

# DMC CAP SEAM PLYWOOD - INSTALLATION DETAILS

# INTRODUCTION

The details contained in the following pages are guidelines as to how Drexel Metals Corporation materials can be installed. We believe all information presented is accurate, but it is not intended to cover all instances, building requirements, designs, changes, or revisions for each project since conditions will vary from one project to another and may be unique for each application.

The details shown are proven methods of construction. However, it must be noted that weather-tightness is the responsibility of the installer. The installer can virtually assure weather-tightness through the use of these details, good materials and workmanship, the use of the right type(s) of sealant(s), and the sealing and caulking of all joints adequately.

It is the responsibility of the designer, roofing contractor and installer to ensure that the following details are adapted to meet particular building requirements and to assure adequate weather-tightness.

Drexel Metals Corporation shall be held harmless from any and all claims arising from a lack of weather-tightness as a result of following these suggested typical detail drawings. The designer and installer must be aware of and allow for expansion/contraction of roof panels when designing and/or installing panels and flashings.

Likewise, ensuring adequacy of anchoring framing materials to walls, structures, subgirts and cees/zees, shall be determined by the designer and installer and Drexel Metals Corporation shall be held harmless against all claims resulting from any inadequacy.

The installer shall be familiar with all erection instructions before starting work. Before beginning erection of the panels, the installer shall examine the substrate to ensure that all supporting members are straight, level, plumb, and true in accordance with minimum tolerances. Report any variations and potential problems to the general contractor or architect. **Do not start** work until all unsatisfactory conditions have been corrected.

The roofing/fascia/soffit system shall be installed plumb, straight, and true to adjacent work. Horizontal panel lap joints are not acceptable. Metal closures shall be caulked around their entire perimeter.

Roof clips shall allow for thermal movement and shall be installed at each panel joint. Longitude spacing of roof clips shall be as specified for

design loads. No perforations shall be made in roofing/fascia/soffit by fasteners, except as shown in these drawings. To control thermal expansion in one direction, the panel must be fixed either at the top of the panel or at the bottom of the panel. An eave bend down detail will fix the panel at the eave. Therefore, the ridge should be allowed to slide in such cases. Never fix both ends of the panel. Always use a sliding ridge with a fixed eave and always use a fixed ridge with a sliding eave.

All flashings, closures, and accessories shall be specified by Drexel Metals Corporation as indicated, and as necessary to provide weather-tight installation. Installation procedures, which are not indicated, shall be in accordance with the panel manufacturer's printed instructions and details or Drexel Metals Corporation approved shop drawings. Flashings and trim shall be installed true and in alignment with any exposed fasteners equally spaced for the best appearance.

Sealant for joints and flashing endlaps shall be non-drying, non-toxic, non-shrinking and shall have a serviceable temperature of -50 to 212°F. Sealant shall be field-applied on dry, clean surfaces. To ensure weather-tightness, the sealant shall be installed where indicated without skips or voids. Sealants shall be furnished by Drexel Metals Corporation or by others and approved by Drexel Metals Corporation.

The installer may utilize details provided and procedures recommended for installation of materials. Some field cutting and fitting of panels and flashings is expected of the installer and minor field corrections of materials is a part of normal erection work. Workmanship is common to the industry standards and installation shall be performed by an experienced metal craftsman. Oil canning in the flat area of the pans is common to the industry and shall not be cause for product rejection.

SMACNA (Sheet Metal and Air Conditioning Contractors National Association) architectural sheet metal manual specifications shall govern for material and workmanship not shown.

# GENERAL NOTES

1. Drexel Metals requires the use of low profile clip screws. Contact Drexel Metals Corporation for a list of approved fasteners.
2. Contact Drexel Metals Corporation for approved soffit panel systems.
3. Before releasing materials for fabrication, it is recommended that panel lengths, quantities, profiles and dimensions of flashings or flat sheet quantities be verified through field measurements. Drexel Metals shall not be liable for any back charges for errors and/or omissions after approved shop drawings are released for fabrication by the customer.
4. Before beginning installation, carefully inspect the substrate /roof deck. Do not begin installation of the metal roof system if the substrate (trusses, joists, subgirts/furring strips, plywood deck, steel deck, insulation) is uneven, not uniform or symmetrical, out of plumb, or in otherwise unsatisfactory condition, as such conditions can cause oil canning of panels. It is the responsibility of the installer to correct or demand remedy of unsatisfactory substrate conditions prior to installation of metal roof system.
5. Drexel Metals Corporation recommends that if the roof deck is unacceptable, the roofing contractor has the authority to reject this deck prior to installation of metal roof system. Once installation of the metal roof system has begun, the contractor forfeits the ability to reject the metal roofing system based on substandard deck. Oil canning is not a cause for rejection.
6. Due to inconsistencies such as those noted above, the industry has accepted a certain amount of waviness or oil canning evident in the flat area of the rib/seam panels. This is more evident on longer length panels, particularly when sunlight hits them at certain times of the day. This shall not be construed as a product defect and shall not be cause for product refusal.
7. Panel crates must be lifted at bundle block locations. Do not lift material with ropes or wires. Do not lift panels greater than 25'-0" long without a spreader bar. Do not lift panels from ends while flat. Do not lift panels on edge.
8. Installation of metal panels must be started so that the sheets are held true, plumb, and straight. Note that all panel width dimensions are nominal. During panel installation, it is recommended that periodic checks/measurements be taken to ensure that the panels are not gaining or losing width.
9. During the panel installation, do not use undue pressure to interlock panel. Do not force or push panels together. To reduce wavy, oil canning panel appearance and to increase the aesthetics of an installation, a camber or outward bowing may be forced into flat area of the panel as the fastener and/or clip is installed. However, care must be taken to prevent "fish mouthing" at panel ends.
10. Drexel Metals is not responsible for the adequacy of attachment of its framing members to other surface conditions. Drexel Metals shall be held harmless for fasteners used for such attachments.
11. Ensure that acid residue from cleanup of stucco in the adjacent panel areas is not washed down directly over the panels. This could mar the finish/coating.
12. Avoid damage or scratching of the exterior surface caused by walking, use of improper tools, improper storage, etc.
13. Flashings must lap a minimum of 6". Treat flashing endlaps similar to a panel detail utilizing two rows of sealant tape with stitch screws 4" o.c. maximum. Lap flashings shingle style to allow for water flow.
14. Quality long-life non curing butyl sealants work best as a gasket sandwiched between two pieces of metal. Always use tape sealant or butyl between roof components where there will be movement. These types of sealants do not cure. Therefore they permit movement while still providing a seal. Polyurethane sealants are recommended when voids must be filled and there is no movement.
15. If the material is not to be used immediately, it should be stored in a dry place where exposure to moisture is minimal. Moisture (from rain, snow, condensation, etc.) trapped between pieces of material may cause water stains or white rust, which detract from its appearance. To avoid staining or white rust, store the material in a well-ventilated dry area. Break the steel strapping bands used for shipment and store the stacks of material with a canvas or waterproof paper cover. Do not use plastic, which can cause sweating or condensation. Keep the material off the ground in an inclined position with an insulator such as wood. It is the responsibility of the contractor to insure that all materials are properly stored at the jobsite.

The molecules on the surface of Valspar's fluoropolymer coating systems are so tightly bound together that it makes them resistant to many elements found in the environment such as air pollution, acid rain and general airborne dirt.

Although Valspar factory-applied finishes are extremely durable, a periodic cleaning to remove build-ups of resins and other residue is a good idea to extend coating life. A variety of methods for removal of surface deposits are available. Simple washing with plain water using hoses or pressure spray equipment is usually adequate. When heavy deposits of dirt or other contaminants dull surfaces, stronger methods may be needed.

## PRECAUTIONS

1. **Proper Equipment:** Do not use wire brushes, abrasives or similar cleaning tools which will mechanically abrade the coatings surface.
2. **Test:** Always test the cleaning agents listed below in an inconspicuous area before use on a large scale.

### Group A: A. Hot or Cold Detergent Solutions

A 5% solution in water of commonly used commercial (non-industrial detergents will not have any deleterious effect on a paint surface. These solutions should be followed by an adequate rinse of water. Use a cloth or a soft brush for application.

### B. Graffiti Removal Services Products

GRS solutions are environmentally friendly, non-toxic and water soluble. Easy application process, use a soft brush to apply and wet cloth to remove. Use only Valspar approved products from GRS - to purchase approved product contact them at 503-231-1414, [product@grssupplies.com](mailto:product@grssupplies.com) or [www.grssupplies.com/collections/valspar](http://www.grssupplies.com/collections/valspar).

### Group B: Solvents

Most organic solvents are flammable and/or toxic, and must be handled accordingly. Read the manufacturer's Material Safety Data Sheet (MSDS) on solvent used. Keep away from open flames, sparks and electrical motors. Use adequate ventilation, protective clothing, and goggles. Solvents may be used to remove on-water soluble deposits such as tar, grease and oil paint.

- Isopropyl (rubbing alcohol)

### Group C: Petroleum Solvents and Turpentine

(no permanent effect on surfaces)

- VM&P naphtha
- Mineral spirits

### Chemical Solutions

Mildew: In areas subjected to high humidity levels, dirt and spore deposits can permit mildew growth to occur. The following solution is recommended to remove mildew when necessary.

- 1/3 cup dry powdered laundry detergent (ex. Tide™)
- 1 qt sodium hypochlorite 5% solution (ex. Clorox™)
- 3 qts water

Rust Stains: Hydrochloric, citric or muriatic acid, diluted with ten volumes of water, may assist in removing rust stains from fluoropolymer surfaces. Limit contact to five minutes. Oxalic acid solutions or acetic acid (vinegar) may be used for the same purpose. Flush with water.

CAUTION: Acid solutions are corrosive and toxic. Flush all surfaces with copious amounts of water after use.

## Graffiti

Graffiti presents a special problem because of the many possible agents used, generally aerosol paints. Valspar has approved Graffiti Removal Services solutions as our approved graffiti removal product. GRS solutions are environmentally friendly, non-toxic and water soluble. Easy application process, use a soft brush to apply and wet cloth to remove. Use only Valspar approved products from GRS - to purchase approved product contact them at 503-231-1414, [product@grssupplies.com](mailto:product@grssupplies.com) or [www.grssupplies.com/collections/valspar](http://www.grssupplies.com/collections/valspar).

## Warranty

Misuse or abuse of any of the cleaning agents listed above will result in a voiding of warranty for the surface affected.

## FLUOROPOLYMER COATINGS:

---

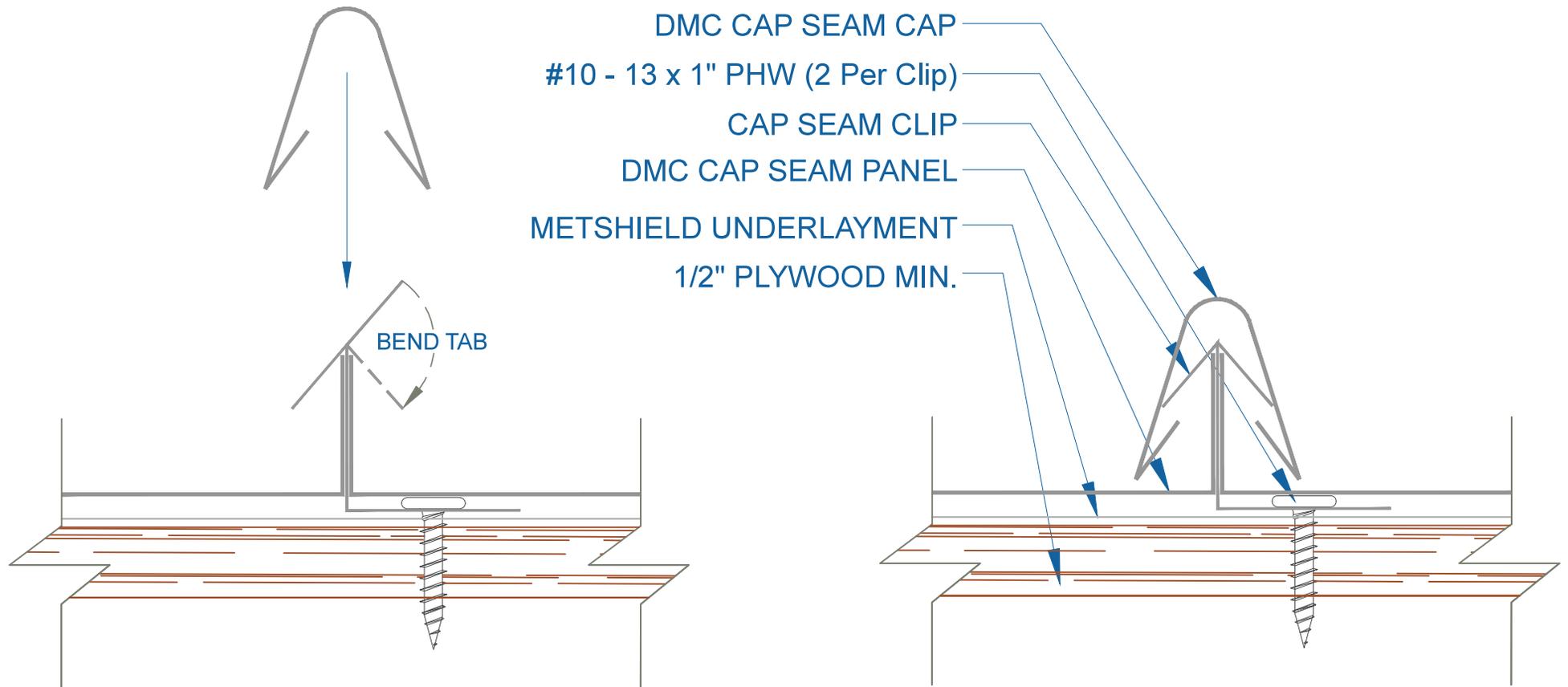
- Fluropon® Family
- Flurothane® Family
- Flurospar® Family
- Valflon

### AT YOUR SERVICE

Do you have a unique application? We'll work with you to find a solution. Want a unique color? We'll create it for you. Need a quick turnaround? Talk to us, and we'll help you get your project completed on time. We're here to help. In fact, with our availability at coating and service centers throughout the country, we're literally always there for you. Give us a call and see how we can help with your next project.

**Call Customer Service: 888.321.9630**

# DMC CAP SEAM - SOLID SUBSTRATE



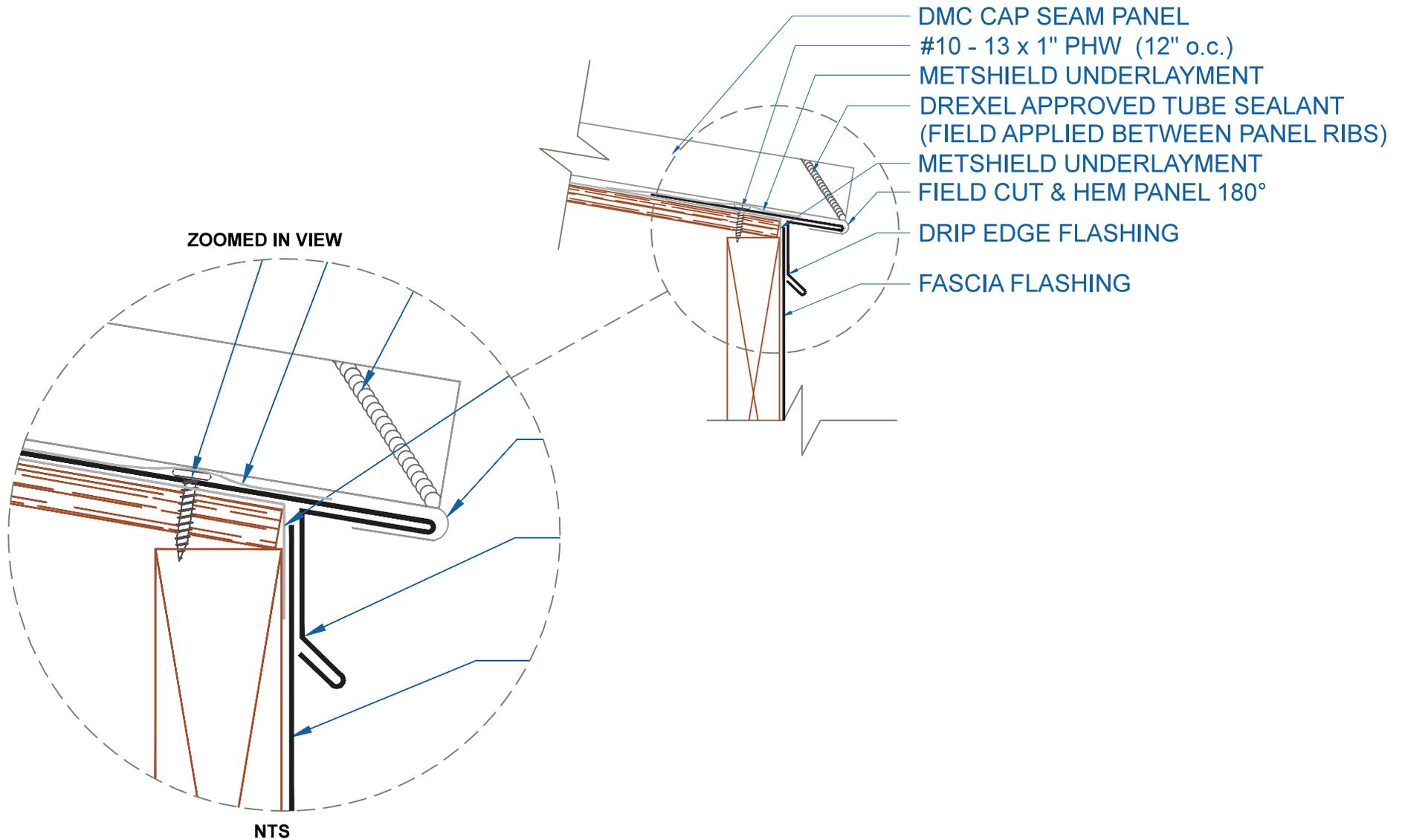
## PANEL INSTALLATION

SCALE: NTS

EFFECTIVE DATE: 08-14-2013  
SUBJECT TO CHANGE WITHOUT NOTICE



# DMC CAP SEAM - PLYWOOD



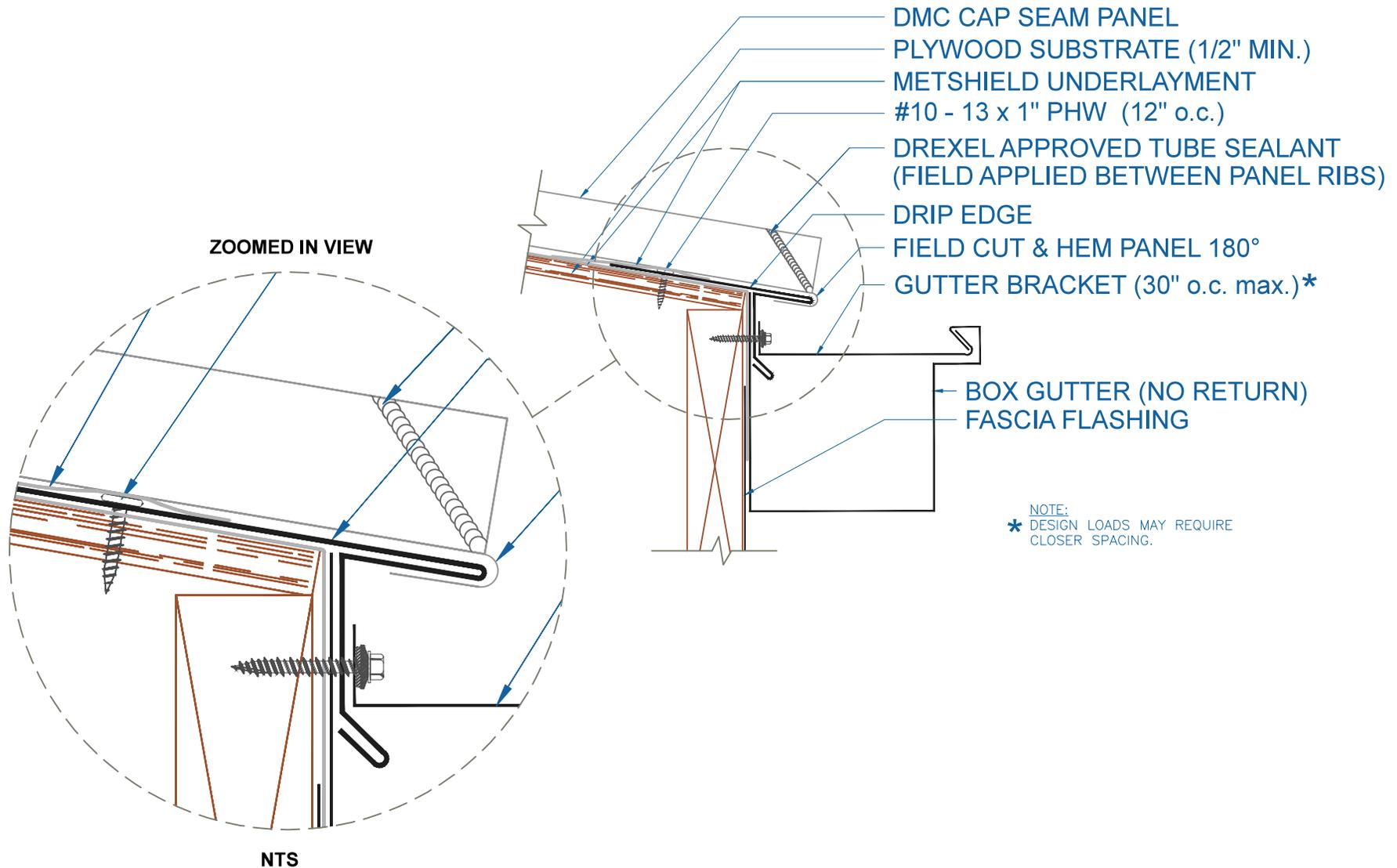
EFFECTIVE DATE: 08-14-2013  
SUBJECT TO CHANGE WITHOUT NOTICE

## DRIP EDGE

SCALE: 3" = 1'-0"



# DMC CAP SEAM - PLYWOOD



## BOX GUTTER w/DRIP EDGE

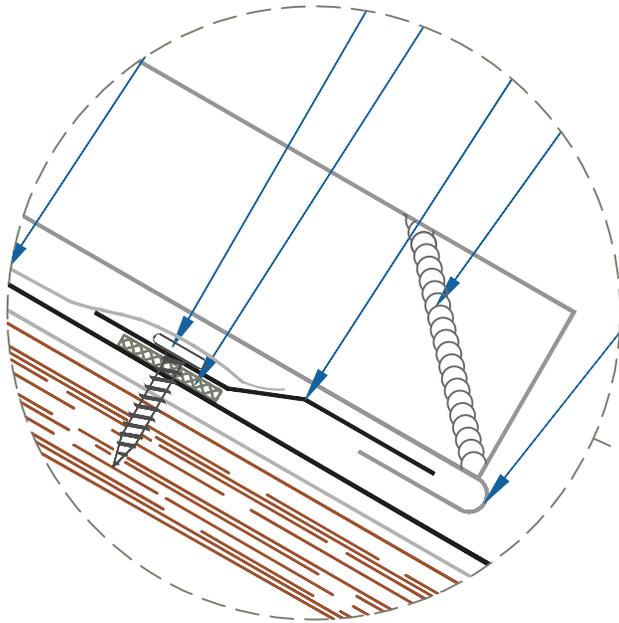
SCALE: 3" = 1'-0"

EFFECTIVE DATE: 08-13-2013  
SUBJECT TO CHANGE WITHOUT NOTICE

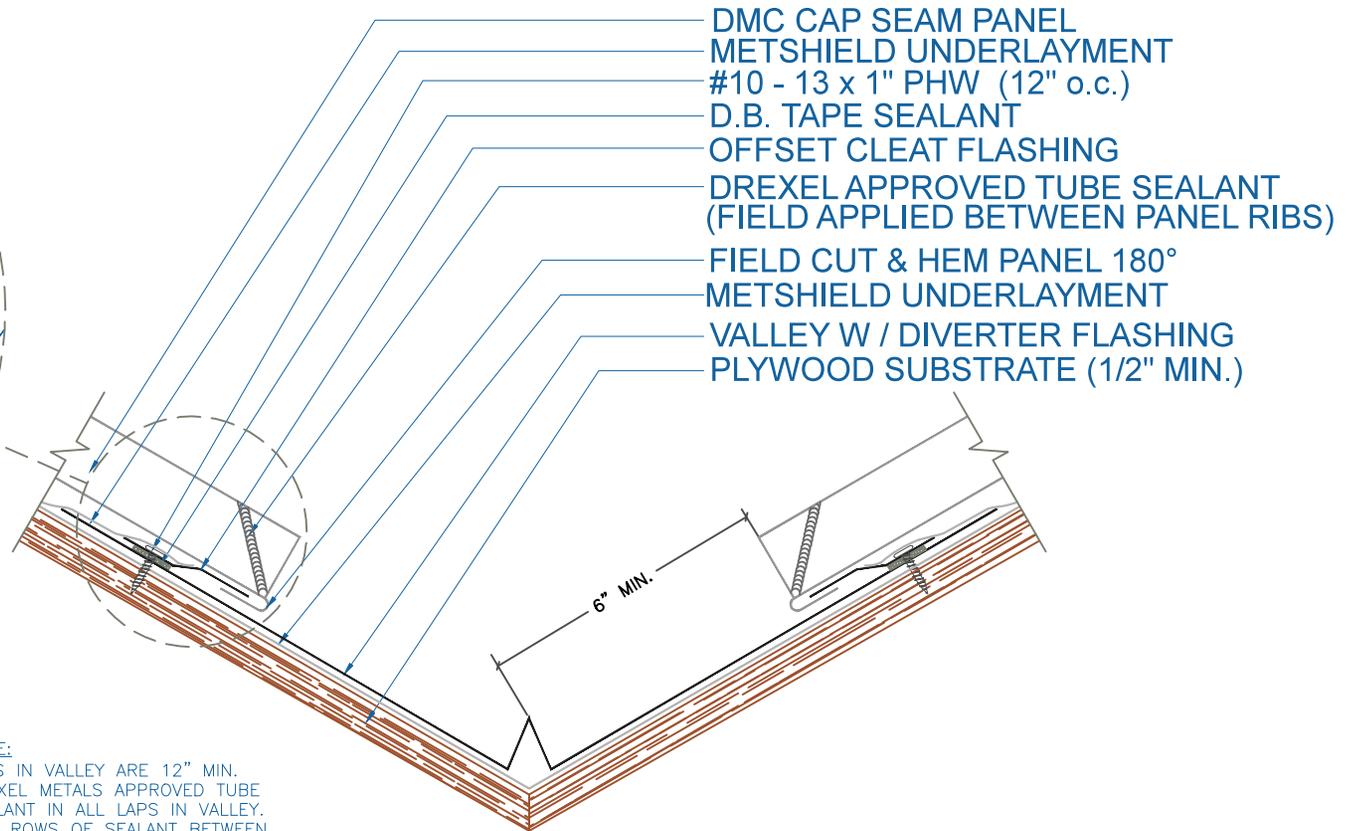


# DMC CAP SEAM - PLYWOOD

ZOOMED IN VIEW



NTS



NOTE:

- 1.) LAPS IN VALLEY ARE 12" MIN.  
DREXEL METALS APPROVED TUBE SEALANT IN ALL LAPS IN VALLEY.  
TWO ROWS OF SEALANT BETWEEN VALLEY LAPS, 4" UP FROM LAP.
- 2.) LARGE ROOF AREAS MAY REQUIRE A LARGER GAP BETWEEN PANEL AND DIVERTER TO ALLOW FOR STORM WATER RUN OFF.

## VALLEY w/ DIVERTER

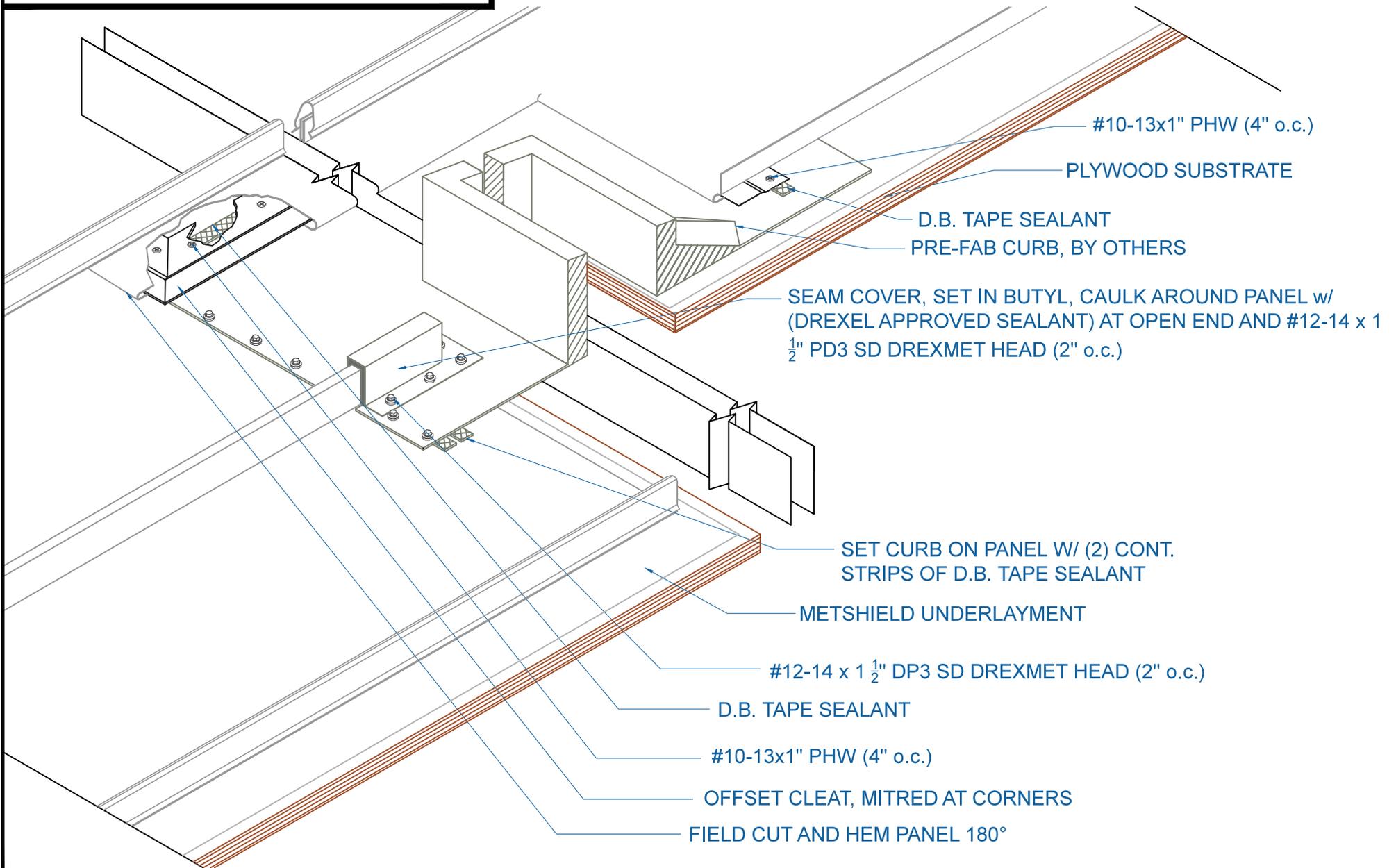
SCALE: 3" = 1'-0"

EFFECTIVE DATE: 08-14-2013  
SUBJECT TO CHANGE WITHOUT NOTICE

**DrexelMetals**  
Roofing Systems + Custom Fabrication



# DMC CAP SEAM - PLYWOOD



EFFECTIVE DATE: 08-14-2013  
SUBJECT TO CHANGE WITHOUT NOTICE

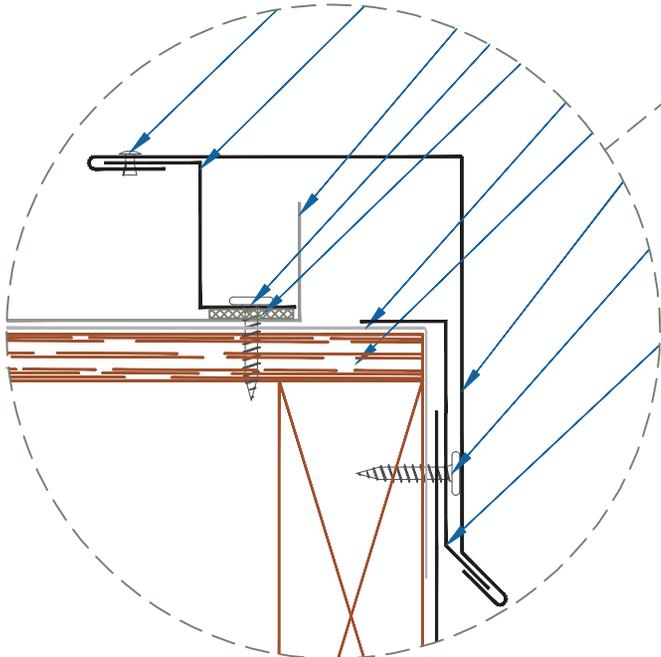
## CURB DETAIL

SCALE: NTS

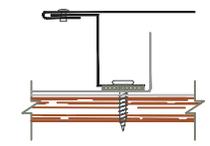
# DMC CAP SEAM - PLYWOOD



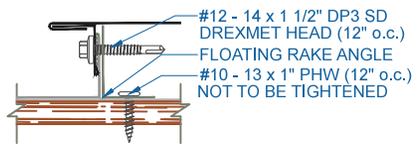
ZOOMED IN VIEW



NTS



ON MODULE



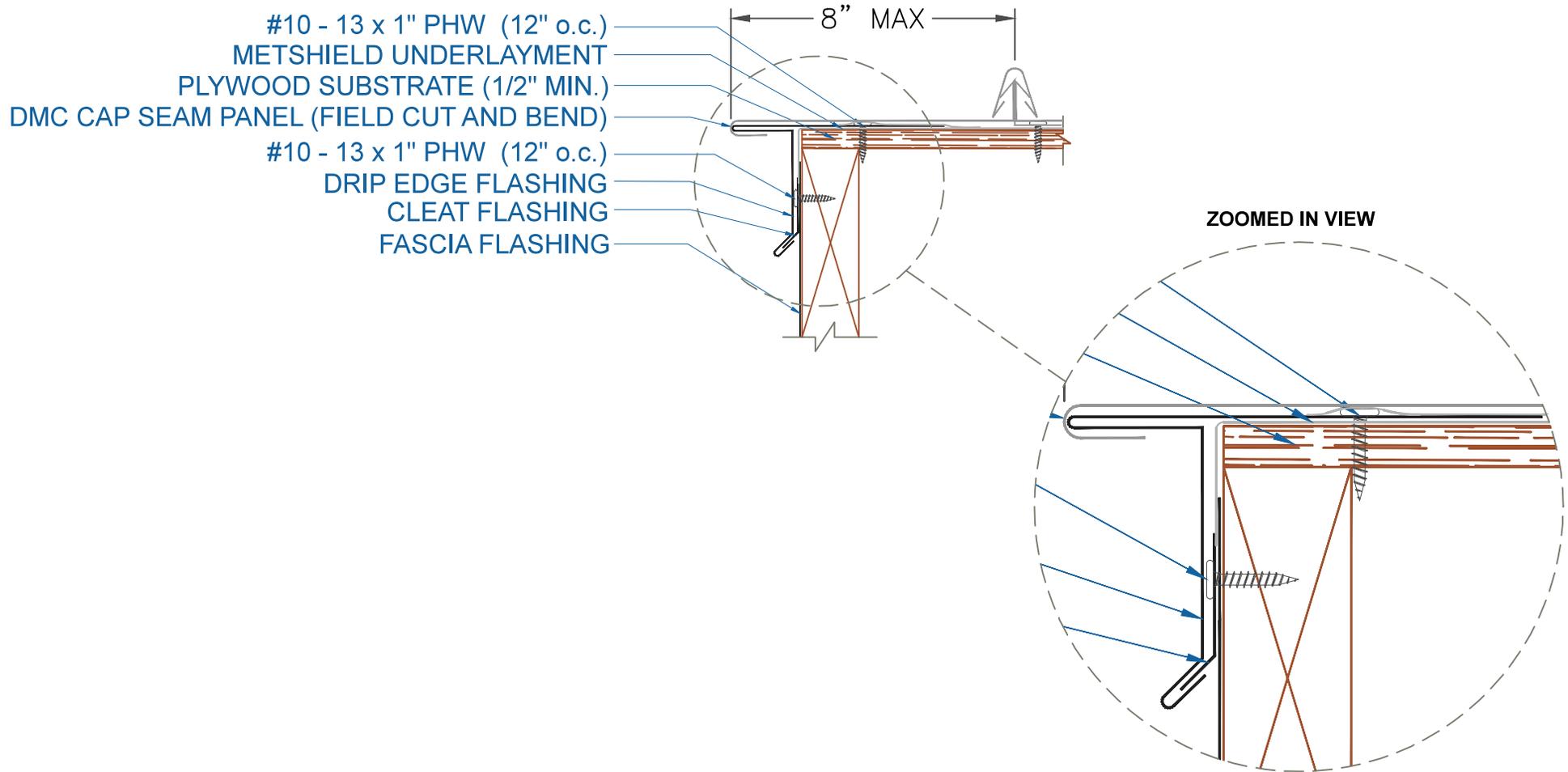
FLOATING GABLE

EFFECTIVE DATE: 08-14-2013  
 SUBJECT TO CHANGE WITHOUT NOTICE

**GABLE**  
 SCALE: 3" = 1'-0"



# DMC CAP SEAM - PLYWOOD



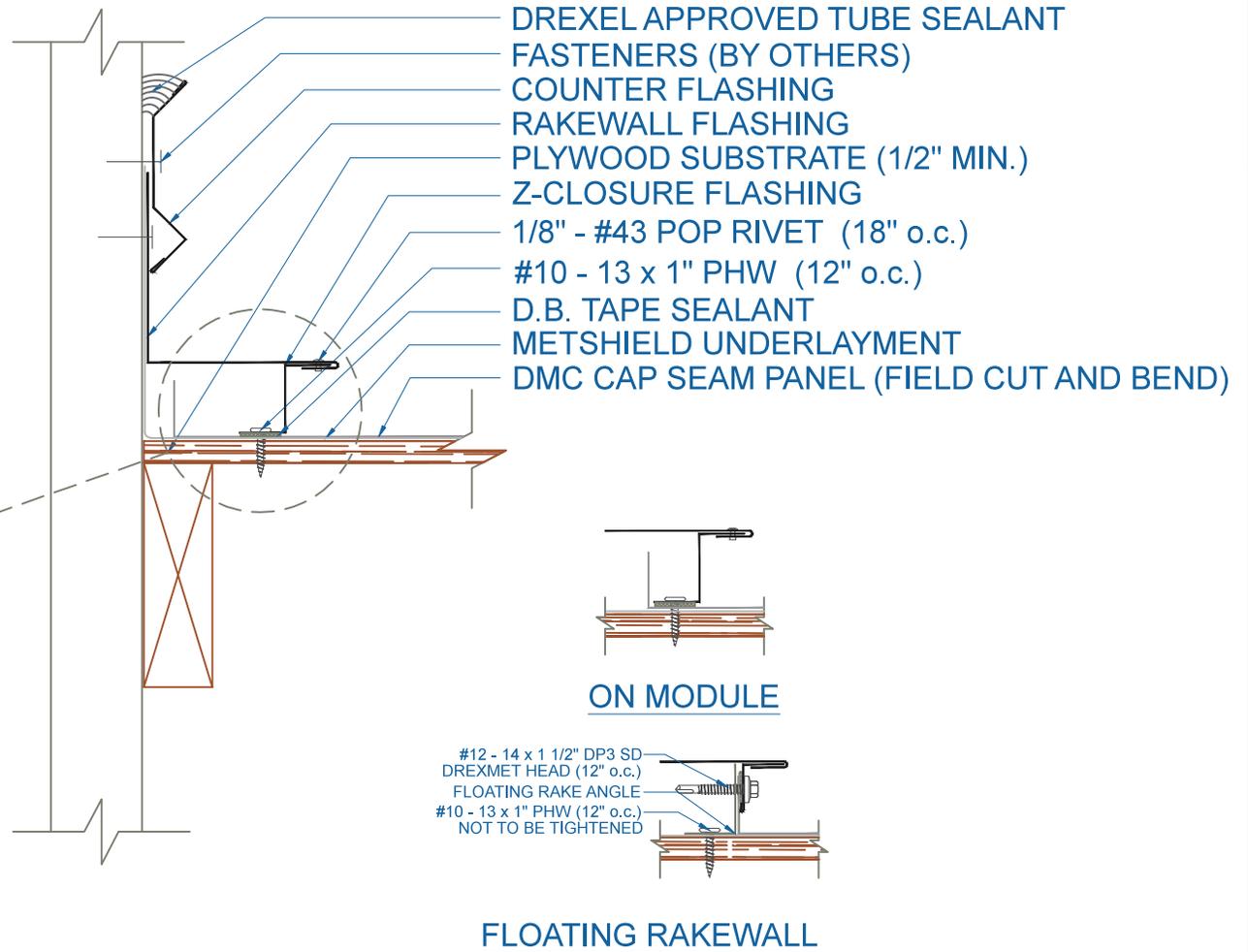
## GABLE w/DRIP EDGE

EFFECTIVE DATE: 08-14-2013  
SUBJECT TO CHANGE WITHOUT NOTICE

SCALE: 3" = 1'-0"



# DMC CAP SEAM - PLYWOOD



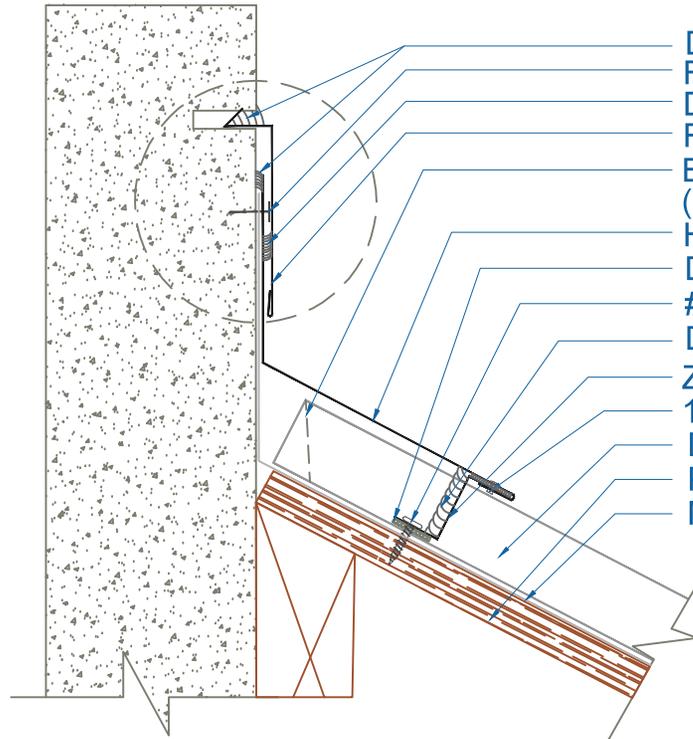
NTS

EFFECTIVE DATE: 08-14-2013  
 SUBJECT TO CHANGE WITHOUT NOTICE

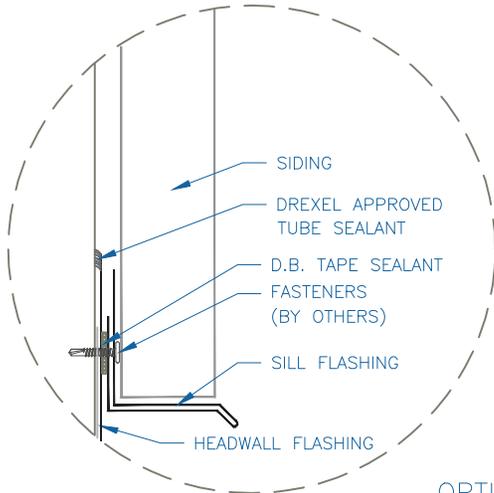
## RAKEWALL

SCALE: 3" = 1'-0"

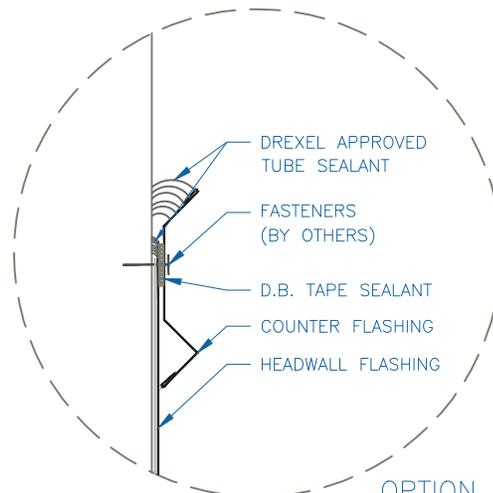
# DMC CAP SEAM - PLYWOOD



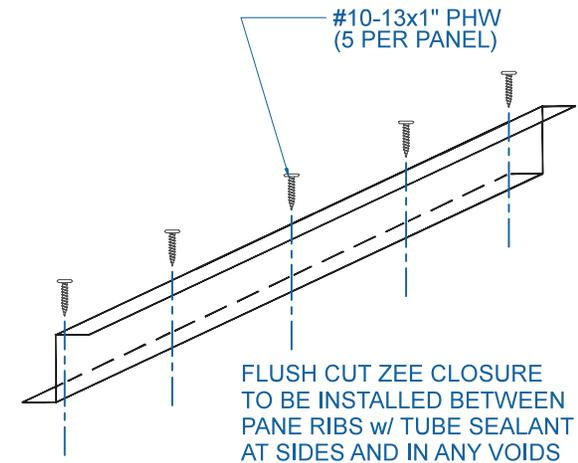
- DREXEL APPROVED TUBE SEALANT
- FASTENERS (BY OTHERS)
- DREXEL APPROVED TUBE SEALANT
- REGLET FLASHING
- BOX END OF PANEL  
(SEE ZEE CLOSURE OPTIONS DETAIL)
- HEADWALL FLASHING
- D.B. TAPE SEALANT
- #10 - 13 x 1" PHW (5 PER PANEL)
- DREXEL APPROVED TUBE SEALANT
- Z-CLOSURE FLASHING
- 1/8" - #43 POP RIVET (18" o.c.)
- DMC CAP SEAM PANEL
- PLYWOOD SUBSTRATE (1/2" MIN.)
- METSHIELD UNDERLAYMENT



OPTION 1



OPTION 2

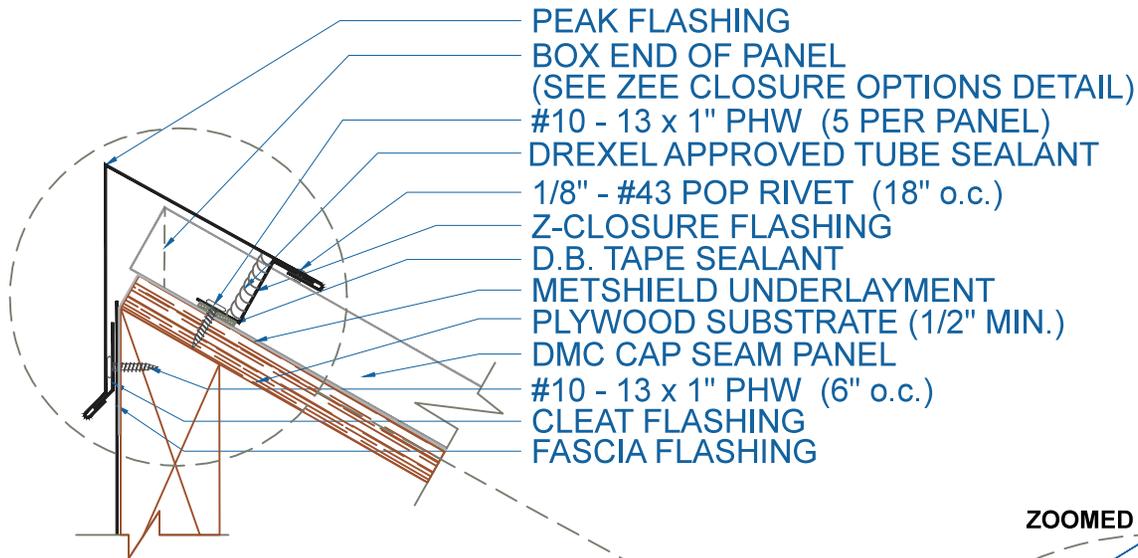


EFFECTIVE DATE: 08-14-2013  
SUBJECT TO CHANGE WITHOUT NOTICE

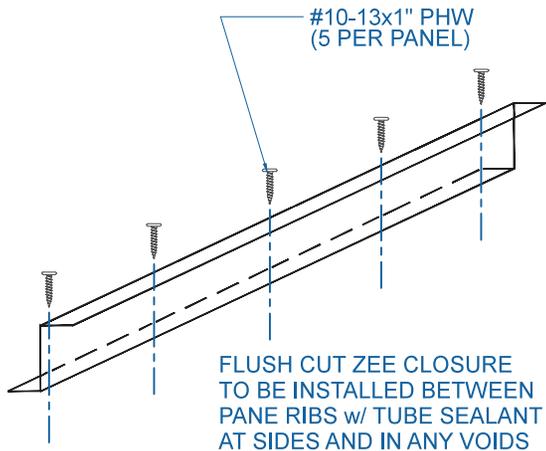
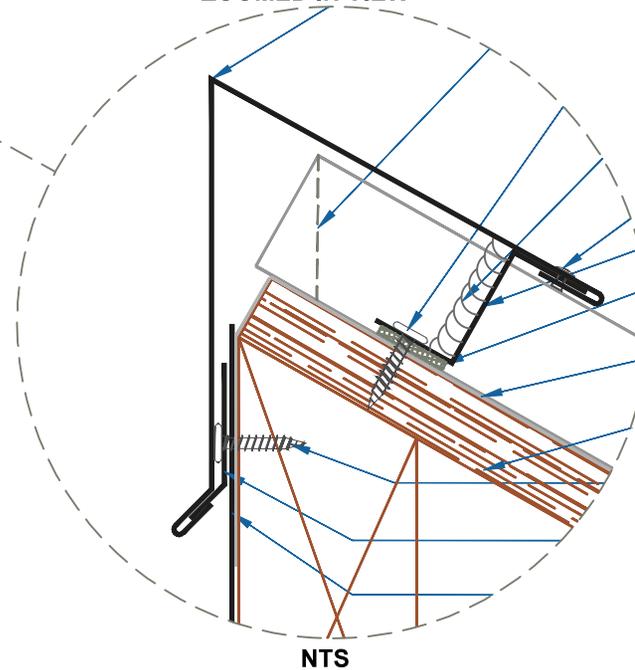
## HEADWALL

SCALE: 3" = 1'-0"

# DMC CAP SEAM - PLYWOOD



ZOOMED IN VIEW



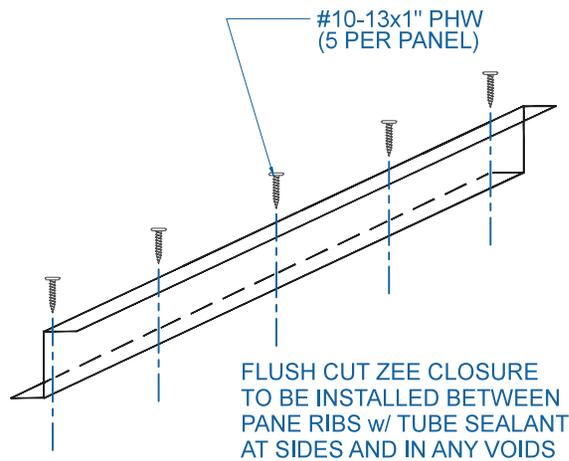
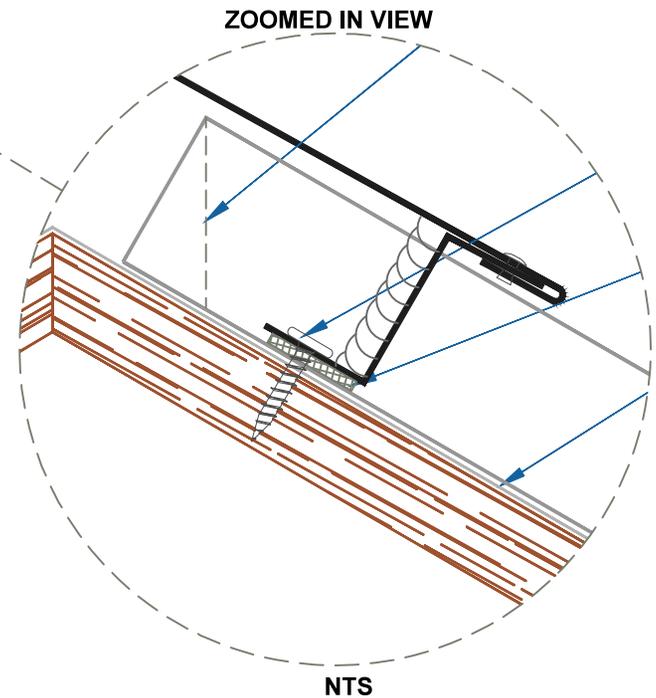
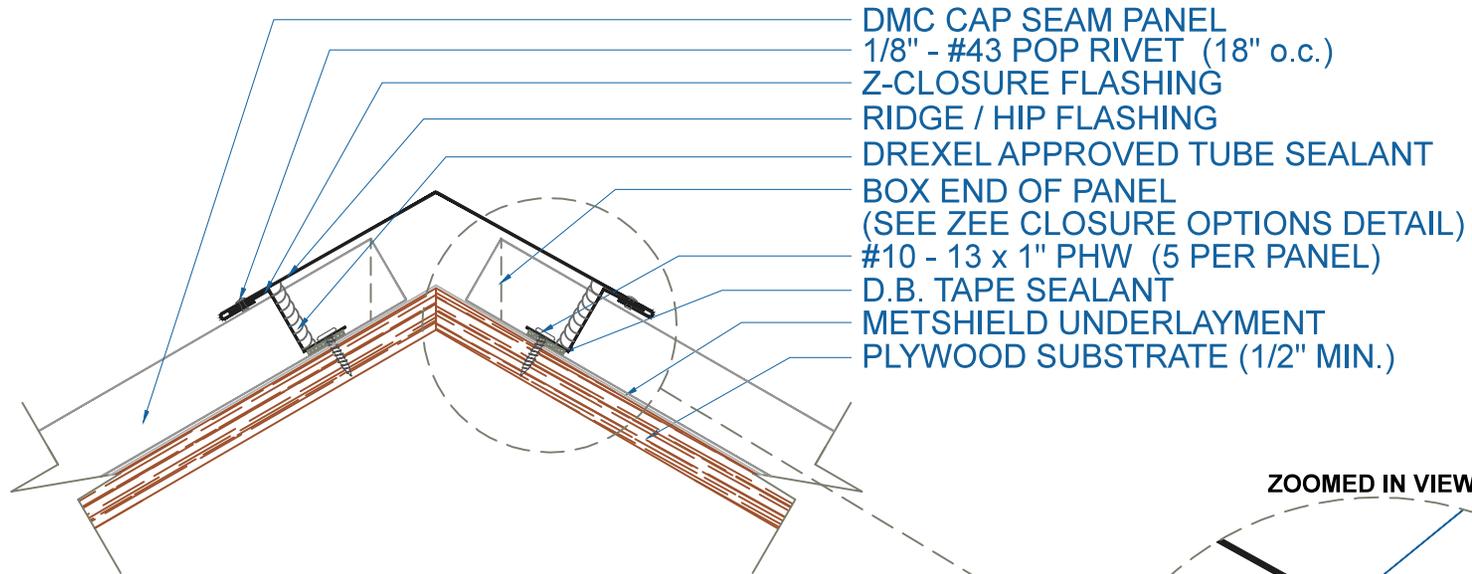
EFFECTIVE DATE: 08-14-2013  
 SUBJECT TO CHANGE WITHOUT NOTICE

**PEAK**  
 SCALE: 3" = 1'-0"

**DrexelMetals**  
 Roofing Systems + Custom Fabrication



# DMC CAP SEAM - PLYWOOD

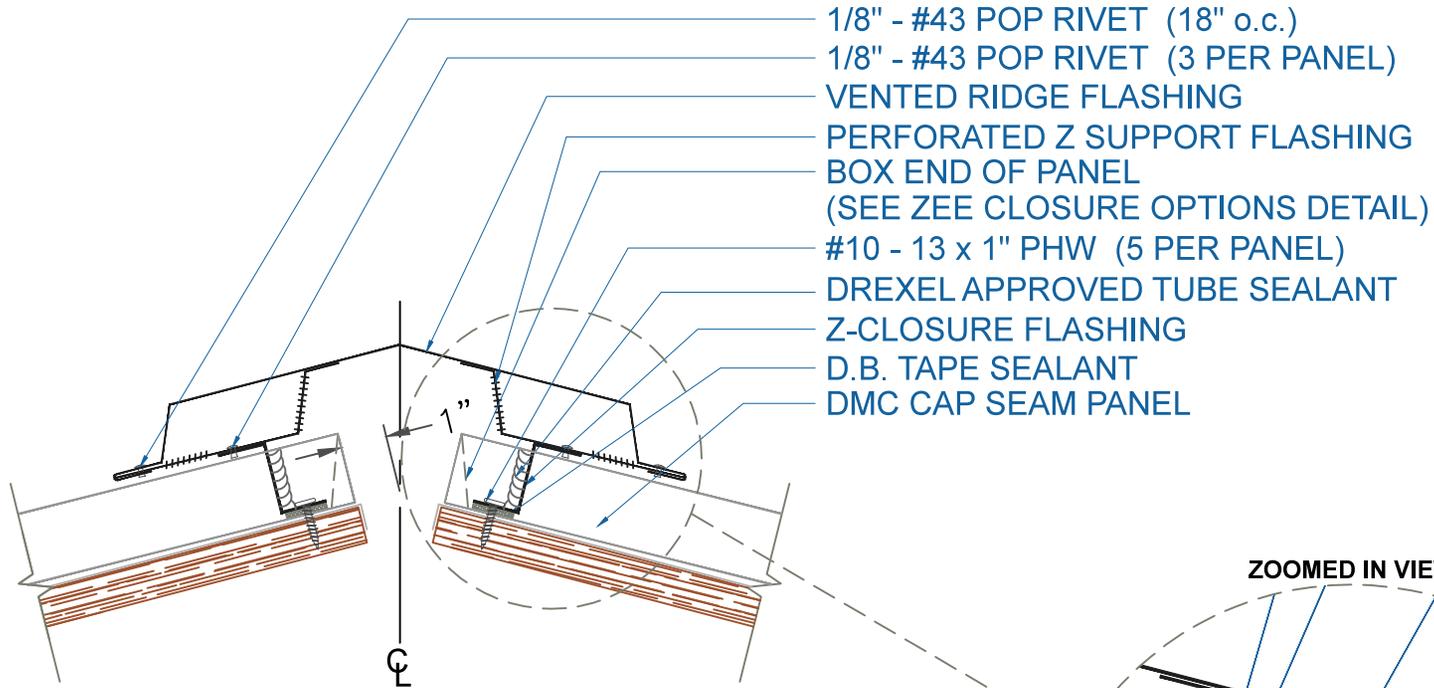


EFFECTIVE DATE: 08-14-2013  
 SUBJECT TO CHANGE WITHOUT NOTICE

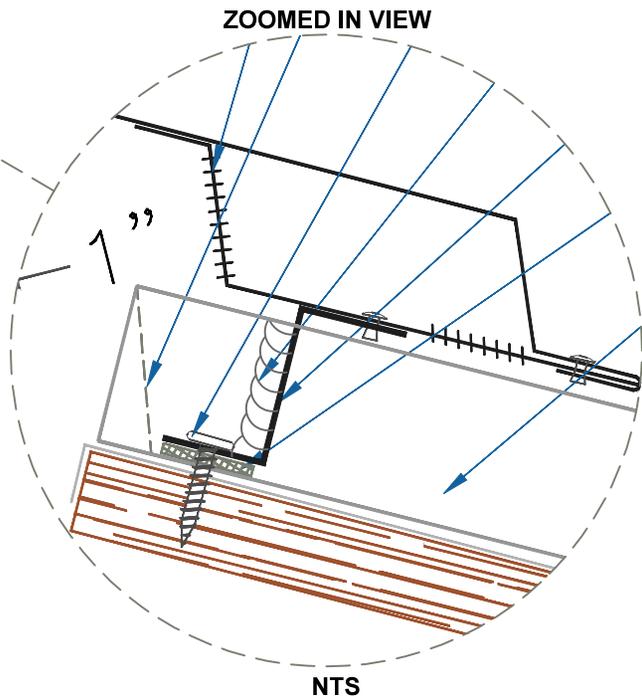
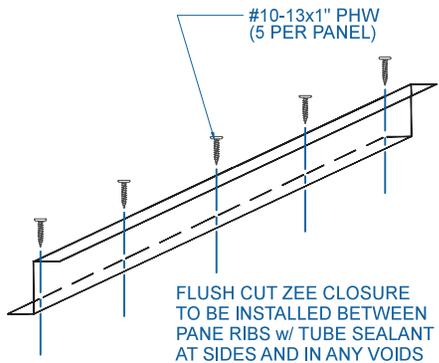
**RIDGE / HIP**

SCALE: 3" = 1'-0"

# DMC CAP SEAM - PLYWOOD



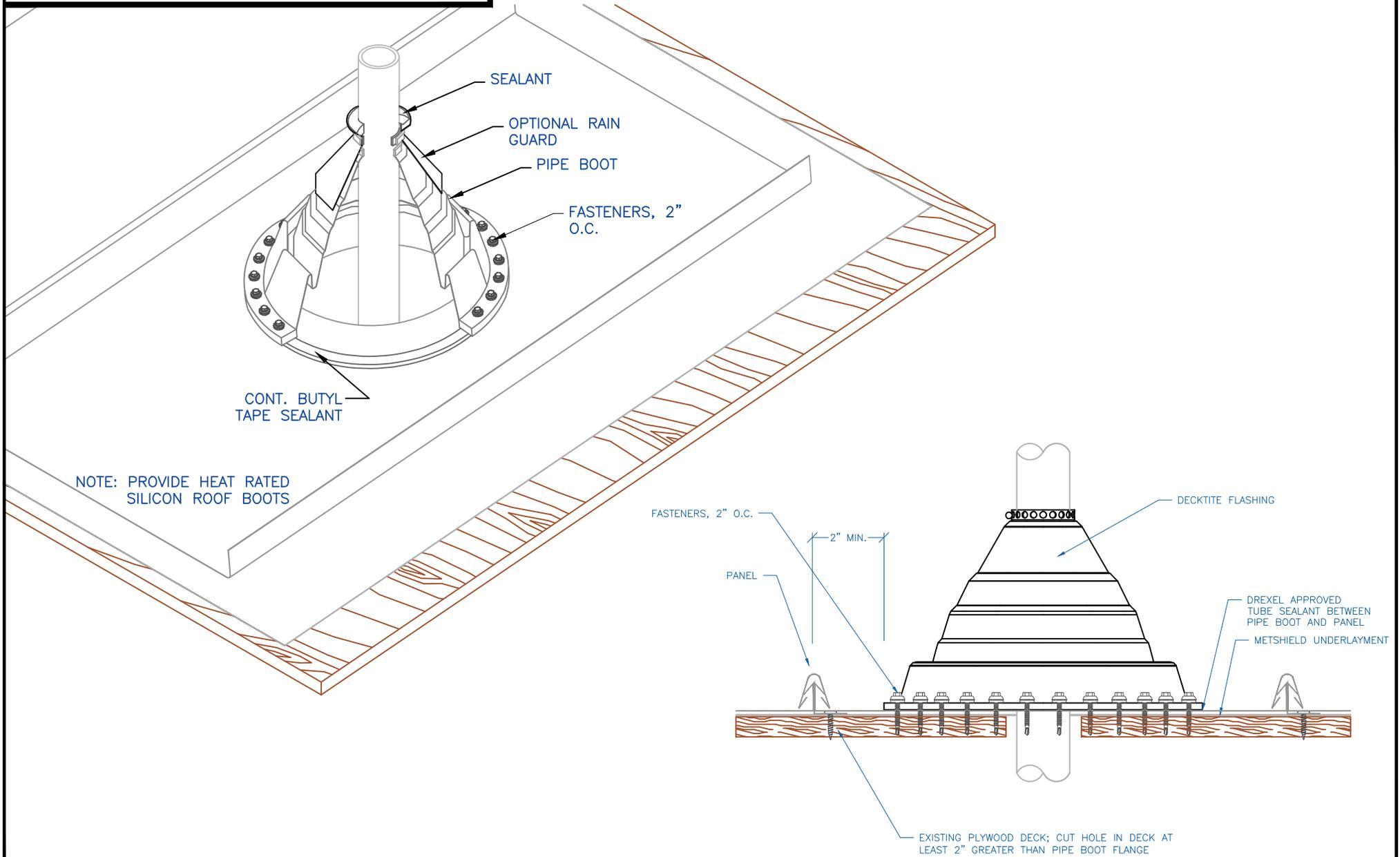
NOTE:  
1.) NET FREE AREA = 6.16 SQ IN/FT



## VENTED RIDGE / HIP

SCALE: 3" = 1'-0"

# DMC CAP SEAM - PLYWOOD



EFFECTIVE DATE: 08-14-2013  
SUBJECT TO CHANGE WITHOUT NOTICE

## PIPE FLASHING DETAIL

SCALE: NTS

