR 5000™ SPECIFICATIONS FOR GALVANIZED AND GALVALUME® COIL COATING APPLICATIONS:

TESTED PROPERTY	TESTING METHOD	KYNAR 500® or HYLAR 5000™
Colors Available	---	See color chart on reverse side
Specular Gloss	ASTM D-523-80	Low and medium gloss only
Color Uniformity	ASTM D-2244-79	Color controlled both instrumentally and visually
Dry Film Thickness	ASTM D-1400-81, ASTM D-1005-84, NCCA 11-13, 11-14, 11-15	Primer 0.25 ± 0.05 mil, Topcoat 0.8 ± 0.05 mil
Hardness	ASTM D-3363-89, NCCA 11-12, Eagle Turquoise Pencils	H.B. Minimum
Adhesion (X-Cut)	ASTM D-3359-90	No adhesion loss
Adhesion (Crosshatch)	ASTM D-3359-90	No adhesion loss
Direct Impact Flexibility	ASTM D-2794-84, Gardner Impact Tester, 1/10" Distortion	Excellent, no removal
Reverse Impact Flexibility	NCCA Spec. 11, ASTM D-2794-84, Gardner Impact Tester, 5/8" ball Impact force in inch pounds equal to metal thickness	Excellent, no cracking or loss of adhesion
Formability	ASTM D-4145, 180° T-Bend, 18" Min. Diameter	No cracks or loss of adhesion
Salt Spray Resistance	ASTM B-117-73 (1992)	Passes 1000 hrs on H.D.G. Steel 1000 hrs on Galvalume®
Humidity Resistance	ASTM B-117-73 (1992)	Passes 2000 hrs on H.D.G. Steel 2000 hrs on Galvalume®
Acid Resistance	ASTM D-1306-07 Proc. 3.1.1 test, 24 hr exposure	Excellent, no effect
Alkali Resistance	ASTM D-1306-07 Proc. 5.2 test, 24 hr exposure	Excellent, no effect
Abuse Resistance	ASTM D-1306-07 Proc. 5.2 test, 24 hr exposure	100 liters/mil topcoat
Delamination Resistance	ASTM D-1306-07 Proc. 3.1.1 test, 24 hr exposure	Immersion in 3% solution at 100°F Excellent, no effect
Resistance to Acid Pollutants	ASTM D-1306-07 Proc. 3.1.1 test, 24 hr exposure 10% HNO ³ vapors	Excellent, no effect
Weathering - Color Retention	ASTM D-2244-89, 20 yrs, 45° South Florida	Maximum 5 NBS units color change
Weathering - Chalk Resistance	ASTM D-659-86, 20 yrs, 45° South Florida	Rating of 8 minimum
Erosion	20 yrs, 45° South Florida	Maximum 15% loss

REVIEWED

By Chris Berger at 10:50 am, Jun 06, 2024

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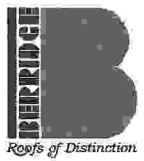
Montgomery County

Historic Preservation Commission



- Notes:
1. ASTM - American Society for Testing Materials
 2. NCCA - National Coil Coaters Association
 3. Galvalume® is Aluminum-Zinc alloy coated sheet steel and is a registered trademark of BIEC International, Inc.

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BERRIDGE MANUFACTURING COMPANY
www.berridge.com

Roofs of Distinction