MILITARY DEPARTMENT
OFFICE OF THE ADJUTANT GENERAL
10601 Bear Hollow Drive
Rancho Cordova, California 95670

SOW Addendum 01

IFB No. 127288 - Barracks Buildings 4209, 5006 & T6108 Renovation
Camp Roberts - San Miguel, CA
5/11/2026 at 2:00 PM

4/15/2026

Please review the following addendum to IFB No. 127288.

1. **What happens to the Furniture in Buildings T6108 & 4209?**

   a. Contractor will supply Connex Boxes and Remove, Inventory and Store all furniture. Contractor will provide all cost, labor and rental fees for the Connex Boxes. Furniture must be kept clean & dry, and free from infestations.

2. **Please provide the engineer's estimate?**

   a. Yes, In excess of $4.5 Million Total for all three Barracks buildings.

3. **Are there any plans or as-built drawings available for the buildings to help identify the area or volume of the work?**

   a. Yes, there are two (2) Sets of Drawings. Both were uploaded into Cal eProcure.
   - *Collings & Associates (Fire Protection) Dated 31 March 2021*
   - *Nick Giannini (State Military Dept) Dated 11 April 2019*

4. **Is Building T6108 getting a new Roof, soffit, downspouts and gutters?**

   a. Yes, the existing comp shingles will be removed, and a new White Standing Seam Metal Roof will be installed. This will also include the Awning over the front doors.
   - *Panels shall be 24 gauge, 18" wide 15/8" height with 2 ribs. SSMR system shall include but not limited to all new roof jacks, flashings, caps, drip edges along eaves and rake perimeter. Minimum color warranty shall be 35 years. Color shall be Regal White.*
   - *Contractor shall provide all labor and materials for the installation of a vented ridge vent entire length of building. Color shall be Regal White.*
   - *Contractor shall provide all labor and materials for the installation of a new 22-gauge metal clad on, fascia, enclose metal vented eves, soffits, overhangs, and canopies.*
   - *Soffit material is to be vented. Trim and enclose where the edge of soffit and overhang attaches to existing wood or metal siding, fascia, and rake with metal that matches soffit material. Provide and install full metal clad to all fascia boards.* Color shall be Regal White.
   - *Eve blocks to be drilled with three (3) 2-1/2" diameter holes in every other rafter bay.*
   - *Contractor shall provide all labor and materials for the installation for new aluminum 24 gauge 5" box shape continuous rain gutters with down spouts the entire length of the eaves and overhangs on both sides of building and above exterior doorway canopies.*
   - *Provide and install perforated lock-on perforated gutter guards or approved equal.*

- *Provide and install four (4) 3x2-inch rectangular down spouts, one at each corner of the building.*
- *Provide and install a concrete splash block below each downspout elbow. Rain gutter and down spout color shall be Regal White.*
- *Contractor shall provide all labor and materials to repair or replace existing Gable vents.*
- *Contractor shall provide EPDM flashing with lead ring and stainless-steel clamping ring around all pipes and conduits. Weather head location can use split EPDM flashing with lead ring. Seal under, around EPDM flashing using EPDM lap caulk and EPDM sealing mastic.*

5. The drawings don't indicate a lighting switch at the Mechanical room or Barracks.

a. Contractor will furnish and install a 3-way switch at the interior door to the mechanical/Laundry Room.

6. Due to existing conditions of the building because of settling and existing framing, combined with the loading of the building from the new materials, it has proven difficult to maintain an even reveal at the exterior doors with the use of the specified piano hinge. These hinges do not allow for any adjustment once installed.

a. Switch to standard 4" barrel hinge for all exterior doors, which will allow some adjustment of the doors.

7. Drawing E1 calls for a regular duplex receptacle at the drinking fountain. I would recommend a GFCI.

a. Yes, switch to a GFCI outlet in this location which should be per current electrical code.

8. What if there is rotted or damaged framing, stairs, or structural components.

a. Repair will include stair stringers, blocking for stair treads, upstairs 4X4 post, wall studs, king studs, threshold repair and top and bottom plate replacement. When replacing major sections of plate, ensure proper shoring is utilized to minimize stress and further damage to bldg. Install Two rows of 2X10 blocking w/L90 Simpson clips. Install girder supports, Install new kicker bracing.

9. The existing exposed posts and beams within the building have wood splintering, nails and screws left in the posts, please advise if you would like to add prep of these posts and beams prior to priming and painting in order to create a more uniform appearance.

a. Prep all Paint-able surfaces in accordance with Barracks specification. SECTION 09910, PAINTING, PAGE 4, III.3 SURFACE PREPARATION C. Remove blistering, cracking, flaking, andpeeling or other deteriorated coatings on areas required to receive painting by coating manufacturer's recommendations. D. Slick surfaces shall be roughened and damaged areas such as, but not limited to, nail holes, cracks, chips, and spalls, shall be repaired with suitable material to match adjacent undamaged areas.

10. Please advise if the existing diagonal braces should be removed from the beam support at ceiling and the exposed beam should be wrapped with sheetrock and finished.

a. DO NOT Remove any diagonal braces anywhere in the building Wrap beam and match existing finish per Drawings/Specs.

11.At the corner of the latrines in the toilet stalls there is an exposed 6" cast iron plumbing vent that creates an unacceptable finish with the adjacent frp and maintenance issue in

the future, please advise if you would like to frame in the vent pipe creating a corner that can be wrapped with FRP.

a. Frame out and wrap pipe, finish to match.

12. Between the shower entrance and mop sink at the latrine there will be an exposed drain line and water supply line with an exposed valve adjacent to the concrete curb at the exterior wall under the shower bench. This makes for an unacceptable finish and maintenance issue in the future. Please advise if you would like to frame with an access panel to the valve, wrap the area with FRP and bring the floor finish 6" up typical, and install a bench top on the area.

a. Yes, frame with an access panel to the valve, wrap the area with FRP and bring the floor finish 6" up typical, and install a bench top on the area.

13. The shower area has polyurea sprayed over the existing concrete curbs. Based upon previous buildings the imperfections on the existing concrete curbs create a rough and unacceptable substrate for the polyurea. Please advise if you would like to grind and sack the exposed concrete curbs prior to installing the polyurea material.

a. Yes, grind and sack the exposed curbs prior to Polyurea being installed.

14. Will the Army provide fire extinguishers installed with the contractor furnished and installed fire extinguisher cabinets Please confirm we are to add a 20-pound ABC fire extinguisher as required.

a. Contractor will provide 20-Pound Fire Extinguishers at all cabinets.

15. The thermostat rough in location at level 1 is in conflict with the new furniture layout. The thermostat will be located on the wall perpendicular to the drinking fountain adjacent to the future fire alarm J-box as shown on E-1.

a. Thermostat will be placed in the Mechanical room.

16. The furniture from the barracks will be in storage for approximately 9 months during construction and will become dusty and dirty from being in storage for this duration. The scope of work does not address cleaning or adjusting the furniture after being reinstalled in the barracks.

a. Yes, Contractor will reinstall, clean and adjust furniture as needed, but plan for 12-15 months of storage.

17. Sheets A3 & A4 create a discrepancy between which windows are to receive privacy films. Keynote 37 on A3 indicates to provide film on windows. This keynote calls out the window on the south elevation of Latrine 101 and north elevation of Shower 102. Keynote 34 on A4 is the same as 37/A3, however it identifies the window on the south elevation of Latrine 101 and the east elevation of Latrine 101. Please confirm which windows are to received privacy film. In addition, please confirm that the privacy film is only to be applied on the interior side of the window.

a. Yes, all window films to be installed on the interior side of windows.

18. Keynote 5 on sheet A4 references HDPE Toilet Partitions and indicates that doors shall have (2) coat hooks installed on interior'. Keynote 5 on sheet A3 also references the HDPE Toilet Partitions but does not mention any coat hooks. Please advise if these coat hooks are required as there are (15) additional hooks adjacent the mirrors and next to the door to Shower 102. If so, please advise if these hooks are to be the same model as hooks

referenced in Keynote 19 on A4.

a. Provide the clothes hooks on the partition doors and they can be the same style as the other hooks.

19. Please provide additional information on mounting heights for latrine accessories such as SS shelf, wall mounted hooks, exhaust fans, paper towel dispensers, soap dispensers, wall hydrant, waste receptacle, washer boxes, and shower handles and heads.

- *SS shelf 42" AFF*
- *Waste Basket 24" AFF*
- *Soap Dispensers 42"AFF*
- *Washer Boxes 48 AFF*
- *Lower clothes hooks 48" AFF*
- *Exhaust Fan 78" AFF*
- *Higher clothes hooks 72"*
- *AFF Wall Hydrant 12" AFF*
- *Shower Head 72" AFF*
- *Paper Towel Dispenser 48" AFF*

20. The current placement of the occupancy sensors associated with the existing building energy management system will be conflict with new HVAC duct work as shown on sheet M2, first floor mechanical plan. This issue will specifically interfere with the 10"x6" duct shown to service the latrine area. Please advise on a new placement for the existing occupancy sensors and who will be responsible for the removal and replacement of sensors.

a. Contractor is to remove and reinstall occupancy sensor. Match existing Barracks.

21. Building 5006 shows signs of Termite and Bat Infestation. Who is responsible for mitigation?

a. Contractor is responsible for removal of all Live Bats in the Attic Space, coordinate with Camp Roberts Environmental. Contractor will abate Termite Infestation and repair all damage.

22. With the building BMS system turning power off at the main, this will cause the emergency exit and lighting systems to drain their batteries at every event. Please confirm it is acceptable to run these circuits from the (2) breakers inside the BMS building disconnect box on the outside at panel A.

a. Yes, it is acceptable.

23. The Panel Schedule on E3 does not show any receptacles or callouts for the dryers. Please confirm that the dryers will not require power for their igniters.

a. Contractor will provide one duplex receptacle for both dryers, to include ¾" conduit.

24. Sheet M2 shows a 30"x24" return air grille to be installed connecting to the return air supply. In previous Barracks renovations, 30"x18" return air grilles were installed. The ductwork dimensions remain the same between previous and current Barracks renovations meaning the larger grille size is not necessary. Please confirm it will be acceptable to proceed with the 30"x18" grille.

a. Yes, switch to a 30" x 18" grille.

25. In order to achieve a fire rating for the HVAC shaft to the second floor the exterior of the shaft will be double wrapped, and drywall will not be installed on the interior of the shaft. This will allow for the use of the existing shaft framing without the shaft having to be

widened to allow for drywall and HVAC ducting.

a. Double layer of 5/8" type X on one side of the enclosure is not an approved 1hr rated assembly. Install 1 layer of 5/8" type X gyp on each side of the partition. Contractor shall add additional framing as required to support the gypsum if necessary.

26. Are the front door awnings getting meta/soffit to match roof?

a. Yes, all three awnings will get wrapped in metal, soffit material will be added.

27. What are we doing with Windows in the Latrines.

a. All five (5) windows in the Latrines for all three buildings will be removed and infilled, Contractor will match siding profile and color.

28. Building T6108 has old Aluminum framed windows, are they being replaced?

a. Yes, there are twenty-nine windows (29) that are to be replaced with Contractor is responsible for verifying the correct window count and match existing size. Milgard Tuscany window, white, 1" setback nail flange, LoE-366 glass. Replace exterior windows with white flanged vinyl windows, dual glazing, Sun-Coat low E, Clear glazing with built in mini-blinds between glass panes. Match existing window size and type. Install windows with manufacturer recommended sealant between wall and window flange. Provide tempered glass at locations required by California building code and, or NFPA. Properly flash windows using Tyvek moisture barrier/air barrier system (or approved equal). Provide and install metal Z flashing above all exterior trim head pieces. Install windows with manufacturer recommended sealant between wall and window flange. Provide tempered glass where required by California building code. Modify framing as required to install new windows. Properly flash doors and windows using Tyvek moisture barrier/air barrier system (or approved equal).

29.Building T6108 has a Large Western Sycamore located by the front door, it is to be removed?

a. Yes, contractor will coordinate with Environmental and remove the tree, grinding the stump 6” below grade.

30. Building T6108 has 4 windows located on the fire escape side of the building, are these to remain?

a. No, these four windows will be removed and and infilled, Contractor will match siding profile and color.

31. Building 5006 showed signs of Termite and Bat Infestation.

a. Contractor will humanely have the Bats removed and will abate all live Termites. Contractor will replace and repair all damaged wood. This goes for all three buildings.

32. Building 5006 only has a single front door, does the Government want to match the other two buildings?

a. Yes, Contractor will match other buildings. Contractor is responsible for verifying the size of new exterior doors. Sizes are estimated to be 3’-0” x 6’-8”. Doors and frames installed are to include panic hardware, lock sets, closure, kick plate, vision panel with glazing, hold open device, threshold with sweep and flashing, and weather stripping. Vision lite dimension is to be 4” wide x 25” high. Replace with all new exterior metal door trim, flash and seal. Provide a shop drawing detailing trim, flashing and weather seal of frame to existing metal. All new hardware will be installed using best core. Exterior exit doors shall have: 6”x24”x¼” flush vision Lites, 180

degree swing closers (Norton Model 8301T or approved equal) with hold open, exit panic hardware with lever exterior handle (Von Duprin Model XP99 US26D or approved equal) with IC core 7pin; continues geared full mortise hinge, clear anodized (Pemko model CFMHD3 or approved equal), stainless steel kick plate 10"x34", heavy duty floor stop (Brand: Trimco Model: 1231 or approved equal), threshold, sweep, drip cap, screw on jamb weather-stripping. Exterior utility door shall have: Vented louvers top and bottom, Best 9K series locksets, 2-¾" backset, 626 finish, 15 handle, D rose, ASA strike and IC core 7pin, continues geared full mortise hinge, clear anodized (Pemko model CFMHD3 or approved equal), heavy duty floor stop (Brand: Trimco Model: 1231 or approved equal), threshold, sweep, drip cap, screw on jamb weather-stripping.

33. Building 5006 has a different Latrine Layout, and has one upstairs, does the government want to match the other building?

a. Yes, demo 2nd floor latrine, demo 1st raised floor latrine, match other building, refer to Drawings/Specs.

34. Building 5006 has older style entry stairs; are they being replaced?

a. Yes, there will be damaged floor framing members by termites due to soil placed against the bare wood of the building as fill for the existing concrete stairs. Active termite infestation will also be found in a localized area that will be controlled by the removal of infested wood members. Remove existing siding and skirting to fully expose termite damaged wood framing members. Remove and replace the following wood framing members that are infested or damaged by termites.

- *Approximately12lf of 2" x 8" rim joist*
- *Approximately 5 lf of outside layer of built-up beam consisting multiple 2" x 8"*
- *Sister 2 ea 2" x 8" floor joist and hang with new hardware onto the new rim joist.*
- *All damaged and infested wood is to be removed and disposed of. Lumber used for replacement will be Douglas fir #2 or better. Use Simpson Strong Tie connectors as necessary to fasten and install framing members. Block and shore the floor of the building to support the structure to accomplish the work. Remove and replace damaged framing members in a workman like manner. Remove temporary blocking and shoring. Re-install the existing metal siding and skirting into the original location in preparation for follow on construction of the new concrete stairs.*
- *Over excavate a minimum of one foot deep below grade, fill and recompact excavated soil if suitable, otherwise import suitable fill and compact to 95 %. Compaction will be inspected by visual observation and compaction effort.*
- *Install new metal skirting to fit tightly against new stairs.*
- *Install concrete landings, stairs, handrail and sidewalk. Stair landing dimensions are to be 5' x14' 6" across front of building, centered under existing roof overhang. Stair width is 14' 6". Stair run is to be 12". Stair rise is to be not more than 7" high and all the same height dimension. Sidewalk is to be 5' x 14' 6" x 4 inches thick. Set top surface of sidewalk at 1 inch above existing grade and use top surface of sidewalk to calculate stair rise. Bottom of stair is to be at same grade as bottom of 4" thick sidewalk.*
- *The back of concrete form against the building is to be ¾" pressure treated (PT) plywood wrapped with 30# asphalt impregnated felt paper. Treat all cut PT plywood edges with wood preservative. Plywood and paper are to remain in place. Concrete is to be a 3500 psi (at 28 days) design. Submit concrete mix design. Compression strength testing is not required. Finish concrete landing and sidewalk with a broom texture. All stair noses are to be tooled with a multi-grooved trowel to provide slip resistance surface.*
- *Provide and install steel reinforcing bar in concrete landing, stairs and sidewalk, using a combination of #3 and #4 bar. Use #4 bar for longitudinal reinforcing along steps and #3 bar for grids, stirrups, ties and hooks in landing, stairs and sidewalk. Include reinforcing details in submitted shop drawings. Fill core of landing with structural foam blocks. Concrete is to*

be not less than six inches thick in any dimension. Rebar is to have not less than 1 ½ inches concrete cover.

- *Handrails are to be fabricated from 1 ½" pipe, smooth, welded, with radius bends. There are to be three handrails per stairs. The outside handrails are to provide coverage of the end of the stair landing and project down the stairs to the bottom step. The center handrail is to be centered between the building doors, starting at the beginning of the stairs and projecting to the bottom step. All handrails are to have a center rail between the posts in addition to the handrail. After fabrication, handrails are to be hot dipped galvanized. Mount handrails in formed sockets with pourable hydraulic cement anchoring grout. Handrails are to conform to Title 24, California Code of Regulations. See included handrail sketch.*

35. Building T6108 has a server rack located upstairs, is it staying there?

a. The server rack will rotate to the alcove adjacent to the current location.

Please note that *no verbal* information given will be binding upon the State unless such information is issued in writing as an official addendum.

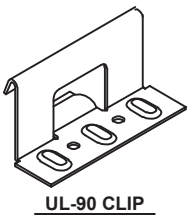
Sergey Kinchak
Contracting Manager

TAYLOR METAL PRODUCTS

Versa-Span™
1¾" SNAP-LOCK PANEL

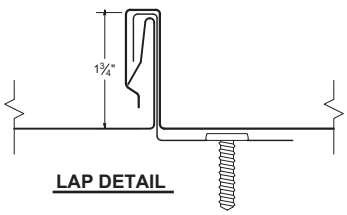
KEY FEATURES

- 1-3/4" Vertical Rib
- 18" Standard Widths
- 24, 22 Gauge and .032" Aluminum
- Concealed Fasteners: Fasteners Cannot Leak
- ICC-ESR #5046 with CBC-CRC Supplement
- Code compliance UL Evaluation Report UL ER 25913-01
- UL 580 Class 90 Wind Uplift rated, UL 790 Class A Fire rated and UL 2218 Class 4 Impact (hail) rated
- UL Construction No. 254, 255, 261, 303, 342, 343, 414, 436, 445, 447, 448, 486, 508, 508A, 543, & 544
- ASTM E283 - Air infiltration (walls)
  ASTM E331 - Water infiltration (walls)
  ASTM E1592 - Structural uniform static air pressure
  ASTM E1646 - Water infiltration (roof)
  ASTM E1680 - Air infiltration (roof)
- Weather tightness warranty available
  (Contact TMP representative for details)
- 2:12 minimum pitch recommended
  (For lower pitches, please inquire or refer to subcontractor)
- Panel Options: Striations, Accent & Pencil Ribs, Flat Pan



UL-90 CLIP

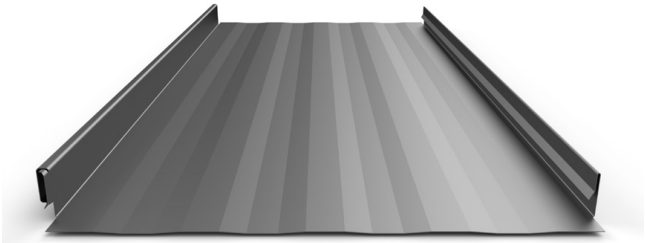
18 GA. Galvanized G90 - ASTM A653 (50 ksi)



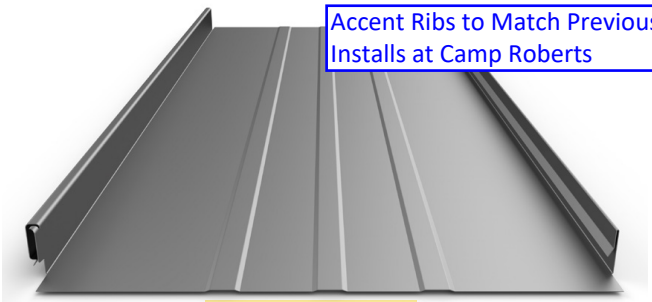
LAP DETAIL

PANEL PROFILES

18" Coverage (Standard, Others Will Have Cost Impact)

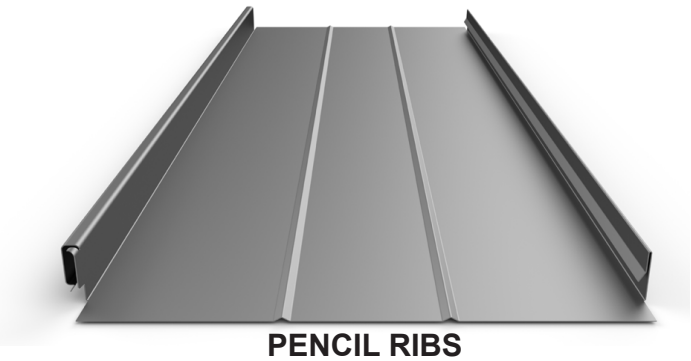


STRIATIONS (recommended)

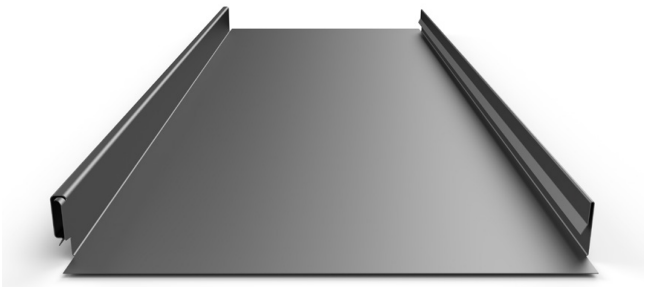


Accent Ribs to Match Previous Installs at Camp Roberts

ACCENT RIBS



PENCIL RIBS



FLAT PAN

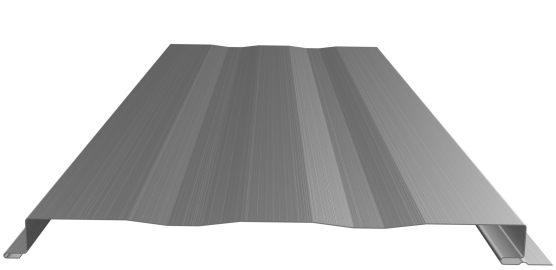
(waiver required, see following pages)

TAYLOR METAL PRODUCTS

Lifetime Soffit™ Flush Seam Series

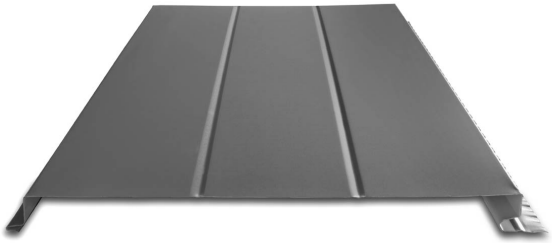
PANEL PROFILES

Pencil and Venting to Match Previous Installs at Camp Roberts



STRIATIONS

Striations offer the best solution to help minimize oil canning



PENCIL RIBS - DOUBLE (shown)

or Single Available

FLAT PAN

Waiver required

PERFORATED PANELS

KEY FEATURES

- 12" coverage
- 24 & 22 gauge Tru-gauge™
- .032 & .040 Aluminum
- Substrate: ASTM A653 / A792
- Custom Lengths 3' to 35'
  (Inquire for longer or shorter lengths)
- 2' Shortcut capability *(Fee applicable)*
- Concealed Fasteners: fasteners cannot leak
- 6.16 sq. inch (4.2%) free air flow per lineal foot of perforated panel
- Versatile in wall and soffit applications
- Panel options: Perforated, Striations, Single or Double Pencil Ribs, and Flat Pan
- "Oil canning" is an inherent characteristic of roof and wall products, and not a defect, which is not a cause for panel rejection

TESTING

- ASTM E1592 - Structural uniform static air pressure
- ASTM E283 - Air Infiltration (wall)
- ASTM E331 - Water Infiltration (wall)

Lifetime Soffit™ will give your commercial or residential projects a clean monolithic appearance. These panels are a perfect fit to be used on walls, soffits and fascia. With the different panel styles available, your designs will come alive.

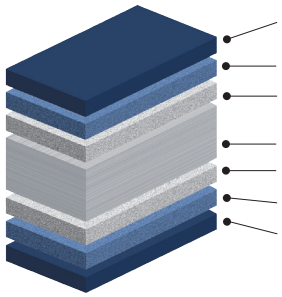
TAYLOR METAL PRODUCTS

MATERIAL SPECIFICATIONS

- 24 Tru-Gauge™ Kynar 500® Painted Steel
- ▲ 22 Tru-Gauge™ Kynar 500® Painted Steel
- 24 Tru-Gauge™ G-90 Galvanized or AZ-50
- 24 and 22 Tru-Gauge™ bare Zincalume® Plus AZ-55 *(No finish warranty – 25 yr. perforation warranty)*
- G-90 Galvanized or AZ-50
- ✦ .032" & .040" Kynar 500® Painted Aluminum (please inquire)
- 24 Tru-Gauge™ Bonderized
- 22 gauge Rusteel Plus™ (A606)
- 16 OZ & 20 OZ Real Copper
- Kynar 500® and substrate testing data available (See website)

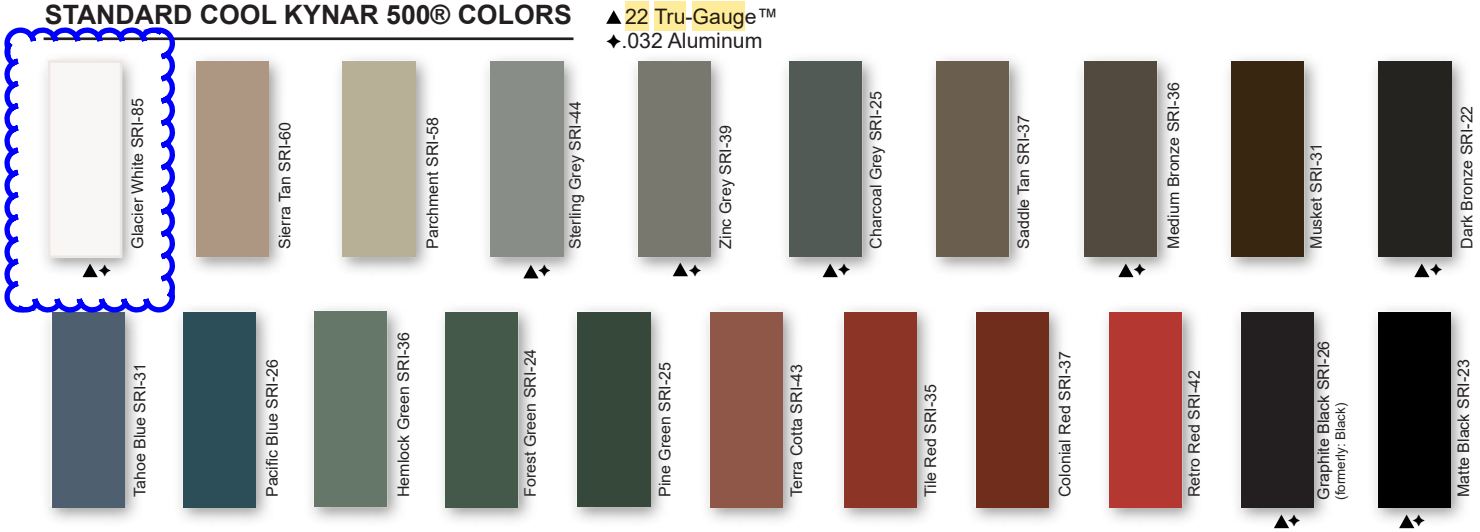
FINISHES

- 21 Standard Colors, 5 Metallic Colors and 4 Specialized Colors
- Kynar 500® Paint System - the ultimate in exterior durability and color retention
- "Cool" color pigments are specially designed to reflect infrared light, reducing heat gain to dwelling, and conform with ENERGY STAR® criteria
- Superior quality, two coat, 70% resin finish, applied at a 1 mil. thickness
- 40 year residential paint warranty
- 20 and 30 year commercial paint warranty: Contact TMP for warranty specifications
- "Oil Canning" is an inherent characteristic of roof and wall products, and not a defect, which is not a cause for panel rejection

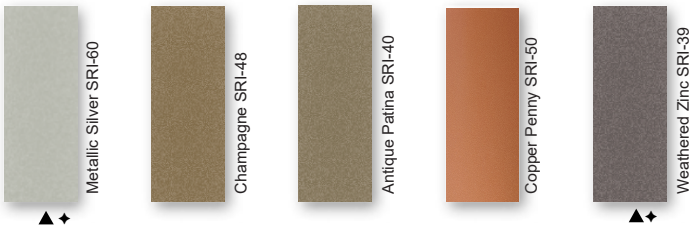


STANDARD COOL KYNAR 500® COLORS

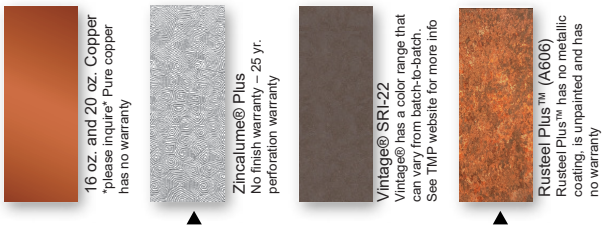
▲22 Tru-Gauge™
✦.032 Aluminum



PREMIUM METALLIC COOL KYNAR® COLORS



SPECIALIZED MATERIAL



These printed chips provide a close representation of the colors.

Metal samples are available upon request. Coatings are low gloss 10-15% sheen.

*SRI = Solar Reflective Index. SRI values listed above are in accordance with ASTM E 1980 and are based on actual testing.***Oil canning is not a cause for material rejection****

steelscape

Rev. Date 03-24

Taylor Metal Products Cool Kynar 500®

All Taylor Metal Products Kynar 500® coatings utilize pigments that are specifically designed to reflect infrared light, help reduce the heat gain of a dwelling, and conform with ENERGY STAR® criteria for steep slope cool roofing products.

PVDF is a fluoropolymer that is manufactured under the trademarked names Duranar (PPG) and Kynar 500®. Paint finishes containing a minimum 70% PVDF resin meet the high-performance weathering criteria established by the American Architectural Manufacturing Association and are allowed to carry the Kynar 500® trademarked name.

KYNAR 500® SPECIFICATIONS - Polyvinylidene Fluoride (PVDF)*

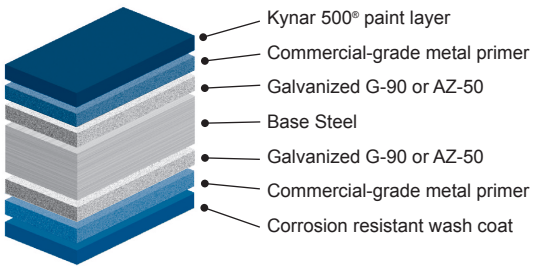
	Aluminum Substrate	Coated Steel[1] Substrate
Dry Film Thickness (nominal)		
ASTM D1400	0.20 - 0.30 mil primer 0.70 - 0.80 mil topcoat	0.20 mil primer 0.75 mil topcoat
Gloss		
ASTM D523	25 - 35	25 - 35
Standard @ 60°	<10	<10
DURANAR LG @ 85°		
Pencil Hardness		
ASTM D3363	F-2H	F-2H
Flexibility[2]		
T-bend, ASTM D4145	0-2 T-bend; No pick-off	2 T-bend; No pick-off
Adhesion		
ASTM D3359	No adhesion loss	No adhesion loss
Reverse impact 1/16" crosshatch		
Reverse Impact		
ASTM D2794	No cracking or adhesion loss	No cracking or adhesion loss
1.5 x metal thickness (aluminum)	No cracking or adhesion loss	No cracking or adhesion loss
3.0 x metal thickness (coated steel)		
Acid Resistance		
ASTM D1308	No effect	No effect
10% muriatic acid — 24 hrs.	No effect	No effect
20% sulfuric acid — 18 hrs.		
Acid Rain Test		
Kesternich SO_2, DIN 50018	15 cycles min. No objectionale color change	15 cycles min. No objectionable color change
Alkali Resistance		
ASTM D1308	No effect	No effect
10%, 25% NaOH, 1 hr.		
Salt Spray Resistance		
ASTM B117	Passes 4000 hrs.	Passes 1000 hrs.
5% salt fog @ 95°F	Less than 1/16" avg. creepage from scribe:	Less than 1/8" avg. creepage from scribe;
	None or few #8 blisters	None or few #8 blisters
Humidity Resistance		
ASTM D714	Passes 4000 hrs.	Passes 1500 hrs.
ASTM D2247	No #8 blisters	No #8 blisters
100% relative humidity @ 95°F		
Exterior Exposure		
10 yrs. @ 45°, south Florida	Max. 5 fade	Max. 5 fade
ASTM D2244	Max. 8 chalk	Max. 8 chalk
ASTM D4214		

[1]Coated Steel includes the following types of steel: G90 hot dip galvanized, Galdan, Galvalume, and Zincalume.

[2]Fracturing or rupturing of substrate will rupture coatings. Heavy gauge and clad steel substrates impose limitations on formability. DURANAR coatings are generally flexible beyond the point of substrate rupture.

This elite high-performance paint system is extremely durable, providing the most effective long-term protection against color fade and chalking, as well as superior resistance to surface damage encountered under normal environmental conditions. The uparallelled performance of the Cool Kynar 500® paint system is perfect for residential and commercial buildings.

With 22 standard colors and 5 permium metallic coatings, the Cool Kynar 500® Paint System is certain to provide any project with the highest quality protection and appearance.



November 2021

Coated Steel Light Reflectance Values (LRV)

Standard Kynar 500® Coatings	LRV*
Black	6
Charcoal Gray	12
Colonial Red	10
Dark Bronze	7
Forest Green	10
Glacier White	74
Hemlock Green	20
Medium Bronze	11
Musket	7
Pacific Blue	9
Parchment	40
Pine Green	8
Retro Red	10
Saddle Tan	14
Sierra Tan	34
Sterling Gray	26
Tahoe Blue	13
Terra Cotta	16
Tile Red	10
Zinc Gray	20

Premium Metallic 500® Coatings	LRV*
Antique Patina	17
Champagne	32
Copper Penny	28
Metallic Silver	52
Weathered Zinc	23

Premium Finish	LRV*
Vintage®	20

Ironstone (Eternal Collection™)	17
Rainforest (Eternal Collection™)	18
Sungold (Eternal Collection™)	15
Urban Slate (Eternal Collection™)	18

***LRV, or Light Reflectance Value**, measures the amount of visible or usable light that reflects from a surface. LRV is expressed as a percentage from 0 to 100; the higher the number the more visible light that is reflected. Typically, lighter colors will have a higher value than dark colors, but texture can impact LRV as well. Rough textures tend to reflect less visible light. Gloss and sheen are two other terms used to describe visible reflection of a surface. Gloss is the measurement of visible light at a 60° angle from the surface, while sheen is measured at 85°. High gloss/sheen results in high glare or shine from a surface, while low gloss/sheen surfaces have a flat or matte appearance. Glare, often a concern with pre-painted roofs, is controlled by lowering the sheen value. **LRV is independent from SRI & SRV.**

Steelscape **Kalama** **222 West Kalama River Road** **Kalama, WA 98625-9420 USA**

Phone 360-673-8200 **Fax 360-673-8250**

Cool Roof Rating Council

Preview of Update to Website - Rated Products Directory

As of 5/2/2016

Total Number of Products: 24

CRRC Product ID	Manufacturer Information	Brand	Hyperlink from Brand	Model	Product Type Color	Solar Reflect. (Init/ 3 yr)	Therm Emit. (Init / 3 yr)	SRI (Init / 3 yr)	Slope Application
1246-0001	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Antique Patina	Metal Products: Prepainted Metal Multicolor	0.35 / 0.35	0.75 / 0.75	32 / 32	Low/Steep
1246-0002	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Black	Metal Products: Prepainted Metal Black	0.25 / 0.25	0.83 / 0.82	22 / 22	Low/Steep
1246-0003	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Burgundy	Metal Products: Prepainted Metal Red	0.25 / 0.25	0.83 / 0.83	22 / 22	Low/Steep
1246-0004	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Champagne	Metal Products: Prepainted Metal Tan	0.35 / 0.35	0.75 / 0.75	32 / 32	Low/Steep
1246-0005	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Charcoal Grey	Metal Products: Prepainted Metal Grey	0.25 / 0.25	0.83 / 0.83	22 / 22	Low/Steep
1246-0006	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Colonial Red	Metal Products: Prepainted Metal Red	0.25 / 0.25	0.83 / 0.83	22 / 22	Low/Steep
1246-0007	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Copper Penny	Metal Products: Prepainted Metal Brown	0.35 / 0.35	0.75 / 0.75	32 / 32	Low/Steep
1246-0008	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Dark Bronze	Metal Products: Prepainted Metal Brown	0.25 / 0.25	0.83 / 0.83	22 / 22	Low/Steep
1246-0009	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Forest Green	Metal Products: Prepainted Metal Green	0.25 / 0.25	0.83 / 0.83	22 / 22	Low/Steep
1246-0010	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Glacier White	Metal Products: Prepainted Metal Bright White	0.7 / 0.7	0.83 / 0.83	84 / 84	Low/Steep
1246-0011	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Hemlock Green	Metal Products: Prepainted Metal Green	0.32 / 0.32	0.83 / 0.83	31 / 31	Low/Steep

Cool Roof Rating Council

Preview of Update to Website - Rated Products Directory

As of 5/2/2016

Total Number of Products: 24

CRRC Product ID	Manufacturer Information	Brand	Hyperlink from Brand	Model	Product Type Color	Solar Reflect. (Init/ 3 yr)	Therm Emit. (Init / 3 yr)	SRI (Init / 3 yr)	Slope Application
1246-0012	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Medium Bronze	Metal Products: Prepainted Metal Brown	0.32 / 0.32	0.83 / 0.83	31 / 31	Low/Steep
1246-0013	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Metallic Silver	Metal Products: Prepainted Metal Metallic	0.35 / 0.35	0.75 / 0.75	32 / 32	Low/Steep
1246-0014	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Parchment	Metal Products: Prepainted Metal Tan	0.45 / 0.45	0.83 / 0.83	49 / 49	Low/Steep
1246-0015	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Pine Green	Metal Products: Prepainted Metal Green	0.25 / 0.25	0.83 / 0.83	22 / 22	Low/Steep
1246-0016	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Retro Red	Metal Products: Prepainted Metal Red	0.35 / 0.35	0.83 / 0.83	35 / 35	Low/Steep
1246-0017	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Saddle Tan	Metal Products: Prepainted Metal Tan	0.32 / 0.32	0.83 / 0.83	31 / 31	Low/Steep
1246-0018	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Sierra Tan	Metal Products: Prepainted Metal Tan	0.45 / 0.45	0.83 / 0.83	49 / 49	Low/Steep
1246-0019	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Sterling Gray	Metal Products: Prepainted Metal Grey	0.35 / 0.35	0.83 / 0.83	35 / 35	Low/Steep
1246-0020	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Tahoe Blue	Metal Products: Prepainted Metal Blue	0.25 / 0.25	0.83 / 0.83	22 / 22	Low/Steep
1246-0021	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Terra Cotta	Metal Products: Prepainted Metal Red	0.35 / 0.35	0.83 / 0.82	35 / 35	Low/Steep
1246-0022	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Tile Red	Metal Products: Prepainted Metal Red	0.25 / 0.25	0.83 / 0.83	22 / 22	Low/Steep

Cool Roof Rating Council

Preview of Update to Website - Rated Products Directory

As of 5/2/2016

Total Number of Products: 24

CRRC Product ID	Manufacturer Information	Brand	Hyperlink from Brand	Model	Product Type Color	Solar Reflect. (Init/ 3 yr)	Therm Emit. (Init / 3 yr)	SRI (Init / 3 yr)	Slope Application
1246-0023	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Weaathered Zinc	Metal Products: Prepainted Metal Grey	0.35 / 0.35	0.75 / 0.75	32 / 32	Low/Steep
1246-0024	**Taylor Metal Products** Stephen DeYoung 503-581-8338	Cool Kynar 500	http://www.taylormetal.com	Zinc Grey	Metal Products: Prepainted Metal Grey	0.35 / 0.35	0.83 / 0.83	35 / 35	Low/Steep

Total Number of Products: 24

TAYLOR
METAL PRODUCTS
4566 RIDGE DR. NE
SALEM, OR 97301
PHONE 503.581.8338
800.574.1388
FAX 503.581.6877

Maintenance of Painted Metal Roofing and Siding

Following are the recommendations for the maintenance of painted metal roofing and siding.

(1) Maintenance at the time of erection:
After the structure has been completed, the panels should be carefully examined for stains, scratches, abrasion, grease, or dirt. Stubborn stains should be washed with "one" of the following solutions;

A.) One cup of detergent which contains less than 0.5% phosphate (example-"Tide")* dissolved into 5 gallons of water. *Trisodium Phosphate (soilax)
B.) One cup household ammonia dissolved into 5 gallons of water (room temperature).
C.) Solvent containing cleaners (examples – "Fantastic®" or "Formula 409®") are very effective and can be used without concern.
D.) Starbrite instant Black Streak Remover can also be very effective and can be used without concern. Fort Lauderdale, Fla. 33314. Telephone #: 800-327-8583.

Working from the top to the bottom of the panels, use a well soaked cloth, sponge brush (with very soft bristles) or low pressure spray washer. Once the building is washed, a thorough rinsing with clear water is necessary to eliminate the possibility of residue. The use of scouring powders or industrial solvents are not recommended since these agents may damage the film, or leave unsightly sources for dirt accumulation. Particular attention should be paid to remove metal chips, shavings, or random particles loose or lightly embedded in the paint. These particles originate from drilled holes and field-cut sections and consist of carbon steel which, if left, will oxidize quickly and be a source of red rust stains. These stains can be extensive and severe, and all possible steps should be taken to avoid them.

IMPORTANT: All scratches or abraded areas should immediately be spot-painted with a bottle brush touch-up paint. In the acid rain areas of the country it is recommended, that all exposed cut edges/ends, should be roller painted with an acrylic clear coat, or equivalent clear coat. This includes factory cuts, and field cuts. This will prolong the chance of exposed edges rusting in the future.

(2) Annual Maintenance
The System paint finish will last many years longer than ordinary paints, however, a routine, thorough cleaning should be performed at least once per year. A thorough cleaning will generally restore that appearance of the panels and render repainting unnecessary.

In rural areas, annual washing with clear water may be all that is required. Even though The System paint finishes are mildrew resistant, mildrew will grow on accumulated dust and dirt which is on the surface. If mildrew or other fungal growth becomes a problem and cannot be removed as outlined, household bleach (read all bleach caution warnings) – mixed at a concentration of one gallon bleach to five gallons water, along with one cup of mild soap to aid wetting – is recommended. Rinse thoroughly.

In industrial areas where fumes and soot are more prevalent, or in marine environments where salt is in the atmosphere, the structure should be washed with one of the solutions described in section one followed by a fresh water rinse.

TAYLOR METAL PRODUCTS

Kynar 500®
REGISTERED WARRANTY
30 Year Commercial, Non-Transferable, Non-Prorated Limited Warranty

Subject to the conditions and exclusions set forth in this warranty, **TAYLOR METAL, INC.** (hereinafter referred to as TMP) provides the following express limited warranty with regard to Kynar 500®/Hylar 500® coated steel products of its manufacturer for use as an exterior roofing or sidewall building product (hereinafter referred to as Product).

Registration: Within 45 days after installation of the Product has been completed, the Original Property Owner(s) must complete a Warranty Registration Card in full and mail it to TMP. Upon receipt, TMP will forward, by mail, to the Owner(s) the Registered Warranty complete with registration number. The owner(s) should keep this Registered Warranty in a safe place for future reference. Failure to notify TMP of the registration shall relieve TMP of all obligations hereunder. In addition, the warranty does not and will not take effect until the project has been paid in full.

Performance: Although it is recognized by all parties to the Warranty that all coatings, including Kynar 500®/Hylar 500®, will fade and change in appearance to some degree over a period of time in outdoor installations, and that such changes may not be uniform between surfaces not equally exposed, TMP warrants for a period of 30 years from the date of installation that when exposed to normal atmospheric conditions and conditions of ordinary wear the Product will not:

A. Peel, check, flake or crack (except for slight crazing or cracking may occur with normal roll-forming or brake bending and which is accepted as standard);
B. Chalk in excess of a numerical rating of 8 measured using the procedures of ASTM D-4214-89 (Method D-659) nor;
C. Fade or change color more than 5 E units (Hunter Color Difference), as measured using the procedure of ASTM D-2244-85, comparing an unexposed retain panel to the exposed panel after removal of dirt and chalk.

TMP's liability under this Warranty is limited as follows: If TMP determines the Product to be defective according to the terms of this Warranty, TMP shall, at its sole option, repair or refinish the defective Product, replace the defective Product from current stock or refund the original purchase price of the defective Product. In no event shall TMP's liability exceed the original material costs of the product.

TMP shall not be liable for any expenses connected with the labor for the replacement of the defective Product or any incidental or consequential damages. The warranty for any repaired or replaced Product shall be for the remainder of the warranty period applicable to the original Product. Delivery charges, installation costs and taxes are not covered by this warranty.

Conditions and Exclusions: This warranty is subject to the following Exclusions, Limitations and Conditions:

a. The warranty covers only Product erected in the continental United States, Alaska and Hawaii which are exposed to normal weather and atmospheric conditions.
b. This warranty shall not apply to product located within 1,000 feet or fewer from a salt-water, salt spray or marine environment. Site specific warranties are available upon request.
   For locations located from 0-999 feet of a mild or severe marine environment use Aluminum Alumiguard™ (see website for warranty).
c. This warranty shall not apply to Product that has been painted or whose surface has been altered in any way without written authorization from TMP. Repair attempts or damage caused by such acts prior to TMP's inspection or written authorization shall void any and all protection under this warranty.
d. The Product must be installed to prevent standing water and condensation. When used as roofing panels, the Product must be installed with minimum pitch of 1/2" per foot for Standing Seam roofs and 3" per foot minimum pitch for Pacific Pattern™ roofs.
e. The product must be washed annually with either a fresh water rinse or a 5% solution of fresh water and mild detergent to prevent the accumulation of concentrated deposits. Fresh water rinses must be documented. Product may be pressure washed, however, settings must not exceed 1,000 PSI and 4 GPM. Any use of abrasive materials or chemical cleaners of any sort will void any and all coverage under this warranty.
f. The warranty shall not cover failures or damage which arise out of any of the following:
   1. The formation of rust on cut panel edges, commonly referred to as cut end or cut edge corrosion/exposure.
   2. Direct or effective exposure to corrosive chemicals, fumes or materials including, but not limited to dissimilar metals, treated lumber, creosote or ash.
   3. Failure to routinely remove any debris accumulations from the Product including, but not limited to, pine needles, leaves or other accumulations of foreign substances.
   4. Use of any patina enhancing/modifying agents, chemical protectors/sealants of any kind, or any materials placed on the Product other than those stated above in "e" above.
   5. Occurences beyond TMP's control such as acts of God, falling or wind blown objects, explosions, fires, vandalism, civil disturbances, external forces, improper handling, improper installation, modification or misuse of the product.
g. In no event is TMP liable for any incidental or consequential damages, including, but not limited to: personal injury, property damage or lost income.
h. TMP reserves the right to discontinue or change any design or color of the Product. If, for any reason, Product of the type originally installed are no longer available from TMP at the time the defect is discovered, TMP, in fulfillment of its warranty obligation hereunder, shall have the right to substitute another Product determined by TMP, in its sole discretion, to be of comparable quality and price.

Transfer: This warranty is non-transferable.

Claims Procedure: Any claim must be presented in writing to TMP within the warranty period and within 45 days of time after the defect is discovered. The claim must describe the claimed defect, the date the defect was discovered, and inlcude pictures that clearly show the defect. The claim must reference the Warranty Registration Number and the original date of installation, and shall include the Owner(s) name, address and phone number. TMP shall be given a reasonable opportunity to inspect the Product in question. Notice shall be sent by registered mail to:
ATTN: Warranty Claims, Taylor Metal, Inc., 4566 Ridge Dr. NE, Salem, OR 97301.

Revised 9/18

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION AS STATED HEREIN, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS OF PURPOSE. TMP SHALL NOT BE RESPONSIBLE FOR ANY INDIRECT OR CONSEQUENTIAL DAMAGES OR FOR ANY KIND OF LOSS WHATSOEVER. UNDER NO CIRCUMSTANCE SHALL TMP'S LIABILITY UNDER THIS WARRANTY EXTEND BEYOND THE PRODUCT'S ORIGINAL MATERIAL COSTS.

Original Property Owner(s): _____

Installation Address: _____

Purchaser: _____

Purchase Date: _____ Invoice #: _____

Issued by **TAYLOR METAL, INC.**

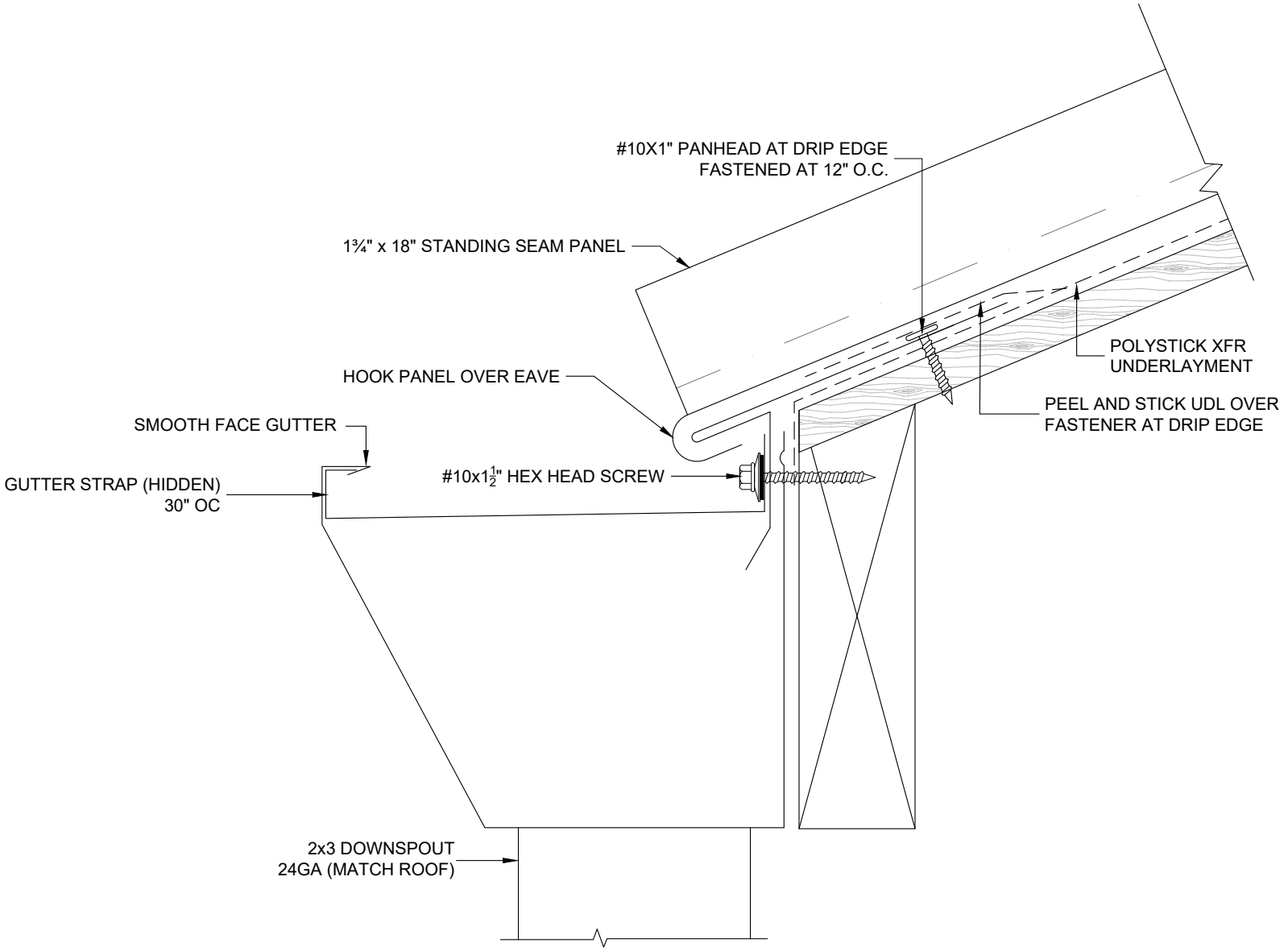
Signature: _____

Title: _____ Name: _____

Registration #: _____ Date: _____

4566 RIDGE DR. NE, SALEM, OR 97301 • PHONE: 503-581-8338 OR 1-800-574-1388 • FAX: 503-581-6877 • WWW.TAYLORMETAL.COM

EAVE (WITH GUTTER)
IF APPLICABLE



WICKS ROOFING INC
WICKS ROOFING • LIC.7 27469 | WICKS SOLAR • LIC. 1041299

WICKS ROOFING & SOLAR, INC.
2170 HUTTON RD., NIPOMO, CA 93444
Office: (805)546-9056
Lic.767469 & 1041299 - C39 / C46 / C10

CLIENT NAME & INFORMATION

DRAWING TITLE:
Metal Roofing:
EAVE (WITH GUTTER)

GENERAL NOTES:

DRAWN BY:	CHECKED BY:
C.MOSSMAN	

APPROVED BY:	DATE:
	1/3/22

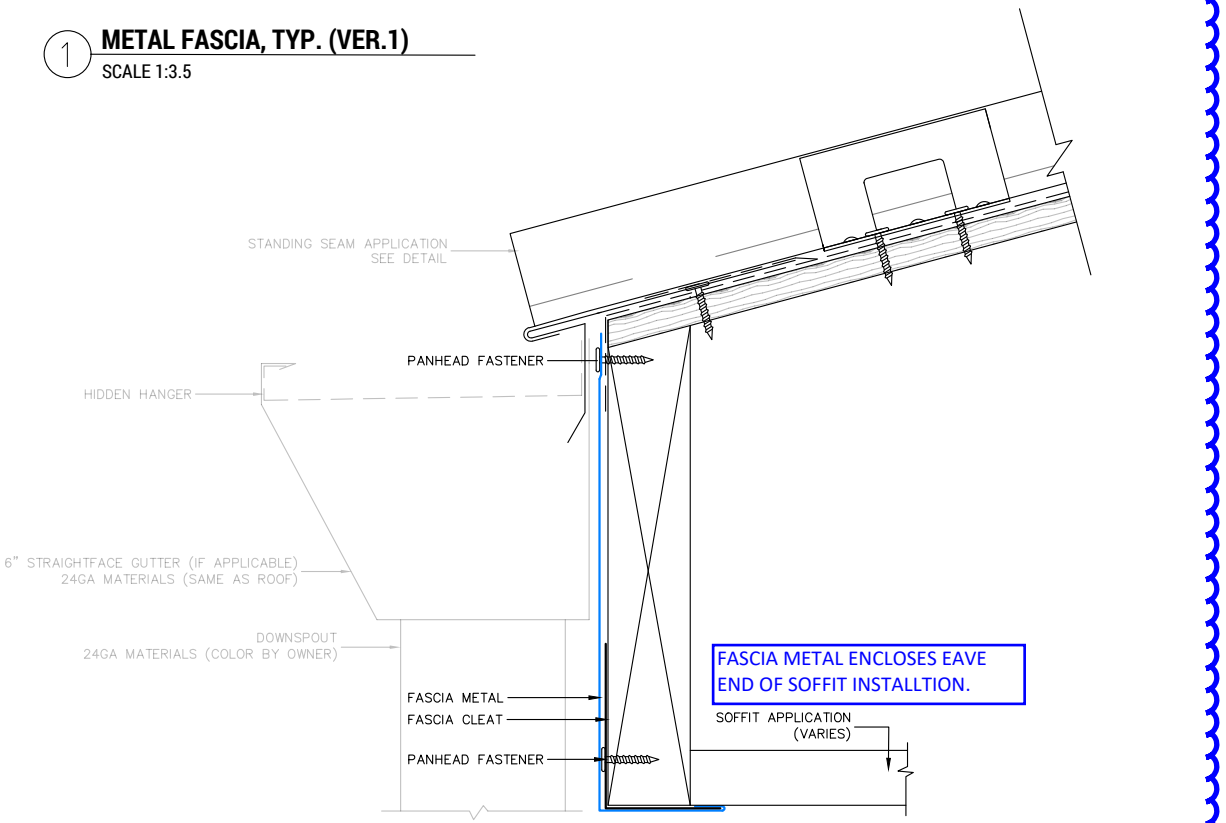
PROJECT NO:	SCALE:	SHEET SIZE:
-	NA	-

DRAWING NO:	SHEET NO:
-	

REV:	DESCRIPTION:	DATE:

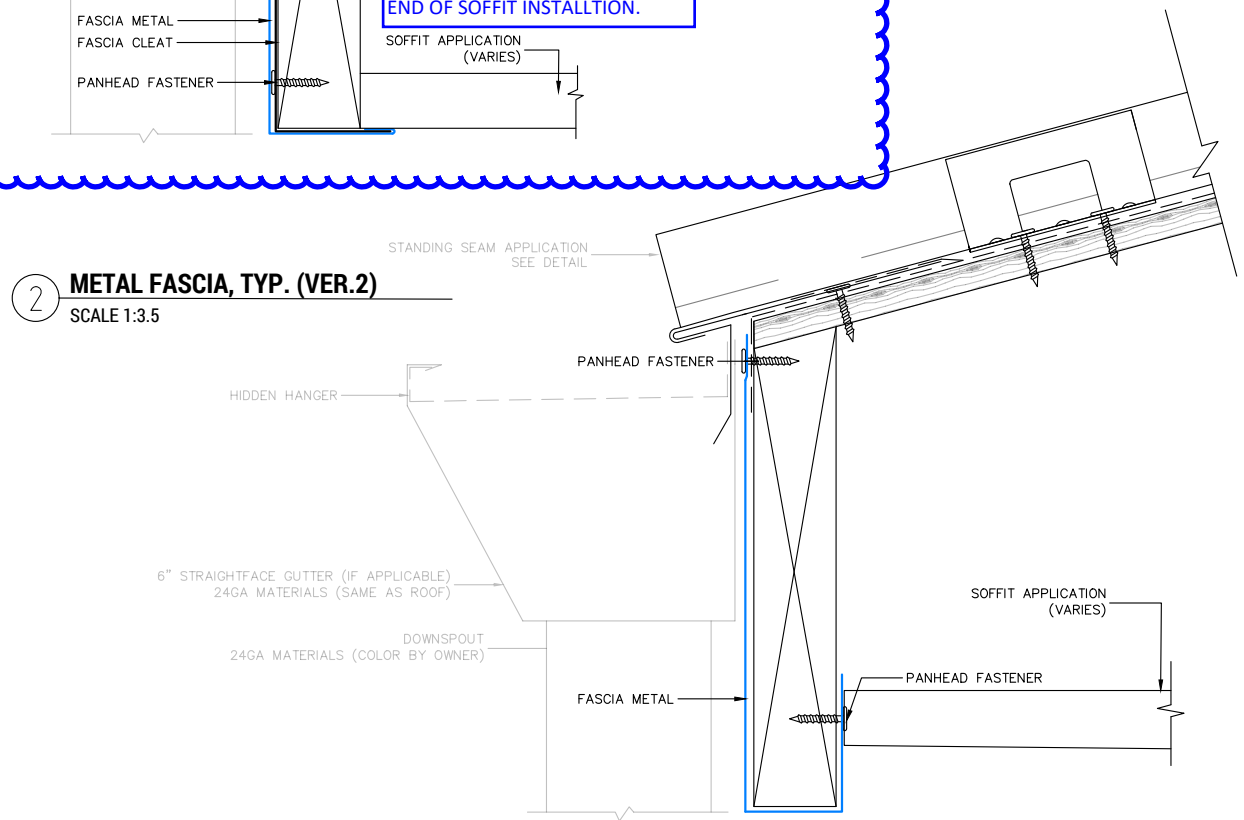
1 METAL FASCIA, TYP. (VER.1)

SCALE 1:3.5



2 METAL FASCIA, TYP. (VER.2)

SCALE 1:3.5



WICK'S ROOFING AND SOLAR, INC

WICKS ROOFING•LIC.7 27469 WICKS SOLAR • LIC. 1041299

METAL SHOP AND SHOWROOM:
2170 HUTTON RD • NIPOMO CA
PHONE: 805.546.9056 • FAX 805.546.9634

ALSO FIND US AT
515 N. QUARANTINA STREET • SANTA BARBARA, CA 93103
PHONE: 805.965.5122 • FAX: 805.965.5822

WWW.WICKSROOFING.COM

CLIENT NAME AND INFORMATION:

GENERAL NOTES:

METAL FASCIA APPLICATIONS VARIES PER BUILD

APPROVED BY:

-

DRAWN BY:

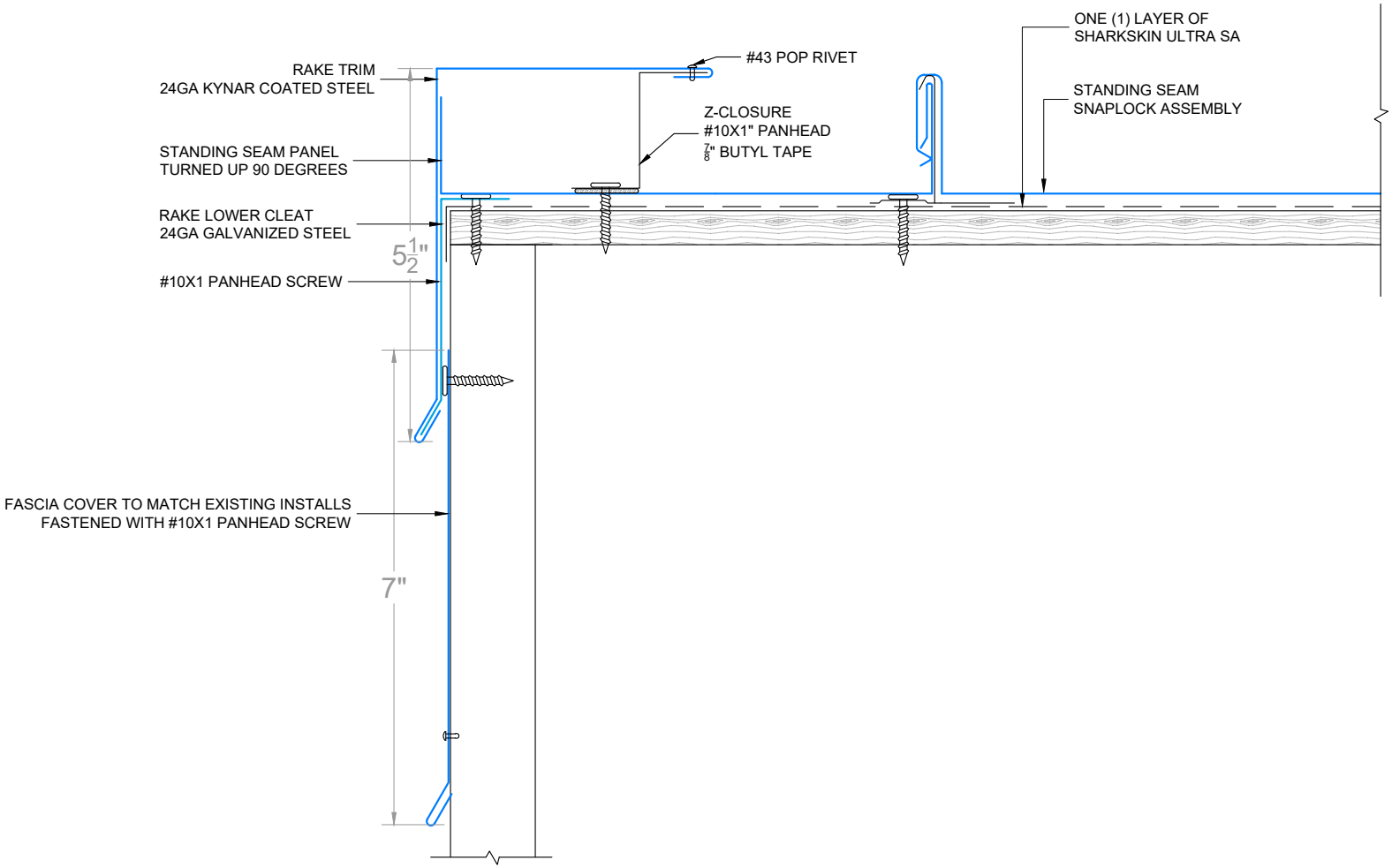
C.MOSSMAN - PROJECT ENGINEER
WICKS ROOFING AND SOLAR

APPROVED BY:	DATE: 9/19/22

PROJECT NO. N/A	SCALE: -	SHEET SIZE: 8.5X11

DRAWING NO. N/A	SHEET NO. N/A

REV:	DESCRIPTION:	DATE:



WICKS ROOFING INC
WICKS ROOFING•LIC.7 27469 | WICKS SOLAR • LIC. 1041299
WICKS SOLAR
WICKS ROOFING & SOLAR, INC.
2170 HUTTON RD., NIPOMO, CA 93444
Office: (805)546-9056
Lic.767469 & 1041299 - C39 / C46 / C10

PROJECT NAME:

CLIENT NAME & INFORMATION

DRAWING TITLE:

GENERAL NOTES:

DRAWN BY: C.MOSSMAN

CHECKED BY:

APPROVED BY:

DATE: 2/14/22

PROJECT NO: -

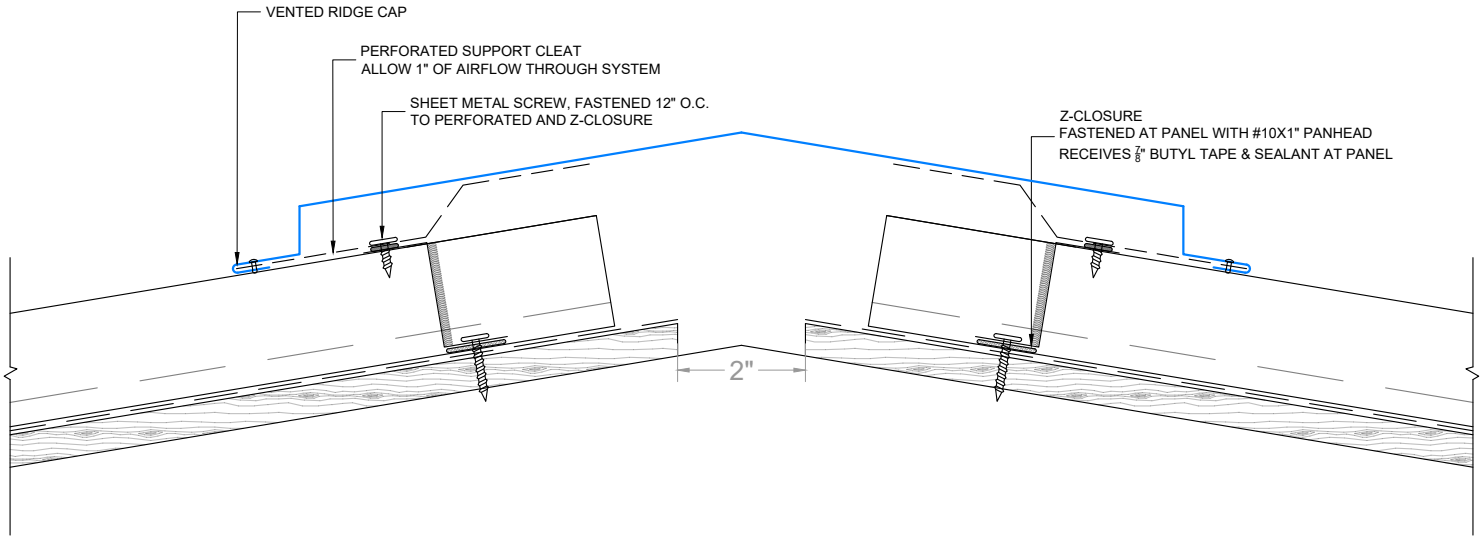
SCALE: NA

SHEET SIZE: -

DRAWING NO: -

SHEET NO: 1 OF 1

REV:	DESCRIPTION:	DATE:



WICKS ROOFING INC
WICKS ROOFING•LIC.7 27469 | WICKS SOLAR • LIC. 1041299

WICKS ROOFING & SOLAR, INC.
2170 HUTTON RD., NIPOMO, CA 93444
Office: (805)546-9056
Lic.767469 & 1041299 - C39 / C46 / C10

PROJECT NAME:

CLIENT NAME & INFORMATION

DRAWING TITLE:

GENERAL NOTES:

DRAWN BY: C.MOSSMAN

CHECKED BY:

APPROVED BY:

DATE: 2/14/22

PROJECT NO: -

SCALE: NA

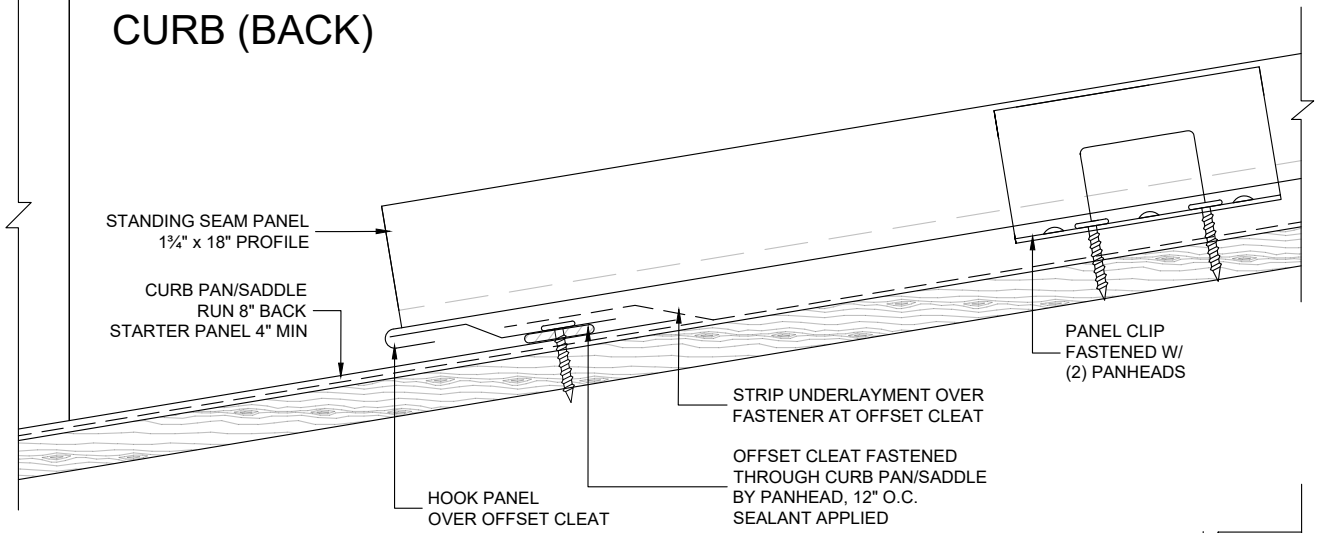
SHEET SIZE: -

DRAWING NO: -

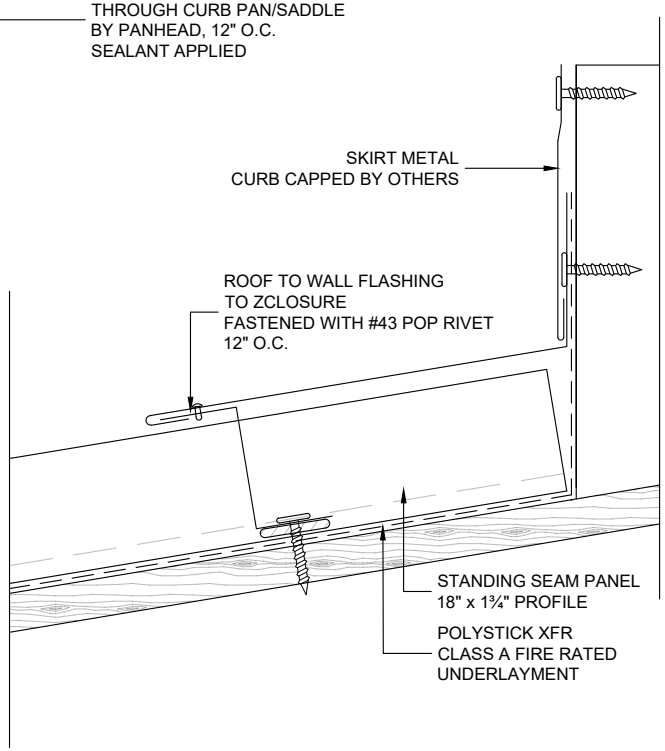
SHEET NO: 1 OF 1

REV:	DESCRIPTION:	DATE:

CURB (BACK)



CURB FRONT



WICKS ROOFING INC | WICKS SOLAR
WICKS ROOFING • LIC.7 27469 | WICKS SOLAR • LIC. 1041299
WICKS ROOFING & SOLAR, INC.
2170 HUTTON RD., NIPOMO, CA 93444
Office: (805)546-9056
Lic.767469 & 1041299 - C39 / C46 / C10

CLIENT NAME & INFORMATION

DRAWING TITLE:
METAL ROOFING:
CURB FLASHINGS

GENERAL NOTES:

DRAWN BY: C.MOSSMAN

CHECKED BY:

APPROVED BY:

DATE: 1/3/22

PROJECT NO: -

SCALE: NA

SHEET SIZE: -

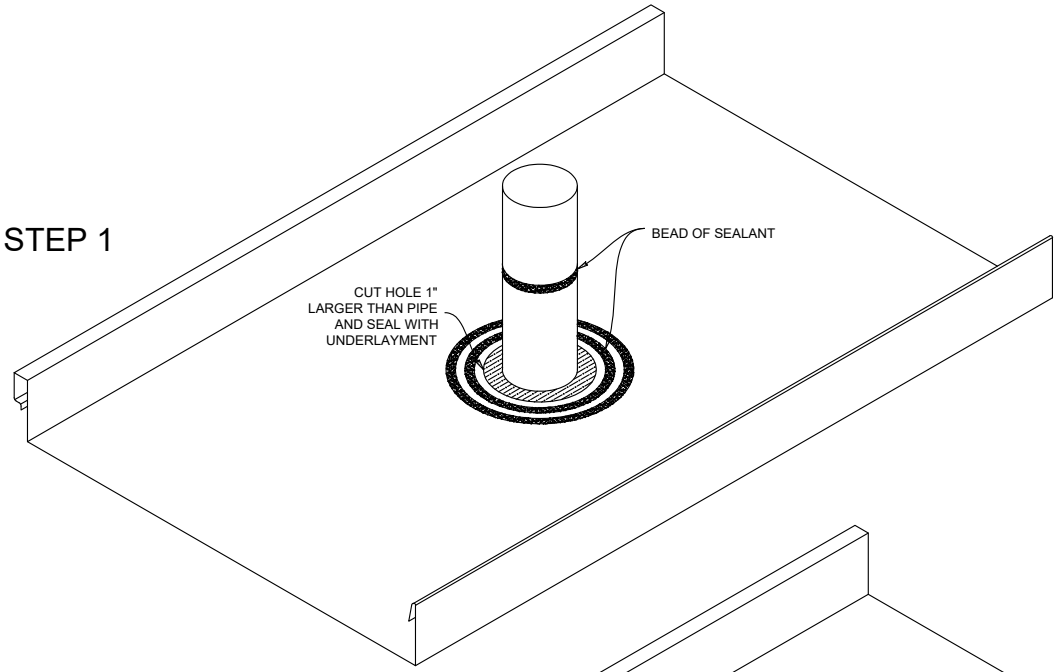
DRAWING NO: -

SHEET NO:

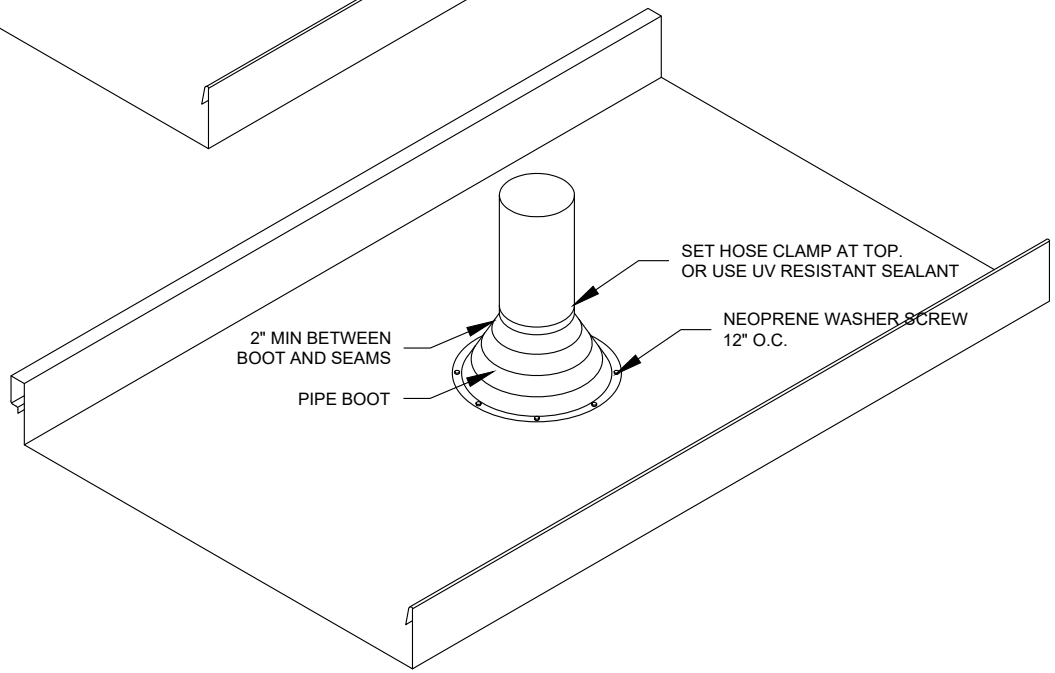
REV:	DESCRIPTION:	DATE:

PIPE BOOTS/PENETRATIONS

STEP 1



STEP 2



WICKS ROOFING INC
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WICKS ROOFING & SOLAR, INC.
2170 HUTTON RD., NIPOMO, CA 93444
Office: (805)546-9056
Lic.767469 & 1041299 - C39 / C46 / C10

CLIENT NAME & INFORMATION

DRAWING TITLE:
METAL ROOFING:
PIPE BOOTS

GENERAL NOTES:

DRAWN BY:	CHECKED BY:
C.MOSSMAN	

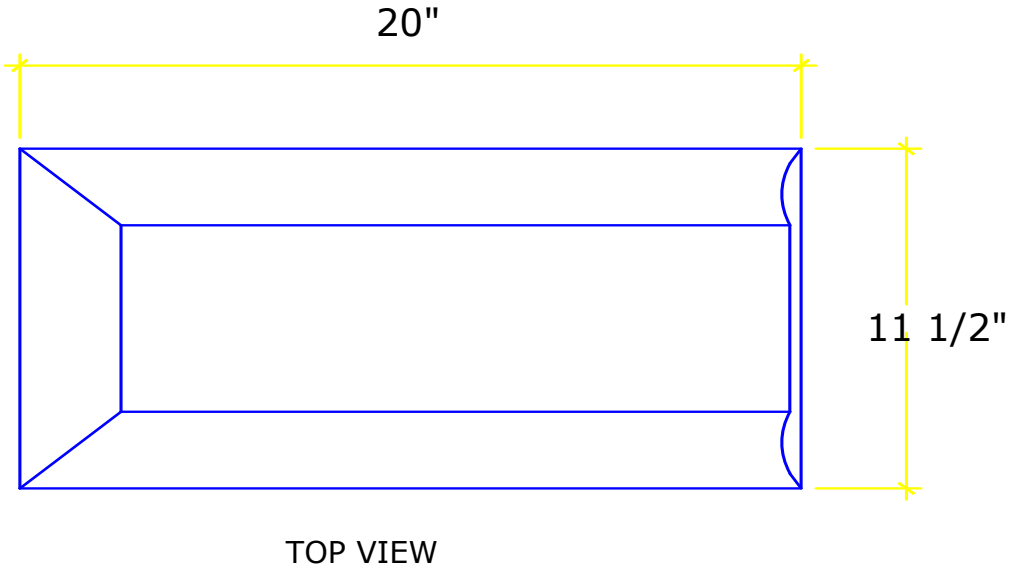
APPROVED BY:	DATE:
	1/3/22

PROJECT NO:	SCALE:	SHEET SIZE:
-	NA	-

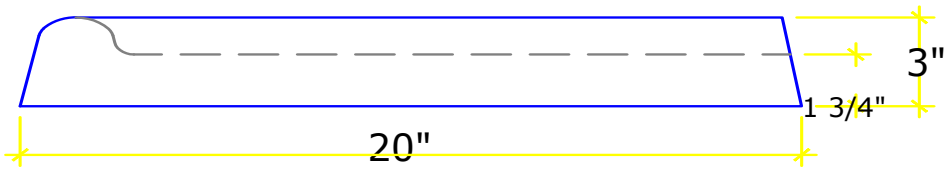
DRAWING NO:	SHEET NO:
-	

REV:	DESCRIPTION:	DATE:

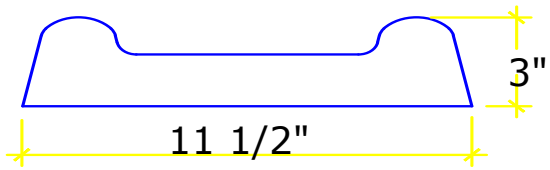
PRECAST CONCRETE SPLASH BLOCK



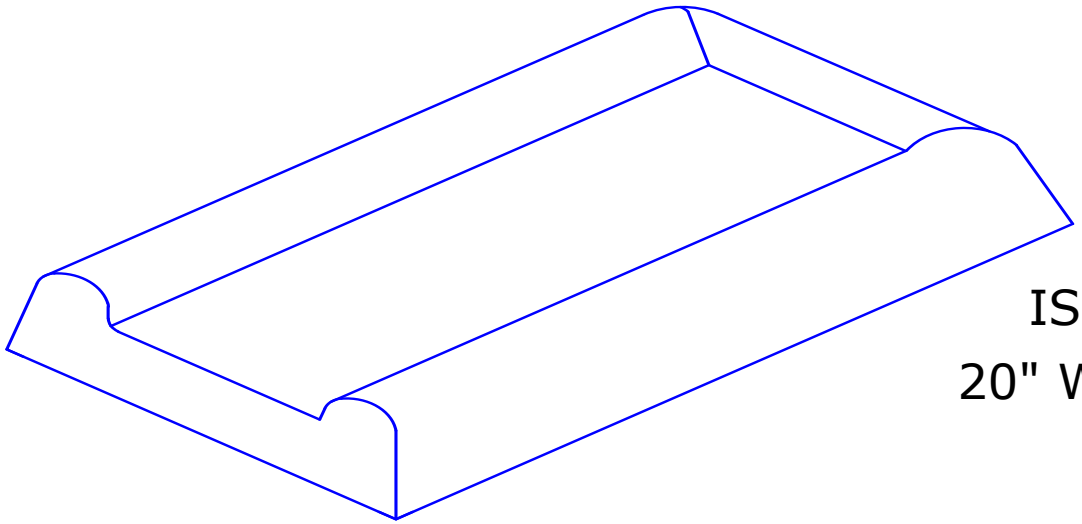
TOP VIEW



SIDE VIEW



END VIEW



ISOMETRIC

20" Wt. = 30 lbs.

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Office: (805)546-9056
Lic.767469 & 1041299 - C39 / C46 / C10

CLIENT NAME & INFORMATION

DRAWING TITLE:
METAL ROOFING:
PIPE BOOTS

GENERAL NOTES:

DRAWN BY: C.MOSSMAN

CHECKED BY:

APPROVED BY:

DATE: 1/3/22

PROJECT NO: -

SCALE: NA

SHEET SIZE: -

DRAWING NO: -

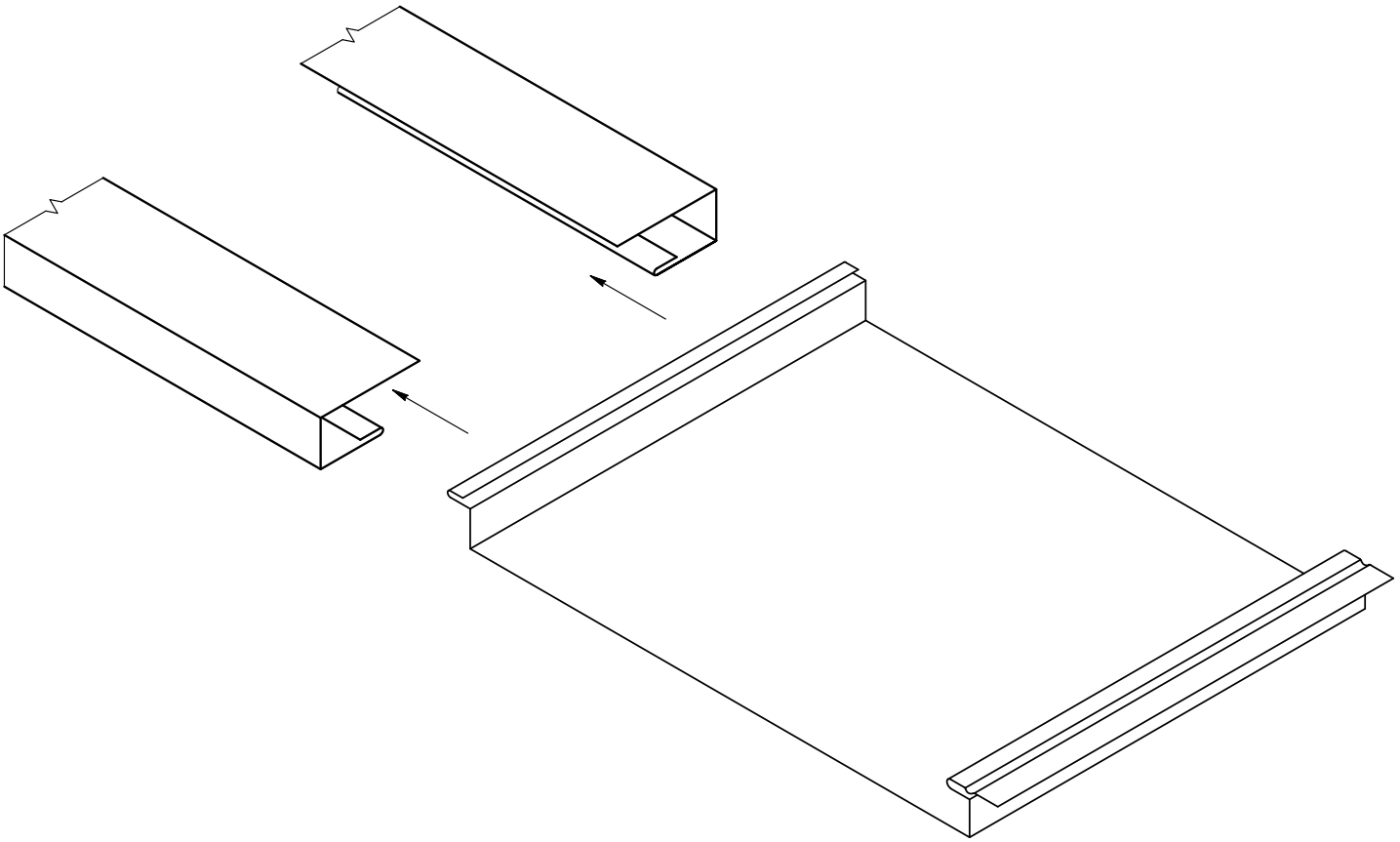
SHEET NO:

REV:	DESCRIPTION:	DATE:

All Details Shown are "Typical" and will be Field Verified.

TAYLOR METAL PRODUCTS

Soffit Panel Installation



Lifetime Soffit™ Panel Installation

On a typical soffit installation, C-flashings are used on each side of the soffit (usually the building wall and the inside of the fascia board).

The panel is then inserted into the C-flashing from the end. Slide the panel to the end. The panel is fastened through the fastening flange of the panel to the structure, if the span exceeds 48". Fasten the panel to the C-flashing with a rivet on both fascia and wall sides.

Insert the next panel into the C-flashing and slide to meet the preceding panel. Fasten and repeat the process until the area is complete.

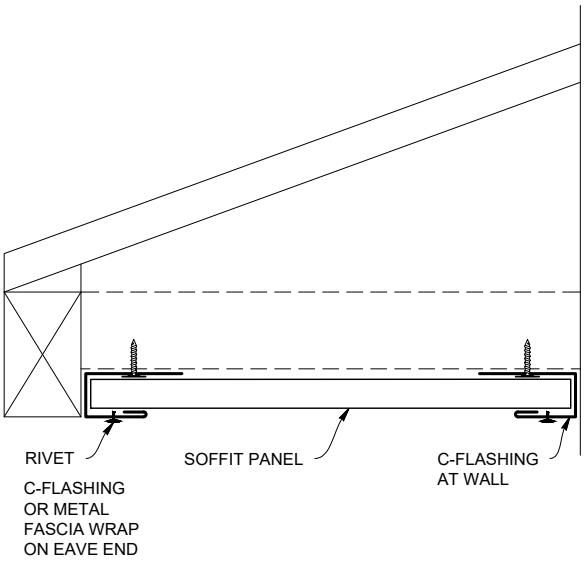
All Details Shown are "Typical" and will be Field Verified.

Soffit C & Angle Flashings

TAYLOR METAL PRODUCTS

Lifetime Soffit™
C-Flashing Application

- The C-flashings are applied to the inside of the fascia board and directly across on the opposite wall, level with one another, and attached every 24" to 36" with a waferhead screw. Apply C-flashing on both sides and at each ends. For longer runs, it is usually better to apply 10' of flashing on each end at a time, that way you don't have to slide panels a great distance.
- Slide the soffit panels into the channel created by the C-flashing. The short leg of the panel should be pointed into the C-flashing at the start of the run. Be sure to fasten the panel to the structure if the span is greater than 48".
- Successive panels are installed the same way, but are installed so they attach to the previous panel. Push the panels together so there is little or no gab between them.
- Fasten each panel to the C-flashing with a rivet on both the fascia and wall sides as needed.
- C-flashing can be bent to allow the panels to be installed parallel with the roof line. The bend is limited to a 6/12 pitch or less. Specify pitch.



METAL ROOFING PANEL
VERSA SPAN 18" X 1¾"

UL Evaluation Report

UL ER25913-01

Issued: March 31, 2016
Revised: October 31, 2019

Visit UL,LLC's Product iQ™ database for status of Report.

UL Category Code: ULEZ

CSI MasterFormat®

DIVISION: 07 00 00 - THERMAL AND MOISTURE PROTECTION
Sub-level 2: 07 40 00 - Roofing and Siding Panels
Sub-level 3: 07 41 00 - Roof Panels
Sub-level 4: 07 41 13 – Metal Roof Panels

COMPANY:

TAYLOR METAL INC, DBA TAYLOR METAL PRODUCTS
4566 RIDGE DRIVE NE
SALEM, OR 97301-6992
(503) 581-8338
www.taylormetal.com

1. SUBJECT:

EASY LOCK, VERSA SPAN, MS 100, MS 150, MS 200, PREMIER-LOCK 100, PREMIER LOCK 150, CLIP-LOCK 150, AND T PANEL NARROW BATTEN METAL ROOFING PANELS

2. SCOPE OF EVALUATION:

- 2018, 2015, and 2012 *International Building Code*® (IBC)
- 2018, 2015, and 2012 *International Residential Code*® (IRC)
- 2019, 2016, and 2013 California Building Code
- 2019, 2016, and 2013 California Residential Code
- ICC-ES Acceptance Criteria for Quality Documentation (AC10)
- ICC-ES Acceptance Criteria for Metal Roof Coverings (AC166)

The products were evaluated for the following properties:

- Roofing Systems for Exterior Fire Exposure (ANSI/UL790, ASTM E108)
- Roof Deck Construction (ANSI/UL 580)
- Corrosion Resistance (ASTM A653, ASTM A792)
- Corrosion Resistance (ASTM B370)

3. REFERENCED DOCUMENTS

- ICC-ES:
  - ICC-ES Acceptance Criteria for Metal Roof Coverings (AC166), dated October 2012 (January 2018)
  - ICC-ES Acceptance Criteria for Quality Documentation (AC10), dated January 2019
- ANSI/UL:
  - ANSI/UL 580, Fifth Edition, Standard for Tests for Uplift Resistance of Roof Assemblies dated March 29, 2019
  - ANSI/UL790, Eighth Edition (ASTM E108-16), Standard Test Methods for Fire Tests of Roof Coverings dated October 19, 2018
- ASTM:
  - ASTM A653/A653M-15, *Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process*
  - ASTM A792/A792M-10(2015), *Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process*
  - ASTM B370-12, *Standard Specification for Copper Sheet and Strip for Building Construction*
  - ASTM G154-12a, *Practice for Operating Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials*

4. USES

Easy Lock, MS 200, Versa Span, MS 100, MS 150, Premier-Lock 100, Premier-Lock 150, Clip-Lock 150, and T Panel Narrow Batten metal roofing panels are used as roof covering materials in Class A roofing systems installed on roof decks having slopes 2:12 or greater, in accordance with this report, and the manufacturer's published installation instructions.

5. PRODUCT DESCRIPTION

Taylor Metal Products' metal roofing panels described in this report are either coated or painted metal formed from ASTM A653 G90, ASTM A792 AZ50 hot-dip coated sheet steel, or from ASTM B370 cold-rolled copper sheet.

Steel Easy Lock panels are manufactured to have a base metal thickness not less than 26 gauge [0.0179 in. (0.455 mm)]. Steel MS 100, MS 150, MS 200, Versa Span, Premier-Lock 100, Premier-Lock 150, Clip-Lock 150, and T Panel Narrow Batten panels are manufactured to have a base metal thickness not less than 25 gauge [0.0209 in. (0.531 mm)]. Copper Easy Lock, MS 100, MS 150, MS 200, Versa Span, Premier-Lock 100, Premier-Lock 150, and Clip-Lock 150 panels are manufactured to a finished weight not less than 16 ounces per square foot having a thickness of [0.0216 in. (0.549 mm)], with the allowable tolerances.

The panels are metal roof coverings complying with Section 1507.4 of the 2018, 2015, and 2012 IBC, and 2019 California Building Code, Section R905.10 of the 2018, 2015, and 2012 IRC, and California Residential Code.

Fire Certification: Taylor Metal Products' metal roofing panels covered under this report have been tested for Class A fire Certification in accordance with ANSI/UL790 (ASTM E108) and qualify for use under Section 1505.1 of the 2018, 2015, and 2012 IBC, Section R902.1 of the 2018, 2015, and 2012 IRC, and 2019 California Residential Code. Refer to Table 1, Table 2, Table 3, and Table 4. See the Listing under TGFU.R25913 which includes T-3, Tuff-Rib, PBR/Marion R, Classic ⅞ Corrugated, and HR 34 profiles.

Wind Resistance: Roofing assemblies shall be designed to resist the design wind load pressures for components and cladding in accordance with Section 1609.5 and Section 1504.3 of the 2018, 2015, and

2012 IBC, 2019 California Building Code, and Section R905.1 of the 2018, 2012, and 2009 IRC, and 2019 California Residential Code.

Wind Uplift Resistance: Taylor Metal Products' metal roofing panels covered under this report have been tested for wind uplift resistance in accordance with ANSI/UL 580 complying with Section 1504.3.1 of the 2015 IBC and 2019 California Building Code, Section 1504.3.2 of the 2012, and 2009 IBC. Refer to Table 1, Table 2, Table 3, and Table 4.

Wind-Driven Rain Resistance: The metal roofing panels covered under this report are not intended for installation in High-Velocity Hurricane Zones. Therefore, the wind-driven rain test specified in AC166 was not conducted under this evaluation.

Corrosion Resistance: Taylor metal roofing panels covered under this report comply with the performance requirements for metal panel roof coverings as outlined in Section 1507.4.3 of the 2018, 2015, and 2012 IBC and 2019 California Building Code, Section 905.10.3 of the 2018, 2015, and 2012 IRC and California Residential Code meet the requirements for resistance to corrosion in accordance with ASTM A792.

6. INSTALLATION

6.1 General

Taylor metal roofing panels must be installed in accordance with Section 1507.4 of the 2018, 2015, and 2012 IBC, and 2019 California Building Code, or Section R905.10 of the 2018, 2015, and 2012 IRC, and California Residential Code, except as noted in this report, and the manufacturer's published installation instructions. The manufacturer's published installation instructions must be available at all times on the jobsite during installation. The metal roofing panels must be attached to the decked sheathing in a manner that will secure the panels in place.

6.2 Slope

MS 100 and MS 150 metal roofing panels are not to be installed on roof decks having slopes less than 1:12. MS 200 metal roofing panels are not to be installed on roof decks having slopes less than ½:12. All other products covered in this report are intended for roof decks having 2:12 slope or greater. Installation of Taylor metal roofing panels covered in this report are to be installed in accordance with Section 1507.4.2 of the 2018, 2015, and 2012 IBC, and the 2019 California Building Code or Section R905.10.2 of the 2018, 2015, and 2012 IRC and the 2019 California Residential Code.

6.3 Roof Deck

Roof decking is to be as described in Section 1507.4.1 of the 2018, 2015, and 2012 IBC, and the 2019 California Building Code, or Section R905.10.1 of the 2018, 2015, and 2012 IRC and the 2019 California Residential Code. Roof deck must be code-compliant, minimum nominal ½ inch-thick (11.9 mm) exterior sheathing complying with Section 2304.8.2 of the 2018 IBC, Section 2304.7.2 of the 2015 and 2012 IBC and 2019 California Building Code, or Section R803 of the 2018, 2015, and 2012 IRC and the 2019 California Residential Code, or minimum No. 22 gauge [0.030 inch thick (0.76 mm)] steel complying with Section 2210.1.1.2 of the 2018, 2015, and 2012 IBC, and the 2019 California Building Code. The sheathing must be structurally sound and adequately fastened to resist wind loads for components and cladding as specified in Section 1609 of the 2018, 2015, and 2012 IBC, and 2019 California Building Code, or Section R301.6 of the 2018, 2015, and 2012 IRC, and the 2019 California Residential Code.

6.4 Underlayment

An ice barrier must be installed along the eaves in locations historically prone to ice in accordance with Section 1507.7.4 of the 2018, 2015, and 2012 IBC, and the 2019 California Building Code, the 2019 California Residential Code, or Section R905.5.3.1 of the 2018, 2015, and 2012 IRC. In addition to the ice

barrier, an underlayment must be installed over the entire roof deck in accordance with Section 1507.1.1 of the 2018, 2015, and 2012 IBC, and the 2019 California Building Code, and Section R905.6.3 of the 2018, 2015, and 2012 IRC, and California Residential Code.

Underlayments installed on roofs in locations prone to high winds must be installed in accordance with Section 1507.4.5 of the 2018, 2015, and 2012 IBC, and the 2019 California Building Code, or Section R905.6.3 of the 2018, 2015, and 2012 IRC, and the 2019 California Residential Code.

6.5 Flashing

Flashing materials are to be installed in accordance with Section 1503.2 of the 2018, 2015, and 2012 IBC, and the 2019 California Building Code, Section R903.2 of the 2018, 2015, and 2012 IRC and the 2019 California Residential Code, as applicable.

6.6 Hips and Ridges

Hips and ridges must be installed in accordance with Taylor Metal, Inc.'s published installation instructions for exposure dimension and fastener type.

6.7 Fasteners and Attachment

Attachment of the roof panels must be in accordance with Section 1507.4.4 of the 2018, 2015, and 2012 IBC, and the 2019 California Building Code.

6.8 Reroofing

Existing roof covering materials detrimental to performance of the roofing assembly are to be completely removed and replaced prior to installation of the Taylor metal roofing panels. Installation is to be performed for new construction as described in Section 6 of this report.

The existing roof shall be inspected in accordance with the provisions and limitations of Section 1511 of the 2018 and 2015 IBC, Section 1510 of the 2012 and 2009 IBC, and 2019 California Building Code, and Section R908 of the 2018 and 2015 IRC, Section R907 of the 2012 IRC, and California Residential Code, as applicable. Prior to the reroofing, hip and ridge coverings must be removed.

Flashing and edging must comply with Section 6.6 of this report and with Section 1511.6 of the 2018 and 2015 IBC, Sections 1510.5 and 1510.6 of the 2012 IBC and 2019 California Building Code, and Section R908.6 of the 2018 and 2015 IRC, and Section R907.6 of the 2012 IRC, and California Residential Code, as applicable.

Taylor Metal Products metal roof panels may be installed over existing Class A asphalt glass fiber mat shingles or any Class A UL Listed roof system as described in the UL Certification Category for Prepared Roof-covering Materials, Formed or Molded Metal, Fiber-Cement, Plastic or Fire-retardant-treated Wood (TFXX), for applicable coverage and details of the roof assembly.

7. CONDITIONS OF USE

The metal roofing panels described in this report comply with, or are suitable alternatives to, what is specified in those codes listed in Section 2 of this report, subject to the following conditions:

7.1 Materials and methods of installation must comply with this report and the manufacturer's published installation instructions. In the event of a conflict between the installation instructions and this report, this report governs.

7.2 Only Taylor specified fasteners shall be used in the installation of the roof covering system.

7.3 See UL's Product iQ™ database for Metal Roof Deck Panels (TJPV), Roofing Systems (TGFU), and Roof-covering Materials, Impact Resistance (TGAM), respectively.

7.4 Wind uplift pressures on any roof area, including edges and corner zones shall not exceed the allowable wind pressure for the roof covering installed in that particular area. The allowable wind uplift pressure for the roof assembly shall be based on a minimum factor of safety of 2.0 as shown in the Certification for uplift resistance (TGIK). The allowable wind uplift pressure is for the roof system only. The deck and framing to which the roofing system is attached shall be designed for the applicable components and cladding wind loads in accordance with the applicable code.

7.5 The metal roofing panels covered under this report are produced under the UL LLC Listing/Certification and Follow-Up Service Program, which includes audits in accordance with quality elements of ICC-ES Acceptance Criteria for Quality Documentation, AC10.

8. SUPPORTING EVIDENCE

8.1 Data in accordance with ICC-ES Acceptance Criteria for Metal Roof Coverings (AC166), dated October 2012.

8.2 Manufacturer's descriptive product literature, including installation instructions.

8.3 UL Certification reports in accordance with ANSI/UL 580, ANSI/UL 790, and UL 2218. See UL Product Certification Categories (TJPV), (TGFU), and (TGAM), File R25913.

8.4 Documentation of quality system elements described in ICC-ES Acceptance Criteria for Quality Documentation (AC10), dated January 2019.

9. IDENTIFICATION

Taylor metal roofing panels described in this evaluation report are identified by a marking bearing the report holder's name (Taylor, Inc.) and address, the product name, the UL Certification Mark, and the evaluation report number UL ER25913-01. The validity of the evaluation report is contingent upon this identification appearing on the product or UL Certification Mark certificate.

10. USE OF UL EVALUATION REPORT

10.1 The approval of building products, materials, or systems is the responsibility of the applicable authorities having jurisdiction.

10.2 UL Evaluation Reports shall not be used in any manner that implies an endorsement of the product, material or system by UL.

10.3 The status of this report, as well as a complete directory of UL Evaluation Reports may be found at UL.com via the Product iQ™ database.

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TAYLOR METAL PRODUCTS
TEST REPORT

SCOPE OF WORK
AIR INFILTRATION AND WATER PENETRATION OF
VERSA SPAN METAL ROOF PANEL SYSTEM (COMMERCIAL SNAP LOCK) - 18"

REPORT NUMBER
M0874.01-901-44

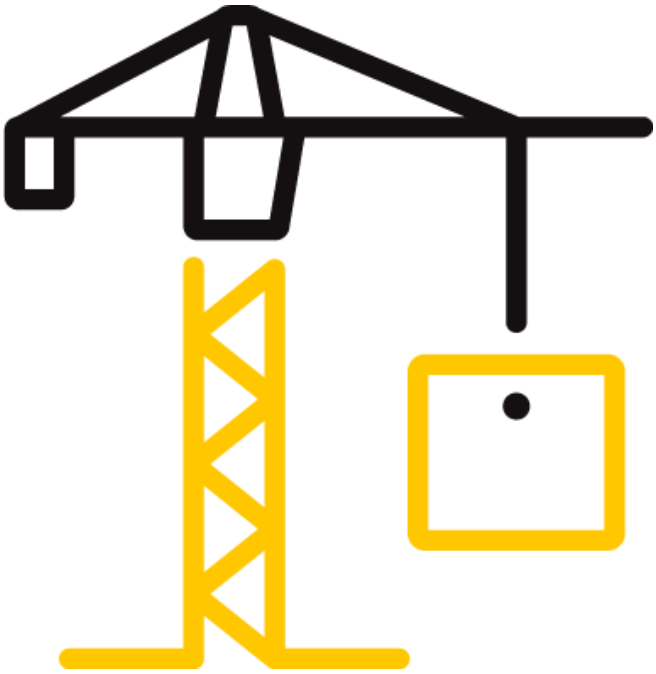
TEST DATES
05/05/21

ISSUE DATE
06/02/21

RECORD RETENTION END DATE
05/05/31

PAGES
5

DOCUMENT CONTROL NUMBER
ATI 00479 (07/24/17)
RT-R-AMER-Test-2805



22155 68th Avenue South
Kent, Washington 98032

Telephone: 253-395-5656
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR TAYLOR METAL PRODUCTS

Report No.: M0874.01-901-44

REPORT ISSUED TO

TAYLOR METAL PRODUCTS
4566 Ridge Drive NE
Salem, OR 97301

SECTION 1

SCOPE

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by Taylor Metal Products to perform testing in accordance with the referenced test methods on the Versa Span Metal Roof Panel System (Commercial Snap Lock) - 18". Results obtained are tested values and were secured by using the designated test method. Testing was conducted at the Intertek-ATI test facility in Kent, Washington.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule also called “Shared Risk approach,” of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

SECTION 2

SUMMARY OF TEST RESULTS

TITLE	RESULTS
Air Infiltration (20 psf)	0.01 cfm/ft^2
Air Infiltration (25 psf)	0.01 cfm/ft^2
Water Penetration Resistance Test Pressures (40 psf)	Pass

For INTERTEK B&C:

COMPLETED BY:	Joshua Cass	**REVIEWED BY:**	Brian L. Rasmussen
TITLE:	Technician	**TITLE:**	Laboratory Manager
SIGNATURE:		**SIGNATURE:**	
DATE:	06/02/21	**DATE:**	06/02/21

AR/BLR:pac

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SECTION 3
TEST METHOD

ASTM E1680-16, *Standard Test Method Rate of Air leakage Through Exterior Metal Roof Panel Systems*

ASTM E1646-95 (18), *Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference*

ASTM E283-19, *Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen*

ASTM E331-00(2016), *Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference*

SECTION 4
MATERIAL SOURCE/INSTALLATION

Test specimen was provided by the client. The specimens were installed into a Douglas-Fir wood buck. The exterior perimeter of the test specimen was sealed with butyl. Installation of the tested product was performed by the client.

LOCATION	ANCHOR DESCRIPTION	ANCHOR LOCATION
Purlins (rafters)	UL 90 Versa Span Clip - 18 ga	12" from ends, three clips were utilized at two butyl-sealed standing seams per test unit. Clips were secured to test buck with #10 x 1" Pan head screws (two per clip).
Perimeter	#10 by 1" Type 17 screws	1" from corners and 3" on center

SECTION 5
LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Brian Rasmussen	Intertek B&C
Joshua Cass	Intertek B&C

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Kent, Washington 98032

Telephone: 253-395-5656
Facsimile: 717-764-4129
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SECTION 6
TEST SPECIMEN DESCRIPTION/TEST RESULTS:

Manufacturer: Taylor Metal Products
Series/Model: Versa Span (Commercial Snap Lock) 18"
Product Type: Roof
Overall Size: 54" x 42"
Ambient Temperature Prior: 74°F
Ambient Temperature Post: 74°F

TITLE OF TEST	RESULTS
Preload at 25 psf	-----
Air Infiltration, per ASTM E1680/E283 @ (20 psf)	0.01 cfm/ft^2
Air Infiltration, per ASTM E1680/E283 @ (25 psf)	0.01 cfm/ft^2

Water Temperature Prior: 57°F
Water Temperature Post: 58°F
Water Depth: 1/2 in.

TITLE OF TEST	RESULTS
Water Penetration, per ASTM E1646/E331 at 40 psf	Pass

SECTION 7
CONCLUSION

The specimen tested successfully met the performance requirements of ASTM E1680 and ASTM E1646.

SECTION 8
DRAWING(S)

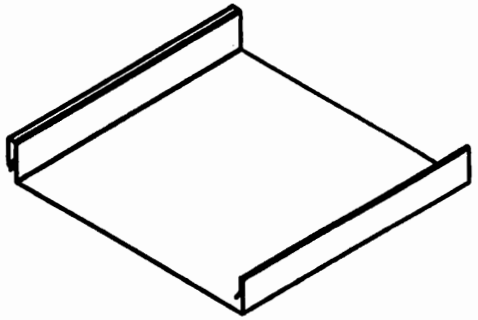
The test specimen drawings have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

Attachment (pages): Drawings (1)

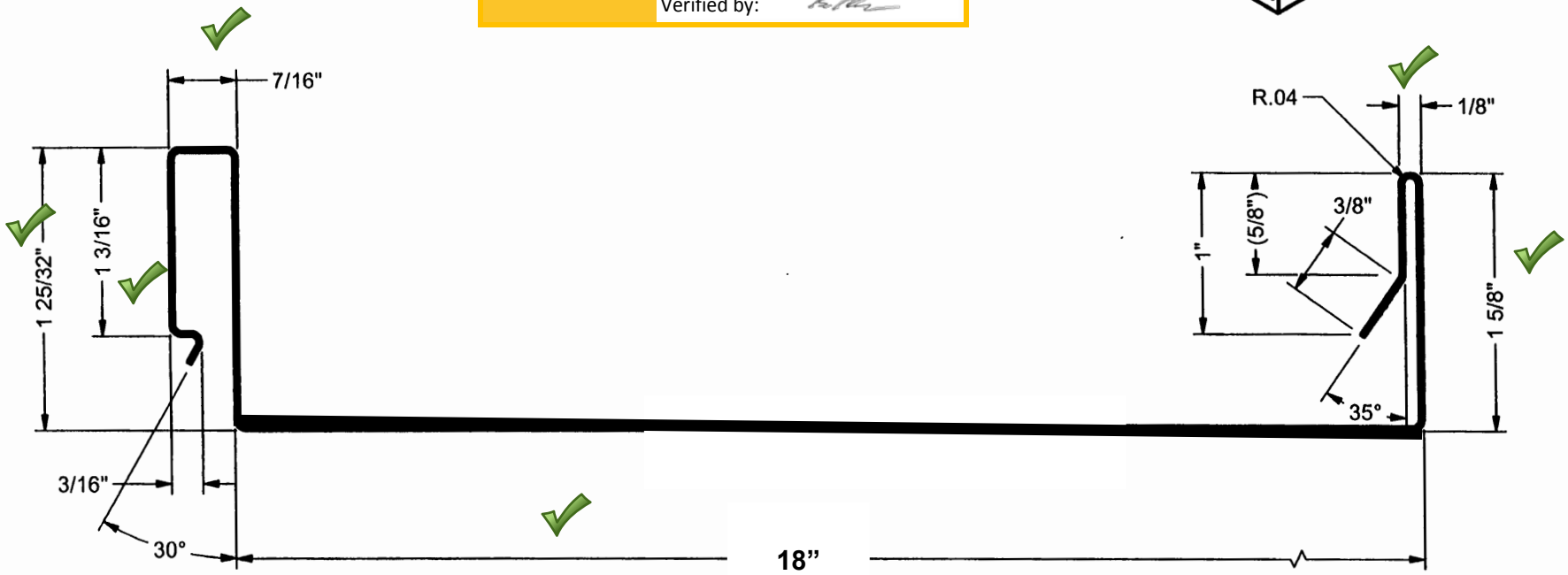
SECTION 9
REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	06/02/21	N/A	Original Report Issue

TMP Versa Span Panel



intertek Total Quality. Assured.	Report #:	M0874
	Date:	05/24/2021
	Verified by:	



NOTE:
MATERIAL USAGE: 6 1/8"

MATERIAL		LENGTH	FINISH	
REVISION HISTORY	REV	ECN NO.	DATE	RELEASED BY
	0		7/2/02	

TOLERANCES
.XX = ± .01
.XXX = ± .005
FRACTION = ± 1/32"
ANGLE = ± 1/2˚

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2170 Hutton Road, Nipomo, CA 93444
Phone: 805-546-9056 Fax: 805-546-9634

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93103 Phone: 805-965-5122

940 E. Santa Clara Street, Ventura, CA 93001
Phone: 805-965-5122

Wicks Roofing & Solar, LLC
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TESLA
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WWW.WICKSROOFING.COM

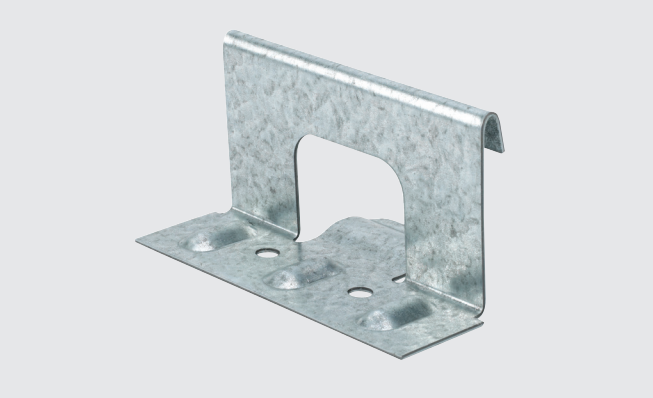
ADDITIONAL ACCESSORY INFORMATION

CLIPS/FASTENERS/CAULKING/SEALANTS

NOTE: DUE TO SUPPLY CHAIN ISSUES, IN THE EVENT OF UNAVAILABILITY, AN EQUAL PRODUCT SHALL BE SUBMITTED FOR APPROVAL.

NOTE: DUE TO SUPPLY CHAIN ISSUES, IN THE EVENT OF UNAVAILABILITY, AN EQUAL PRODUCT SHALL BE SUBMITTED FOR APPROVAL.

1-3/4" Snap Lock Engineered Panel Clip



Application

Standing seam panel clips used for attachment of snap lock type panels wherein mechanical seaming is not required

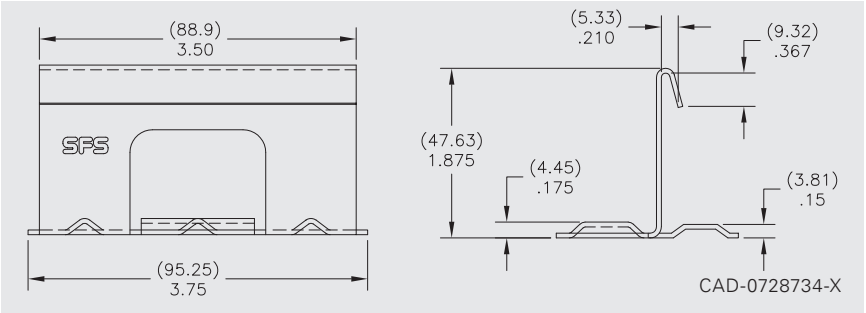
Features and Benefits

- Manufactured from high quality, corrosion resistant steel meeting strict mechanical property requirements
- Tightly controlled manufacturing tolerances for a secure and functional fit every time
- Allows unlimited thermal movement. Always follow the standing seam panel manufacturer's details and instructions on proper use, location and performance values as well as properly fixing their respective roof panels to the structure to prevent uncontrolled sliding

Product Selection

Material No.	Item	Description	Carton Wt. (lbs.)	Carton Qty.
728734	1-3/4" Snap lock clip	18 ga. (1.2 mm) G-90 Galvanized	48	250
728739*	1-3/4" Snap lock clip	18 ga. (1.2 mm) G-90 Galvanized	48	250
1106732	1-3/4" Snap lock clip	18 ga. (1.2 mm) 304SS	47	250
728741	1-3/4" Snap lock clip	18 ga. (1.2 mm) 316SS	51	250

*Sealant applied.



Specifications

Height:	1.875" (47.63 mm)
Width:	3.50" (88.90 mm)
Holes:	2-hole

Installation and Application Considerations

- Compatibile with:
  - New Tech SS675
  - Roll Former Corp. SLP175
  - Englert S2000
  - Zimmerman SL1750
  - Quadro 1-3/4" Snap Lock
  - Ultra Seam US-175LS
  - Knudson 1-3/4" Snap Lock
- Refer to SFS standing seam fastener offering for panel clip attachment options
- Always consult with panel manufacturer or design engineer to ensure proper clip recommendations

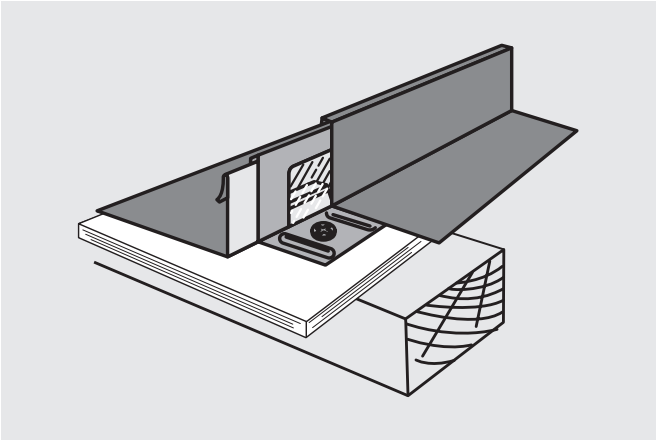
US
T 800 234 4533
www.sfsintecusa.com

Canada
T 866 847 5400
www.sfsintec.ca

Metric values are approximate conversions.

NOTE: DUE TO SUPPLY CHAIN ISSUES, IN THE EVENT OF UNAVAILABILITY, AN EQUAL PRODUCT SHALL BE SUBMITTED FOR APPROVAL.

#10 Type A Pancake SSR Panel Clip to Wood Fastener



Features and Benefits

- Pancake head low profile fits under most panel profiles
- Type A drill point for fast installation
- #2 square drive provides driving stability
- Zinc plated

Application

Standing seam panel clip attachment to wood substrate

Product Selection

Material No.	Fastener Length (in.)	Fastener Length (mm)	Thread Length*	Description	Carton Wt. (lbs.)	Carton Qty.
1545869	1"	25	Full	CSTA-#10x1-PC-SQ2	36	5,000
1545862	1-1/2"	38	Full	CSTA-#10x1-1/2-PC-SQ2	25	2,500
1545882	2"	51	Full	CSTA-#10x2-PC-SQ2	28	2,000

Plain product bagged 250 pieces, unless otherwise noted.

*Note – Thread length measured from tip of the point to top of the threads.

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us.sfs.com

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T 866 847 5400
ca.sfs.com

Metric values are approximate conversions.

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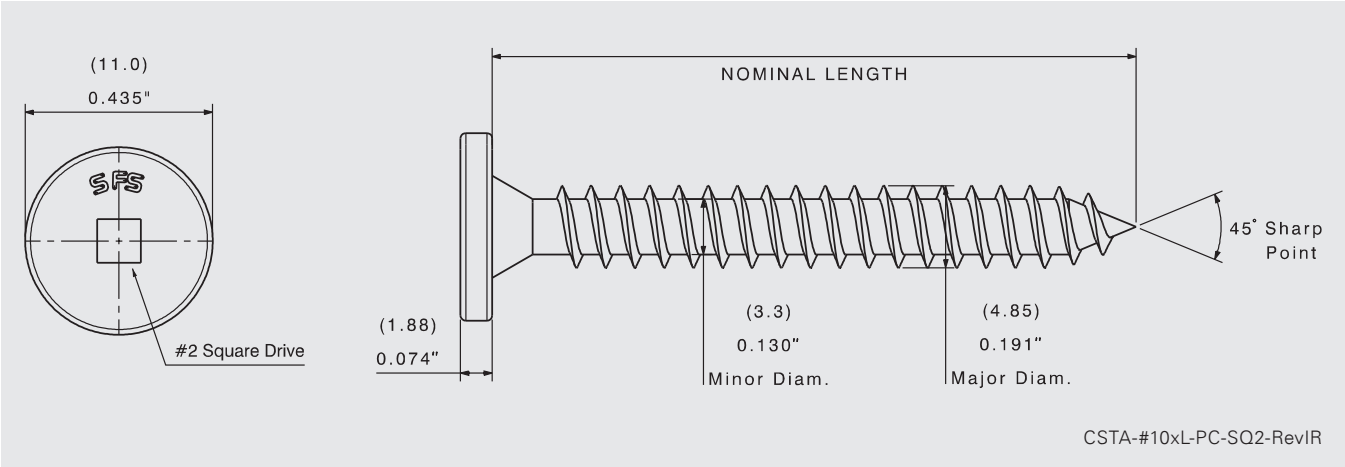
#10 Type A Pancake SSR Panel Clip to Wood Fastener



Product Specifications

Diameter:	#10 (4.83mm)
Threads Per Inch:	12
Head Style:	Pancake
Drive:	#2 square
Drill Point:	Type A
Thread Major Dia:	0.191" (4.85 mm)
Thread Minor Dia:	0.130" (3.3mm)

Performance Data[1,2]

Material Strength

Tensile	1825 lbf / 8118 N
Shear	1535 lbf / 6828 N
Torsional	60 lbf·in / 6.8 N·m

Pull Out Strength Wood: SPF

1" (25.4 mm) penetration	544 lbf / 2420 N
1-1/2" (38.1 mm) penetration	995 lbf / 4426 N

[1] Pull out strength values may vary from tested loads depending upon specific wood density variations.
[2] PLK 12403

Installation and Application Considerations

Tools: 0–2500 rpm screw gun equipped with depth sensing nose piece.

Use of impact guns or hammer drills is not recommended.

Special care needs to be taken when installing #10 Type A Pancake clip fasteners into wood substrate less than 1" in thickness. Stripping or partially stripping the fastener out during installation compromises the clamp load and can affect the performance of the fastener.

US
T 800 234 4533
us.sfs.com

Canada
T 866 847 5400
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Metric values are approximate conversions.

NOTE: DUE TO SUPPLY CHAIN ISSUES, IN THE EVENT OF UNAVAILABILITY, AN EQUAL PRODUCT SHALL BE SUBMITTED FOR APPROVAL.

PRODUCT NAME:

MB-10A SEALANT TAPE

PRODUCT DESCRIPTION:

MB-10A is a premier elastomeric butyl rubber sealant designed to meet the critical requirements of metal buildings. It also meets or exceeds all sealing requirements for window glazing, air conditioning, and refrigeration. MB-10A is extruded on silicone coated paper for easy application. It is produced in many different sizes and lengths to fit all application requirements. The rolls are securely packaged in cartons for convenience in job site storage and export.

PRODUCT ADVANTAGES:

MB-10A offers many qualities that result in a superior seal, greater longevity, and easier application.

- **Greater cohesive strength**
- **Superior adhesive strength**
- **Withstands extreme roof temperatures**
- **Superior low temperature compressibility**
- **Cold flow resistant**
- **Resistant to UV light**
- **Seal not affected by normal movement of building**
- **Wide service temperature range**
- **Extensive inventory of standard sizes**
- **Available in custom sizes and lengths**

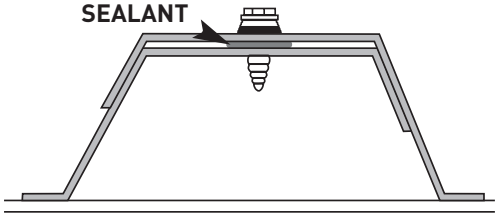
PRODUCT INSTALLATION:

Surface Preparation: All surfaces to be sealed should be free of dust, dirt, oil and moisture before applying sealant.

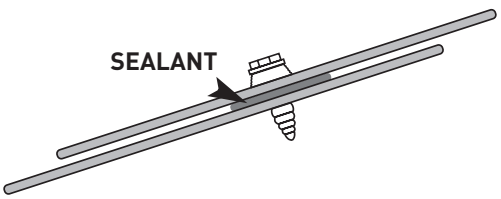
Working Conditions: For best results, apply in dry conditions above 40ºF (4ºC).

Application: Apply MB-10A to surface directly from roll. Press sealant through the silicone release paper with a smooth, even hand motion. Note: for metal roofing and siding applications, place sealant under the fastener to prevent wind blown rain from leaking through the fastener holes.

PRODUCT INSTALLATION DIAGRAM:



SIDE LAP



END LAP

3605 WILLOWBEND SUITE 575 HOUSTON TX 77054 TEL 800.288.9489 FAX 888.947.4925 WWW.GSSISEALANTS.COM

NOTE: DUE TO SUPPLY CHAIN ISSUES, IN THE EVENT OF UNAVAILABILITY, AN EQUAL PRODUCT SHALL BE SUBMITTED FOR APPROVAL.

PRODUCT NAME:

MB-10A SEALANT TAPE

TEST RESULTS:

ASTM TESTS FOR PREFORMED SEALANT TAPES

TEST METHOD	DESCRIPTION	AVG.	σ	REPLICATES
ASTM D792	Specific Gravity, lb./gal	15		2
ASTM C765	Low Temperature Flexibility	No loss of adhesion or cracking		2
ASTM C771	Weight Loss after Heat Aging	0.13 No blisters	0.0	2
ASTM C772	Oil Migration/Plasticizer Bleed-Out	.21" 1st paper		2
ASTM C782	Softness mm. penetration	6.47 mm	0.4	5
ASTM C907	Tensile Adhesive Strength, lb. force	16.45 psi MOF: Cohesive	1.2	2
ASTM C908	Yield Strength, lb. force	10.705 psi	0.5	2

NFRC TECHNICAL BULLETIN 36 CLASSIFICATION RESULTS (UK)

TEST	DESCRIPTION	PERFORMANCE CLASSIFICATION
1	Adhesion/Cohesion before and after accelerated heat ageing	A
2	Resistance to Slump and Creep	A
3	Water Resistance	A
4	Compression	A
5	Shear Retention	A

GSSI Sealants, Inc. warrants that its products will be in good quality thereby conforming to current specifications established on product sheet at the time of shipment. Buyer is responsible for determining whether GSSI Sealant, Inc.'s products are fit for the buyer's particular purpose and suitable for its method of application. Specifications are subject to change without notice.

*ALL TESTS PERFORMED BY INDEPENDENT LABORATORIES. REPORTS AVAILABLE UPON REQUEST.

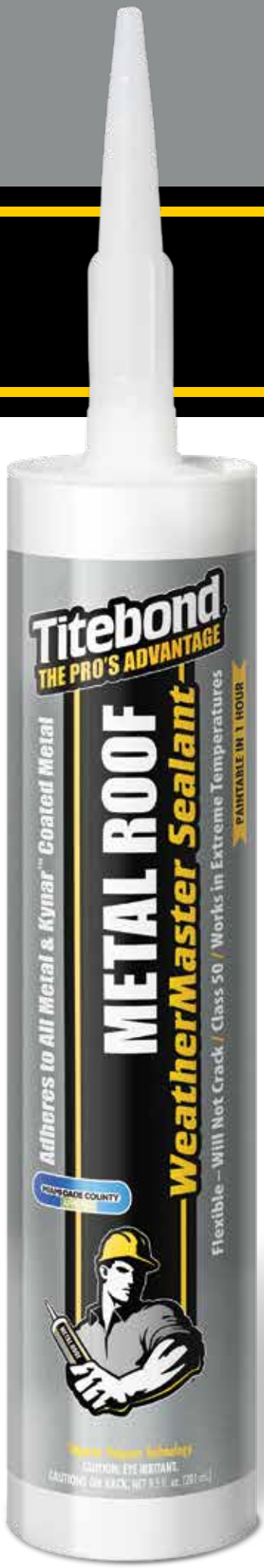
GSSI SEALANTS
3605 WILLOWBEND SUITE 575 HOUSTON TX 77054 TEL 800.288.9489 FAX 888.947.4925 WWW.GSSISEALANTS.COM

NOTE: DUE TO SUPPLY CHAIN ISSUES, IN THE EVENT OF UNAVAILABILITY, AN EQUAL PRODUCT SHALL BE SUBMITTED FOR APPROVAL.

Adheres to All Metal & Kynar™ Coated Metal

METAL ROOF
WeatherMaster Sealant

Flexible – Will Not Crack / Class 50 / Works in Extreme Temperatures



Titebond® WeatherMaster™ Metal Roof Sealant is a premium-grade, superior polymer formula that offers unbeatable adhesion to all metals including Kynar™ coated metals, aluminum, galvanized steel, copper and most common building materials. It can be extruded in extreme temperatures, remains permanently flexible and will not shrink, adheres well to wet and damp surfaces and is dust and dirt resistant.

MIAMI-DADE COUNTY APPROVED

PAINTABLE IN 1 HOUR*

Ideal For
Metal Roofs / Windows / Doors / Siding / Gutters / Vents

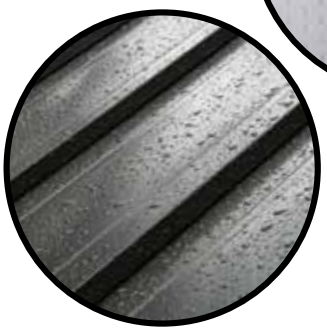
Seals
Kynar™ Coated Metals / Aluminum / Galvanized Steel / Copper / PVC / Wood / Concrete / Masonry / Stucco / Wall Panels / Vinyl / Glass / Plastic / Siding / Flashing / Sheet Metal / Most Common Building Materials

Ultra Low VOC
VOC-compliant in all 50 states

Joint Movement Capability ± 50%
Remains permanently flexible

Weather Resistant
Produces long-lasting weather-tight seals

Wide Temperature Application Range
Suitable for all climates



* Titebond WeatherMaster Metal Roof Translucent (#61111) is NOT paintable.

Titebond® THE PRO'S ADVANTAGE

NOTE: DUE TO SUPPLY CHAIN ISSUES, IN THE EVENT OF UNAVAILABILITY, AN EQUAL PRODUCT SHALL BE SUBMITTED FOR APPROVAL.

Ordering/Sku Information

Size/Color	Part Number	UPC	Case UPC	Weight	Units Per Package	Packages Per Pallet
9.5 Oz. Cartridge / White *Over 100 colors available*	61001	037083610017	10037083610014	14.92 lbs.	12	108
9.5 Oz. Cartridge / Crystal Clear	63991	037083639919	10037083639916	10.13 lbs.	12	108
9.5 Oz. Cartridge / Translucent	61111	037083611113	10037083611110	14.92 lbs.	12	108
20 Oz. Sausage / White *11 colors available*	63002	037083630022	10037083630029	45.00 lbs.	20	42

Physical & Chemical Properties

- **Type:** Elastomeric superior polymer
- **Reactive VOC:**
  - **White & Colors:** <50 g/L (<2%)
  - **Translucent:** <50 g/L (<1.5%)
  - **Clear:** <50 g/L (<2%)
- **Weight per gallon:**
  - **White & Colors:** 11.7 lbs.
  - **Translucent:** 8.41 lbs.
  - **Clear:** 8.76 lbs.
- **Tooling time:** 10-15 minutes
- **Full cure:** 24 hours for 1/4" bead*
- **Freeze thaw stability:** Stable
- **Flashpoint:** Solvent free/Not applicable
- **Application temperature:** Above 0°F (-18°C)
- **Joint movement capability:** ± 50%
- **Storage life:** 24 months in a dry location at or below 75°F
- **Coverage:** 9.5 fl. oz. = 29 linear ft. at a 1/4" bead; 20 fl. oz. = 62 linear ft. at a 1/4" bead
- **Paintable:** After 1 hour†
- **Tack-free time:**
  - **White & Colors:** 110 min
  - **Translucent:** 15-20 min
  - **Clear:** 30-60 min
- **Solids:** 100%
- **Shore A:**
  - **White & Colors:** 40
  - **Translucent:** 15-25
  - **Clear:** 25-35
- **Cleanup:**
  - **White, Clear & Colors:** Clean uncured material with acetone or isopropyl alcohol. After curing, excess sealant must be cut or scraped away. Follow solvent vendor's precautions when using solvents.
  - **Translucent:** Clean uncured material with mineral spirits. After curing, excess sealant must be cut or scraped away. Follow solvent vendor's precautions when using solvents.

Specifications

Complies with the following requirements:

- ASTM C920 Type S Grade NS Class 50 Use T, NT, M, A & G
- Federal Specification TT-S-00230C Type II Class A
- Canadian Specification CAN/CGSB-19 13-M87 Classification MCG-2-40-A-N
- USDA compliant
- Approved for use on buildings in both Miami-Dade County and throughout the country

Application

Titebond® WeatherMaster™ Metal Roof Sealant comes ready to use. Surfaces must be clean and free of any material that may prevent adequate adhesion. Remove nozzle, cut tip of the nub and puncture inner foil seal. Screw nozzle onto cartridge and cut tip on slant for 1/4" to 3/8" bead and place in professional cartridge gun. Force sealant into clean joint. Always apply sealant in bead form. To ensure neat sealant lines, mask areas adjacent to joints. Once sealant is dry to the touch and does not transfer, remove masking tape. No tooling is required. It is the sole responsibility of the user to thoroughly test any proposed use with all substrates to determine project suitability.

Limitations

Not designed for continuous submersion or use below the waterline. Air, sealant and surface temperature should be above 0°F. Copper should be coated to eliminate oxidation before sealing. Sealant is intended for exterior use. If used indoors, sealant may need to be painted. Painting may occur one hour after application with a water-based (latex-based) paint†. For other paint types, a compatibility test is recommended. Once sealant is applied, do not wipe with solvents. **DO NOT TOOL – DO NOT SMEAR.** It is highly recommended to use backing material. Application of sealant at high temperatures may cause the sealant to sag in some applications. Do not apply Metal Roof Translucent to polycarbonate due to solvent cracking, for Clear and Colors check with polycarbonate supplier on compatibility. Sealant releases methanol‡ during cure, check with substrate manufacturer for compatibility. For best results, store in a dry location at or below 75°F. For questions, please call our Help Line 1.800.347.4583 or visit us at Titebond.com.

Liability is limited to product replacement only.

* Cure will be affected by joint size, configuration and environmental conditions.
† Titebond WeatherMaster Metal Roof Translucent (#61111) is not NOT paintable.
‡ Titebond WeatherMaster Metal Roof Translucent (#61111) releases methyl ethyl ketoxime (MEKO) during cure.

MIAMI-DADE COUNTY APPROVED

Visit Titebond.com for the most up-to-date product information.

Franklin International
made in USA
Columbus, Ohio 43207 614.443.0241 Technical Service 1.800.347.4583 01239_4737LN FF801

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940 E. Santa Clara Street, Ventura, CA 93001
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UNDERLAYMENT
PRODUCT DATA AND TESTING

POLYSTICK® XFR

FIRE RESISTANT SELF-ADHERED ROOF UNDERLAYMENT

PRODUCT DESCRIPTION

Polystick XFR is a dual purpose fire resistant and self-adhered waterproofing underlayment. Utilizing ADESO® dual-compound self-adhered technology, Polystick XFR features a SBS (elastomeric) modified bitumen upper compound and an aggressive self-adhesive compound on the bottom. Polyglass' patent pending Burn-Shield Technology™ provides superior fire resistance.

Polystick XFR features a slip-resistant film surface which can be exposed up to 180 days. With a temperature resistance of up to 265°F, Polystick XFR is ideally suited for high temperature roof covering systems such as steel and copper roofing, where fire resistance is required or desired.

Can be installed as part of a multi-ply underlayment system when used as a secondary layer above Polystick MTS PLUS or Polystick XFR.

TYPICAL APPLICATIONS

- Over combustible decks and under metal roof coverings to achieve class A fire ratings.**
- Specifically designed as underlayment for high temperature applications.
- Approved for application under metal roof panels, asphalt shingles, mechanically attached tiles.
- Can be used as part of a multi-ply underlayment system.

FEATURES AND BENEFITS

- Fire spread/penetration and ember resistance in systems tested under UL 790.
- 180 days exposure.
- Approved up to 265°F.
- Fiberglass reinforced for added strength and dimensional stability.

TECHNICAL DESCRIPTION*

Physical Properties	ASTM Method	ASTM Value	Typical Performance
Maximum Load, min	ASTM D5147	35 lbf/in [4.4 kN/m]	69 lbf/in [12 kN/m] MD 40 lbf/in [7 kN/m] XMD
Elongation at break, min of modified bitumen portion	ASTM D5147	10%	50% MD 60% XMD
Tear Resistance, min	ASTM D5147	20 lbf [89 N]	157 lbf [700 N] MD 79 lbf [350 N] XMD
Thermal Stability, max	ASTM D1970	0.1 in [3 mm]	pass
Adhesion to Plywood [min at 40°F]	ASTM D1970	2.0 lbf/ft	15 lbf/ft
Adhesion to Plywood [min at 75°F]	ASTM D1970	12.0 lbf/ft	25.0 lbf/ft
Waterproof integrity of Lap Seam	ASTM D1970	pass	pass
Flexibility at -29°C [-20°F]	ASTM D5147	pass	pass
Sealability around Nail	ASTM D5147	pass	pass
Slip Resistance	ASTM D1970	pass	pass
Moisture Vapor Permeance, max	ASTM E96	max 0.1 U.S. Perms [5.7 ng/Pa.S.M²]	pass

*The properties in this table are "as manufactured" unless otherwise noted

ADESO SELF-ADHERED TECHNOLOGY

PRODUCT DATA***

Net Coverage (Approx)..... 150 ft² (13.9 m²)
Gross Coverage (Actual)..... 160 ft² (15 m²)
Weight (Approx) ..... 75 lbs (34 kg)
Thickness (Nominal)..... 80 mils (2.0 mm)
Roll Size .....49'3" × 39⅜" (15 m × 1 m)
Rolls/Pallet.....20

***All values are nominal at time of manufacturing

APPLICABLE STANDARDS

- ASTM D1970
- UL Classified
- ICC ESR-1697
- Florida Building Code
- Miami-Dade County Approved
- Texas Department of Insurance
- Listed by California State Fire Marshal

PRODUCT CODES

- PSXFR

ROOFING AND WATERPROOFING SYSTEMS
POLYGLASS
MAPEI GROUP

www.polyglass.us

Edition Date: 06/21 • Doc# Polystick XFR

POLYSTICK® XFR

FIRE RESISTANT SELF-ADHERED ROOF UNDERLAYMENT

UL CLASS A LISTING BY METAL ROOF COVERING TYPE**

Deck	Anchor Sheet (Optional)	Insulation (Optional)	Second Ply (Optional)	Underlayment	Roof Covering
Plywood (15/32"), spaced sheathing or 7/16" OSB	ASTM D226 (II) 30# Felt	Polytherm Polyiso	**Polystick XFR**	**Polystick XFR**	UL Listed copper panels or steel standing seam panels, stone coated shingles, 26 gauge minimum
Deck	**Anchor Sheet (Optional)**	**Insulation (Optional)**	**Second Ply (Required)**	**Underlayment**	**Roof Covering**
Plywood (15/32"), spaced sheathing or 7/16" OSB	ASTM D226 (II) 30# Felt	Polytherm Polyiso	**Polystick XFR**	**Polystick XFR**	UL Listed aluminum panels, 0.032" minimum

** Unlimited Slope. Refer to published UL product listings (TGFU.R25992) for specific fire rated assemblies.

APPLICATION INSTRUCTIONS

- Polystick XFR may be applied directly to the roof deck where allowable by Code, or to various approved substrates such as ASTM D226 type roofing felts and Polytherm insulation. For additional substrate requirements and information refer to Polyglass published "Suitable Substrates for Self-Adhered (SA) Membranes."
- Do not apply directly on to existing shingles or other roof coverings.
- Apply only when the substrate is dry and project related temperatures (air, roof deck, membrane) are 40° F and rising.
- Cut the Polystick XFR to a suitable, workable length prior to placement.
- Lay the material flat in place, starting at the lowest point. Overlap seams 3" at black side lap area and a minimum 6" at end laps.
- Peel half of the release film from the roll and apply firm, even pressure from the center to the outer edge. Remove the backing from the remaining half of the roll and apply pressure.
- Be sure to follow all local building code recommendations and requirements with regards to the width of ice dam materials.
- If full roof coverage application is desired, proper venting of the structure is recommended. Consult a design professional for proper venting requirements. Applications involving non-ventilated attics or sheathing with radiant barriers, an anchor sheet is recommended to allow venting and prevent the creation of a double vapor barrier condition.
- In steep slope applications where back nailing may be recommended, be sure that all nails are covered by the overlapping next sheet.
- Polystick XFR must be covered within 180 days of installation or unless otherwise limited by the Authority Having Jurisdiction.

MANUFACTURING FACILITIES

- Fernley, NV
- Hazleton, PA
- Waco, TX
- Winter Haven, FL

CORPORATE HEADQUARTERS

Polyglass U.S.A., Inc.
1111 West Newport Center Drive
Deerfield Beach, FL 33442
www.polyglass.us
General Line: (888) 410-1375
(954) 233-1330
Customer Service: (800) 222-9782
Technical Service: (866) 802-8017

Questions? technical@polyglass.com

Product Disclaimer: Unless otherwise incorporated into or part of a supplemental manufacturer's warranty, Polyglass warrants its product(s) against manufacturing defects in its product that directly results in leakage for a period of 1 year.

Refer to safety data sheet (SDS) for specific data and handling of our products. All data furnished refers to standard production and is given in good faith within the applicable manufacturing and testing tolerances.

Polyglass U.S.A., Inc., reserves the right to improve and change its products at any time without prior notice. Polyglass U.S.A., Inc. cannot be held responsible for the use of its products under conditions beyond its own control. For most current product data and warranty information, visit www.polyglass.us

ROOFING AND WATERPROOFING SYSTEMS
POLYGLASS
MAPEI GROUP

www.polyglass.us

Edition Date: 06/21 • Doc# Polystick XFR

ICC-ES Evaluation Report

ESR-1697

Reissued November 2023

Revised October 2024

Subject to renewal November 2025

This report also contains:

- CA Supplement

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DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION **Section: 07 30 05—Roofing Felt and Underlayment**	**REPORT HOLDER:** **POLYGLASS USA, INC.** **ADDITIONAL LISTEES:** **MULE-HIDE PRODUCTS CO., INC.**	**EVALUATION SUBJECT:** **POLYSTICK IR-Xe, TU, TU PLUS, TU P, TU MAX, DUAL PRO, TILE PRO, MTS PLUS, MU-X AND XFR ROOF UNDERLAYMENTS AND POLYSTICK P, POLYSTICK MTS AND POLYSTICK MX ICE BARRIERS**	

1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2024, 2021, 2018, 2015, 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2024, 2021, 2018, 2015, 2012, 2009 and 2006 *International Residential Code*® (IRC)

Properties evaluated:

- Physical properties
- Water resistance

1.2 Evaluation to the following green standards:

- 2020, 2015, 2012 and 2008 *ICC 700 National Green Building Standard™* (ICC 700-2020, ICC 700-2015, ICC 700-2012, and ICC 700-2008)

Attributes verified:

- See Section 3.1

2.0 USES

2.1 Roof Underlayment:

Polystick IR-Xe, TU, TU Plus, TU P, TU Max, MTS Plus, MU-X, XFR, Dual Pro and Tile Pro are self-adhering membranes used as alternatives to ASTM D226, Type I and Type II, roofing underlayment specified in IBC Chapter 15 and IRC Chapter 9 IRC.

2.2 Ice Barrier:

Polystick P and Polystick MTS are limited to use as alternatives to the ice barrier specified in IBC Chapter 15 and IRC Chapter 9. Polystick IR-Xe, TU, TU Plus, TU P, TU Max, MTS Plus, MU-X, MX, XFR, Dual Pro and Tile Pro roof underlayments may also be used as alternatives to the ice barrier specified in IBC Chapter 15 and IRC Chapter 9.

3.0 DESCRIPTION

3.1 General:

Polystick IR-Xe, TU, TU Plus, TU P, TU Max, Dual Pro, Tile Pro, MTS Plus, MU-X and XFR roof underlayments and Polystick P, Polystick MTS and Polystick MX ice barriers are self-adhering, modified asphalt membranes constructed as described in Sections 3.2 through 3.14 of this report**.** These products are also specified for the additional listee as described in Table 1.

The attributes of the Polystick membranes have been verified as conforming to the requirements of (i) ICC 700-2020 Sections 602.1.13, 11.602.1.13, 1202.9 and 13.104.17; (ii) ICC 700-2015 Section 602.1.13, 11.602.1.13 and 12.6.602.1.13; (iii) ICC 700-2012 Sections 602.1.13, 11.602.1.13 and 12.5.602.1.14; and (iv) ICC 700-2008 Section 602.10 for ice barriers. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

3.2 Polystick IR-Xe:

Polystick IR-Xe is an APP-modified-asphalt, fiberglass-mat-reinforced membrane having a fine granular mineral surface. The membrane has a nominal weight of 27 pounds per 100 square feet (1.3 kg/m^2) and is supplied in various lengths and widths.

3.3 Polystick P:

Polystick P is an SBS-modified-asphalt, unreinforced membrane having a polyethylene film surface. The membrane has a nominal weight of 31 pounds per 100 square feet (1.5 kg/m^2) and is supplied in rolls of various lengths and widths.

3.4 Polystick TU:

Polystick TU is an APP-modified-asphalt, fiberglass-mat-reinforced membrane having a coarse granular mineral surface. The membrane has a nominal weight of 64 pounds per 100 square feet (3.1 kg/m^2) and is supplied in rolls of various lengths and widths.

3.5 Polystick TU Plus:

Polystick TU Plus is an APP-modified-asphalt, fiberglass-mat-reinforced membrane having a polyester fabric surface. The membrane has a nominal weight of 31 pounds per 100 square feet (1.5 kg/m^2) and is supplied in rolls of various lengths and widths.

3.6 Polystick MTS:

Polystick MTS is an APP-modified-asphalt, fiberglass-mat-reinforced membrane having a polymer film surface. The membrane has a nominal weight of 33 pounds per 100 square feet (1.6 kg/m^2) and is supplied in rolls of various lengths and widths.

3.7 Polystick TU P:

Polystick TU P is an APP-modified-asphalt, glass-fiber, and polyester reinforced membrane with a granular surface. The membrane has a nominal weight of 80 pounds per 100 square feet (3.9 kg/m^2) and is supplied in rolls of various lengths and widths.

3.8 Polystick TU Max:

Polystick TU Max is an APP-modified-asphalt, polyester reinforced membrane self-adhering membrane. The membrane has a nominal weight of 25 lbs per 100 square feet (1.2 kg/m^2) and is supplied in rolls of various lengths and widths.

3.9 Polystick Dual Pro:

Polystick Dual Pro is an APP- modified-asphalt, glass fiber and polyester reinforced self-adhering membrane. The membrane has a nominal weight of 31 pounds per 100 square feet (1.5 kg/m^2) and is supplied in rolls of various lengths and widths.

3.10 Polystick Tile Pro:

Polystick Tile Pro is an APP-modified-asphalt, glass fiber and polyester reinforced self-adhering membrane. The membrane has a nominal weight of 33 pounds per 100 square feet (1.6 kg/m^2) and is supplied in rolls of various lengths and widths.

3.11 Polystick MTS Plus:

Polystick MTS Plus an SBS-modified-asphalt, fiberglass reinforced self-adhering membrane having a polymer film surface. The membrane has a nominal weight of 29 pounds per 100 square feet (1.4 kg/m^2) and is supplied in rolls of various lengths and widths.

3.12 Polystick MU-X:

Polystick MU-X is an SBS-modified-asphalt, fiberglass reinforced self-adhering membrane with a polypropylene film surface. The membrane has a nominal weight of 31 pounds per 100 square feet (1.5 kg/m^2) and is supplied in rolls of various lengths and widths.

3.13 Polystick MX:

Polystick MX is an SBS-modified-asphalt, fiberglass reinforced self-adhering membrane. The membrane has a nominal weight of 34 pounds per 100 square feet (1.6 kg/m^2) and is supplied in rolls of various lengths and widths.

3.14 Polystick XFR:

Polystick XFR is an SBS-modified-asphalt, fiberglass reinforced self-adhering membrane with a polymer film surface. The membrane has a nominal weight of 43 pounds per 100 square feet (2.1 kg/m^2) and is supplied in rolls of various lengths and widths.

4.0 INSTALLATION

4.1 General:

Installation of the Polystick roof underlayments must comply with the applicable code, this report and the manufacturer's published installation instructions. The installation instructions must be available at the jobsite at all times during installation.

Prior to application of the underlayment, the deck surface must be free of frost, dust and dirt, loose fasteners, and other protrusions. Damaged sheathing must be replaced. Installation is limited to plywood substrates. The underlayment must be applied only when the ambient air and substrate temperatures are above 40°F (4.4°C).

The underlayments are cut into workable lengths and rerolled prior to placement. The release film is peeled back approximately 1 to 2 feet (305 to 610 mm) and the membrane aligned with the lower edge of the roof and set in place. The remainder of the underlayment is applied directly to the roof deck by removing the film and firmly pressing the membrane into place. The end seams must be overlapped a minimum of 6 inches (152 mm). Edge seams must be overlapped 3 inches (76 mm) or as indicated on product surface. The subsequent courses of underlayment are applied parallel to the eave, from the lower edge of the roof upwards in a shingle-lap manner. For slopes greater than 4:12 (33.33 percent), the membrane may be laid in a strapping fashion (length of roll parallel to slope).

If the underlayment becomes misaligned, the roll is to be cut and restarted. The underlayment is pressed firmly into place, from the center to edge. After application, the underlayment must be inspected, and any defects repaired. "Fish mouths" are slit, pressed flat, and covered with a patch of membrane of sufficient width and length to overlap each side and end of the slit a minimum of 3 inches (76 mm). Membranes should be installed in a manner that water will run over or parallel to all laps.

Installation of the roof covering can proceed immediately following application of the underlayment. The underlayment should be covered by an approved roof covering as soon as possible. For reroofing application, the same procedures apply after removal of the existing roof covering and roofing felts to expose the roof deck.

4.2 Ice Barrier:

When used as an ice barrier, the Polystick IR-Xe, P, TU, TU Plus, TU P, MTS, TU Max, MTS Plus, MU-X, MX, Dual Pro, Tile Pro and XFR membranes must be installed as prescribed in IBC Chapter 15 and IRC Chapter 9 where an ice barrier is required. The membranes must be installed in sufficient courses to extend up the roof for a minimum distance of 24 inches (610 mm) inside the exterior wall line of the building. When used as roof underlayment in the field of the roof, the underlayment products recognized in this report must overlap the ice barrier.

4.3 Roof Underlayment:

Polystick IR-Xe, TU, TU Plus, TU P, TU Max, MTS Plus, MU-X, XFR, Dual Pro and Tile Pro underlayments must be installed as prescribed in IBC Chapter 15 or IRC Chapter 9 where an ASTM D226, Type I or Type II underlayment is required.

4.4 Flashing:

Flashing must be in accordance with the applicable code. Flashing around protrusions must be over the lower course of the underlayment and under the upper course of the underlayment, to prevent water backup. When used, metal drip edges must be installed beneath the underlayment at the eaves and over the underlayment at rakes.

5.0 CONDITIONS OF USE:

The Polystick roof underlayments and ice barriers described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 Installation must comply with the applicable code, this report and the manufacturer's published installation instructions. In the event of a conflict between this report and the manufacturer's instructions, this report governs.

5.2 Recognition in this evaluation report is limited to installation on plywood substrates.

5.3 Installation is limited to roofs with a slope of 2:12 (16.67%) or greater.

5.4 Installation is limited to use with roof coverings that do not involve hot asphalt or coal-tar pitch.

5.5 Installation is limited to use with roof coverings that are mechanically fastened through the underlayment to the sheathing or rafters.

5.6 Installation is limited to roofs with ventilated attic spaces in accordance with the requirements of the applicable code.

5.7 The underlayments and ice barriers must be installed only when the ambient air and substrate temperatures are above 40°F (4.4°C).

5.8 Installation is limited to structures located in areas where nonclassified roof coverings are permitted or as a component of a classified roofing assembly when specifically recognized as such in a listing approved by the code official.

5.9 The membranes are produced in Fernley, Nevada, Hazleton, Pennsylvania, Winter Haven, Florida, and Waco, Texas under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with the ICC-ES Acceptance Criteria for Self-Adhered Roof Underlayments for Use as Ice Barriers (AC48), dated February 2012 (editorially revised February 2021). Specifically, data in accordance with Section 3.1.1 of AC48 (ASTM D1970) for Polystick IR-Xe, Polystick TU P, Polystick MU-X, Polystick MX and Polystick XFR.

6.2 Data in accordance with the ICC-ES Acceptance Criteria for Self-Adhered Roof Underlayments for Use as Ice Barriers (AC48), dated February 2012 (editorially revised February 2021). Specifically, data in accordance with Section 3.1.2 of AC48 for Polystick P, Polystick TU, Polystick TU Plus, Polystick MTS, Polystick TU Max, Polystick MTS Plus, Polystick Dual Pro and Polystick Tile Pro.

6.3 Data in accordance with the ICC-ES Acceptance Criteria for Roof Underlayments (AC188), dated February 2012 (editorially revised June 2020) for Polystick IR-Xe, Polystick TU, Polystick TU Plus, Polystick TU P, Polystick TU Max, Polystick MTS Plus, Polystick MU-X, Polystick.

7.0 IDENTIFICATION

7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-1697) along with the name, registered trademark, or registered logo of the report holder and listee must be included in the product label.

7.2 The Polystick roof underlayments and ice barriers described in this report are identified by a label, on the container of each roll of membrane, bearing the Polyglass U.S.A, Inc., name, the product name and the manufacturing location, and the evaluation report number (ESR-1697).

7.3 The report holder's contact information is the following:

POLYGLASS USA, INC.
1111 WEST NEWPORT CENTER DRIVE
DEERFIELD BEACH, FLORIDA 33442
(800) 894-4563
www.polyglass.us

7.4 The Additional Listee's contact information is the following:

MULE-HIDE PRODUCTS CO., INC.
1195 PRINCE HALL DRIVE
BELOIT, WISCONSIN 53511
(800) 786-1492
www.mulehide.com/en-us/

TABLE 1 – PRODUCT NAME CROSS-REFERENCE FOR REPORT HOLDER AND ADDITIONAL LISTEE

COMPANY	POLYGLASS USA, INC.	MULE-HIDE PRODUCTS CO., INC.
PRODUCT NAME	Polystick IR-Xe	-
	Polystick TU	-
	Ploystick TU Plus	Shur-Gard TU FORCE HT
	Polystick TU P	-
	Polystick TU Max	Shur-Gard TU PRIME HT
	Polystick MTS Plus	Shur-Gard MU FORCE HT
	Polystick MU-X	-
	Polystick MX	-
	Polystick XFR	-
	Polystick Dual Pro	-
	Polystick Tile Pro	-
	Polystick P	Shur-Gard MU PRIME HT
	Polystick MTS	-

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 30 05—Roofing Felt and Underlayment

REPORT HOLDER:

POLYGLASS USA, INC.

EVALUATION SUBJECT:

POLYSTICK IR-Xe, TU, TU PLUS, TU P, TU MAX, DUAL PRO, TILE PRO, MTS PLUS, MU-X AND XFR ROOF UNDERLAYMENTS AND POLYSTICK P, POLYSTICK MTS AND POLYSTICK MX ICE BARRIERS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Polystick IR-Xe, TU, TU Plus, TU P, TU Max, Dual Pro, Tile Pro, MTS Plus and MU-X and XFR roof underlayments and Polystick P, Polystick MTS, and Polystick MX ice barriers, described in ICC-ES evaluation report ESR-1697, have also been evaluated for compliance with the code editions noted below.

Applicable code editions:

- 2022 *California Building Code* (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2022 *California Residential Code* (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The Polystick IR-Xe, TU, TU Plus, TU P, TU Max, Dual Pro, Tile Pro, MTS Plus, MU-X and XFR roof underlayments and Polystick P, Polystick MTS, Polystick MX ice barriers, described in Sections 2.0 through 7.0 of the evaluation report ESR-1697, comply with CBC Chapter 15, provided the design and installation are in accordance with the 2021 *International Building Code*® provisions, as applicable, noted in the evaluation report and the additional requirements of CBC Chapter 15, as applicable.

2.1.1 OSHPD:

The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

2.1.2 DSA:

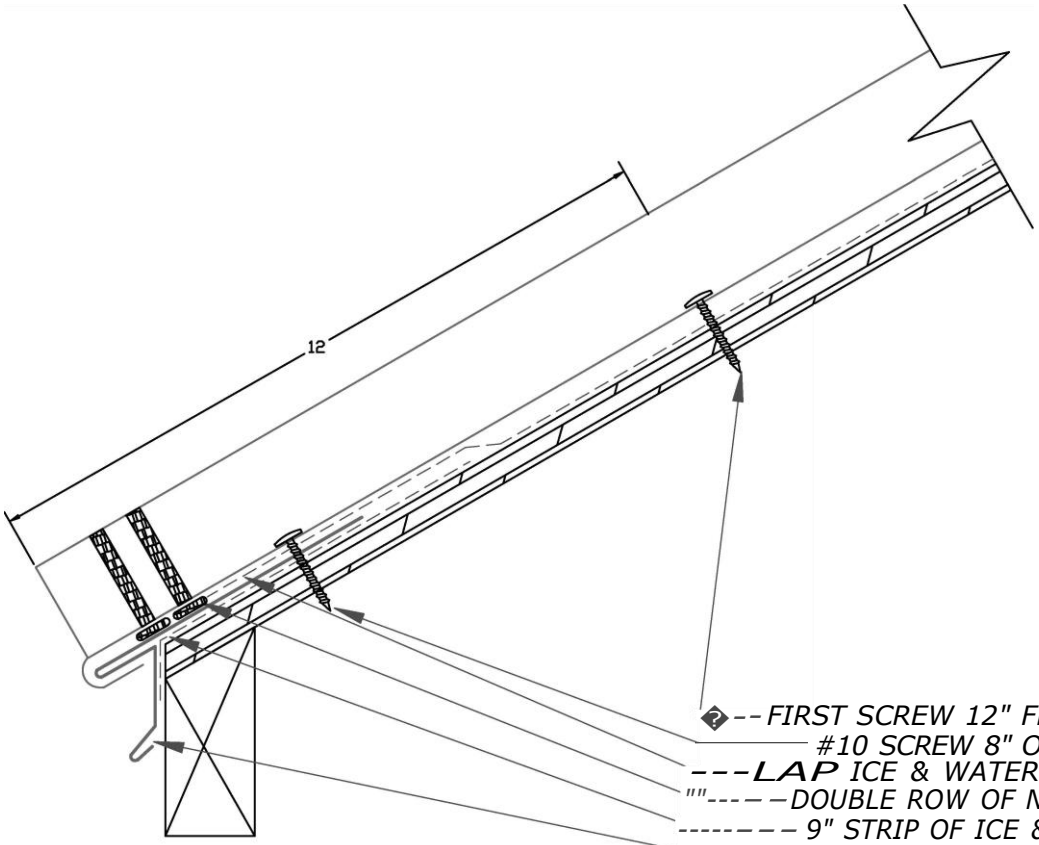
The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

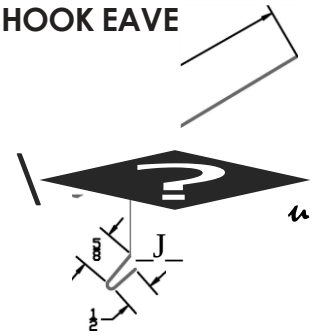
2.2 CRC:

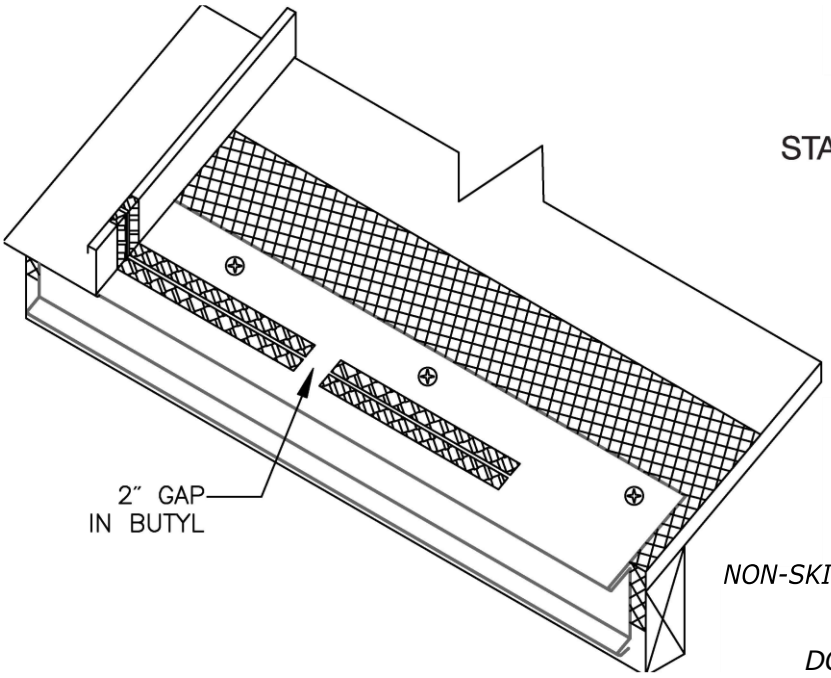
The Polystick IR-Xe, TU, TU Plus, TU P, TU Max, Dual Pro, Tile Pro, MTS Plus and MU-X and XFR roof underlayments and Polystick P, Polystick MTS and Polystick MX ice barriers, described in Sections 2.0 through 7.0 of the evaluation report ESR-1697, comply with CRC Chapter 9, provided the design and installation are in accordance with the 2021 *International Residential Code*® (IRC) provisions, as applicable, noted in the evaluation report and the additional requirements of CRC Chapter 9, as applicable.

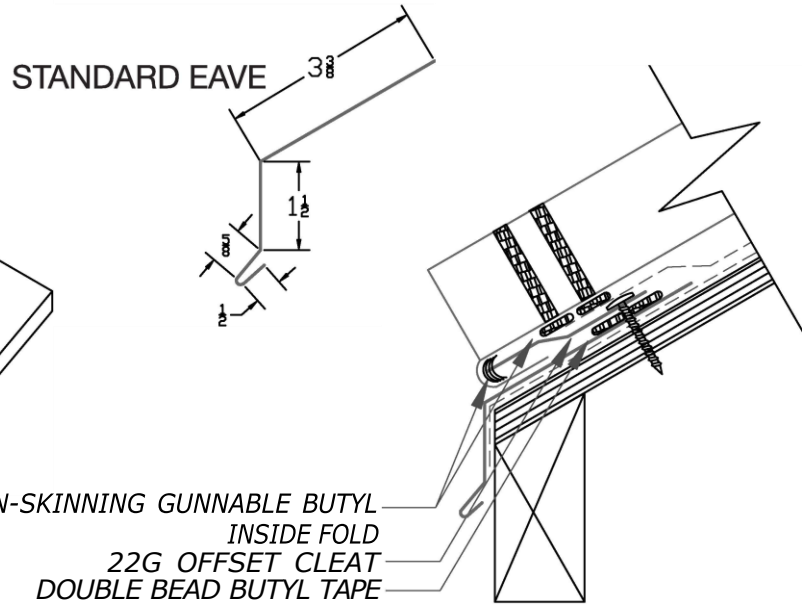
This supplement expires concurrently with the evaluation report, reissued November 2023 and revised October 2024.

HOOK EAVE



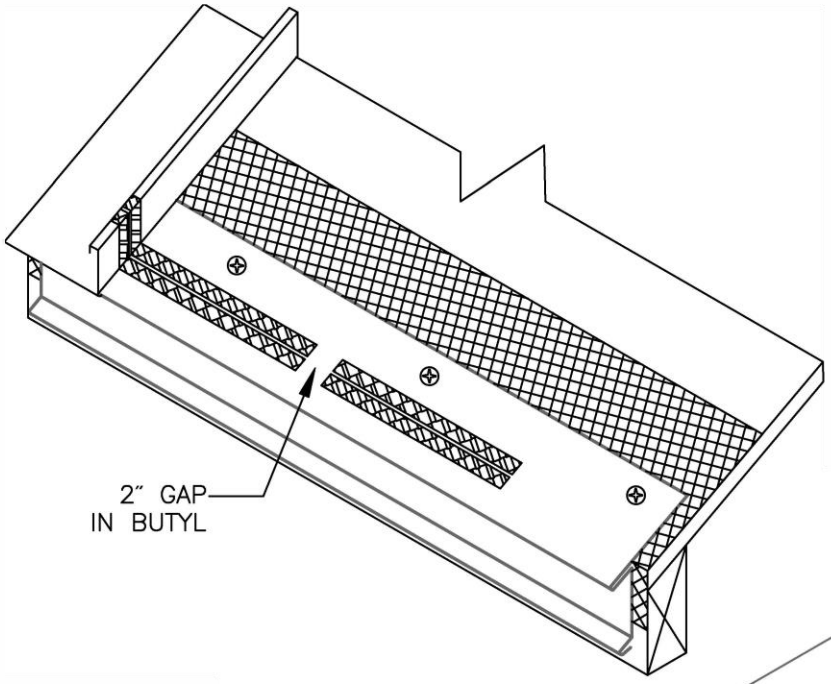






NOTE: All screws must be into solid substrate.
Flashing must be lapped 4" with 2 rows of non-skinning gunnable butyl

BOX GUTTER



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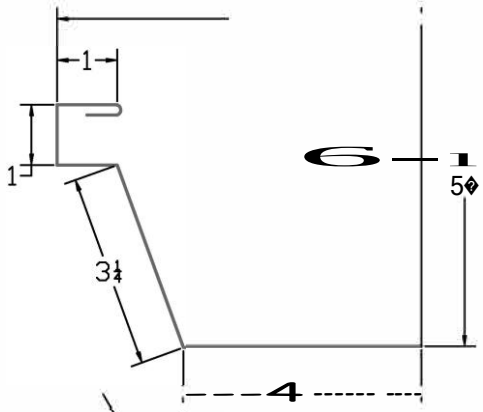
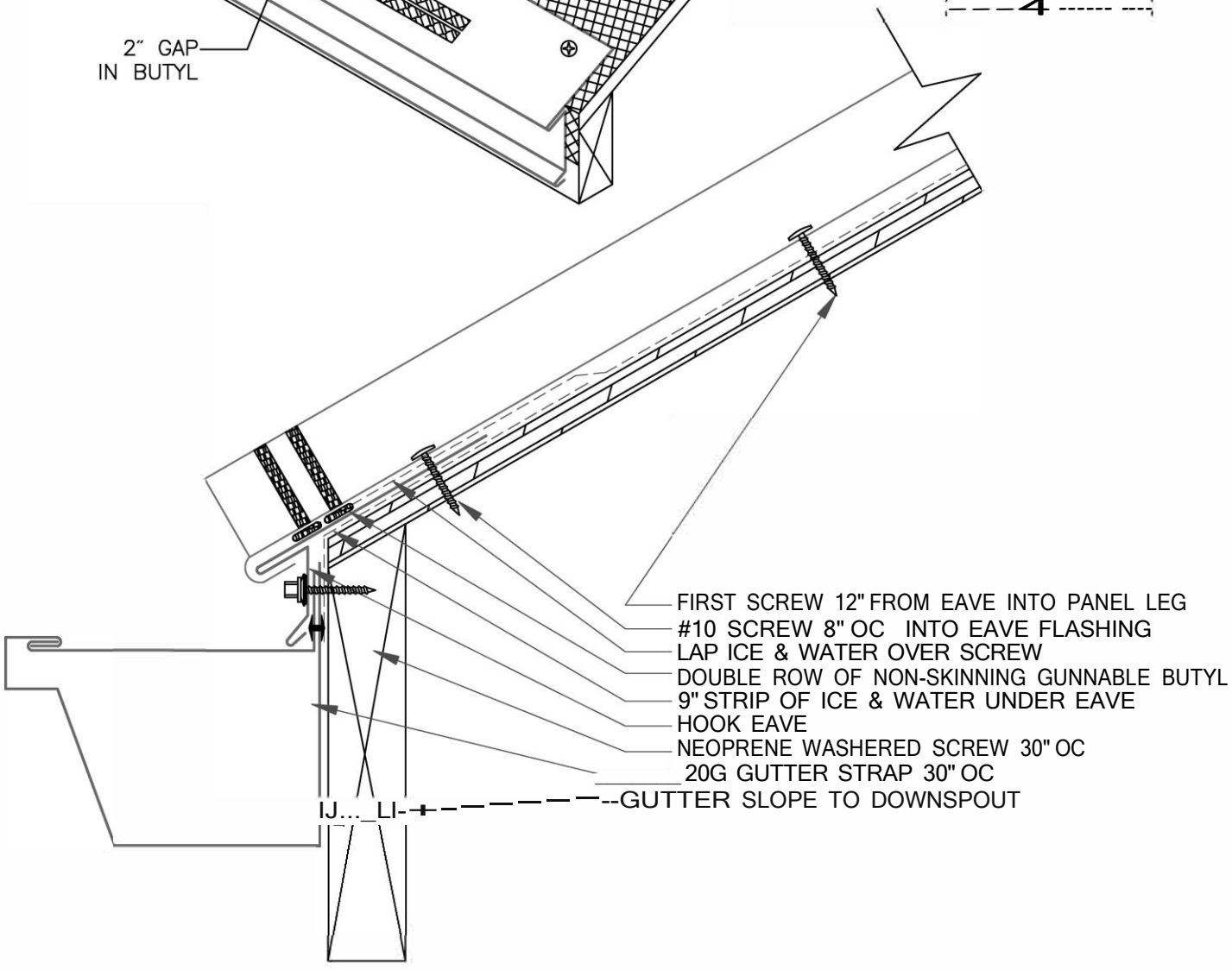
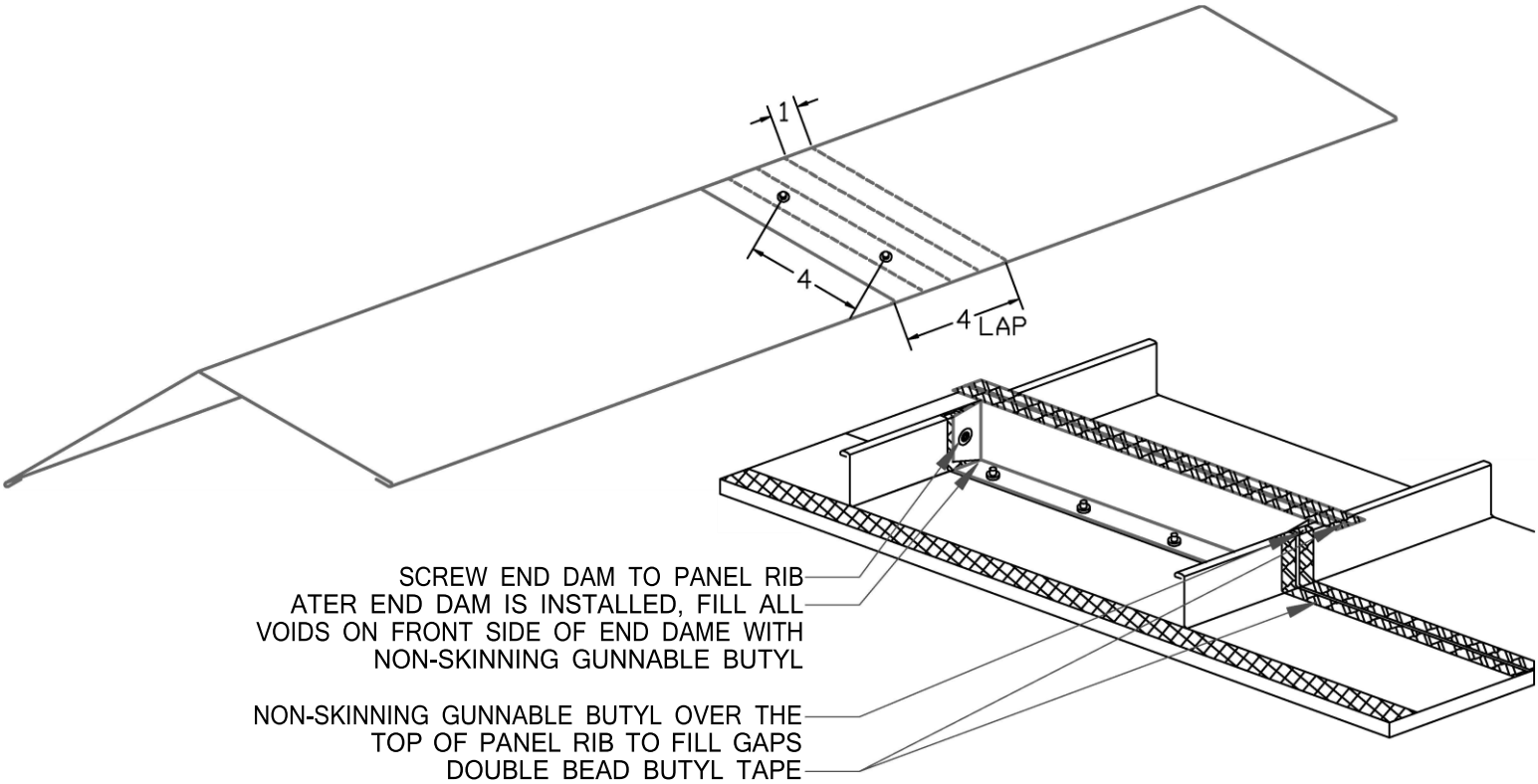
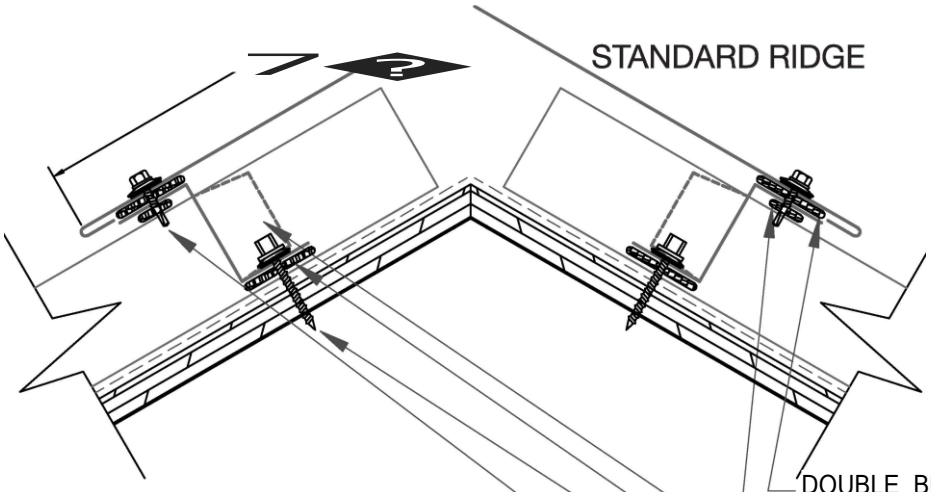




NOTE: All screws must be into solid substrate.
Flashing must be lapped 4" with 2 rows of non-skinning gunnable butyl

STANDARD RIDGE

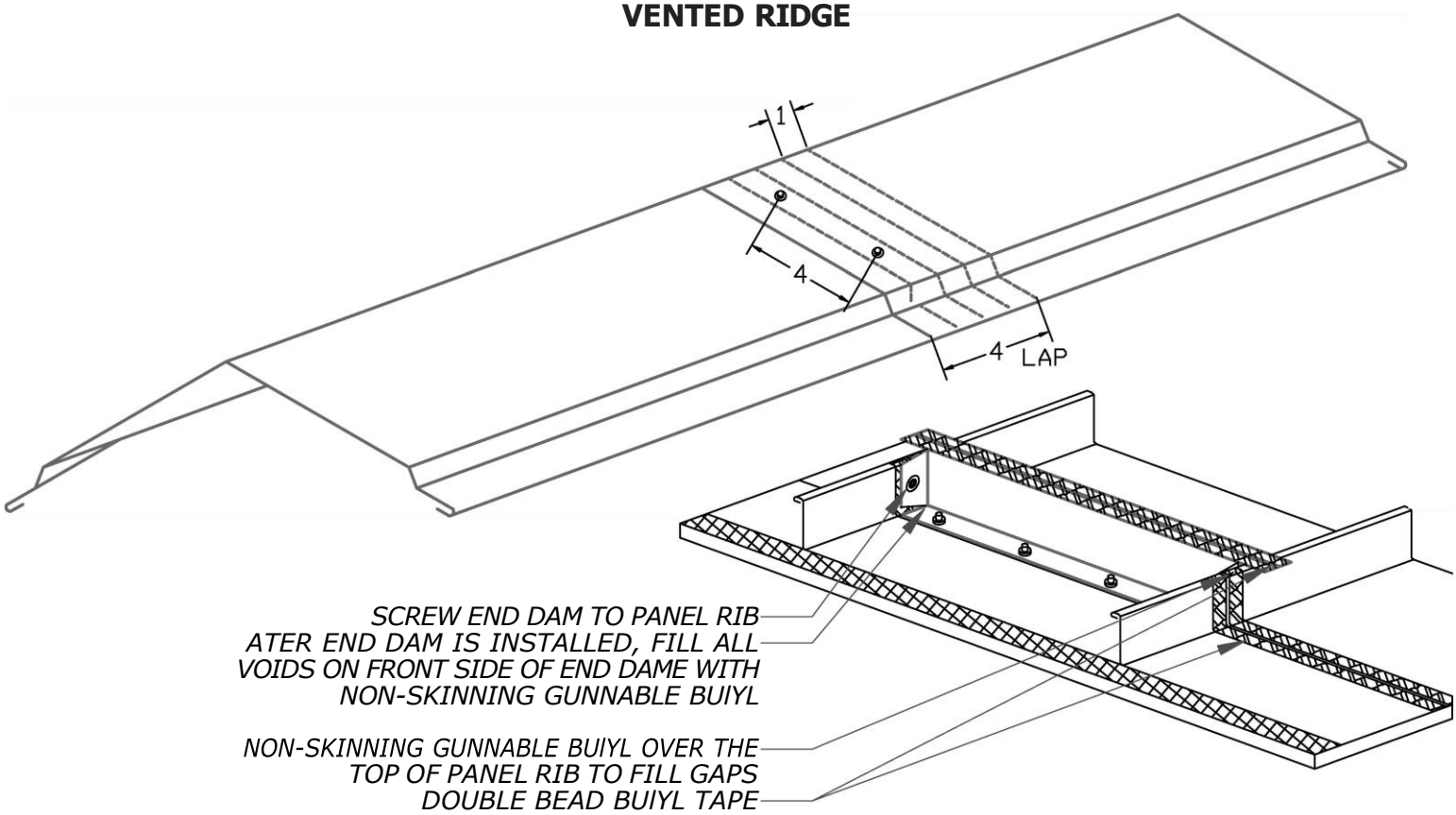




DOUBLE BEAD BUTYL TAPE
NON-SKINNING GUNNABLE BUTYL
SCREW END DAM INTO PANEL
END DAM SET IN DOUBLE BEAD BUTYL TAPE
NEOPRENE WASHERED DRAG LOAD 1"FROM SIDE OF RIB AND 4"OC MIN
NEOPRENE WASHERED SCREW OR RIVET AT 12 ,, OC INTO EACH END DAM

NOTE: All screws must be into solid substrate.
Flashing must be lapped 4" with 2 rows of non-skinning gunnable butyl

VENTED RIDGE

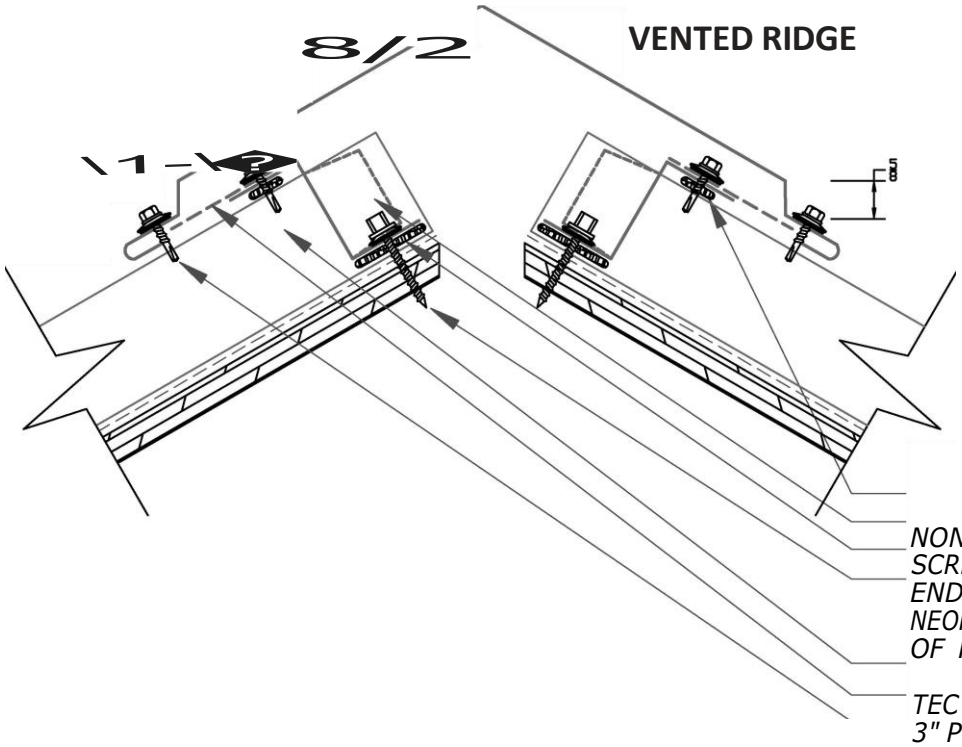


SCREW END DAM TO PANEL RIB
ATER END DAM IS INSTALLED, FILL ALL VOIDS ON FRONT SIDE OF END DAME WITH NON-SKINNING GUNNABLE BUIYL

NON-SKINNING GUNNABLE BUIYL OVER THE TOP OF PANEL RIB TO FILL GAPS
DOUBLE BEAD BUIYL TAPE

8/2

VENTED RIDGE

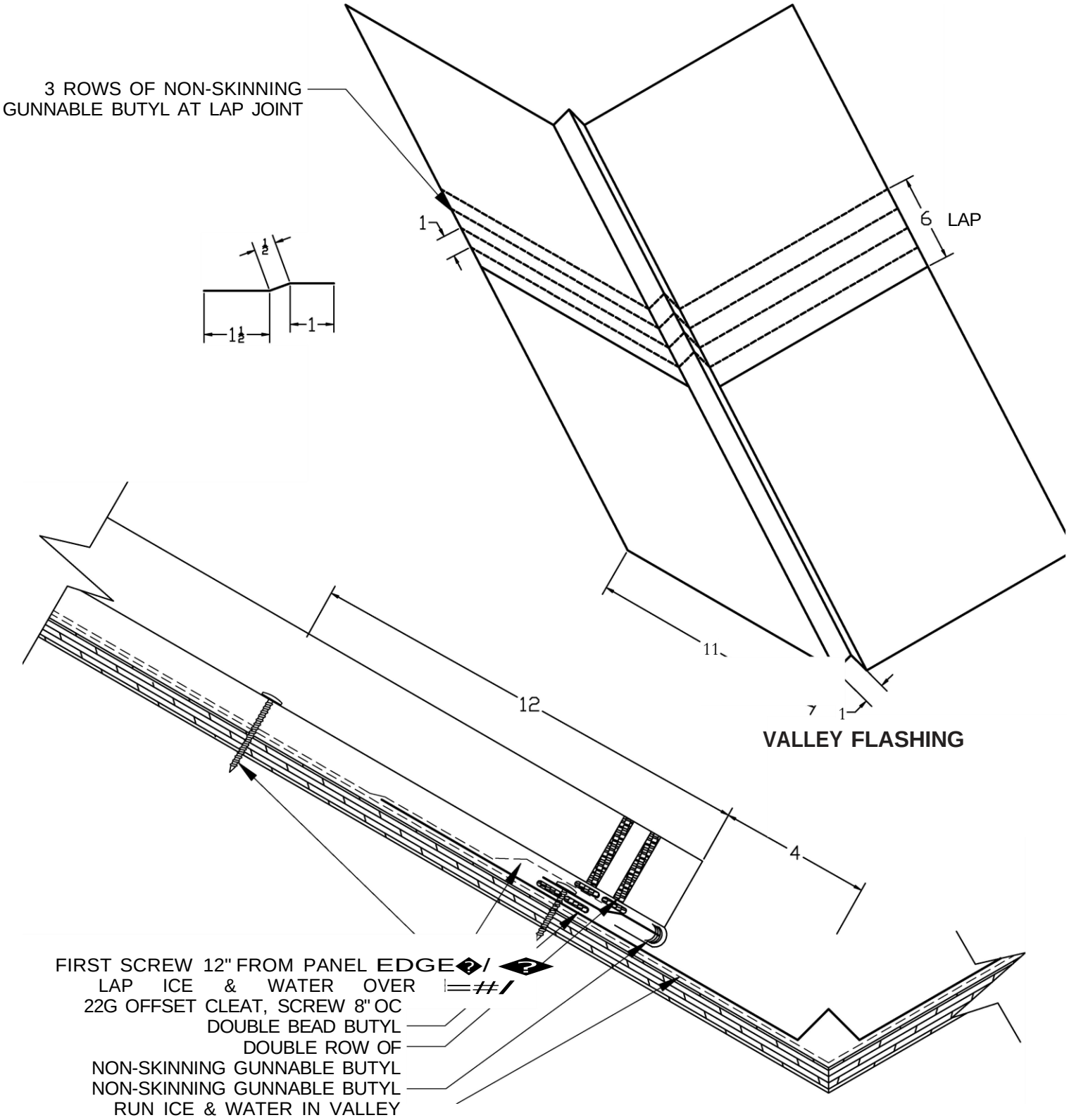


NON-SKINNING GUNNABLE BUIYL
SCREW END DAM INTO PANEL RIB
END DAM SET IN DOUBLE BEAD BUIYL TAPE
NEOPRENE WASHERED DRAG LOAD 1" FROM SIDE OF RIB AND 4" OC MIN

TEC 3 INTO EACH PANEL RIB
3" PERF

NOTE: All screws must be into solid substrate.
Flashing must be lapped 4" with 2 rows of non-skinning gunnable butyl

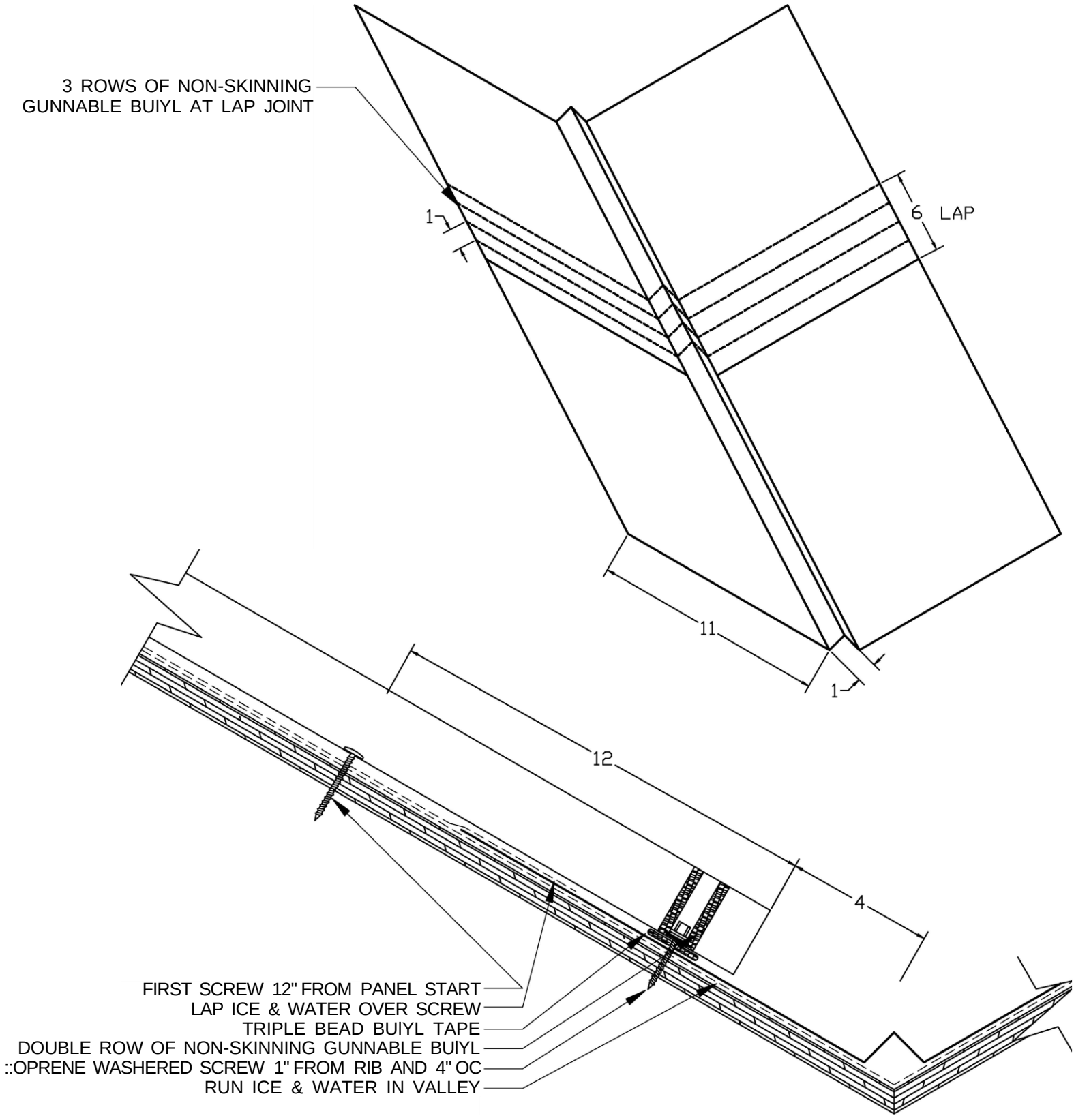
STANDARD VALLEY



VALLEY FLASHING

NOTE: All screws must be into solid substrate.
Flashing must be lapped 4" with 2 rows of non-skinning gunnable butyl

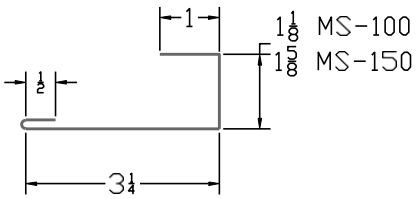
ALTERNATE VALLEY



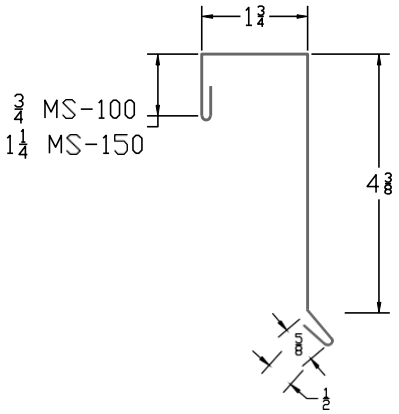
NOTE: All screws must be into solid substrate.
Flashing must be lapped 4" with 2 rows of non-skinning gunnable butyl

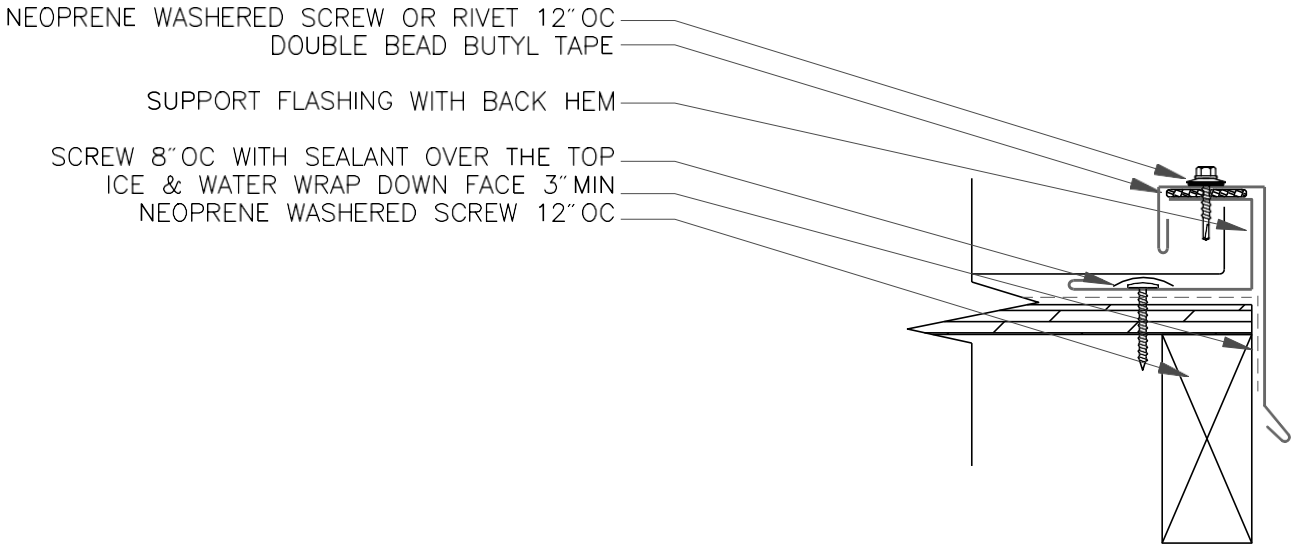
STANDARD GABLE

SUPPORT FLASHING



STANDARD GABLE

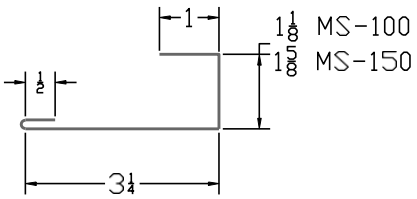




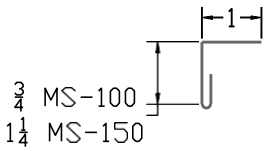
NOTE: All screws must be into solid substrate.
Flashing must be lapped 4" with 2 rows of non-skinning gunnable butyl
"

ALTERNATE GABLE

SUPPORT FLASHING



ALTERNATE GABLE L



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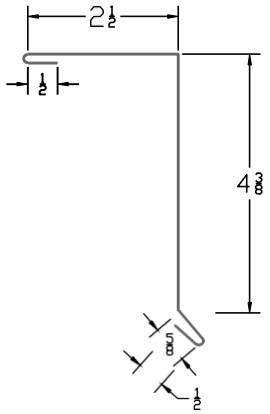
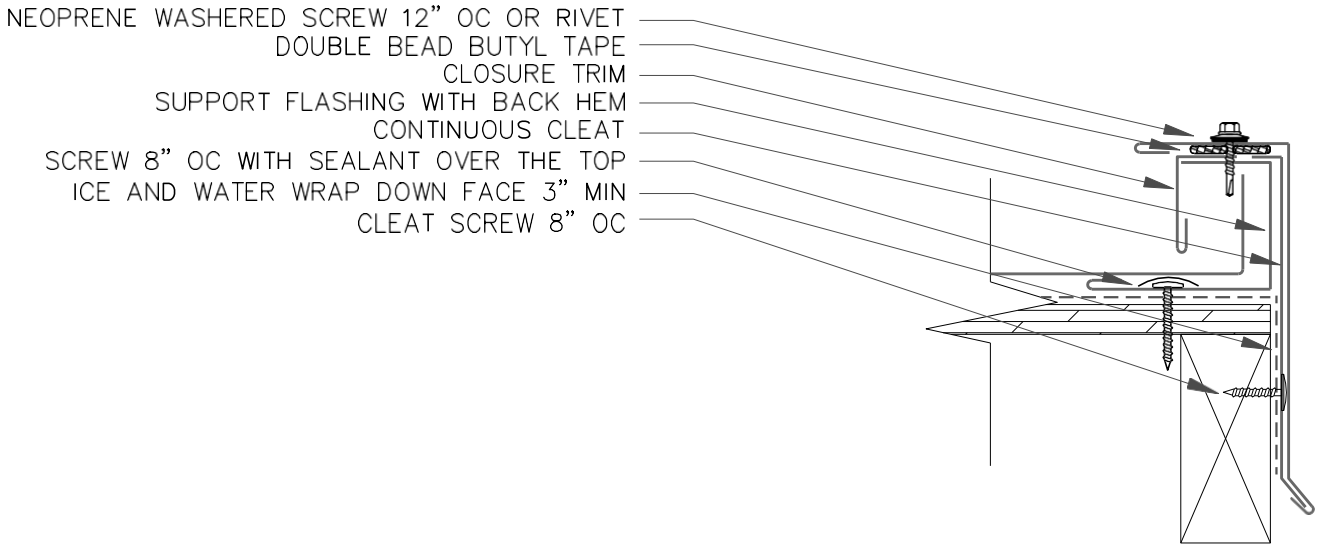
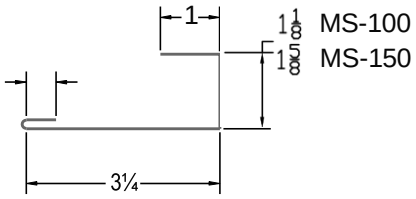




NOTE: All screws must be into solid substrate.
Flashing must be lapped 4" with 2 rows of non-skinning gunnable butyl
"

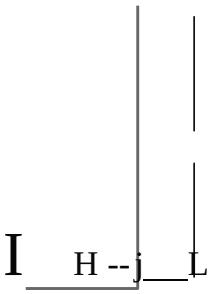
SIDE WALL

SUPPORT FLASHING

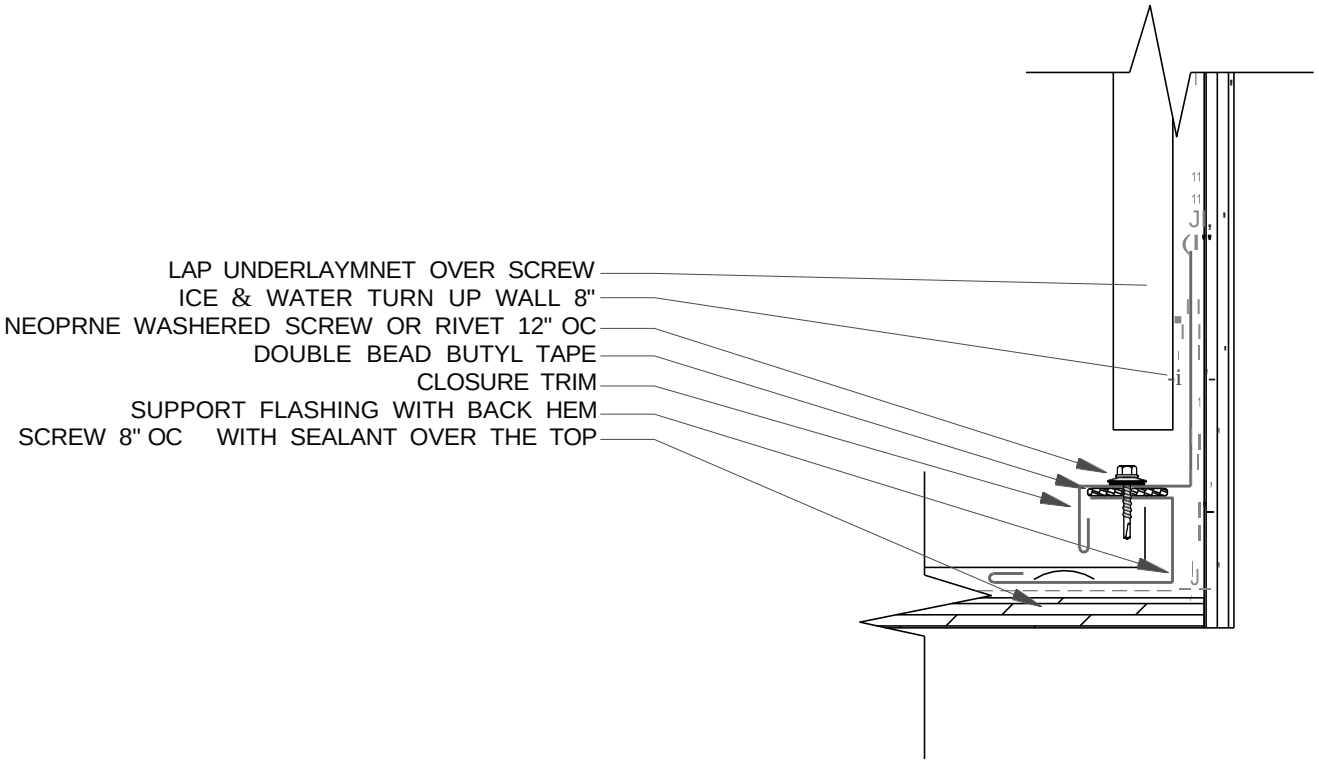


MS-100
MS-150

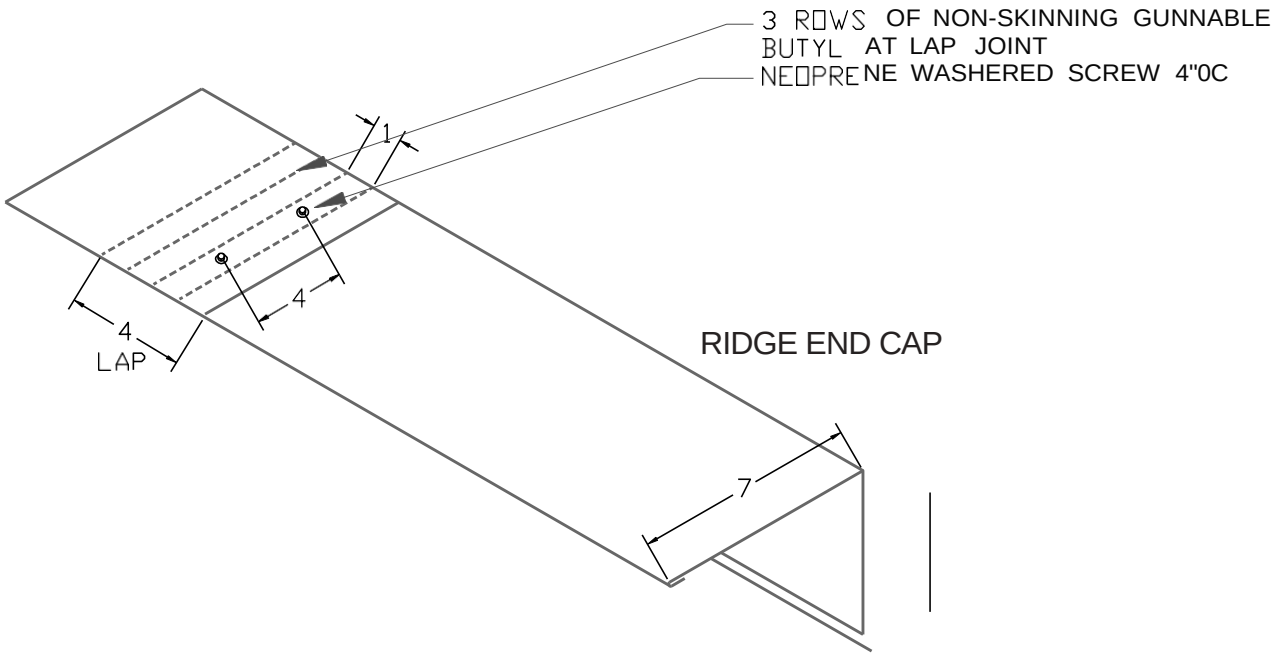
SIDE WALL



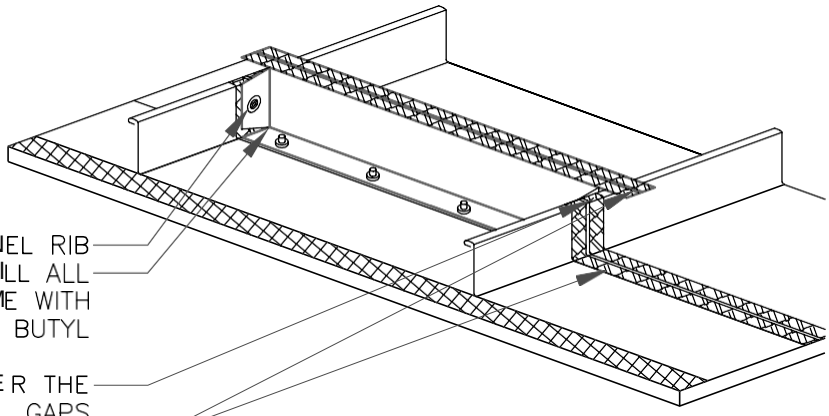
1 Ms-10o[U
1 MS-150

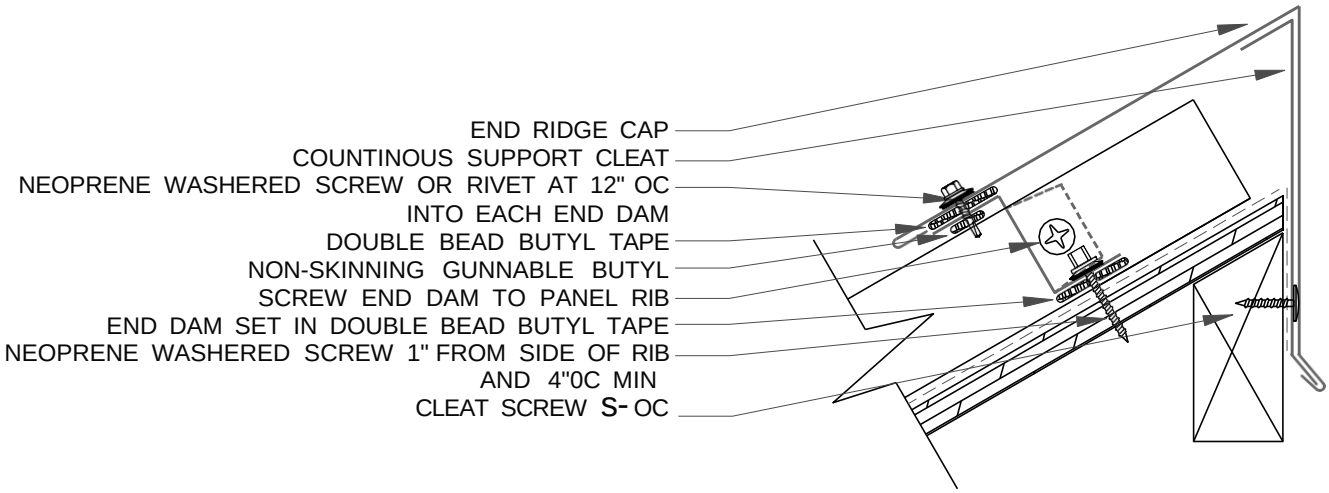


RIDGE END CAP

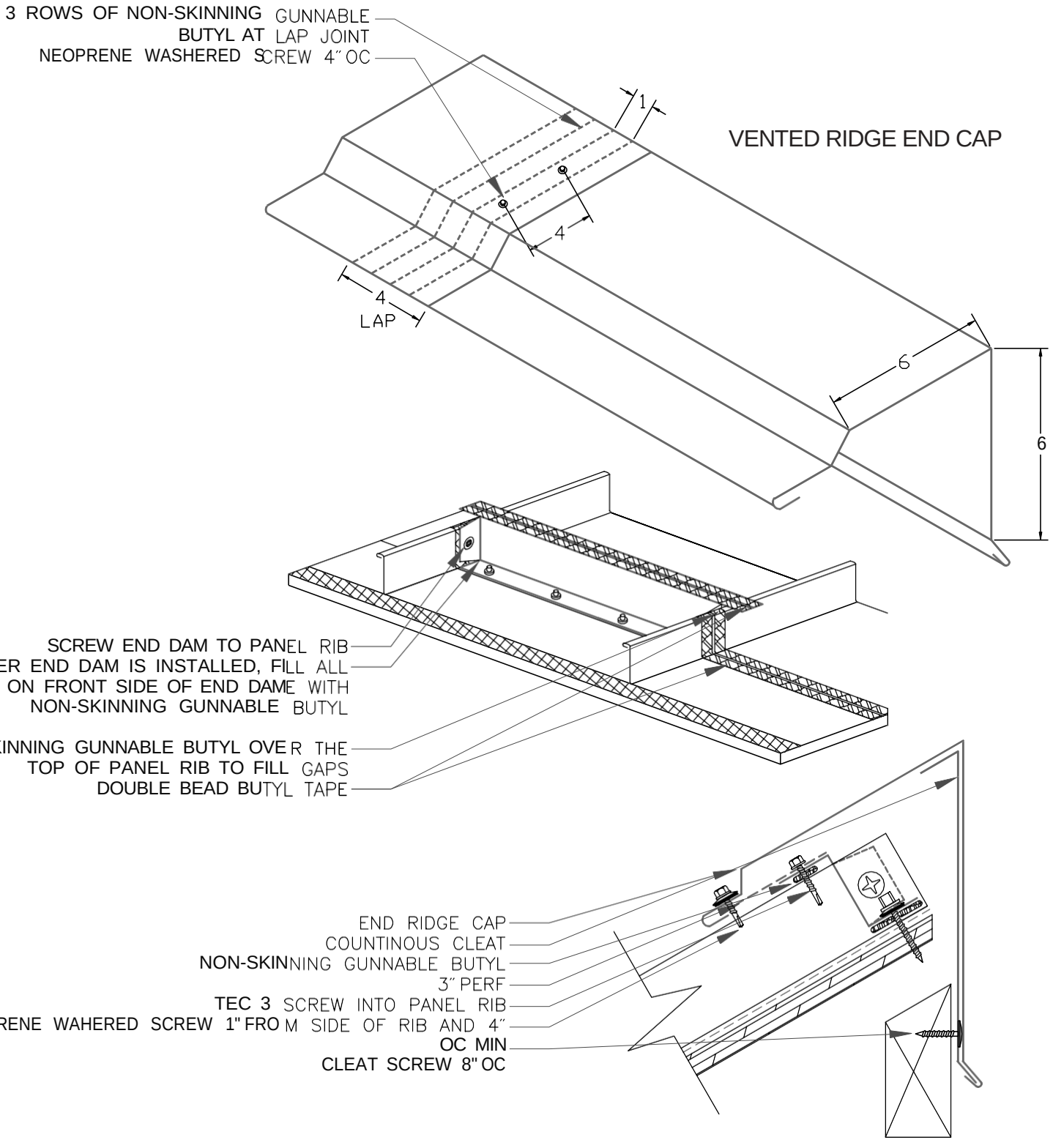


RIDGE END CAP

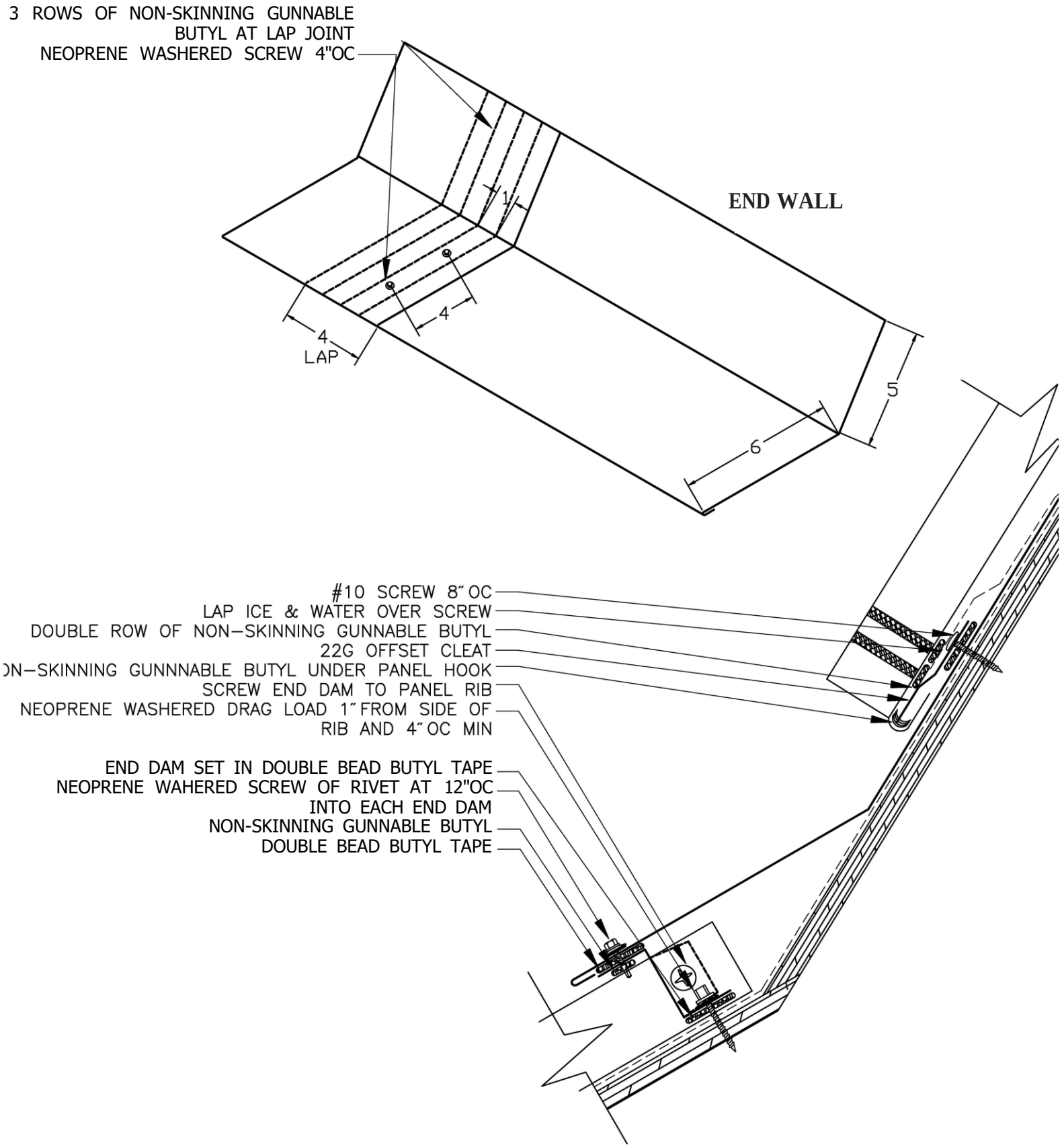




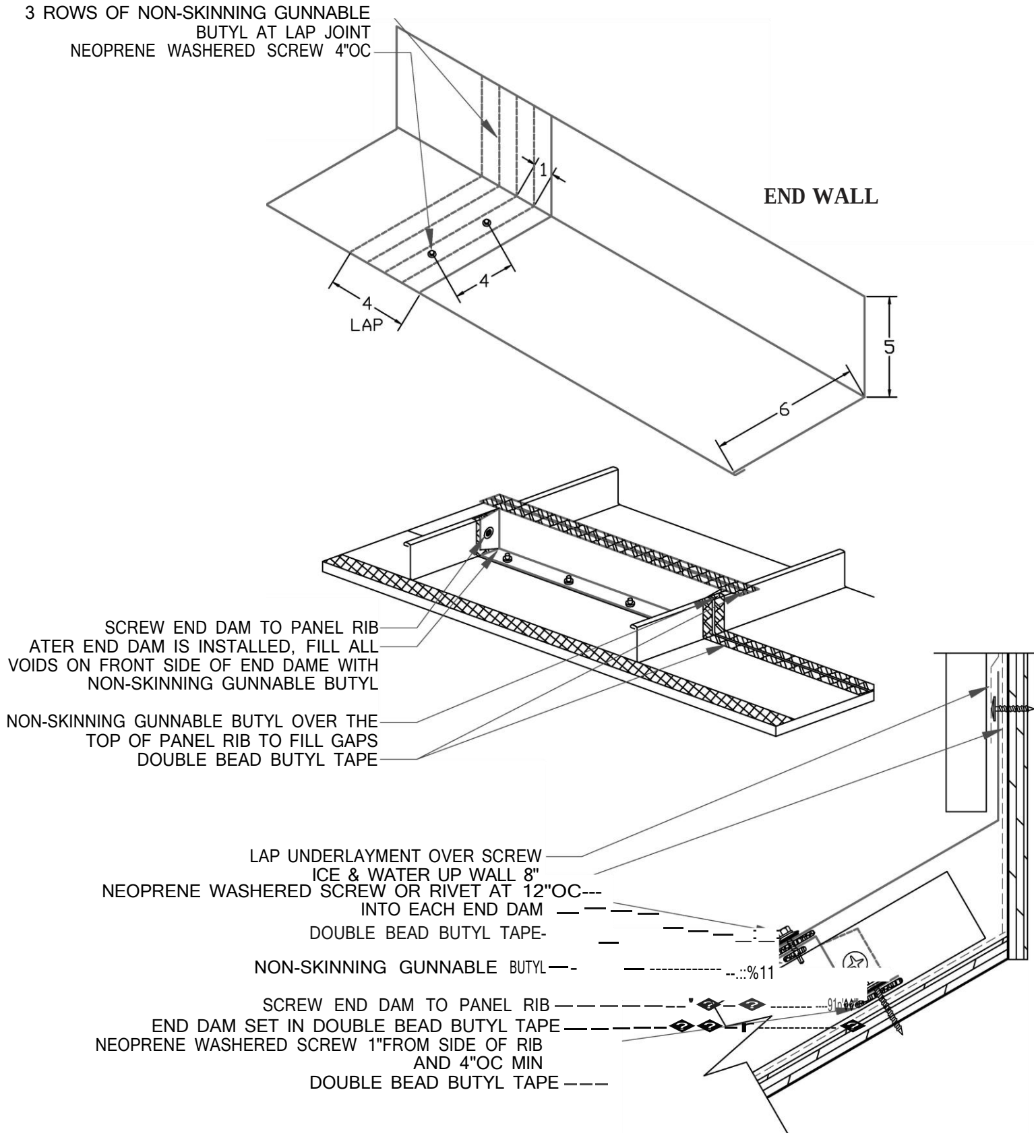
VENTED RIDGE END CAP



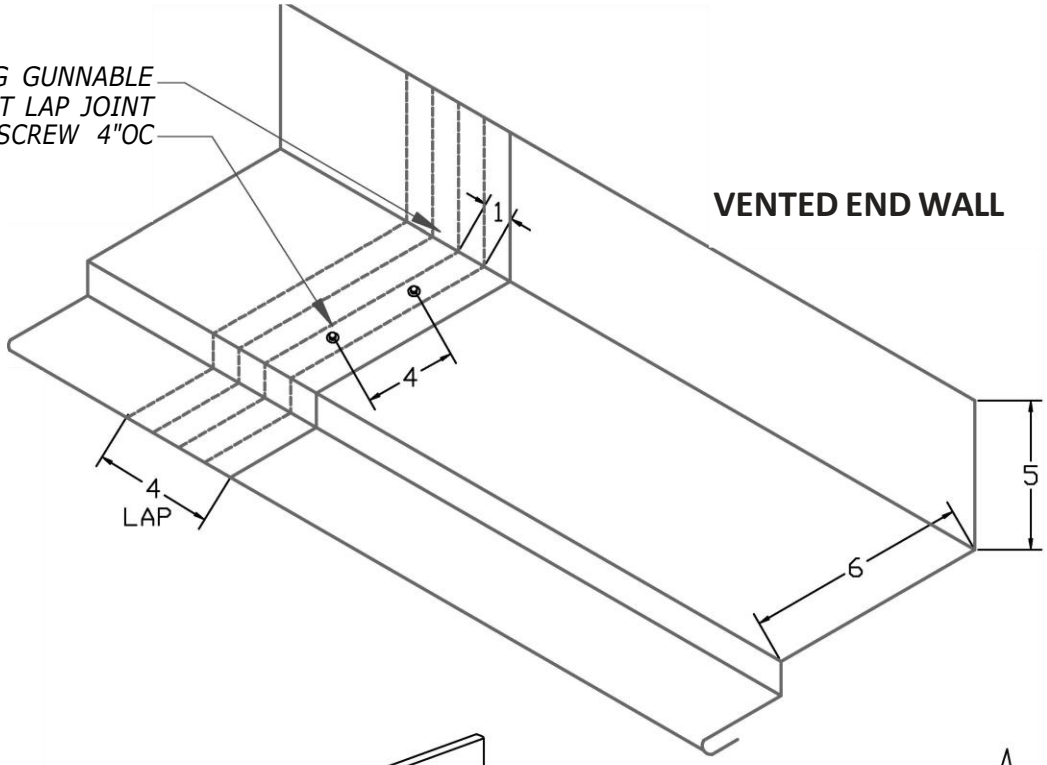
PITCH CHANGE



END WALL

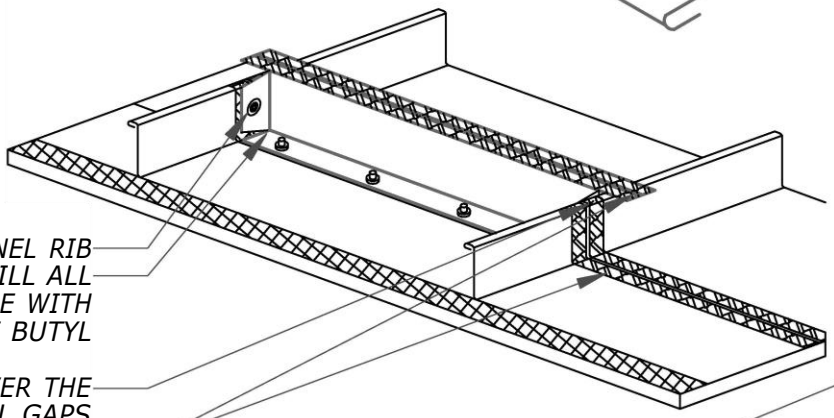

3 ROWS OF NON-SKINNING GUNNABLE BUTYL AT LAP JOINT
NEOPRENE WASHERED SCREW 4"OC
1
4
4
LAP
5
6
END WALL
SCREW END DAM TO PANEL RIB
ATER END DAM IS INSTALLED, FILL ALL VOIDS ON FRONT SIDE OF END DAME WITH NON-SKINNING GUNNABLE BUTYL
NON-SKINNING GUNNABLE BUTYL OVER THE TOP OF PANEL RIB TO FILL GAPS
DOUBLE BEAD BUTYL TAPE
LAP UNDERLAYMENT OVER SCREW
ICE & WATER UP WALL 8"
NEOPRENE WASHERED SCREW OR RIVET AT 12"OC---
INTO EACH END DAM
DOUBLE BEAD BUTYL TAPE-
NON-SKINNING GUNNABLE BUTYL
SCREW END DAM TO PANEL RIB
END DAM SET IN DOUBLE BEAD BUTYL TAPE
NEOPRENE WASHERED SCREW 1"FROM SIDE OF RIB AND 4"OC MIN
DOUBLE BEAD BUTYL TAPE

VENTED END WALL



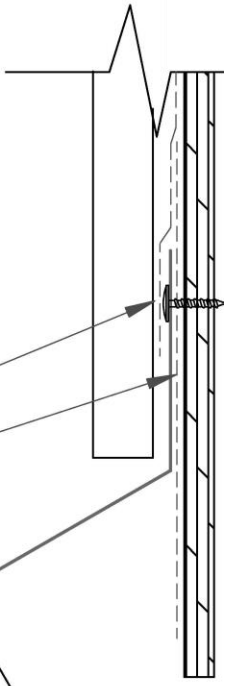
VENTED END WALL

3 ROWS OF NON-SKINNING GUNNABLE BUTYL AT LAP JOINT
NEOPRENE WASHERED SCREW 4"OC

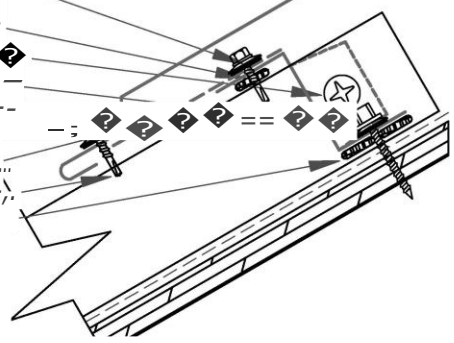


SCREW END DAM TO PANEL RIB
ATER END DAM IS INSTALLED, FILL ALL VOIDS ON FRONT SIDE OF END DAME WITH NON-SKINNING GUNNABLE BUTYL

NON-SKINNING GUNNABLE BUTYL OVER THE TOP OF PANEL RIB TO FILL GAPS
DOUBLE BEAD BUTYL TAPE

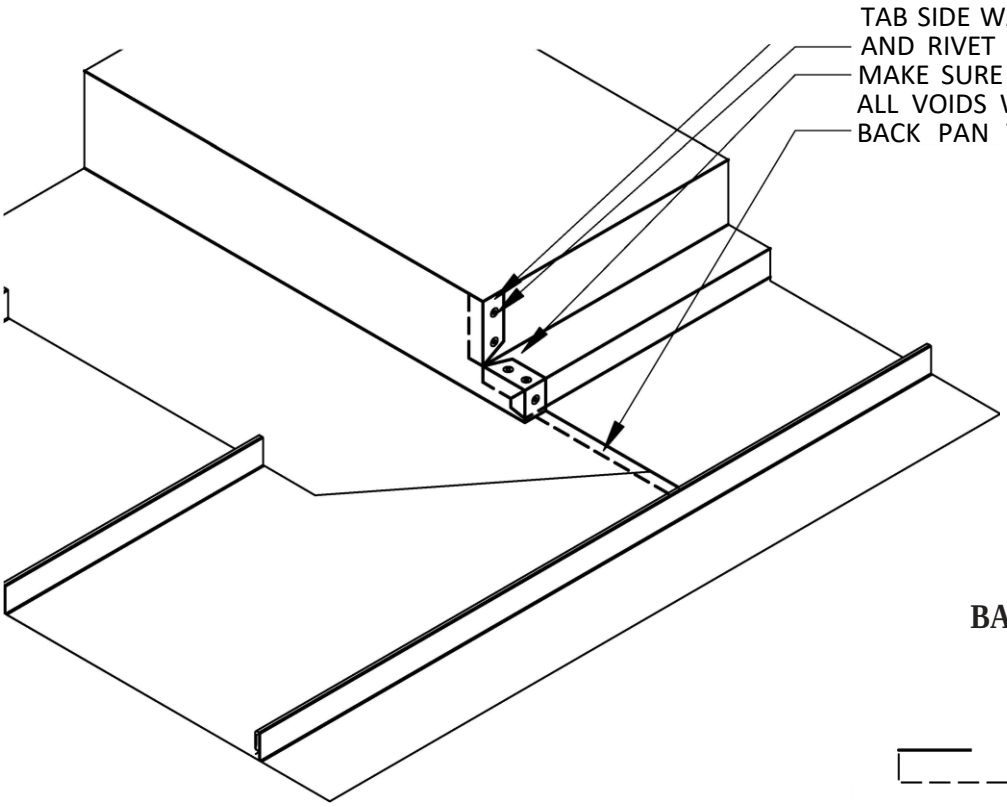


LAP UNDERLAYMENT OVER SCREW
ICE & WATER UP WALL 8"
NEOPRENE WASHERED SCREW OR RIVET AT 12"OC INTO EACH END DAM
NON-SKINNING GUNNABLE BUTYL ON TOP OF RIB
SCREW END DAM TO PANEL RIB
END DAM SET IN DOUBLE BEAD BUTYL TAPE
NEOPRENE WASHERED SCREW 1"FROM SIDE OF RIB AND 4"OC MIN
3"PERF
NEOPRENE WASHERED SCREW AT 12"OC
DOUBLE BEAD BUTYL TAPE



BACK PAN

CURB WIDTHS LESS THAN 24·

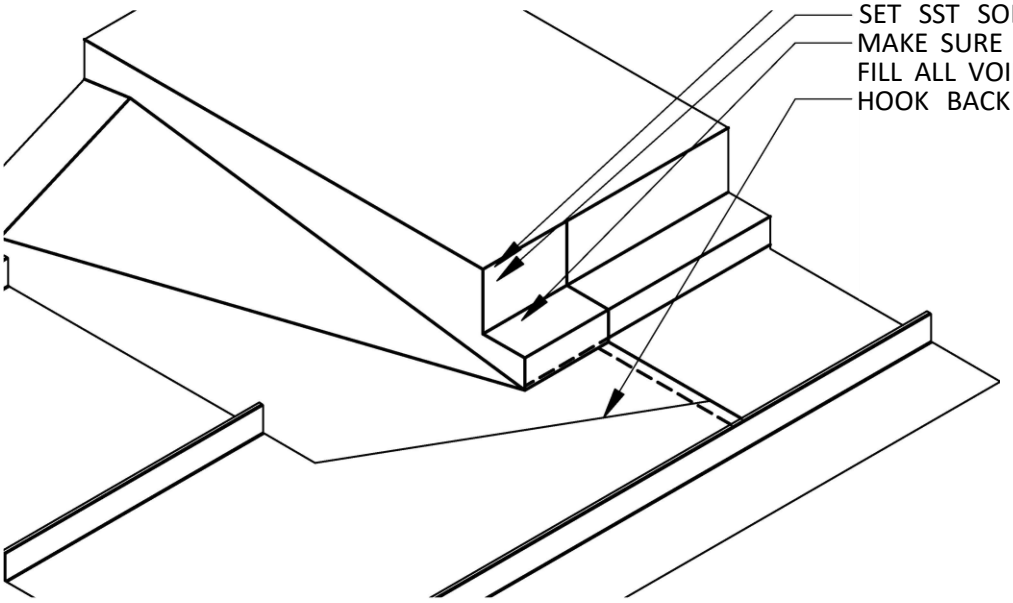


BACK PAN

18

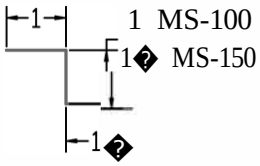
SOLDERED BACK PAN

CURB GREATER THAN 24·

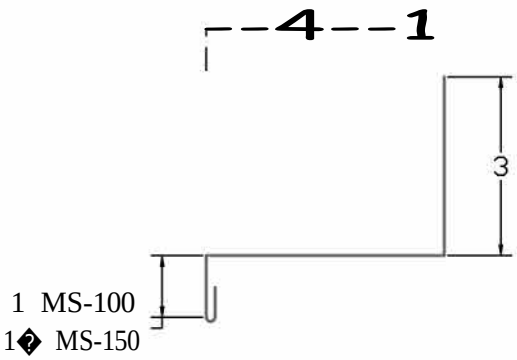


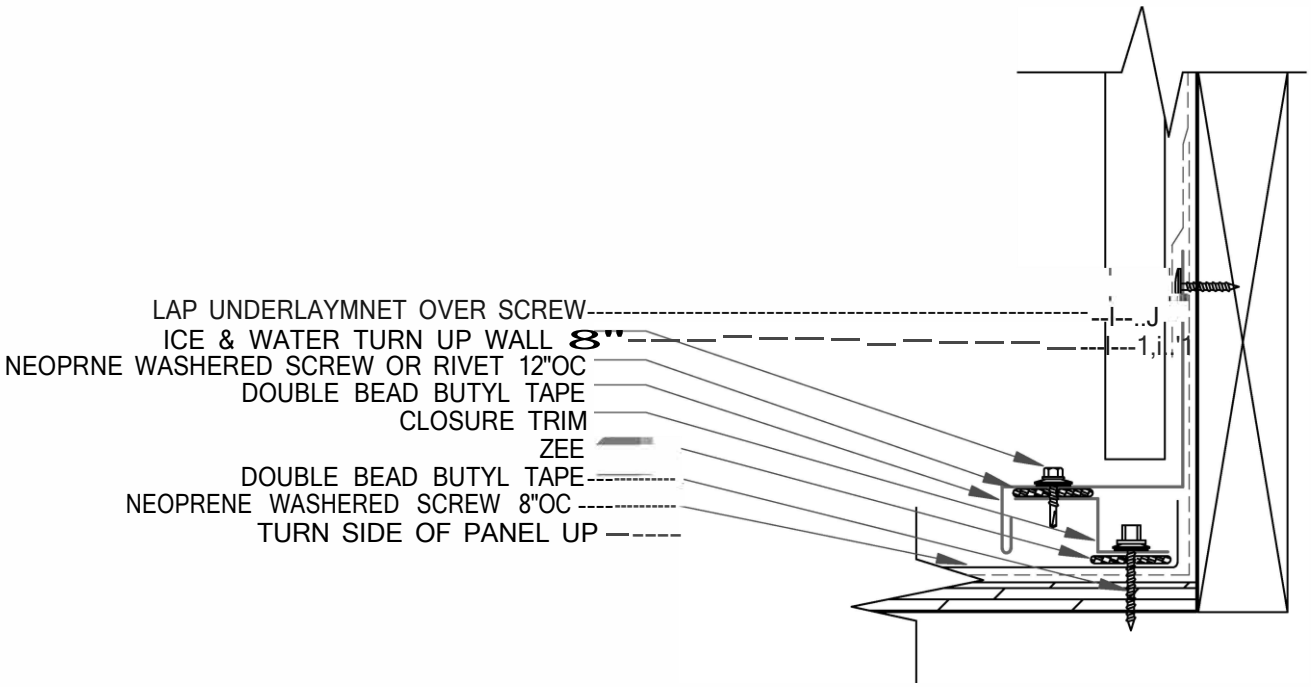
CURB SIDE WALL

CLOSURE ZEE

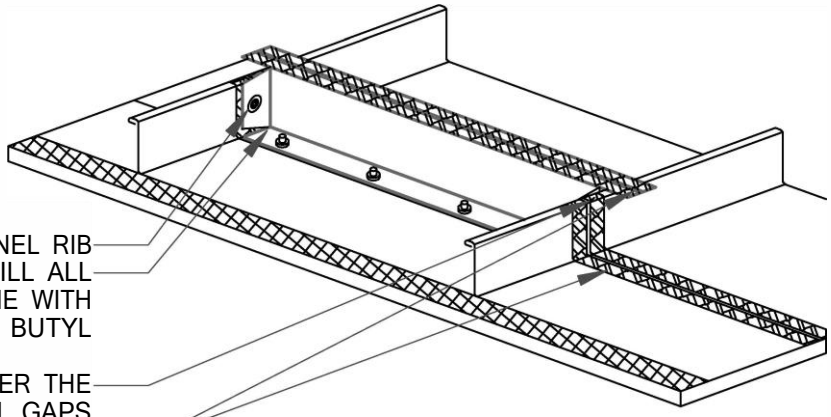


CURB SIDE WALL





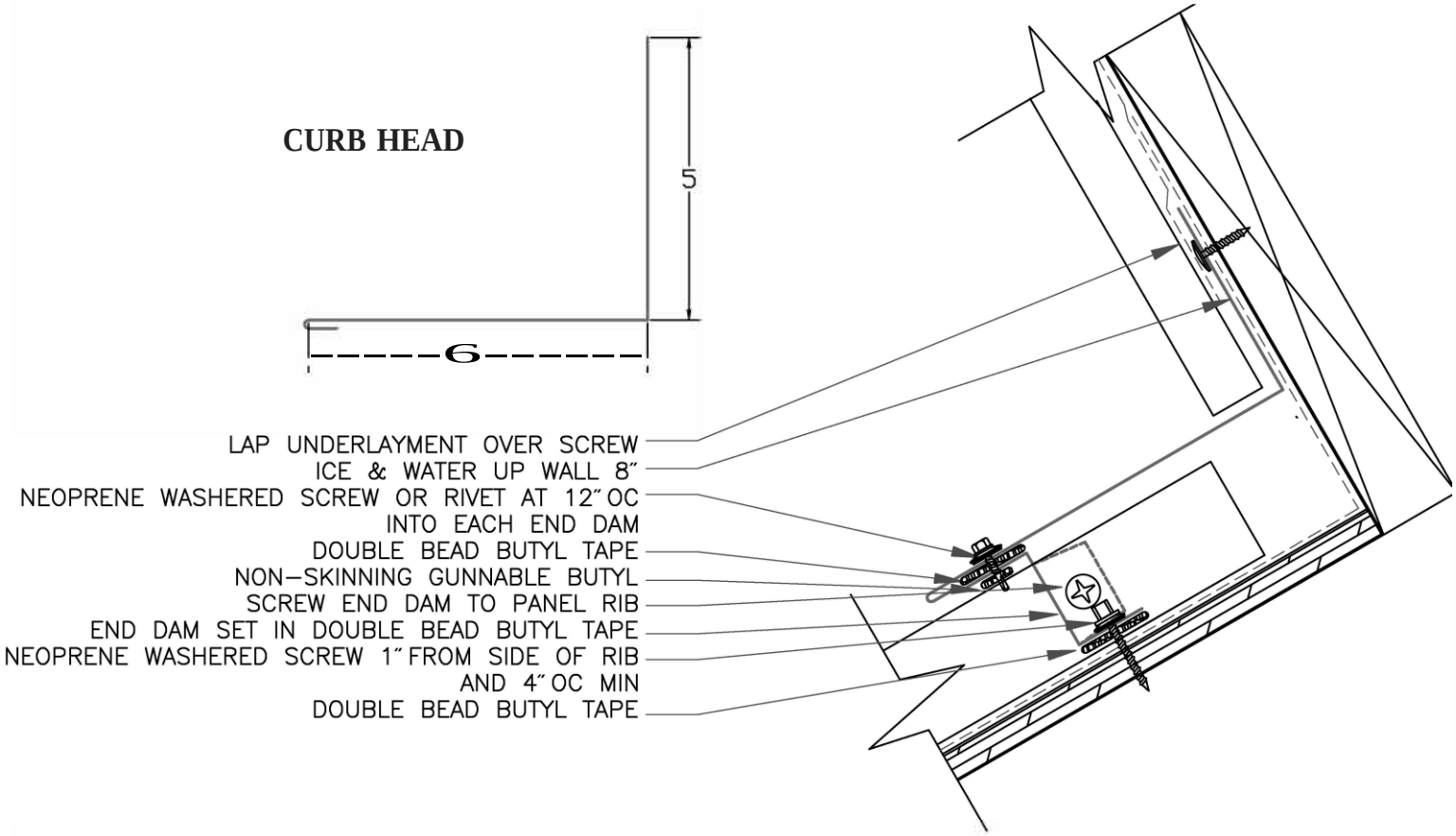
CURB HEAD



SCREW END DAM TO PANEL RIB
ATER END DAM IS INSTALLED, FILL ALL VOIDS ON FRONT SIDE OF END DAME WITH NON-SKINNING GUNNABLE BUTYL

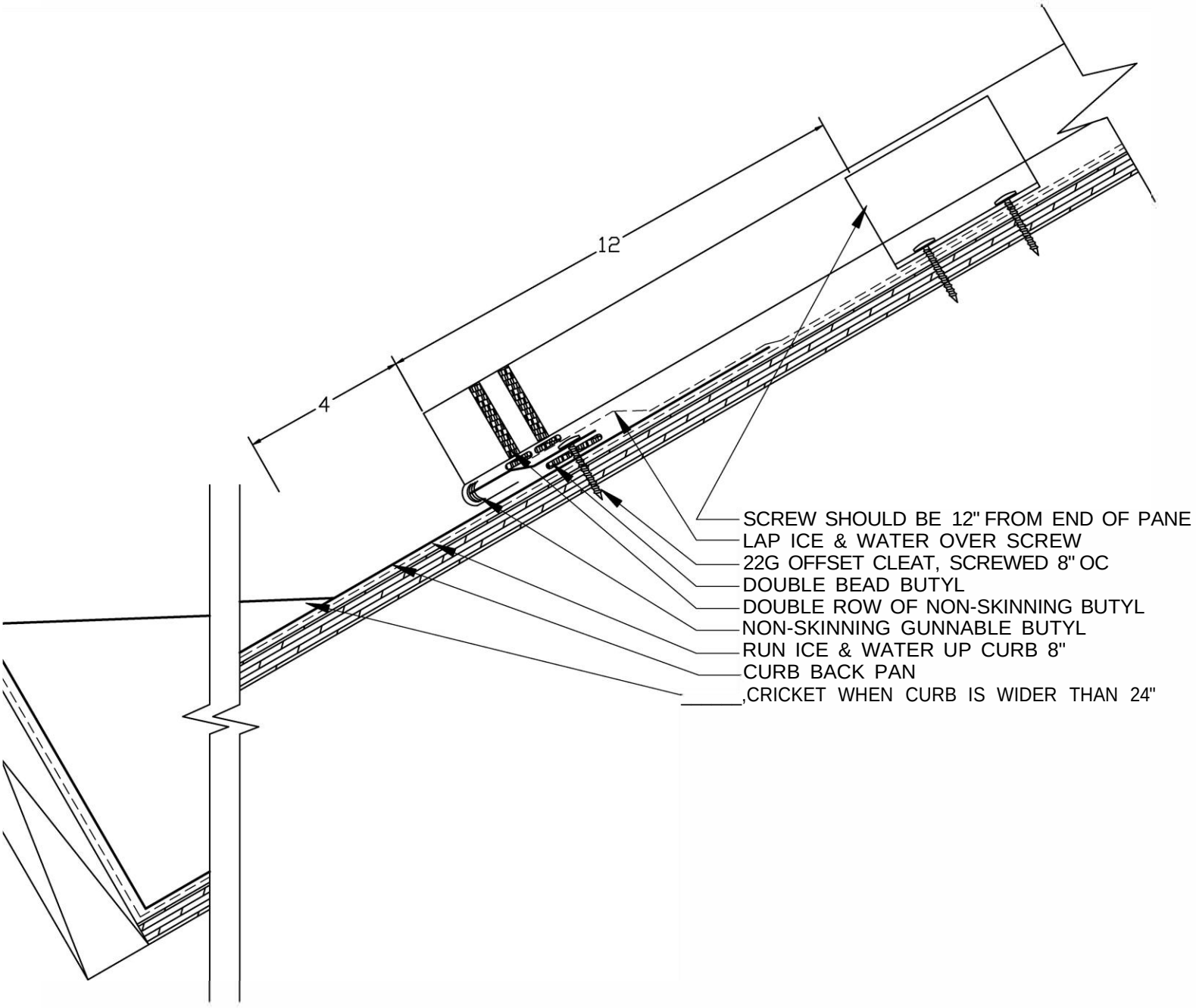
NON-SKINNING GUNNABLE BUTYL OVER THE TOP OF PANEL RIB TO FILL GAPS
DOUBLE BEAD BUTYL TAPE

CURB HEAD



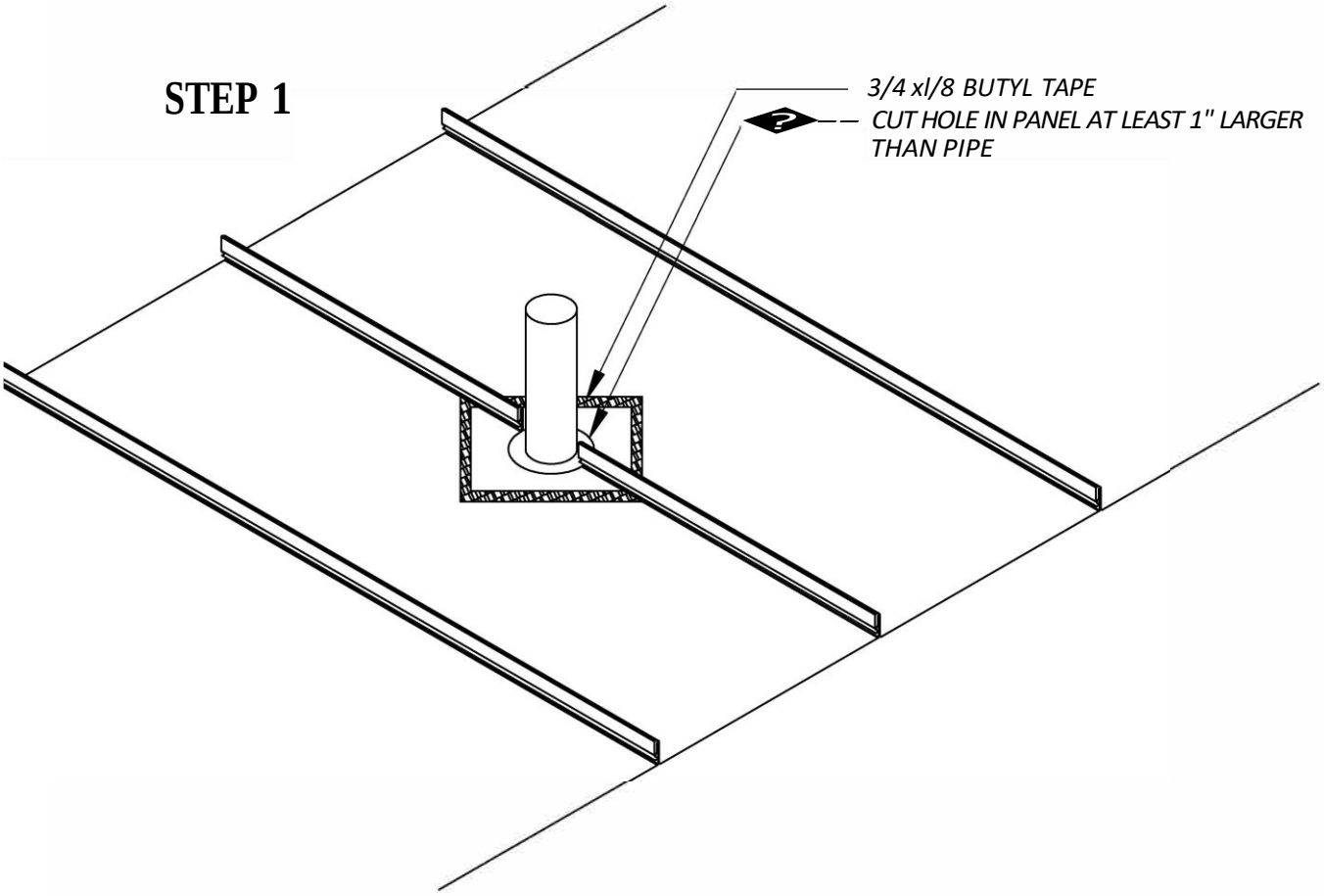
LAP UNDERLAYMENT OVER SCREW
ICE & WATER UP WALL 8″
NEOPRENE WASHERED SCREW OR RIVET AT 12″ OC INTO EACH END DAM
DOUBLE BEAD BUTYL TAPE
NON–SKINNING GUNNABLE BUTYL
SCREW END DAM TO PANEL RIB
END DAM SET IN DOUBLE BEAD BUTYL TAPE
NEOPRENE WASHERED SCREW 1″ FROM SIDE OF RIB AND 4″ OC MIN
DOUBLE BEAD BUTYL TAPE

CURB BACK PAN

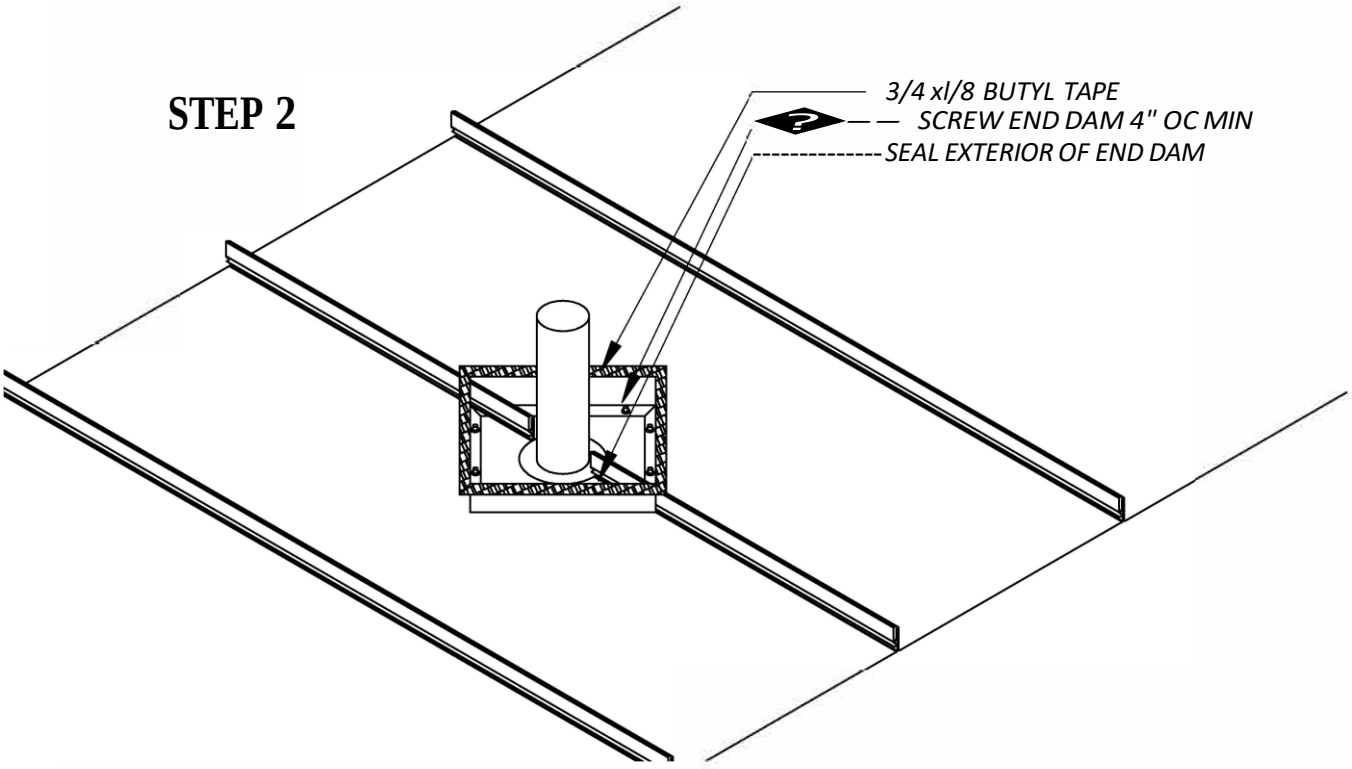


PIPE PENETRATION

STEP 1

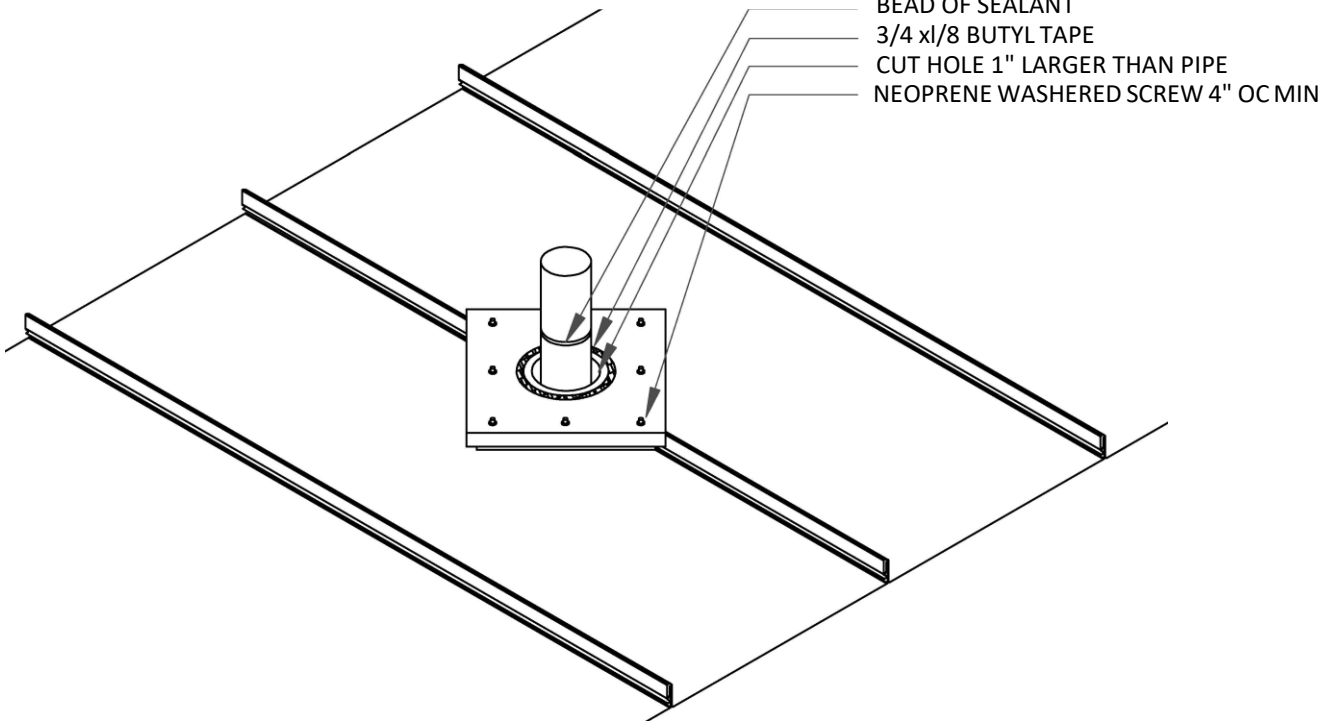


STEP 2

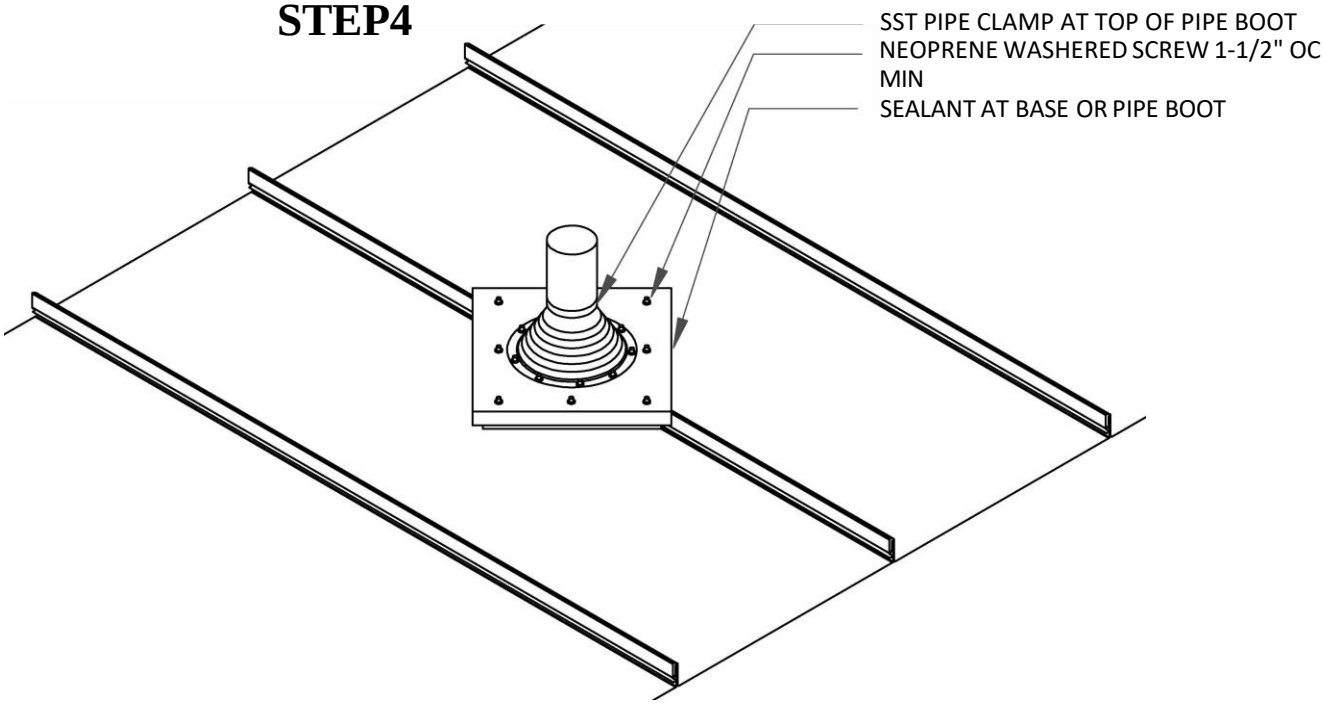


PIPE PENETRATION

STEP 3

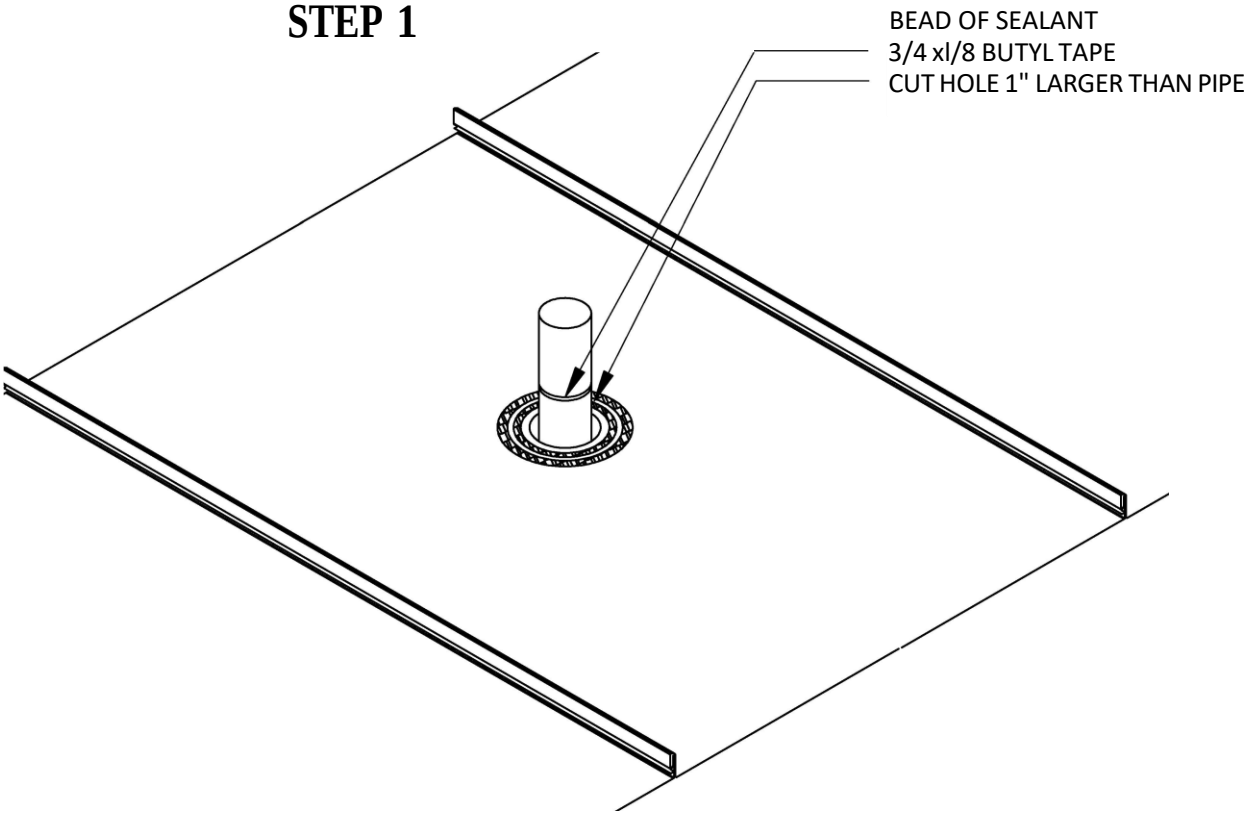


STEP4

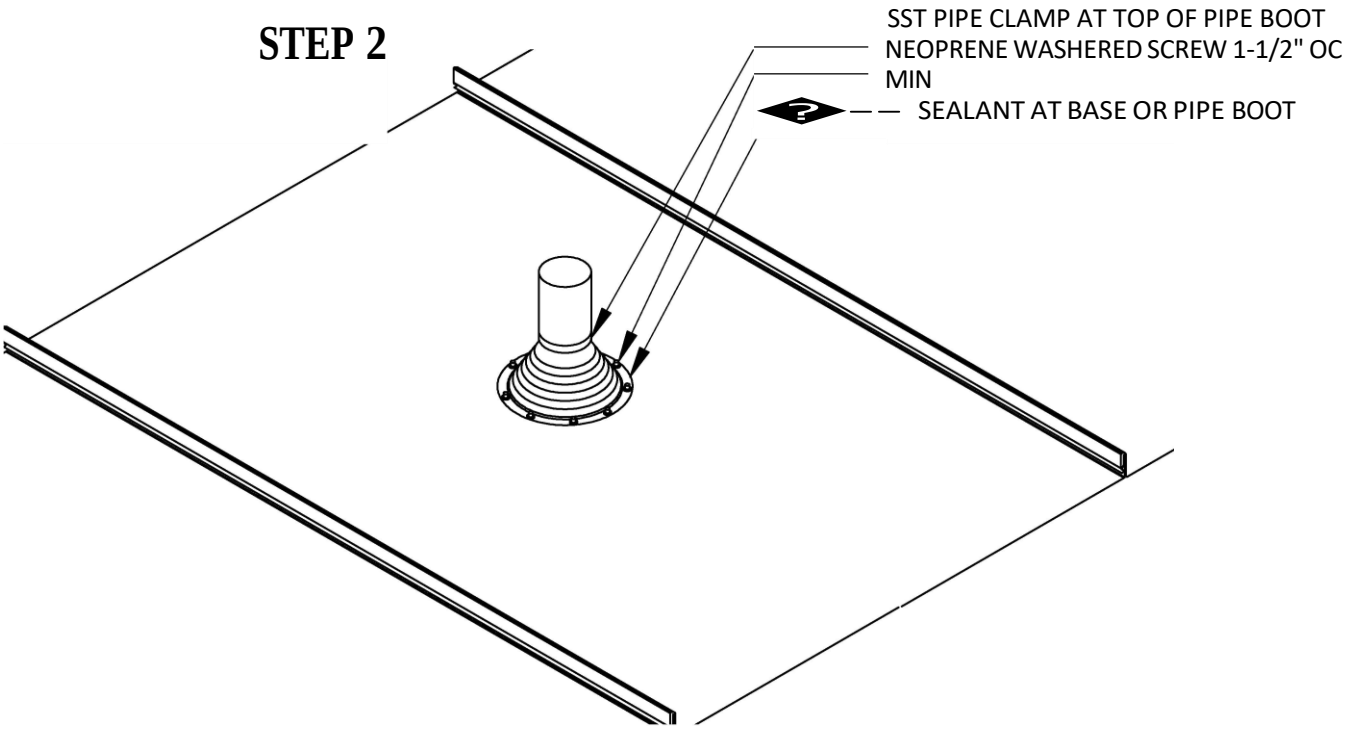


PIPE PENETRATION

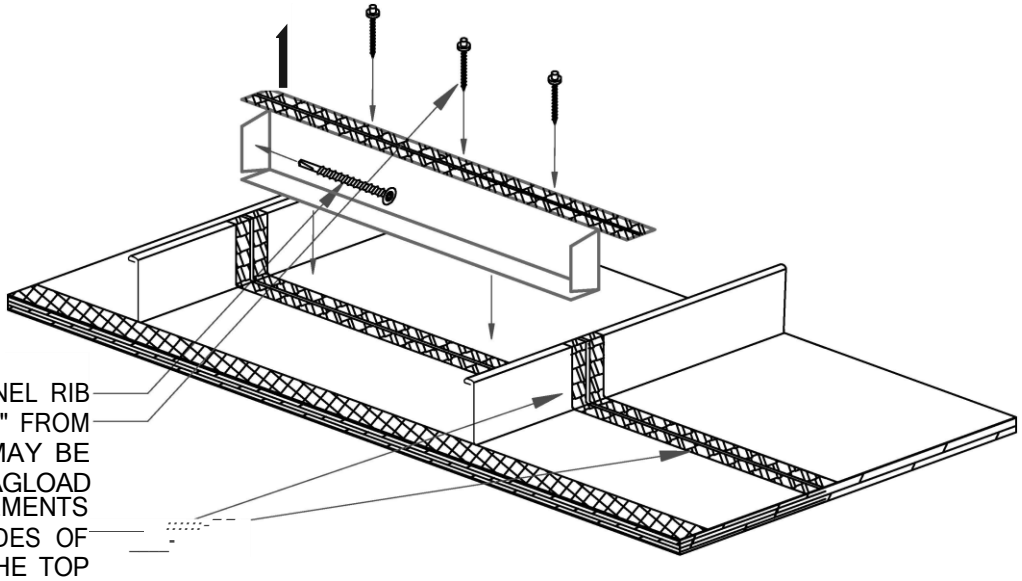
STEP 1



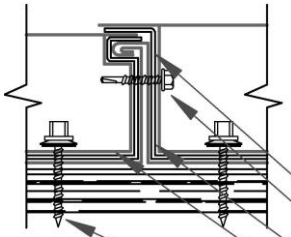
STEP 2



END DAM

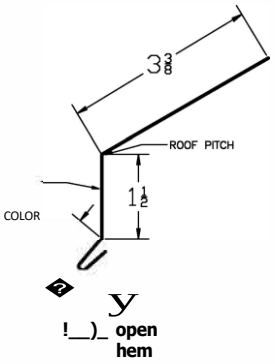


SCREW END DAM TO PANEL RIB
NEOPRENE WASHERED SCREW 1" FROM RIB AND 4" OC. MORE MAY BE REQUIRED DEPENDINg ON DRAGLOAD REQUIREMENTS
DOUBLE BEAD BUTYL TAPE, UP SIDES OF RIB AND OVER THE TOP

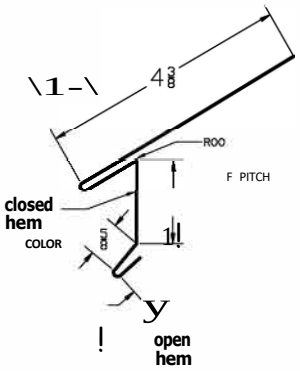


DOUBLE BEAD BUTYL TAPE
SCREW END DAM TO PANEL RIB
NON-SKINNING GUNNABLE BUTLE TO FILL ALL GAPS
END DAM SET IN DOUBLE BEAD BUTYL TAPE
NEOPRENE WASHERED DRAG LOAD 1" FROM SIDE OF RIB AND 4" OC MIN, DRAG LOAD CALCS MAY REQUIRE MORE

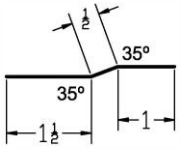
EAVE STANDARD



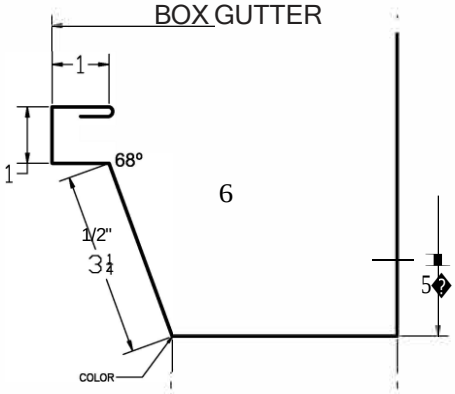
EAVE HOOK



OFFSET CLEAT

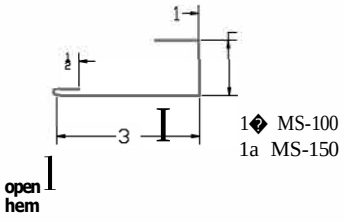


BOX GUTTER

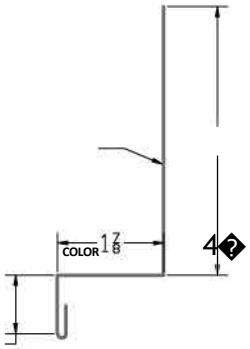


112°

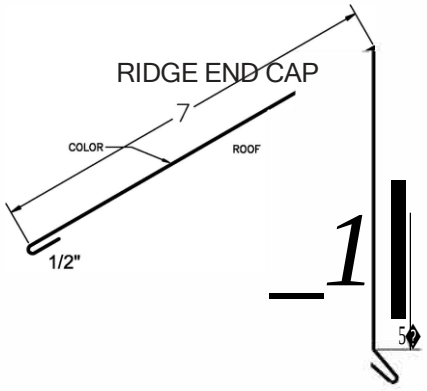
SUPPORT FLASHING



SIDEWALL

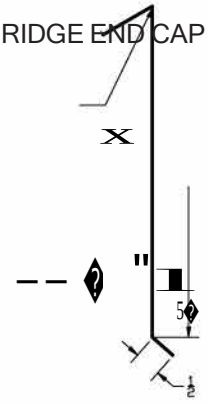


RIDGE END CAP

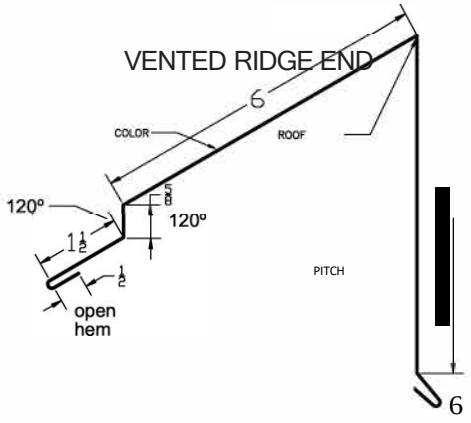


open

RIDGE END CAP CLEAT



VENTED RIDGE END



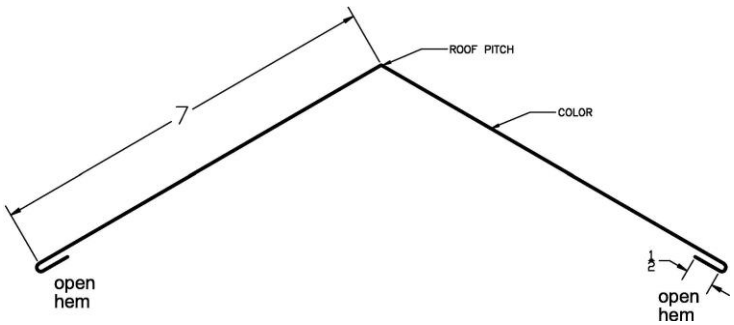
1 MS-100 open hem
1 MS-150

open

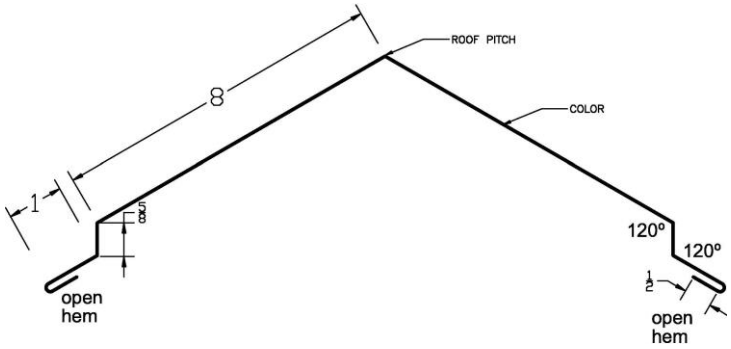
hem

Y

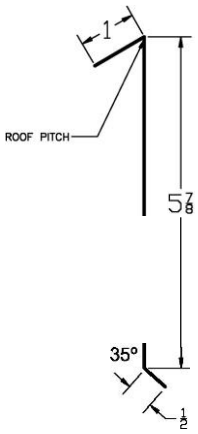
RIDGE



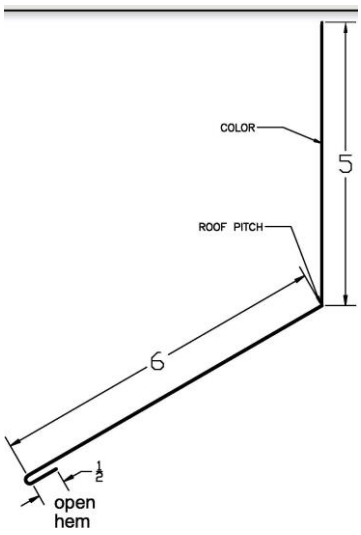
VENTED RIDGE



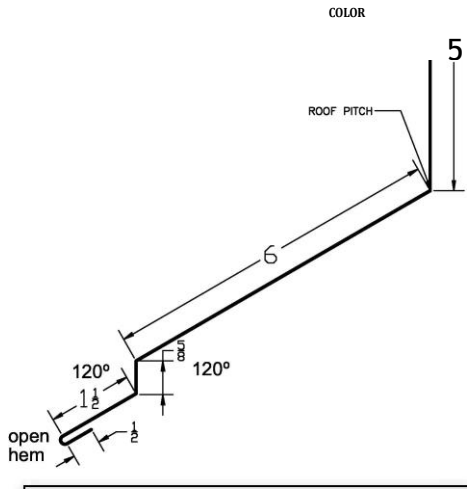
I VENTED RIDGE END CAP CLEAT



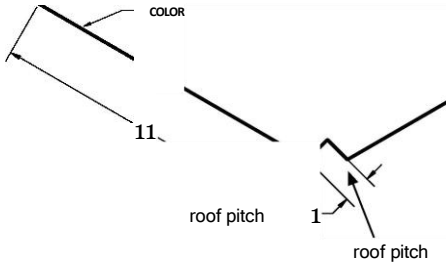
ENDWALL



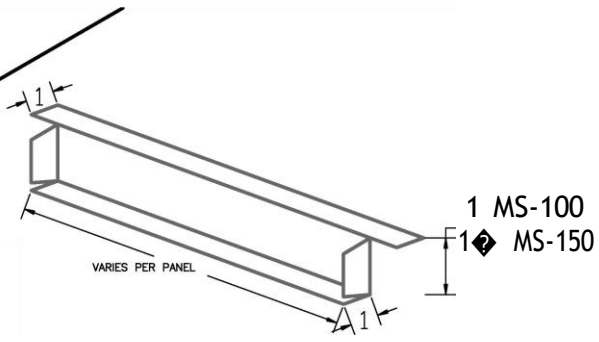
VENTED ENDWALL

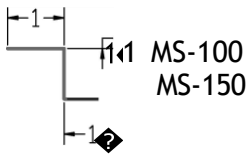


VALLEY FLASHING



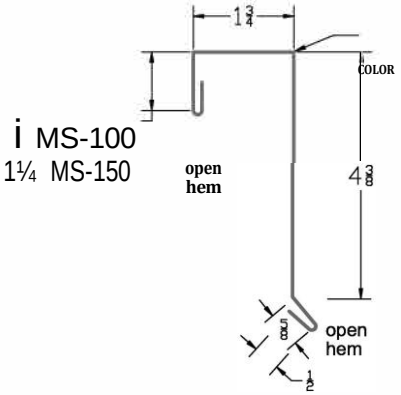
END DAM



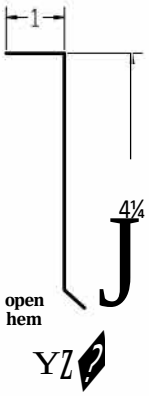


ZEE CLOSURE

STANDARD GABLE



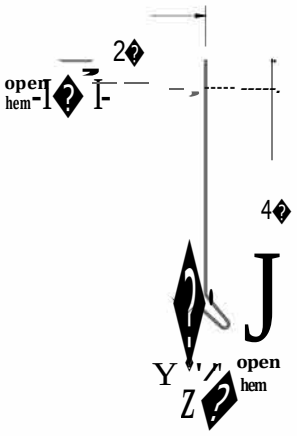
GABLE CLEAT



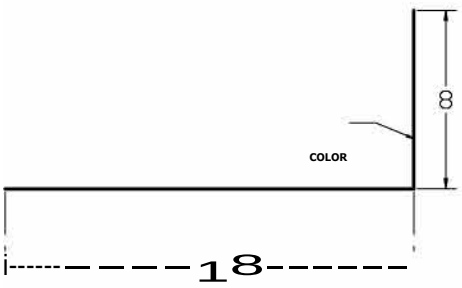
PERF

GABLE ALTERNATE L

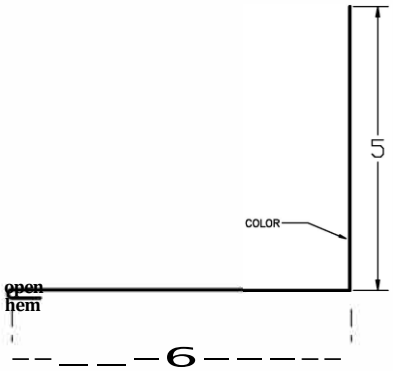
GABLE ALTERNATE



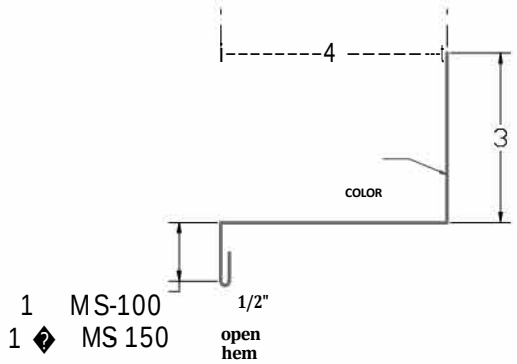
BACK PAN



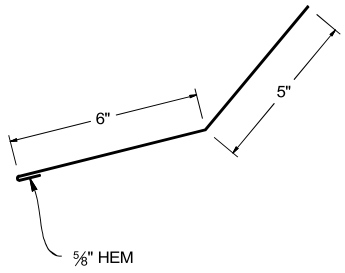
CURB HEAD



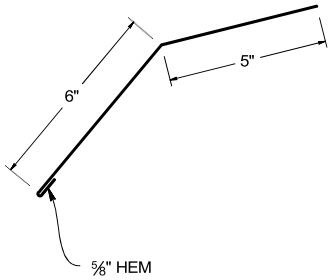
CURB SIDE WALL



PITCH CHANGE INSIDE



PITCH CHANGE OUTSIDE



WDGE2 LED

Architectural Wall Sconce
Visual Comfort Optic

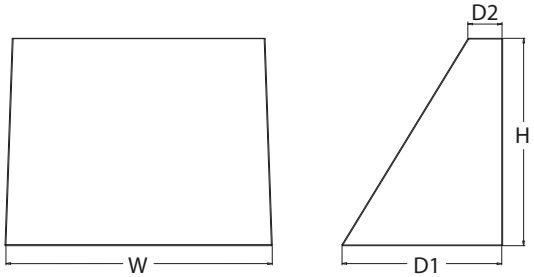
Buy American

WDGE2 LED P3SW 35K 80CRI VW MVOLT SRM PIR1FC3V	
BUILDING 3019 RENOVATION - CAMP ROBERTS	C

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Depth (D1): 7"
Depth (D2): 1.5"
Height: 9"
Width: 11.5"
Weight: (without options) 13.5 lbs



Introduction

The WDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing a true site-wide solution. Embedded with nLight® AIR wireless controls, the WDGE family provides additional energy savings and code compliance.

WDGE2 delivers up to 6,000 lumens with a soft, non-pixelated light source, creating a visually comfortable environment. When combined with multiple integrated emergency battery backup options, including an 18W cold temperature option, the WDGE2 becomes the ideal wall-mounted lighting solution for pedestrian scale applications in any environment.

WDGE LED Family Overview

Luminaire	Optics	Standard EM, 0°C	Cold EM, -20°C	Sensor	Approximate Lumens (4000K, 80CRI)						
					P0	P1	P2	P3	P4	P5	P6
WDGE1 LED	Visual Comfort	4W		--	750	1,200	2,000	--	--	--	--
WDGE2 LED	Visual Comfort	10W	18W	Standalone / nLight	--	1,200	2,000	3,000	4,500	6,000	--
WDGE2 LED	Precision Refractive	10W	18W	Standalone / nLight	700	1,200	2,000	3,200	4,200	--	--
WDGE3 LED	Precision Refractive	15W	18W	Standalone / nLight	--	7,500	8,500	10,000	12,000	--	--
WDGE4 LED	Precision Refractive			Standalone / nLight	--	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information

EXAMPLE: WDGE2 LED P3 40K 80CRI VF MVOLT SRM DDBXD

WDGE2 LED +	P3SW	35K	80CRI	VW	MVOLT +	SRM
Series	**Package**	**Color Temperature**	**CRI**	**Distribution**	**Voltage**	**Mounting**

Series: WDGE2 LED

Package:
- P1[1] P1SW
- P2[1] P2SW
- P3[1] P3SW
- P4[1]
- P5[1]

Door with small window (SW) is required to accommodate sensors. See page 2 for more details.

Color Temperature:
- 27K 2700K
- 30K 3000K
- 35K 3500K
- 40K 4000K
- 50K[2] 5000K

CRI:
- 80CRI
- 90CRI

Distribution:
- VF Visual comfort forward throw
- VW Visual comfort wide

Voltage:
- MVOLT
- 347[3]
- 480[3]

Mounting

Shipped included
- SRM Surface mounting bracket
- ICW Indirect Canopy/Ceiling Washer bracket (dry/damp locations only)[7]

Shipped separately
- AWS 3/8inch Architectural wall spacer
- PBBW S urface-mounted back box (top, left, right conduit entry). Use when there is no junction box available.

PIR1FC3V

Options

- E4WH Emergency battery backup, Certified in CA Title 20 MAEDBS (4W, 0°C min)
- E10WH Emergency battery backup, Certified in CA Title 20 MAEDBS (10W, 5°C min)
- E20WC Emergency battery backup, Certified in CA Title 20 MAEDBS (18W, -20°C min)
- PE[4] Photocell, Button Type
- DS[5] Dual switching (comes with 2 drivers and 2 light engines; see page 3 for details)
- DMG[6] 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)
- BCE Bottom conduit entry for back box (PBBW). Total of 4 entry points.

Standalone Sensors/Controls (only available with P1SW, P2SW & P3SW)
- PIR Bi-level (100/35%) motion sensor for 8-15' mounting heights. Intended for use on switched circuits with external dusk to dawn switching.
- PIRH Bi-level (100/35%) motion sensor for 15-30' mounting heights. Intended for use on switched circuits with external dusk to dawn switching
- PIR1FC3V Bi-level (100/35%) motion sensor for 8-15' mounting heights with photocell pre-programmed for dusk to dawn operation.
- PIRH1FC3V Bi-level (100/35%) motion sensor for 15-30' mounting heights with photocell pre-programmed for dusk to dawn operation.

Networked Sensors/Controls (only available with P1SW, P2SW & P3SW)
- NLTAIR2 PIR nLightAIR Wireless enabled bi-level motion/ambient sensor for 8-15' mounting heights.
- NLTAIR2 PIRH nLightAIR Wireless enabled bi-level motion/ambient sensor for 15-30' mounting heights.

See page 4 for out of box functionality

Finish

- DDBXD Dark bronze
- DBLXD Black
- DNAXD Natural aluminum
- DWHXD White
- DSSXD Sandstone
- DDBTXD Textured dark bronze
- DBLBXD Textured black
- DNATXD Textured natural aluminum
- DWHGXD Textured white
- DSSTXD Textured sandstone

FINISH MUST BE SELECTED BEFORE ORDERING

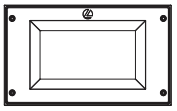
Accessories

Ordered and shipped separately.

WDGEAWS DDBXD	WDGE 3/8inch Architectural Wall Spacer (specify finish)
WDGE2PBBW DDBXD U	WDGE2 surface-mounted back box (specify finish)

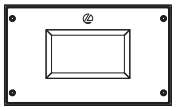
NOTES

1 P1-P5 not available with sensors/controls. Sensors/controls only available with P1SW, P2SW and P3SW.
2 50K not available in 90CRI
3 347V and 480V not available with E4WH, E10WH, E20WC or DS.
4 PE not available in 480V or with sensors/controls
5 DS option not available with E4WH, E10WH, E20WC or sensors/controls.
6 DMG option not available with sensors/controls
7 Not qualified for DLC. Not available with emergency battery backup or sensors/controls



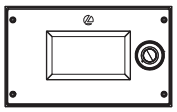
Default configuration with no sensors/controls.

Power Packages: P1, P2, P3, P4, P5



Small Window (SW) configuration

Power Packages: P1SW, P2SW, P3SW



Configuration with sensors/controls

Power Packages: P1SW, P2SW, P3SW

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	Dist. Type	27K (2700K, 80 CRI)					30K (3000K, 80 CRI)					35K (3500K, 80 CRI)					40K (4000K, 80 CRI)					50K (5000K, 80 CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P1 / P1SW	10W	VF	1,166	119	0	0	0	1,209	123	0	0	0	1,251	128	0	0	0	1,256	128	0	0	0	1,254	128	0	0	0
		VW	1,197	122	0	0	0	1,241	126	0	0	0	1,284	131	0	0	0	1,289	131	0	0	0	1,286	131	0	0	0
P2 / P2SW	15W	VF	1,878	129	1	0	0	1,947	134	1	0	0	2,015	139	1	0	0	2,023	139	1	0	0	2,019	139	1	0	0
		VW	1,927	133	1	0	0	1,997	137	1	0	0	2,067	142	1	0	0	2,075	143	1	0	0	2,071	143	1	0	0
P3 / P3SW	23W	VF	2,908	129	1	0	0	3,015	134	1	0	0	3,119	138	1	0	0	3,132	139	1	0	0	3,126	139	1	0	0
		VW	2,983	132	1	0	0	3,093	137	1	0	0	3,200	142	1	0	0	3,213	143	1	0	0	3,206	142	1	0	0
P4	35W	VF	4,096	117	1	0	1	4,247	121	1	0	1	4,394	126	1	0	1	4,412	126	1	0	1	4,403	126	1	0	1
		VW	4,202	120	1	0	0	4,357	125	1	0	1	4,508	129	1	0	1	4,526	129	1	0	1	4,517	129	1	0	1
P5	48W	VF	5,567	115	1	0	1	5,772	119	1	0	1	5,972	123	1	0	1	5,996	124	1	0	1	5,984	124	1	0	1
		VW	5,711	118	1	0	1	5,921	122	1	0	1	6,127	126	1	0	1	6,151	127	1	0	1	6,139	127	1	0	1

Electrical Load

Performance Package	System Watts	Current (A)					
		120V	208V	240V	277V	347V	480V
P1 / P1SW	10W	0.082	0.049	0.043	0.038	--	--
	13W	--	--	--	--	0.046	0.033
P2 / P2SW	15W	0.132	0.081	0.072	0.064	--	--
	18W	--	--	--	--	0.056	0.041
P3 / P3SW	23W	0.195	0.114	0.100	0.088	--	--
	26W	--	--	--	--	0.079	0.058
P4	35W	0.302	0.175	0.152	0.134	--	--
	38W	--	--	--	--	0.115	0.086
P5	48W	0.434	0.241	0.211	0.184	--	--
	52W	--	--	--	--	0.157	0.119

Lumen Multiplier for 90CRI

CCT	Multiplier
27K	0.845
30K	0.867
35K	0.845
40K	0.885
50K	0.898

Lumen Output in Emergency Mode (4000K, 80 CRI)

Option	Dist. Type	Lumens
E4WH	VF	646
	VW	647
E10WH	VF	1,658
	VW	1,701
E20WC	VF	2,840
	VW	2,913

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.96	>0.95	>0.91

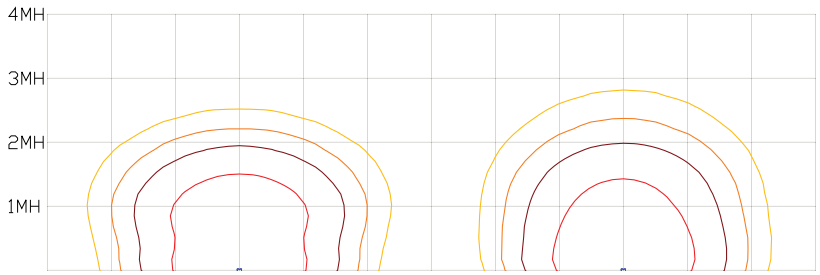
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting WDGE LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards.

LEGEND

- 0.25 fc
- 0.5 fc
- 1.0 fc
- 3.0 fc

MH = 10ft
Grid = 10ft x 10ft



WDGE2 LED P3 40K 80CRI VW

WDGE2 LED P3 40K 80CRI VF

Emergency Egress Options

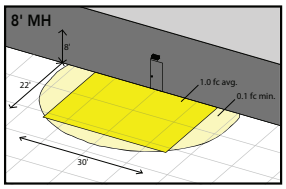
Emergency Battery Backup

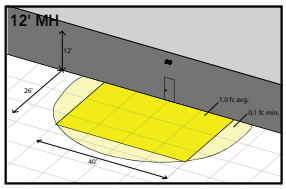
The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product. All emergency battery backup configurations include an independent secondary driver with an integral relay to immediately detect loss of normal power and automatically energize the luminaire. The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time normal power is lost and maintain a minimum of 60% of the light output at the end of 90minutes.

Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9

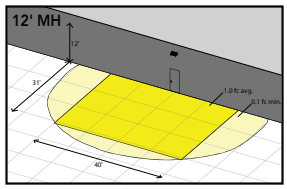
The examples below show illuminance of 1 fc average and 0.1 fc minimum in emergency mode with E10WH or E20WC and VF distribution.

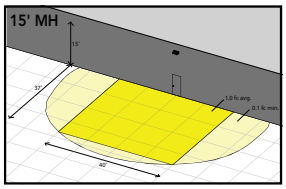
Grid = 10ft x 10ft





WDGE2 LED xx 40K 80CRI VF MVOLT E10WH



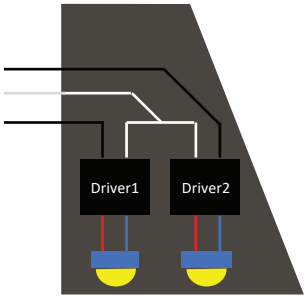


WDGE2 LED xx 40K 80CRI VF MVOLT E20WC

Dual Switching (DS) Option

The dual switching option offers operational redundancy that certain codes require. With this option the luminaire comes integrated with two drivers and two light engines. These work completely independent to each other so that a failure of any individual component does not cause the whole luminaire to go dark. This option is typically used with a back generator or inverter providing emergency power.

Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9



Control / Sensor Options

Motion/Ambient Sensor (PIR_, PIRH_)

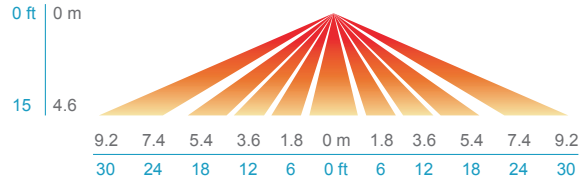
Motion/Ambeint sensor (Sensor Switch MSOD) is integrated into the the luminaire. The sensor provides both Motion and Daylight based dimming of the luminaire. For motion detection, the sensor utilizes 100% Digital Passive Infrared (PIR) technology that is tuned for walking size motion while preventing false tripping from the environment. The integrated photocell enables additional energy savings during daytime periods when there is sufficient daylight. Optimize sensor coverage by either selecting PIR or PIRH option. PIR option comes with a sensor lens that is optimized to provide maximum coverage for mounting heights between 8-15ft, while PIRH is optimized for 15-40ft mounting height.

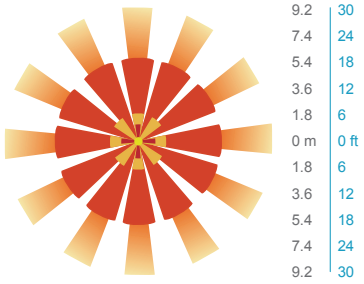
Networked Control (NLTAIR2)

nLight® AIR is a wireless lighting controls platform that allows for seamless integration of both indoor and outdoor luminaires. Five-tier security architecture, 900 MHz wireless communication and app (CLAIRITY™ Pro) based configurability combined together make nLight® AIR a secure, reliable and easy to use platform.

PIR

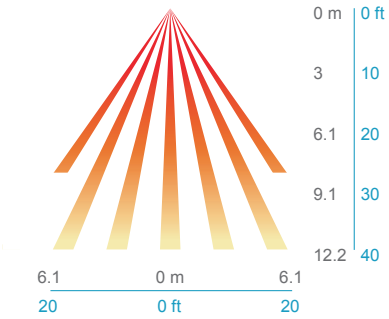
HIGH VIEW



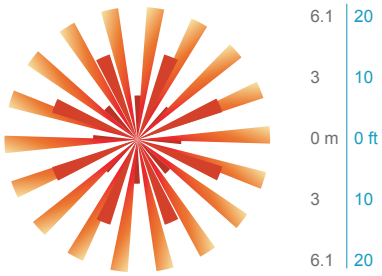


PIRH

SIDE VIEW



TOP VIEW



Option	Dim Level	High Level (when triggered	Photocell Operation	Motion Time Delay	Ramp-down Time	Ramp-up Time
PIR or PIRH	Motion - 3V (37% of full output) Photocell - 0V (turned off)	10V (100% output)	Enabled @ 5fc	5 min	5 min	Motion - 3 sec Photocell - 45 sec
PIR1FC3V, PIRH1FC3V	Motion - 3V (37% of full output) Photocell - 0V (turned off)	10V (100% output)	Enabled @ 1fc	5 min	5 min	Motion - 3 sec Photocell - 45 sec
NLTAIR2 PIR, NLTAIR2 PIRH (out of box)	Motion - 3V (37% of full output) Photocell - 0V (turned off)	10V (100% output)	Enabled @ 5fc	7.5 min	5 min	Motion - 3 sec Photocell - 45 sec

Mounting, Options & Accessories

NLTAIR2 PIR – nLight AIR Motion/Ambient Sensor

D = 7"

H = 11"

W = 11.5"

PBBW – Surface-Mounted Back Box
Use when there is no junction box available.

D = 1.75"

H = 9"

W = 11.5"

AWS – 3/8inch Architectural Wall Spacer

D = 0.38"

H = 4.4"

W = 7.5"

FEATURES & SPECIFICATIONS

INTENDED USE
Common architectural look, with clean rectilinear shape, of the WDGE LED was designed to blend with any type of construction, whether it be tilt-up, frame or brick. Applications include commercial offices, warehouses, hospitals, schools, malls, restaurants, and other commercial buildings.

CONSTRUCTION
The single-piece die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP66 rating for the luminaire.

FINISH
Exterior painted parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS
Well crafted reflector optics allow the light engine to be recessed within the luminaire, providing visual comfort, superior distribution, uniformity, and spacing in wall-mount applications. The WDGE LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine consists of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L91/100,000 hours at 25°C). The electronic driver has a power factor of >90%, THD <20%. Luminaire comes with built in 6kV surge protection, which meets a minimum Category C low exposure (per ANSI/IEEE C62.41.2).

INSTALLATION
A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections. The 3/8" Architectural Wall Spacer (AWS) can be used to create a floating appearance or to accommodate small imperfections in the wall surface. The ICW option can be used to mount the luminaire inverted for indirect lighting in dry and damp locations. Design can withstand up to a 1.5 G vibration load rating per ANSI C136.31.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP66 rated. PIR options are rated for wet location. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 2700K and 3000K color temperature only and SRM mounting only.

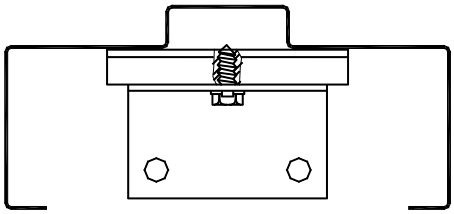
BUY AMERICAN
This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FARS, DFARS and DOT. Please refer to www.acuitybrands.com/resources/buy-american for additional information.

WARRANTY
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

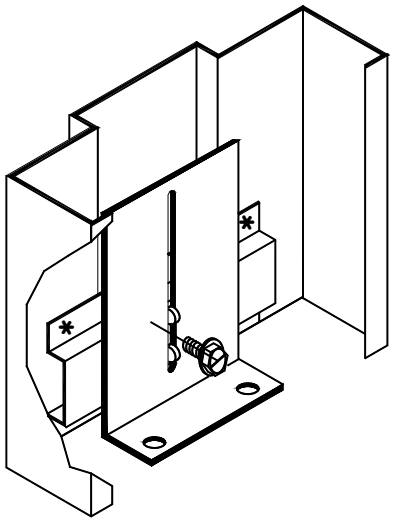
Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

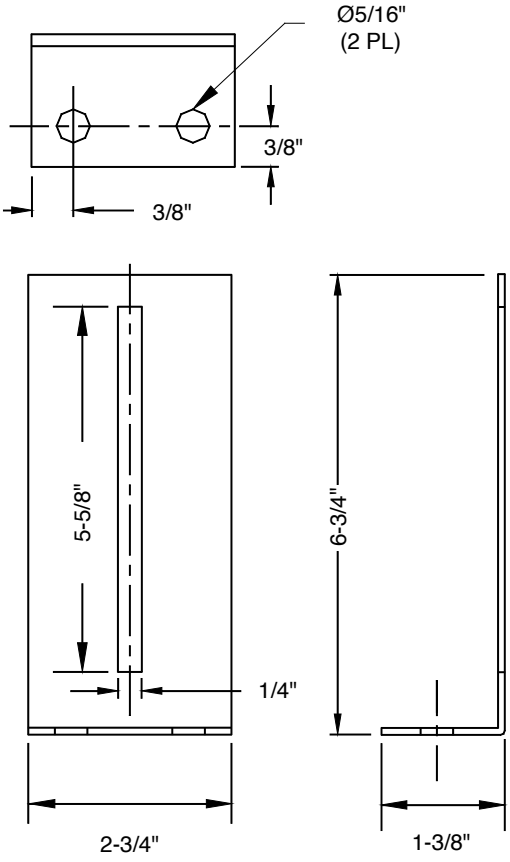
A8 ADJUSTABLE BASE ANCHOR

MATERIAL: GALVANNEAL
GAUGE: 16
TWO SPOT WELDS PER END

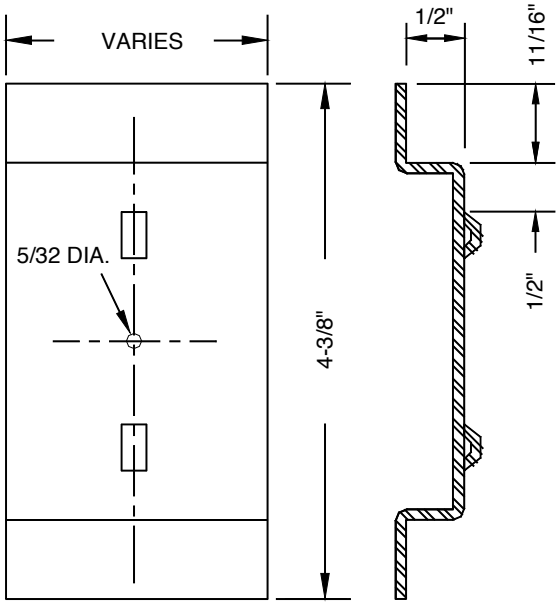


ANCHOR BOLTS USED FOR FLOOR CONNECTION ARE NOT INCLUDED





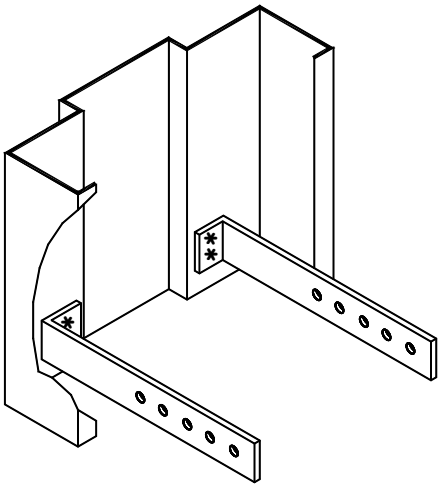
ADJUSTABLE ANGLE

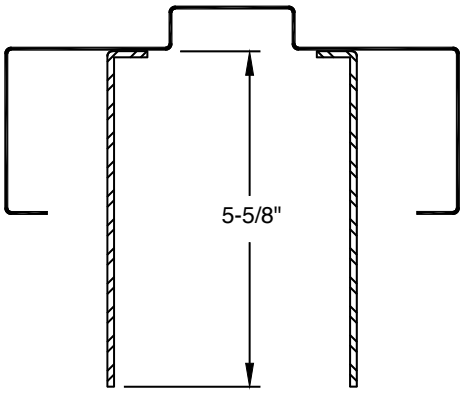


HAT STRAP

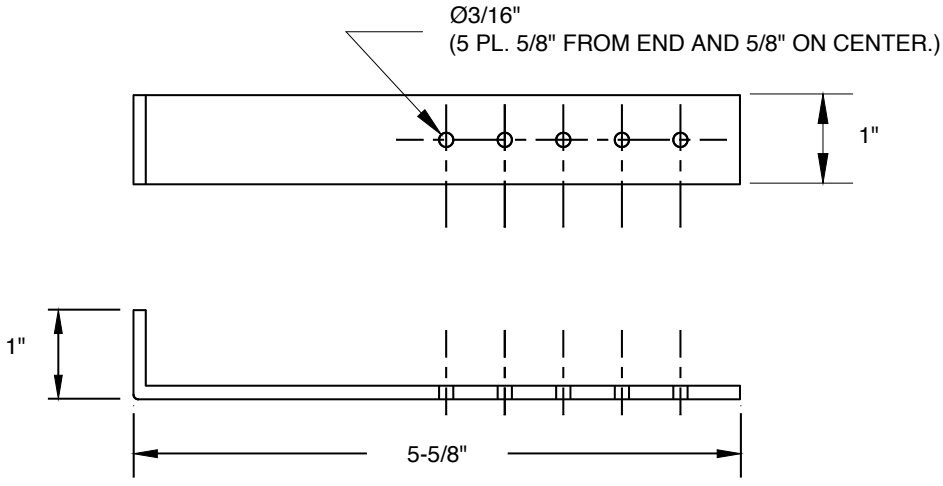
A1 STANDARD STRAP ANCHOR

MATERIAL: GALVANNEAL
GAUGE: 18 16GA
TWO SPOTWELDS PER STRAP





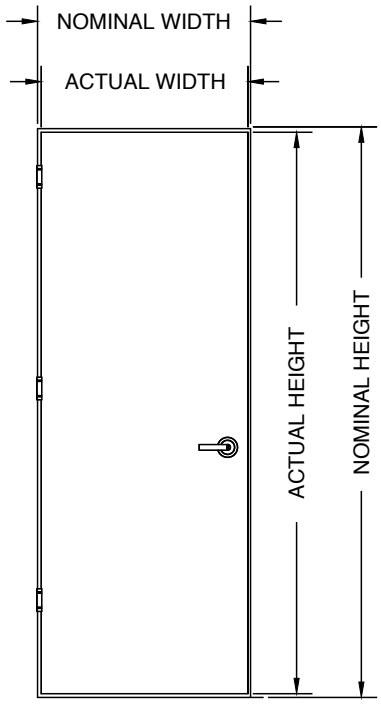
NAILS OR SCREWS FOR WALL ATTACHMENT
NOT INCLUDED

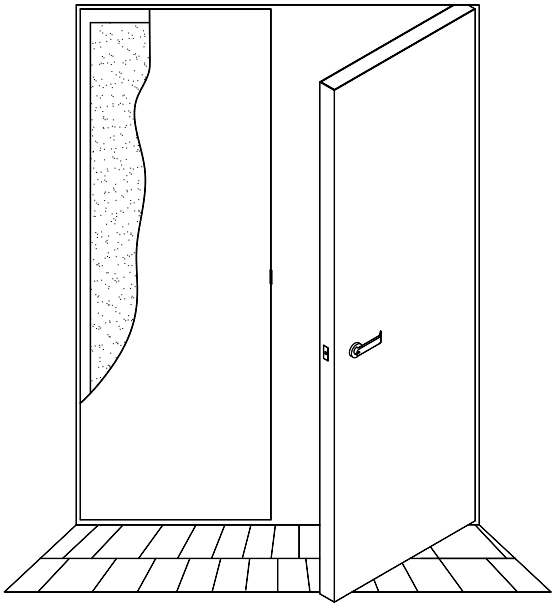


POLYSTYRENE CORE DOOR

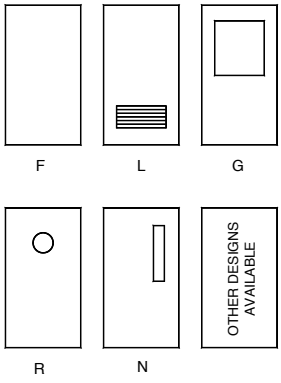
STANDARD SPECIFICATION
MATERIAL: GALVANNEAL
GAUGE: 18

16GA
as scheduled



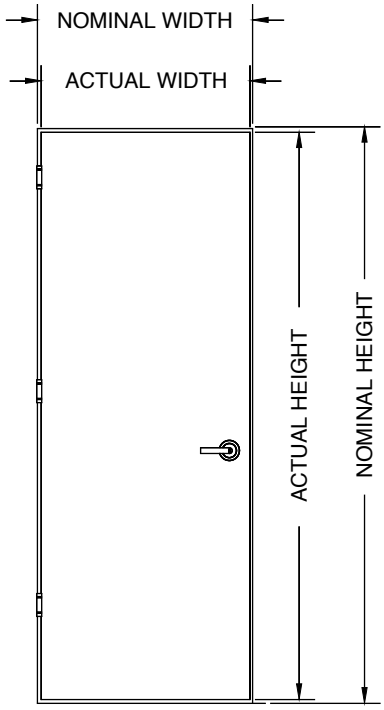


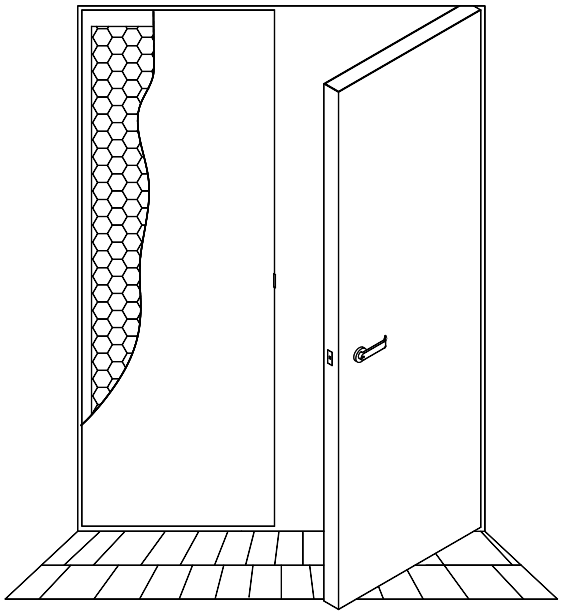
1.) 1-3/4" STANDARD DOOR THICKNESS, OTHER THICKNESSES AVAILABLE.
2.) 16, 14 AND 12 GAUGE AVAILABLE.
3.) G90 GALVANIZED AVAILABLE. STAINLESS STEELS 304 AND 316 AVAILABLE IN #4-SATIN, #2B-MILL OR #8-MIRROR FINISHES.
4.) 0.7 LB DENSITY POLYSTYRENE CORE PERMANENTLY BONDED TO BOTH FACE SHEETS. 1.0 LB DENSITY CORE AVAILABLE.
5.) THERMAL BARRIER FOR 0.7 LB CORE: R-VALUE = 2.39 / U-FACTOR = 0.42 TESTED PER ASTM C1199/E1423
6.) 18 GA TOP AND BOTTOM CHANNELS SPOTWELDED TO FACE SHEETS.
7.) CONTINOUS WELD SEAMLESS EDGE (STANDARD FOR MILD STEEL - OPEN SEAM AVAILABLE).
OPEN SEAM EDGE (STANDARD FOR STAINLESS STEEL - SEAMLESS AVAILABLE).
8.) HARDWARE REINFORCEMENTS:
3/16" FOR HINGES
12 GA FOR LOCKS
14 GA FOR CLOSER
9.) WHI LABELS AVAILABLE



HONEYCOMB CORE DOOR

STANDARD SPECIFICATION
MATERIAL: GALVANNEAL
GAUGE: 18





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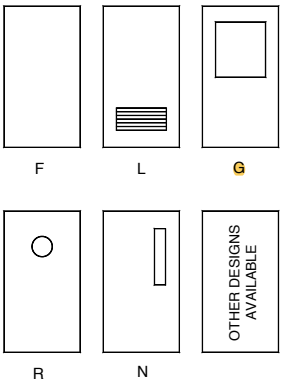
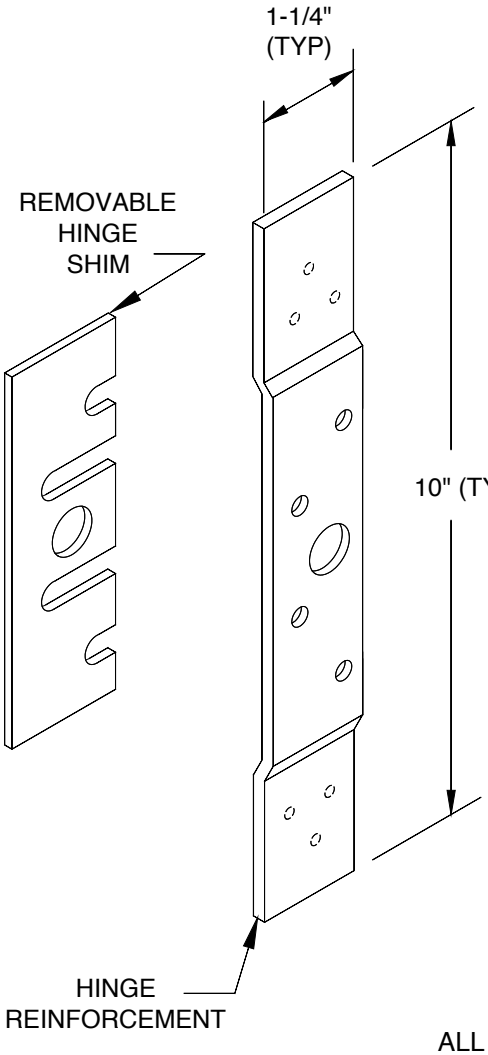
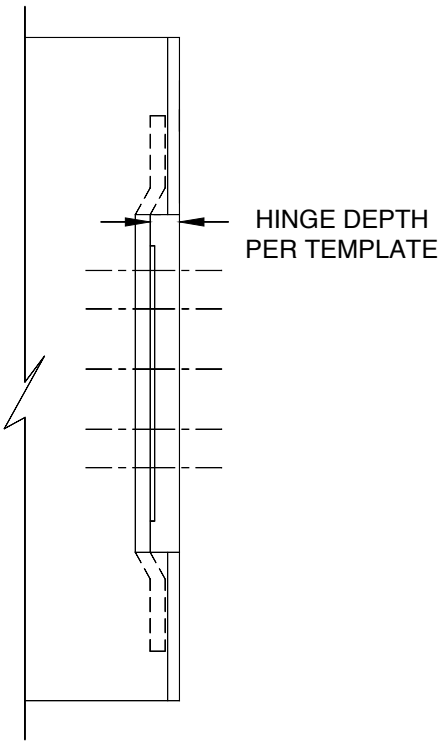
2.) 16, 14 AND 12 GAUGE AVAILABLE.
3.) G90 GALVANIZED AVAILABLE. STAINLESS STEELS 304 AND 316 AVAILABLE IN #4-SATIN, #2B-MILL OR #8-MIRROR FINISHES.
4.) 1" HONEYCOMB HEX CELLS PERMANENTLY BONDED TO BOTH FACE SHEETS. IMPACT RESISTANT (HONEYCOMB IS CRUSH RESISTANT TO 45 PSI).
5.) RESIN IMPREGNATED HONEYCOMB OPTIONAL
6.) 18 GA TOP AND BOTTOM CHANNELS SPOTWELDED TO FACE SHEETS.
7.) CONTINOUS WELD SEAMLESS EDGE (STANDARD FOR MILD STEEL - OPEN SEAM AVAILABLE).
OPEN SEAM EDGE (STANDARD FOR STAINLESS STEEL - SEAMLESS AVAILABLE).
8.) HARDWARE REINFORCEMENTS:
3/16" FOR HINGES
12 GA FOR LOCKS
14 GA FOR CLOSER
9.) WHI LABELS AVAILABLE

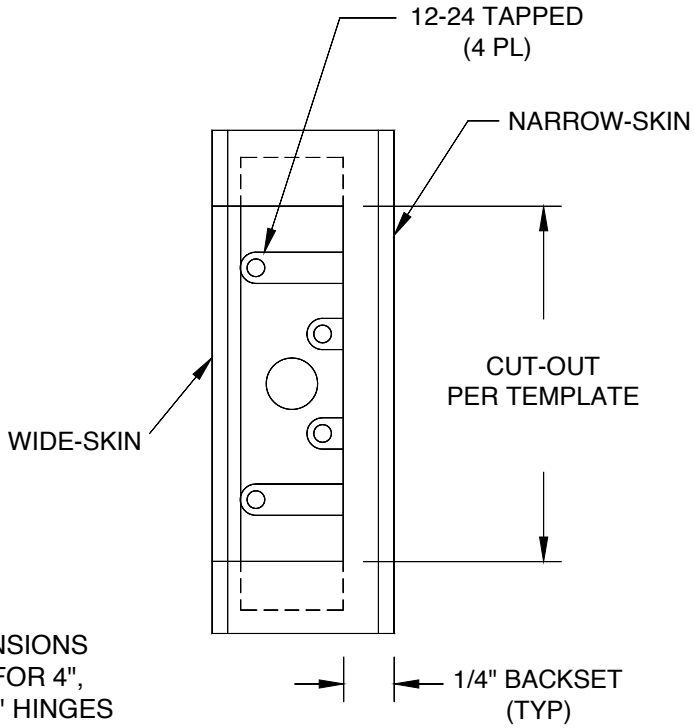


STANDARD DOOR HINGE REINF

MATERIAL: HOT ROLLED STEEL
GAUGE: 7
THREE SPOTWELDS PER END
DOUBLE MORTISE AVAILABLE
HINGE SHIM SPOTWELDED TO REINF



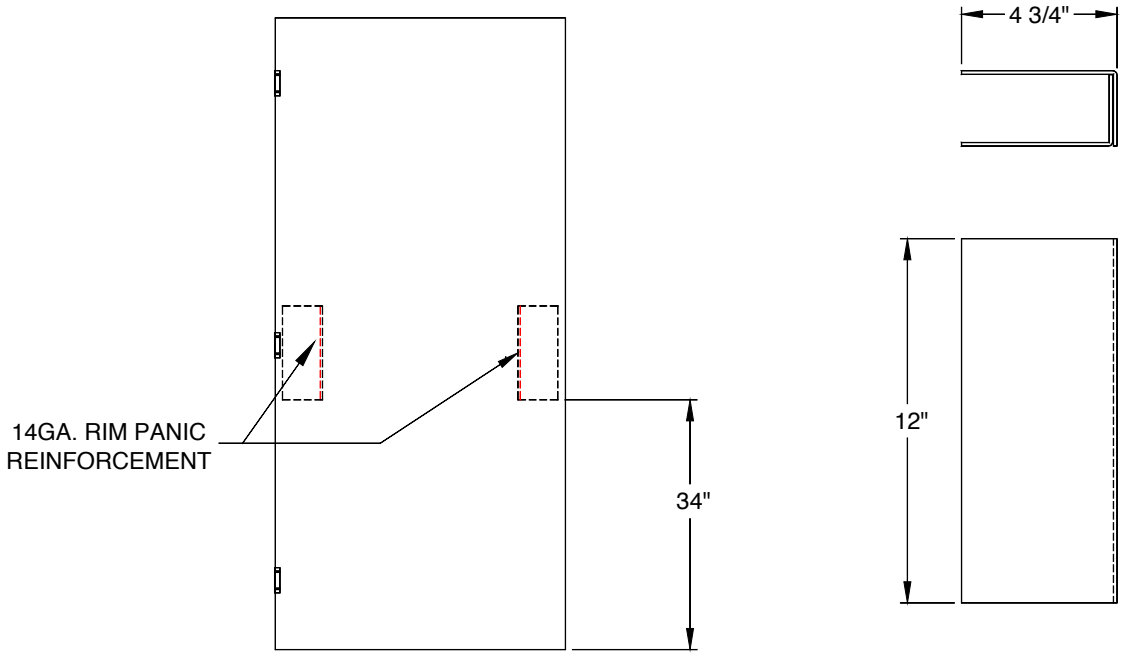




ALL DIMENSIONS
TYPICAL FOR 4",
4-1/2" AND 5" HINGES

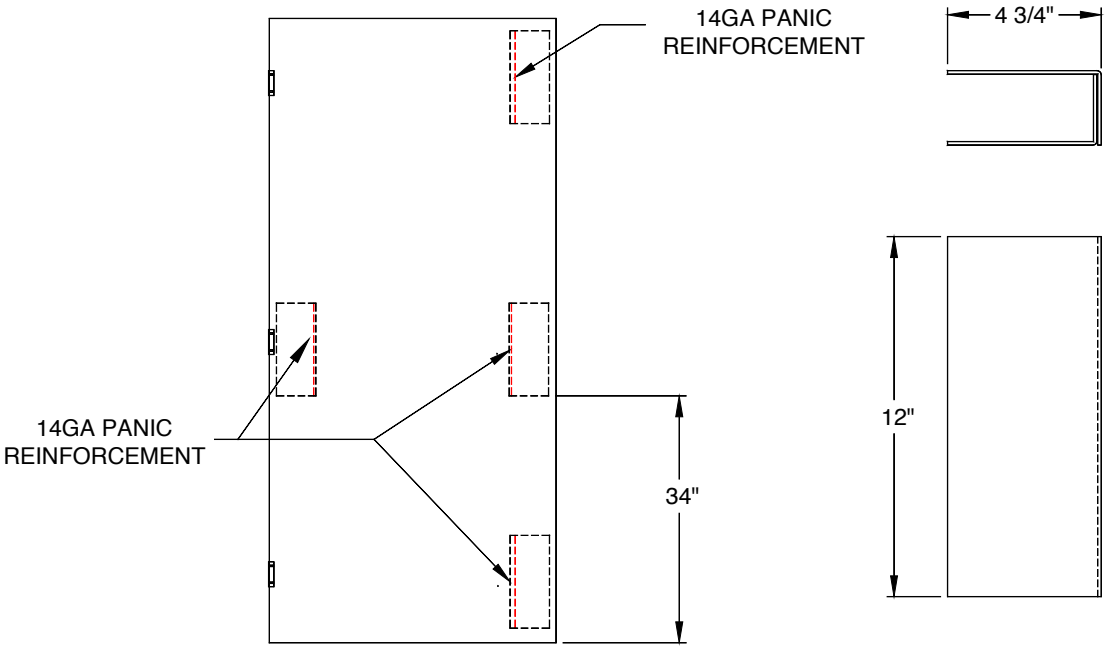
RIM PANIC REINFORCEMENT

REINFORCEMENTS: GALVANNEAL
GAUGE: 14
SPOTWELDED TO DOOR SKIN



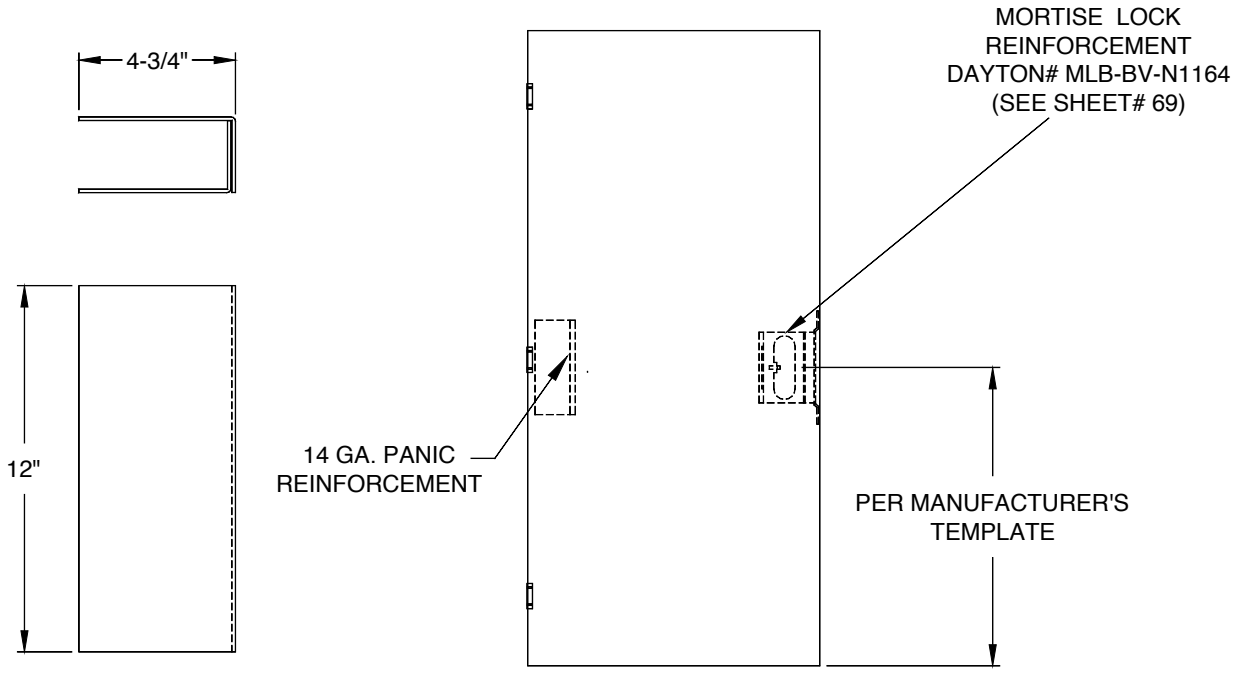
SURFACE VERTICAL ROD REINF

REINFORCEMENTS: GALVANNEAL
GAUGE: 14
SPOTWELDED TO DOOR SKIN



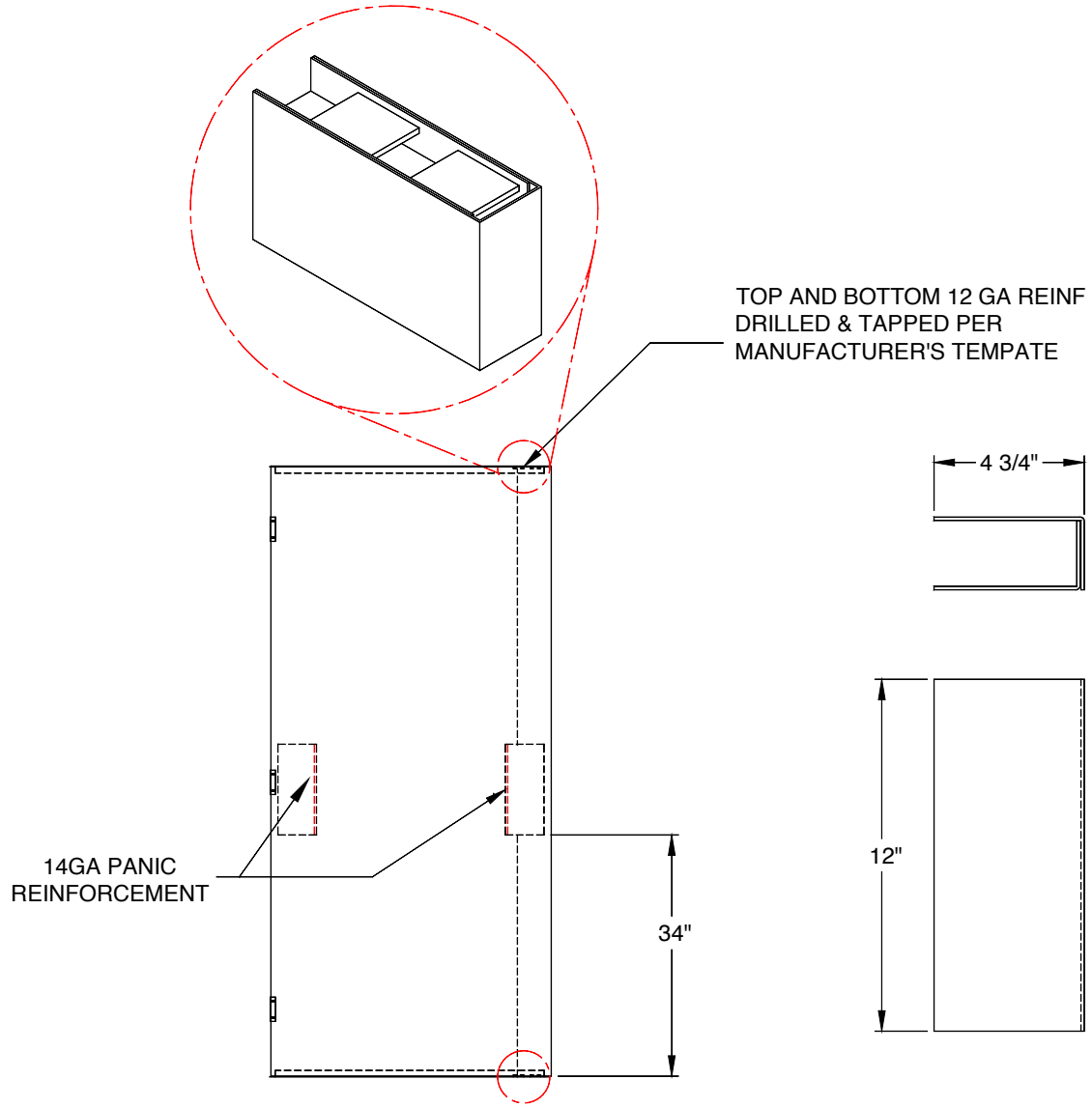
MORTISE PANIC REINFORCEMENT

PANIC REINFORCEMENT



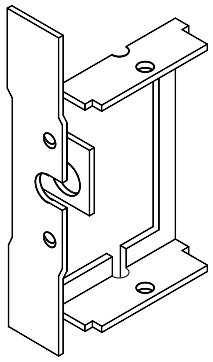
CONCEALED VERT ROD REINF

REINFORCEMENTS: GALVANNEAL
GAUGE: AS SHOWN BELOW
SPOTWELDED TO DOOR SKIN/
TACKWELDED INTO TOP CHANNEL

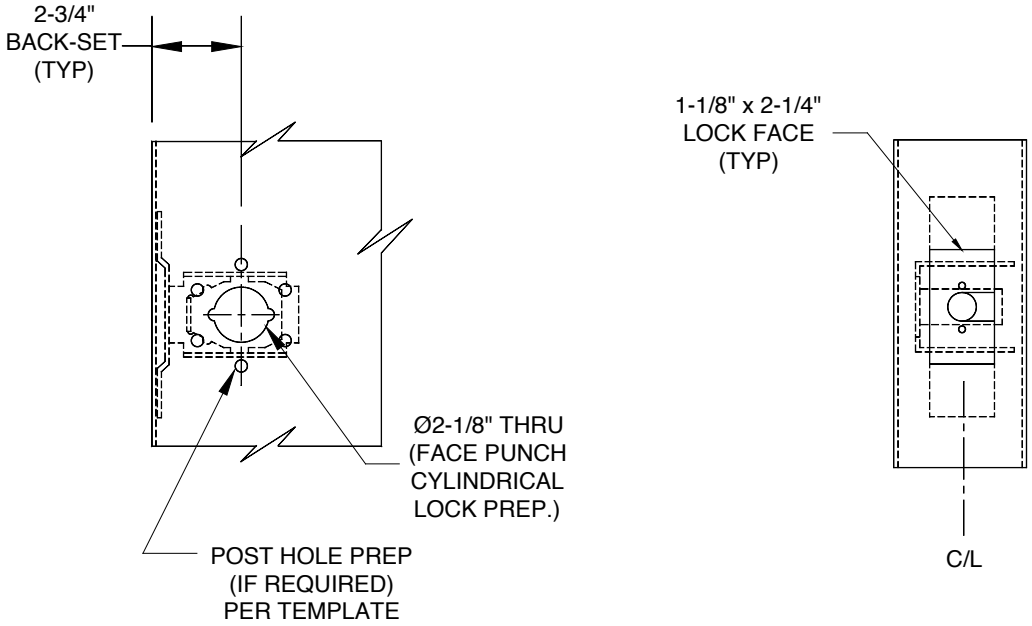


CYLINDRICAL LOCK REINFORCEMENT

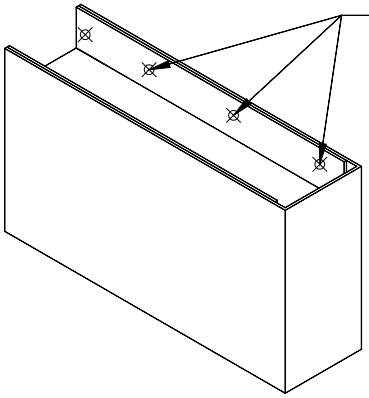
REINFORCEMENT: COLD ROLLED STEEL
GAUGE: 16 (EXTRUDED TO 12 GA AT SCREW HOLES)
TWO SPOTWELDS PER END



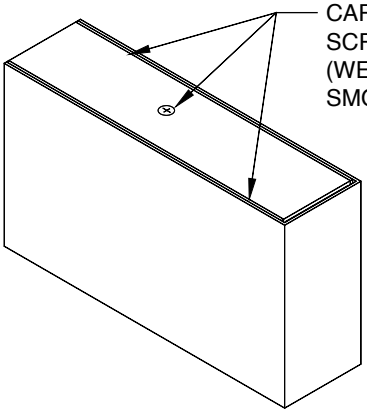
CYLINDRICAL LOCK
REINFORCEMENT
DAYTON# CLB-BV-N158



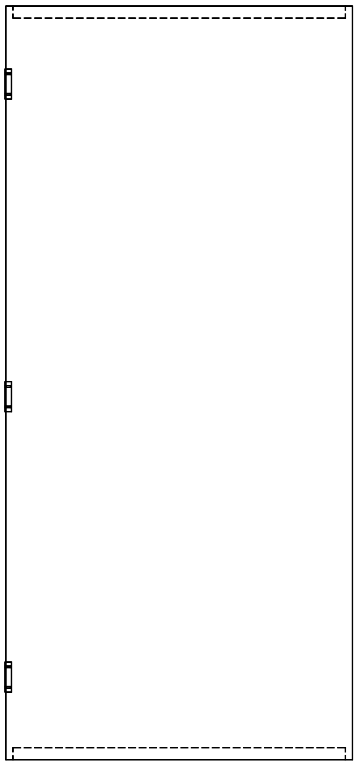
CAP TOP FLUSH

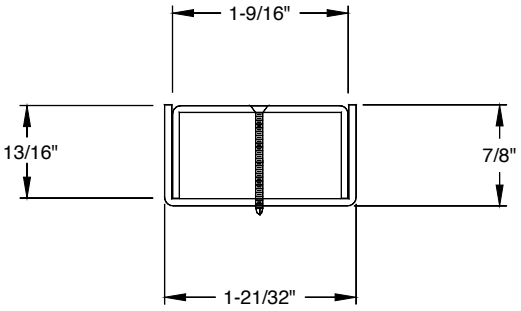


TOP AND BOTTOM CHANNELS SPOT WELDED 2" FROM ENDS 4" ON CENTER TO BOTH SKINS



CAPPING CHANNEL SCREWED-IN (WELDED & FINISHED SMOOTH OPTIONAL)





RECESSED AND CAPPING CHANNELS ARE 18 GA STANDARD (OTHER GAUGES AVAILABLE AS AN OPTION)

BB1279

Description:
- ANSI A8112
- Two ball bearings
- Non-rising removable pin with button tip and plug
- 3-1/2" x 3-1/2" (89 mm x 89mm) available with reversible hole pattern
- For use on medium weight doors or doors requiring medium frequency service

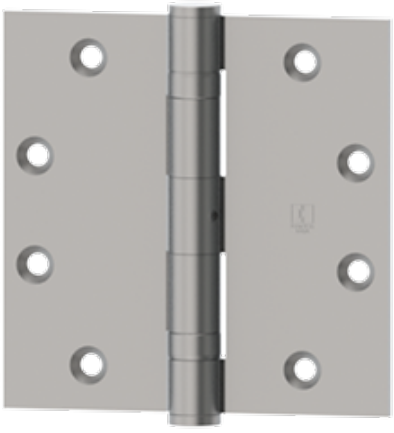
Note:
- Complies with NFPA80 requirements for use on fire rated door assemblies

Electric Modifications:
- EMN (http://www.hagerco.com/products/electrified-products/concealed-electrified-hinges/emn) (Electric Monitor Only)
- ETW (http://www.hagerco.com/products/electrified-products/concealed-electrified-hinges/ETW) (Electric Through-Wire Only)
- ETM (http://www.hagerco.com/products/electrified-products/concealed-electrified-hinges/ETM) (Electric Through-Wire with Monitoring)
- Quick Connect (http://www.hagerco.com/products/electrified-products/concealed-electrified-hinges/quickconnect)

Five Knuckle - Ball Bearing - Standard Weight

Full Mortise

Add to My Jobs (AddJobsIframe.aspx?PID=1776)
Print Specs (GeneratePdf.aspx?UseStandaloneProductIds=true&ProdJobIds=1776)



Specs Size Options Templates Installation
Related Files

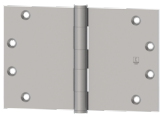
Material: - Steel with Steel pin
Finishes: - L1, LS, H2H, USP, US3, US4, US10, US10A, US10B, US15, US26, US26D

(graphics/assets/images/architectural-hinges-BB1279.png) (Product-Details.aspx?PID=233) (Product-Details.aspx?PID=162)

1191 (Product-Details.aspx?PID=161)

Five Knuckle Plain Bearing Standard Weight

WT1191 (Product-Details.aspx?PID=163)



Five Knuckle Plain Bearing Standard Weight - Wide Throw

Products (Product-Categories.aspx)

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Locks (/Product.aspx?CatId=157)

Door Controls (/Product.aspx?CatId=158)

Exit Devices (/Product.aspx?CatId=159)

Electrified Solutions (/Product.aspx?CatId=160)

Commercial Hinges (/Product.aspx?CatId=150)

Residential Hinges (/Product.aspx?CatId=151)

Roton® Continuous Geared Hinges (/Product.aspx?CatId=152)

Stainless Steel Continuous Hinges (/Product.aspx?CatId=153)

Trim & Auxiliary (/Product.aspx?CatId=154)

Thresholds & Weatherstripping (/Product.aspx?CatId=155)

Sliding Door Hardware (/Product.aspx?CatId=156)

Euroline (/Product.aspx?CatId=493)

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How It Works (./Internal-Page.aspx?NavID=186)

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22 Water Street (./Internal-Page.aspx?NavID=223)

Abilene Wylie ISD Performing Arts Center (./Internal-Page.aspx?NavID=226)

Amilia Fushi (./Internal-Page.aspx?NavID=170)

Annapolis Yacht Club Eastport Sailing Center (./Internal-Page.aspx?NavID=234)

Burj Khalifa (./Internal-Page.aspx?NavID=90)

Centene Plaza (./Internal-Page.aspx?NavID=96)

Center for Design Research (./Internal-Page.aspx?NavID=93)

Centro Médico Zambrano Hellion (./Internal-Page.aspx?NavID=115)

First Heartland Capital (./Internal-Page.aspx?NavID=235)

Hager Headquarters

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Sales Rep Locator (/Rep-Locator.aspx)

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International Catalogs (./Internal-Page.aspx?NavID=120)

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Warranties and Care (./Internal-Page.aspx?NavID=56)

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Taipei 101 (./Internal-Page.aspx?NavID=91)

The Crash Pad (./Internal-Page.aspx?NavID=95)

The Sheridan (./Internal-Page.aspx?NavID=233)

Torres Arcos Bosques II (./Internal-Page.aspx?NavID=116)

Two Twelve Clayton (./Internal-Page.aspx?NavID=224)

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Village Park Senior Living (./Internal-Page.aspx?NavID=222)

Washington University - Brauer Hall (./Internal-Page.aspx?NavID=92)

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Warehouse Associate - Montgomery, AL (./Internal-Page.aspx?NavID=263)

Production Supervisor - Montgomery, AL (./Internal-Page.aspx?NavID=264)

Turret Truck Operator (./Internal-Page.aspx?NavID=266)

Technical Support Consultant (./Internal-Page.aspx?NavID=267)

Maintenance Technician (./Internal-Page.aspx?NavID=271)

Manufacturing Engineer (./Internal-Page.aspx?NavID=272)

Director of Information Technology (./Internal-Page.aspx?NavID=273)

Tool - Cutter Sharpener (./Internal-Page.aspx?NavID=277)

IT System Administrator (./Internal-Page.aspx?NavID=278)

Distribution Supervisor (./Internal-Page.aspx?NavID=279)

Territory Sales Representative (./Internal-Page.aspx?NavID=280)

Marketing Updates (/media-marketing-news)

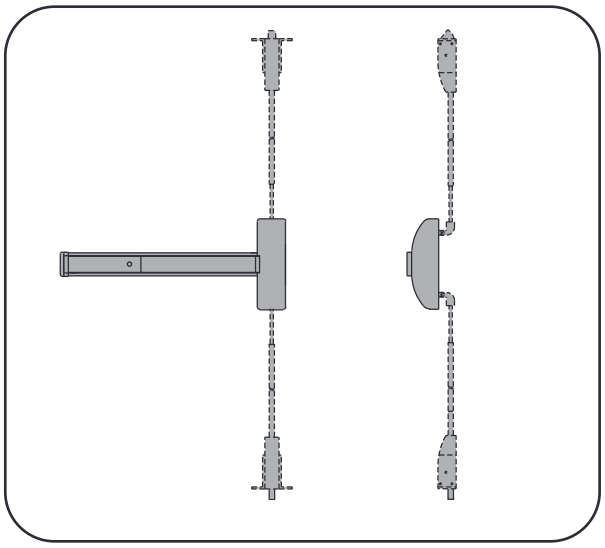
FAQs (/faqs)

Contact Us (/contact-us.aspx)

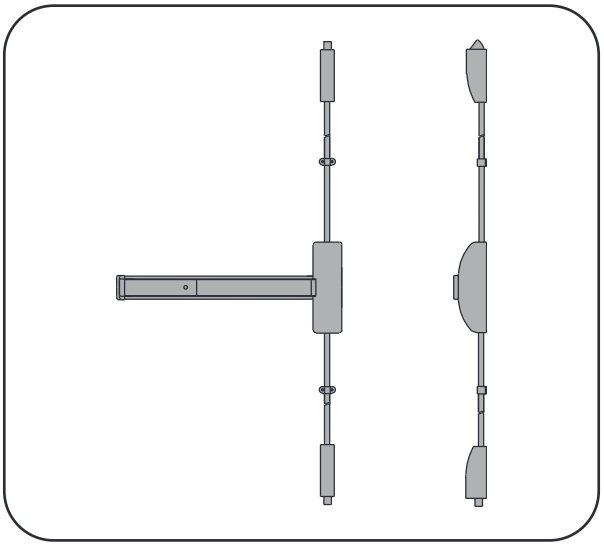
Quick Ship (/quickship.aspx)

Architectural Submittal Sheet

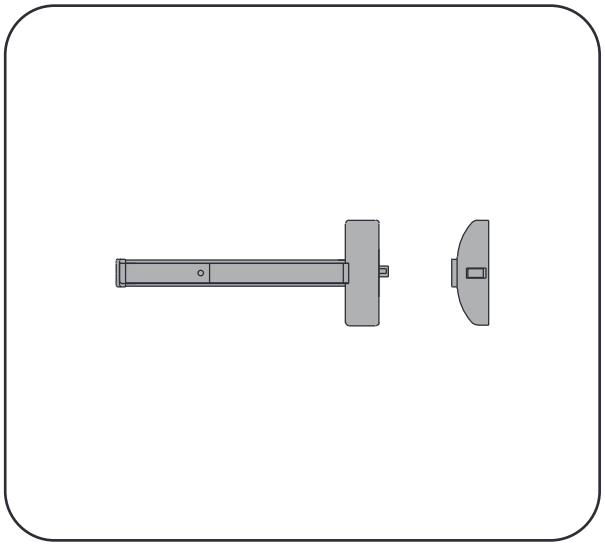
000 Series
Wide Stile
Exit Devices



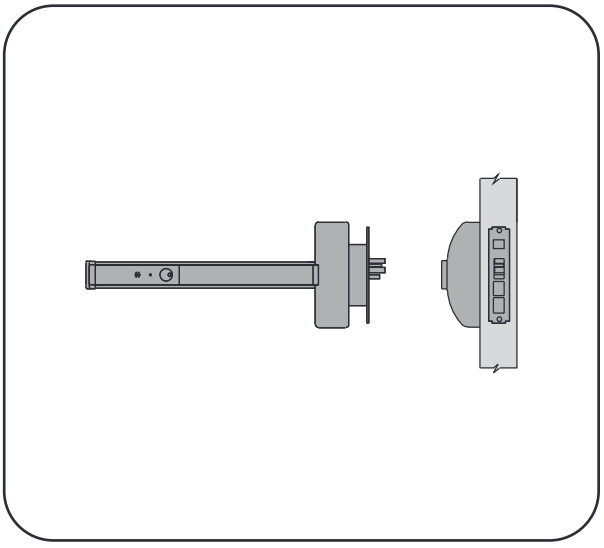
100 Concealed Vertical Rod Device



400 Surface Vertical Rod



300 Rim Device



500 Mortise Device

Premium Access Solutions & Services

The quality management systems at the Reamstown, PA and Steeleville, IL facilities are certified to ISO 9001:2008.*

*DORMA Door Controls, Inc., dba: DORMA Architectural Hardware & Glas

Architectural Submittal Sheet

000 Series Wide Stile Exit Devices

DORMA

Applications:
DORMA's heavy duty cast chassis provides superior durability.and smooth operation. Its reduced projection touch bar minimizes catch hazards. Partial length touchpad permits cylinder dogging and fire alarms.

Listings & Approvals:
- Certified/listed to ANSI/BHMA 156.3, Grade 1 for exit devices.
- UL and CUL listed under their continuing reinspection programs and conforms to standards UL 10B & 10C positive pressure testing.
- Complies with NFPA 101 life safety code. Fire rated devices comply with NFPA 80 fire doors and windows.
- CSFM approved, California State Reference Code 1989 (title 19).
- Devices, trim, pulls, and levers comply with the Americans for Disabilities Act, 1994, and ANSI 117.1 2003 for accessible and usable buildings and facilities.
- Contributes to U.S. Green Building Council, LEED MR Credits 2.1, 4.1, 4.2 and 5.1.

Warranty:
10 year mechanical/2 year electrical.

Range of Door Sizes:
24"–48" (varies by application and selected options. Consult product brochure for full details).

Finishes:

Architectural Finishes:
Brass: 605 (Bright) or 606 (Satin).
Bronze: 611 (Bright), 612 (Satin), or 613 (Oxidized Satin Oil Rubbed).
Nickel: 619 (Satin).
Chrome: 625 (Bright) or 626 (Satin).
Stainless Steel: 630 (Satin).

Powder Coated Finishes:
Aluminum: 689.
Bronze: 691 (Dull) or 695 (Dark Duranodic).
Black: 693.
Gold: 696.
Clear Powder Coating: Specify P.

Antimicrobial Protected Coating: Specify AM.

Exit Device Models:
- Concealed Vertical Rod (9100/F9100).
- Rim with or without mullion (9300/F9300).
- Surface Vertical Rod (9400/F9400).
- Mortise (9500/F9500).

Special Application Assistance:
Contact DORMA Technical Services at 800 523 8483.

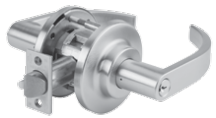
ANSI	Description	100	200	400	500
01	Exit Only – No Trim	X	X	X	X
02	Entrance by trim when actuat ing bar is locked down.	X	X	X	X
03	Entrance by trim when latch bolt is retracted by key. Key removable only when locked.	X	X	X	X
04	Entrance by trim when latch bolt is retracted by key or set in retracted position by key.	X	X	X	X
05	Entrance by thumbpiece. Key locks or unlocks thumbpiece.	X	X	X	X
06	Entrance by thumbpiece only when released by key. Key removeable only when locked.	X	X	X	X
08	Entrance by knob or lever. Key locks or unlocks knob or lever.	X	X	X	X
08x08	Entrance by lever. OS or IS key locks or unlocks lever.	X	X	X	X
09	Entrance by knob or lever only when released by key. Key removable only when locked.	X	X	X	X
22	Entrance by thumbpiece (no cylinder). Trim always active.	X	X	X	X
23	Entrance by knob or lever (no cylinder). Trim always active.	X	X	X	X

DORMA Solutions:
- Corrosion resistant, heavy duty gage stainless steel offered standard.
- 9 separate electronic monitoring and control options for managing critical access/egress control applications.
- Choose from 14 ANSI/BHMA standard architectural finishes, or dozens of DORMA Custom RAL colors, or, for those unique interior designs, DORMA's Designer Color special color matching system.
- Hundreds of trim and lever styles and finish combinations to satisfy the most demanding interior design requirement.
- Antimicrobial protected coating when ultra clean environments are specified.
- Clear powder coating for outdoor or highly corrosive environments that need added protection. Also minimizes the appearance of fingerprints.

Contact Information:
DORMA Architectural Hardware & Glas
Dorma Drive, Drawer AC
Reamstown, PA 17567 0411
Tel: 800 523 8483
Fax: 800 274 9724
Email: archdw@dorma usa.com

A DORMA Group Company
www.dorma usa.com

C800 lever locks shown with E roses

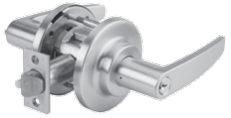


C800LCE

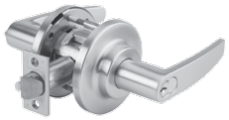
C800LCE IC

C800LFE

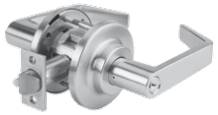
C800LFE IC



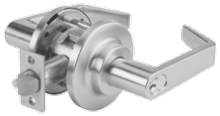
C800LGE



C800LGE IC



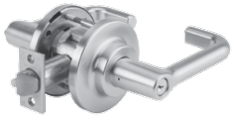
C800LRE



C800LRE IC

C800LVE

C800LVE IC



C800LTE

C800LTE IC

C800 lever locks shown with C roses

C800LCC

C800LCC IC

C800LFC

C800LFC IC

C800LGC

C800LGC IC

C800LRC

C800LRC IC

C800 lever locks shown with C roses (continued)

C800LVC

C800LVC IC

C800LTC

C800LTC IC

C800 knob locks with B roses

C800KBB

C800KBB IC

Functions

ANSI	DORMA	Description
F75	C810*	Passage
F89	C812	Exit
F111	C825	Exit/communicating passage
F77	C830	Patio
F76	C840*	Privacy, bedroom or bath
—	C844	Hospital privacy
F112	C848	Exit/communicating storeroom
F82	C850	Office/entry
F109	C853*	Entry
F92	C855	Service station
F88	C860	Apartment
F113	C865	Exit/communicating classroom
F91	C866	Store door
F84	C870*	Classroom
F80	C872	Communicating
F90	C873*	Corridor
F110	C877	Classroom intruder
F86	C880	Storeroom
F87	C882	Asylum
F93	C885	Faculty restoom/hotel
—	C880EL	Electrically locked (fail safe)
—	C880EU	Electrically unlocked (fail secure)
—	C801*	Single dummy
—	C802	Double dummy

*Function available with knob locks

Applications

DORMA's heavy duty Grade 1 cylindrical locksets are especially suited for educational, health care, institutional, commercial and industrial applications. The broad range of functions and designs fulfill all cylindrical lock applications.

Certification/Compliance

- ANSI—Meets A156.2 Series 4000 Grade 1; meets IBC/A117.1 and ADA requirements for accessibility
- UL/CUL, UL 10C Positive Pressure—All C800 are 3 hour fire rated; Locks with 1/2" throw latch bolts are listed for A label and lesser class doors, 4'0" × 8'0" maximum per leaf
- California State Reference Code—(Formerly title 19, California State Fire Marshall standard) all levers with returns, return to within 1/2" (12 mm) of door face

Features

- All DORMA C800 Series locks feature advanced design concepts for extreme reliability and are manufactured with the finest materials for exceptional durability.
- To ensure exceptionally smooth operation, the C800 Series locks with lever trim incorporate a cast stainless steel retractor combined with roller bearings. This design provides both extremely high strength and an extended service life for the lock mechanism.
- DORMA C800 Series locksets are easy to install in both wood and hollow metal doors with ANSI/BHMA Standard A156.115 preparations for cylindrical locks.
- All C800 Series lever locks are through-bolted for additional strength and reliability.
- All C800 Series operating lever trim features a specially designed freewheeling function to protect the lock from damage caused by excessive torque applied to the lever handles. When locked, the outside lever handle will move freely through a 60° arc without operating the latch bolt. This free movement minimizes the opportunity for damage to the lock mechanism.
- All C800 Series lever handle locks include a special, high-strength spring and positive stop to eliminate unsightly sagging levers.
- All C800 Series lever locks are easily adjustable to accommodate doors from 1-3/4"–2-1/4" thick without spacers (1-3/8"–1-3/4" with spacers 660005). Consult the factory for other thicknesses.
- C800 Series knob locks will accommodate doors from 1-3/8"–2" thick without spacers or special tools.
- All C800 Series locks are available in the following backsets: 2-3/4" (70 mm) standard, 2-3/8" (60 mm), 3-3/4" (95 mm), and 5" (127 mm).

Cylinders and Keying

- Unless otherwise specified, cylinders will be provided in DORMA standard keyway with two (2) nickel silver keys
- Optional patented key system available
- Refer to separate **DORMA Price List** for full details and options such as master keying, retrofit cylinders and keyways, and small format and full size interchangeable cores

Warranty

For details, refer to **Limited Warranty Policy** in the current DORMA Price List.

Exposed Trim

Brass or stainless steel—levers are pressure cast zinc, plated to match finish symbols.

Finishes

- Brass—605 PVD (Bright), 606 PVD (Satin), or 605* (Bright, Clear Coated)
- Bronze—612 PVD (Satin) or 613 PVD (Dark Oxidized Satin).
- Nickel:—619 PVD (Satin)
- Chrome—625 (Bright) or 626 (Satin)
- Stainless—630* (Satin)
  *Available on knob locksets only.
  NOTE: Consult factory for finishes not shown.

ANTIMICROBIAL PROTECTED COATING
Specify **AM**.

SPECIAL FINISH NOTES
ANSI/BHMA A156.18 standards describe 613 Dark Oxidized Satin Bronze finish as a category B finish. B category finishes, "do not match from one alloy or form of material to the next and from one manufacturer to the next." The 613 finish may vary between manufacturers' products and models.

In some instances, for customer convenience, the most appropriate BHMA finish symbols are used to indicate similarity of appearance, regardless of base metal or finishing process. Finishes of latches, strikes, cylinders/cores, and visible mounting screws, though similar in appearance, may differ from the finish of the trim. Finish designations in the 600 numbers are the BHMA (Builders Hardware Manufacturers Association) industry standard.

Security Screws

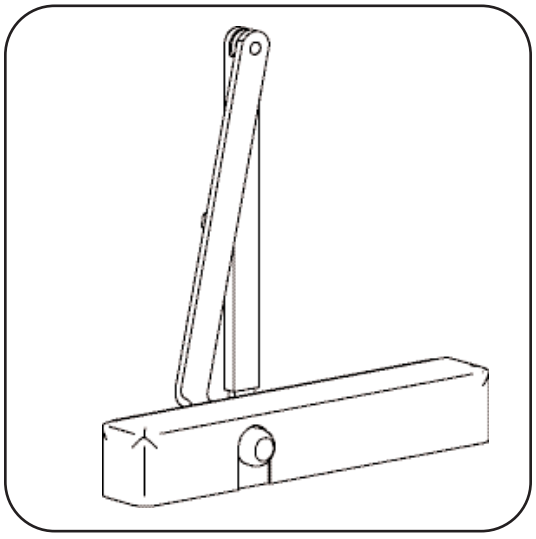
Torx® tamper-resistant screws are available for all exposed screws. Specify **TX**.

The quality management systems at the Reamstown, PA and Steeleville, IL facilities are certified to ISO-9001:2008.*
*DORMA USA, Inc.

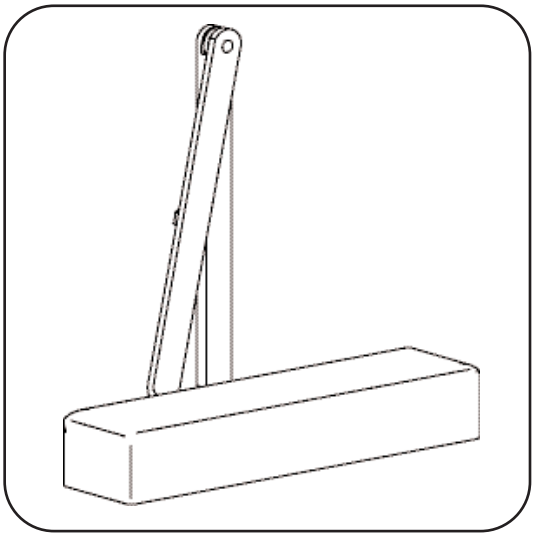
DORMA USA, Inc.
DORMA Drive, Drawer AC
Reamstown, PA 17567-0411
Tel: (800) 523-8483
Fax: (800) 274-9724
archdw@dorma-usa.com
www.dorma-usa.com

Architectural Submittal Sheet

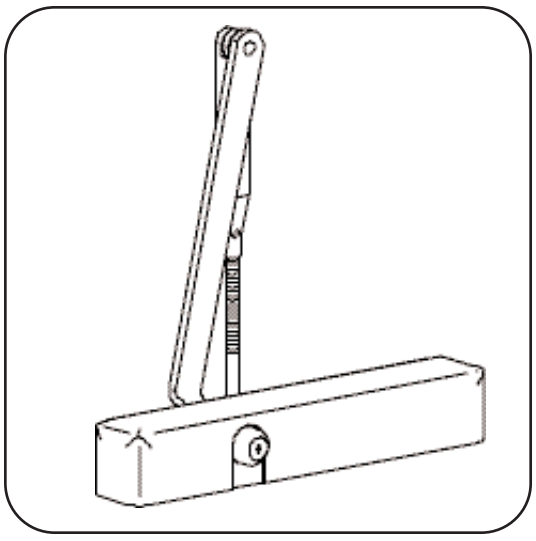
8600 Series Closers



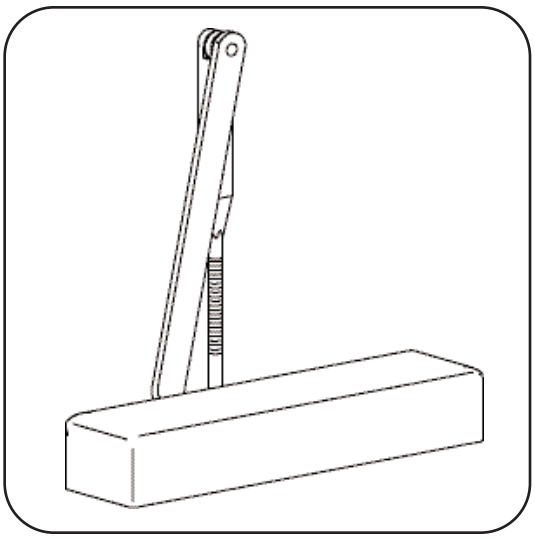
8600 Slim Cover AF Arm



8600 Full Cover AF Arm



8600 Slim Cover AR Arm



8600 Full Cover AR Arm

BHMA CERTIFIED

CERTIFIED ISO 9001

DORMA By Choice™

The quality management system at the Reamstown, Pennsylvania facility is certified to ISO 9001*.
*DORMA Door Controls, Inc. d.b.a. DORMA Architectural Hardware
0606

Architectural Submittal Sheet | **8600 Series Closers**

DORMA

DORMA 8600 SERIES

Applications:

The 8600 Series is designed to provide a highly flexible door control system suitable for use on all hollow metal, aluminum, and wood doors typically used in commercial construction. It is available in adjustable spring size 1-6. Doors may be mounted with either ball bearing hinges or pivots. Special brackets and other adapting hardware are available with the 8600 Series product.

Listings & Approvals:

- ANSI Grade 1.
- UL and ULC.
- UL10C for positive pressure.
- UBC 7.2 1997.
- CSFM.
- M.E.A.

Warranty: 25 Years.

Range of Door Sizes:

- Exterior door widths to 48" (1219 mm).
- Interior door widths to 48" (1219 mm).
- Door heights to 96" (2438 mm).
- Door weights to 250 pounds (114 kg).
- Can be adjusted to meet ADA maximum 5 lb opening force on properly hung interior doors.

Finishes:

- Standard Sprayed Finishes:
  Aluminum: 689.
  Bronze: 691 (Dull), 690 (Statuary), or 695 (Dark Duranodic).
  Gold: 696 (Satin). Black: 693.
- Architectural Plated Finishes:
  Brass: 605 (Polished), 606 (Satin Brass).
  Bronze: 611 (Polished), 612 (Satin), 613 (Oil Rubbed).
  Nickel: 618 (Polished), 619 (Satin)
  Chrome: 625 (Polished), 626 (Satin).
- Custom Painted Finishes:
  Submit sample. Customer approval required.

Special Application Assistance:

Please contact our Technical Services team at 800-523-8483 if you have any questions or need assistance in developing a custom application.

Closer Mounting Options (based on arm selection):

- Regular pull side of the door.
- Top jamb push side of the door.
- Parallel arm on push side of the door.

ANSI A156.4 Grade 1 Selector Chart

Arm(s)	Hingeside	Parallel Arm	Top Jamb
AF, AR	C02011	C02021	C02041
FH, PH	C02051	C02061	C02081
T, JT, PT, FT	C02251 C02211	C02231	C02271
TH, JTH, PTH, FTH	C02261 C02222	C02241	C02281
FT4 Function Options	A, B, C, D, F, H	A, B, C, D, F, G, H, J	A, B, C, D, F, H

Arm Functions:

- Regular, Top Jamb or Parallel Arm.
- Friction hold open.
- Plunger hold open.
- Heavy Duty Dead Stop Reg or TJ.
- Heavy Duty Dead Stop PA (hold open optional).
- Heavy Duty PA (hold open optional).
- Track (hold open optional).
- Double Egress Track (hold open optional).

Closer Functions:

- Adjustable power.
- Adjustable backcheck intensity.
- Adjustable backcheck positioning.
- Adjustable sweep speed.
- Adjustable latch speed.
- Optional delayed closing from maximum opening angle to approximately 70°.

Cover Options:

- Slim plastic cover.
- Optional full plastic cover.
- Optional full plastic slotted cover.
- Optional full metal cover (required for architectural finishes).

Contact Information:

DORMA Architectural Hardware
Dorma Drive, Drawer AC
Reamstown, PA 17567-0411
Tel: 800-523-8483
Fax: 800-274-9724
Email: archdw@dorma-usa.com

A DORMA Group Company
www.dorma-usa.com

Technical Details

- Available as 8616 closers for interior and exterior doors. Meets barrier-free requirements (adjustable size 1–6).
- Non-handed for regular, top jamb and parallel arm applications.
- Adjustable backcheck standard. Controls opening motion during abusive or abrupt opening.
- POS backcheck positioning valve (standard) maintains effective backcheck range on parallel arm applications. Valve accessible with closer installed.
- Optional delayed action adjustable with a separate independent valve. Delays door closing to allow unobstructed passage through the opening.
- Slim plastic cover standard. Full plastic or metal cover optional.
- Designed to minimize change in closing speed during severe temperature changes.
- Aesthetically pleasing and easy to adjust steel flat form arm assembly.
- Full complement of optional arms, plates, and brackets available for special applications.
- SNB1 sex nuts and machine screws for 1-3/4" thick doors included standard.
- No slip, octagonal bore spring adjustment standard.
- Available with optional self-drilling screws for steel door and frame applications (DPK86)
- Available with optional self-tapping screws for aluminum door and frame applications (TPK86).

Certifications

- ANSI/BHMA A156.4 Grade 1 certified.
- UL and CUL listed.
- Meets UL10C for positive pressure.
- Meets ANSI/BHMA A117.1 and ADA for barrier-free accessibility.
- CSFM approved.

Specification

The architectural grade 8600 Series is a non-handed surface applied door closer with adjustable spring power and backcheck positioning adjustment. Adjustable hydraulic backcheck will take effect at approximately 70°. The 8600 has two independent, noncritical adjustment valves to control sweep and latch closing speeds. The backcheck positioning valve assures an effective ANSI backcheck range on parallel arm applications. All closers to have field adjustable spring power from size 1–6 and meet barrier-free requirements. Closers to have a slim plastic cover and a wide range of arm options. All 8600 fully adjustable spring force door closers to include an integral design to positively stop adjustment of the spring at the minimum and maximum spring force settings.

Optional Specifications

The 8600 Series closer will have delayed action (DA). Delayed action range will be effective from maximum opening to approximately 65°. All 8600 closers to have full metal (FMC) or full plastic (FC) cover. All 8600 closers to have sex nuts with machine screws for 1-3/8" door (SNB2). Closers to have self-drilling screws for steel doors and frames (DPK86). Closers to have self-tapping screws for aluminum doors and frames (TPK86). Closers to have TORX security for all exposed fasteners (TX86).

Finishes

Standard Sprayed Finishes

- Aluminum: 689
- Bronze: 691 (Dull), 690 (Statuary), or 695 (Dark Duranodic)
- Gold: 696
- Black: 693

Optional DORMA Custom Color or Designer Color Finishes

Contact Customer Service.

Optional Plated/Architectural Finishes

- Brass: 605 (Bright) or 606 (Satin)
- Bronze: 611 (Bright), 612 (Satin), or 613 (Oxidized Satin Oil Rubbed)
- Nickel: 618 (Bright) or 619 (Satin)
- Chrome: 625 (Bright) or 626 (Satin)
- Stainless: 630 (Satin)

Warranty

For details, refer to **DORMA Limited Warranty** on our website at **go.dorma.com/terms**.

REDUCED OPENING FORCE INSTALLATIONS CAUTION

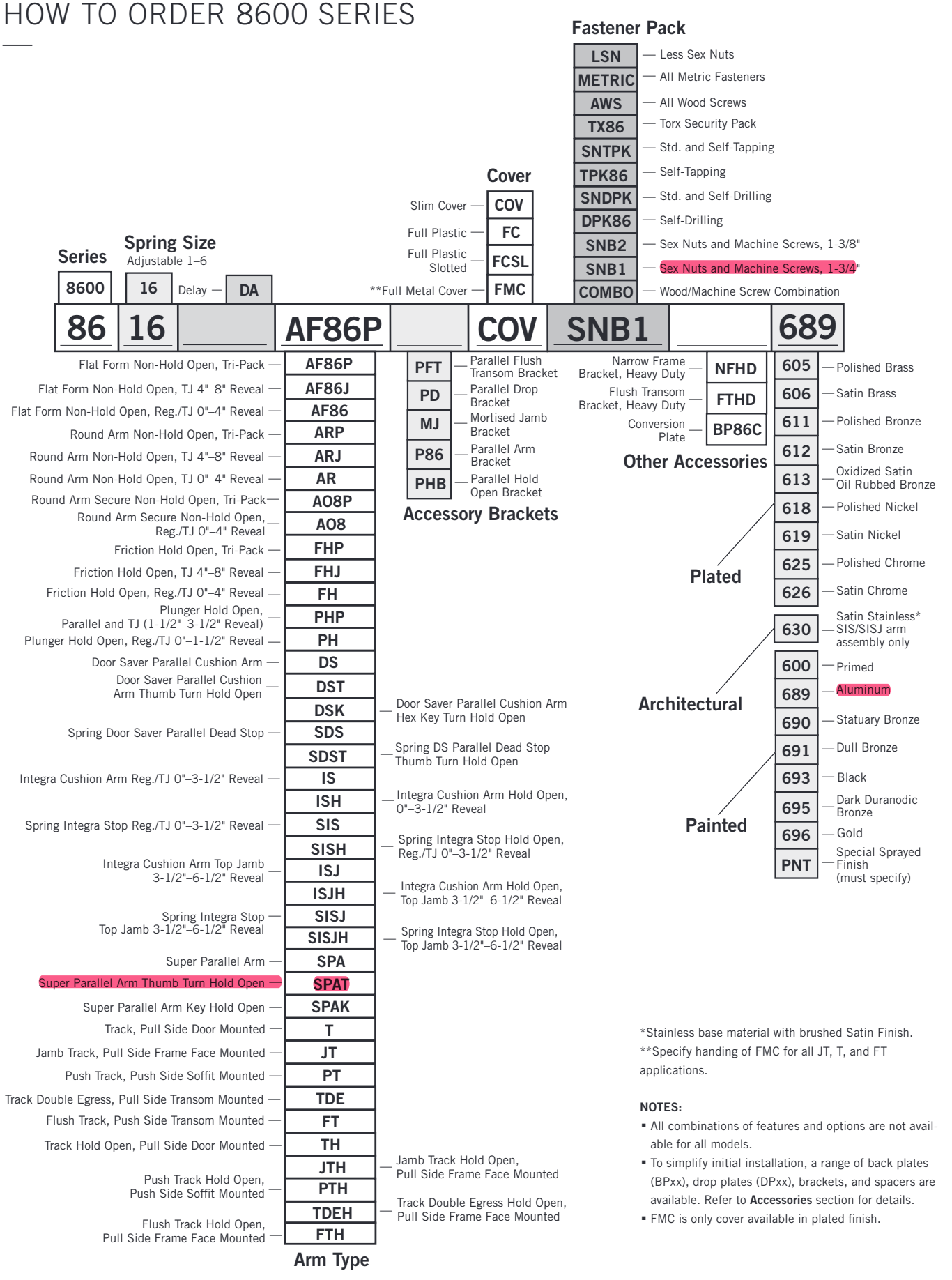
Manual door closers, including those certified to meet ANSI/BHMA A156.4, when installed and adjusted to conform to ADA or other reduced opening force requirements, may not provide sufficient power to reliably close and latch a door.

Refer to catalog for Low Energy Operators to meet reduced opening force requirements without affecting closing power.

Features	8616
Spring size (shipped as size 4)	1–6
Non-handed	•
Parallel arm bracket	•
Full line of specialty function arms and plates	•
Backcheck positioning adjustment (POS)	•
Controlled closing with two adjustment valves	180°–10° 10°–0°
Backcheck	•
Delayed action	○
Hold open	○
SNB1 sex nuts for 1-3/4" thick doors included	•
Self-drilling screws (DPK)	○
Self-tapping screws (TPK)	○
Tamper-resistant TORX screws (TX)	○
Slim plastic cover	•
Full cover (metal or plastic)	○

• standard ○ optional

HOW TO ORDER 8600 SERIES



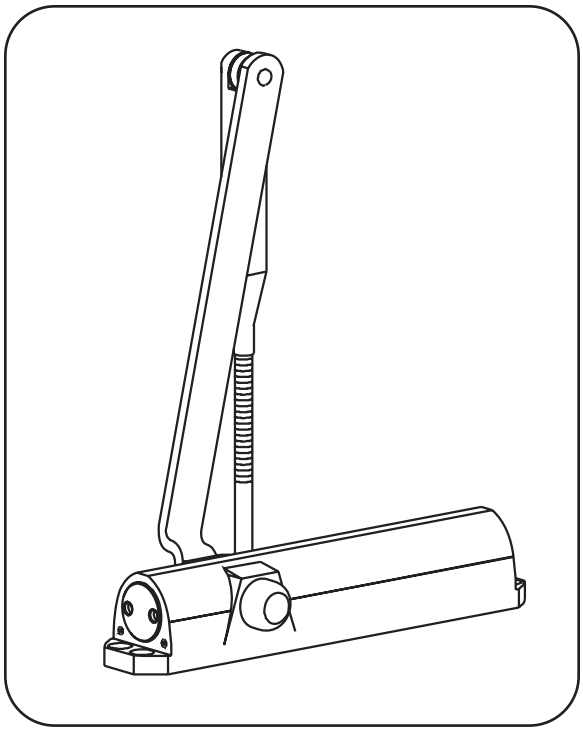
*Stainless base material with brushed Satin Finish.
**Specify handing of FMC for all JT, T, and FT applications.

NOTES:

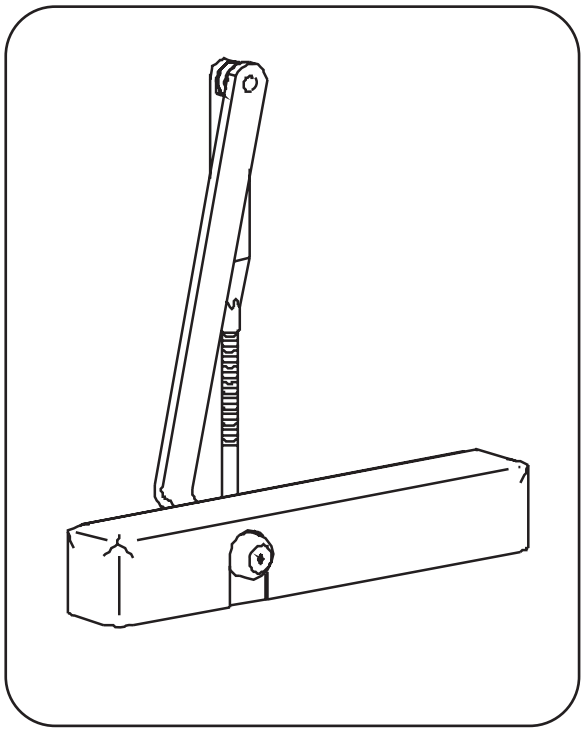
- All combinations of features and options are not available for all models.
- To simplify initial installation, a range of back plates (BPxx), drop plates (DPxx), brackets, and spacers are available. Refer to **Accessories** section for details.
- FMC is only cover available in plated finish.

Architectural Submittal Sheet

7400 Series Closers



7400 AR Arm



7400 Slim Cover AR Arm

DORMA By Choice™

The quality management system at the Reamstown, Pennsylvania facility is certified to ISO 9001*.
*DORMA Door Controls, Inc. d.b.a. DORMA Architectural Hardware
0607

Architectural Submittal Sheet | **7400 Series Closers**

DORMA

DORMA 7400 SERIES

Applications:
The 7400 Series is designed to provide a highly flexible door control system suitable for use on all hollow metal, aluminum, and wood doors typically used in commercial construction. It is available in adjustable spring sizes: 1-4 and 3-6.

Doors may be mounted with either ball bearing hinges or pivots. Special brackets and other adapting hardware are available with the 7400 Series product.

Listings & Approvals:
- ANSI Grade 1.
- UL and ULC.
- UL10C for positive pressure.
- UBC 7.2 1997.
- CSFM.
- M.E.A.

Warranty: 25 Years.

Range of Door Sizes:
- Exterior door widths to 48" (1219 mm).
- Interior door widths to 48" (1219 mm).
- Door heights to 96" (2438 mm).
- Door weights to 250 pounds (114kg).
- Can be adjusted to meet ADA maximum 5 lb opening force on properly hung interior doors.

Finishes:
- Standard Sprayed Finishes:
  Aluminum: 689.
  Bronze: 691 (Dull), 690 (Statuary), or 695 (Dark Duranodic).
  Gold: 696.
  Black: 693.
- Custom Painted Finishes:
  Submit sample. Customer approval required.

Special Application Assistance:
Please contact our Technical Services team at 800-523-8483 if you have any questions or need assistance in developing a custom application.

Closer Mounting Options (based on arm selection):
- Regular pull side of the door.
- Top jamb push side of the door.
- Parallel arm on push side of the door.

Arm Functions:
- Regular, Top Jamb or Parallel Arm.
- Friction hold-open.

ANSI A156.4 Grade 1 Selector Chart

Arm(s)	Hingeside	Parallel Arm	Top Jamb
FT4 Function Options	A, B, C, D, F, H	A, B, C, D, F, H	A, B, C, D, F, H

Closer Functions:
- Adjustable power.
- Adjustable backcheck intensity.
- Adjustable sweep speed.
- Adjustable latch speed.
- Optional delayed closing from maximum opening angle to approximately 70°.

Cover Options:
- Optional full plastic cover.
- Optional slim plastic cover.

Contact Information:
DORMA Architectural Hardware
Dorma Drive, Drawer AC
Reamstown, PA 17567-0411
Tel: 800-523-8483
Fax: 800-274-9724
Email: archdw@dorma-usa.com

A DORMA Group Company
www.dorma-usa.com

282D
Manual Flush Bolt

Notes:

- Sold and priced in increments of 2
- 3-hour fire rating for metal doors up to 4 feet wide by 10 feet tall
- 282S strike plate bag and 282P bolt head available
- For use on hollow metal/fire rated doors
- 282R optional rod length available: 18" (457 mm) , 25" (635 mm), and 30" (762 mm)
  for a nominal charge. Bolt head, if required, may be ordered separately as part number
  282P.
- Non-handed
- Bolt head rods are adjustable

PRODUCT SPECIFICATIONS

CERTIFICATIONS:
- Meets ANSI 156.16 for L04251

FACE PLATE:
- 1" x 6-3/4" (25 mm x 172 mm)

FLATTENED ROUND BOLT HEAD:
- 1/2" (13 mm) square

BOLT THROW:
- 3/4" (19 mm)

STANDARD ROD LENGTH:
- 12" (305 mm) (from center of face to corner of door)

BOLT BACKSET:
- 3/4" (19 mm)

GUIDE PLATE:
- 1" x 2" (25 mm x 51 mm)

MORTISE STRIKE:
- 15/16" x 2-1/4" (24 mm x 57 mm)

OPTIONAL ROD LENGTH:
- 18" (457 mm)
- 24" (610 mm)
- 30" (762 mm)
- Specify 282R

MATERIALS:
- Brass faceplate with steel components

FINISHES:
- US3, US4, US5, US9, US10, US10B, US15, US15A, US19, US26, US26D

FASTENERS:
- Eight (8) #8 x 3/4" combo screws
- Eight (8) #8 x 1-1/2" combo screws

230W

Convex Wall Stop - Heavy Duty

Notes:

- Optional machine screw and toggle available. Order accessory 230T (10 pack only)
- Concealed tamper proof mounting

PRODUCT SPECIFICATIONS

CERTIFICATION:
- Meets ANSI A156.16 for L02101

DIAMETER:
- 2-15/32" (63 mm)

PROJECTION:
- 1-3/32" (28 mm)

MATERIALS:
- Cast brass, bronze with grey rubber bumper

FINISHES:
- US3, US4, US10, US10B, US15, US15A, US19, US26, US26D

FASTENER:
- One (1) #10 x 1-1/2" PPHWS with plastic and toggle anchor

242F
Dome Stop - Universal

Notes:

- For use with wood or concrete floors

PRODUCT SPECIFICATIONS

CERTIFICATIONS:
- Meets ANSI A156.16 for L02141

DIAMETER:
- 1-11/16" (43 mm)

BASE THICKNESS:
- 7/32" (6 mm)

OVERALL HEIGHT:
- 1 5/8" (41 mm)

MATERIAL:
- Brass with grey rubber bumper

FINISHES:
- US3, US4, US10B, US15, US26, US26D

FASTENERS:
- One (1) #14 x 1-1/2" FPHWS, one (1) 1/4-20 x 3/4" FPHMS, one (1) 1/4-20 lead anchor and one (1) plastic anchor

269F
Heavy Duty Floor Stop

Certifications:

- Designed for high vandalism areas
- Ideal for prisons where floor stops are required
- Grouted in concrete to eliminate exposed screws

PRODUCT SPECIFICATIONS

CERTIFICATIONS:
- Exceeds the criteria set forth for a 300 lb. impact test (Report #91-04-01646)

BUMPER HEIGHT:
- 1-1/2" (38 mm)

STEEL BOLT:
- 5/8" - 11 x 2-1/2" thread

MATERIAL:
- Black rubber (fire-resistant)

BUMPER DIAMETER:
- 2" (51 mm)

891S
Jamb Weatherstrip

Notes:

- MIL finish weatherstripping is supplied with zinc plated screws
- Color anodized weatherstripping is supplied with screws plated to match

PRODUCT SPECIFICATIONS

FINISHES:
- MIL, DBA, GLD

INSERTS:
- V=Vinyl
- N=Neoprene, EDPM or TPE
- S=Silicone

CATEGORY:
- H, J

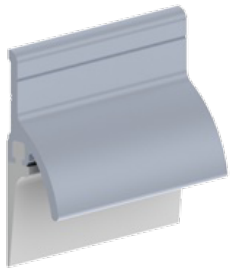
FASTENERS:
- #6 x 5/8" Pan head sheet metal screws furnished with mortise types.

SIZE:
- Height: 1/4" (6 mm) Strip length: 1/4" (6 mm)

EPD:
- Jamb Weatherstripping Environmental Product Declaration

NOTES:
- Air Infiltration/Energy Performance tested

770S
Door Bottom Sweeps



Notes:

- MIL finish weatherstripping is supplied with zinc plated screws
- Color anodized weatherstripping is supplied with screws plated to match
- Stainless steel weatherstripping is supplied with stainless steel screws

PRODUCT SPECIFICATIONS

FINISHES:
- MIL, DBA, GLD

INSERTS:
- B=Nylon Brush
- V=Vinyl

CATEGORY:
- J

FASTENERS:
- #6 x 5/8" Pan head sheet metal screws furnished with mortise types.

SIZE:
- Width: 19/32" (15 mm) Strip height: 7/8" (22 mm)

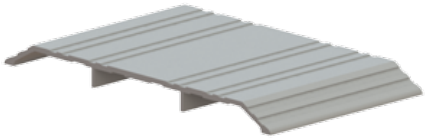
416S

7" Saddle Threshold

Saddle Thresholds

Add to My Jobs (AddJobsIframe.aspx?PID=291)

Print Specs (GeneratePdf.aspx?UseStandaloneProductIds=true&ProdJobIds=291)



(graphics/assets/images/thresholds-and-weatherstripping-416S.png) (Product-Details.aspx?PID=288) (Product-Details.aspx?PID=297)

Specs **Installation** **Related Files** **CAD**

Finishes: - MIL, DBA, GLD

Width: - 7" (177.8 mm)

Height: - 1/2" (12.7 mm)

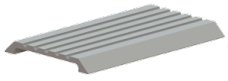
Options: - Available with Sure-Step non-slip abrasive coating

Fasteners: - #10 x 1-1/2" sheet metal screws, other screw types and anchors available upon request

Notes:
- MIL finish thresholds are supplied with zinc plated screws
- Color anodized thresholds are supplied with screws plated to match
- Stainless steel thresholds are supplied with stainless steel screws

BHMA CERTIFIED

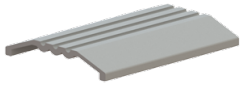
401S (Product-Details.aspx?PID=259)



2-1/2" Saddle Threshold

Saddle Thresholds

402S (Product-Details.aspx?PID=268)



3" Saddle Threshold

Saddle

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Locks (/Product.aspx?CatId=157)

Door Controls (/Product.aspx?CatId=158)

Exit Devices (/Product.aspx?CatId=159)

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Residential Hinges (/Product.aspx?CatId=151)

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Stainless Steel Continuous Hinges (/Product.aspx?CatId=153)

Trim & Auxiliary (/Product.aspx?CatId=154)

Thresholds & Weatherstripping (/Product.aspx?CatId=155)

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Warehouse Associate - Montgomery, AL (./Internal-Page.aspx?NavID=263)

Production Supervisor - Montgomery, AL (./Internal-Page.aspx?NavID=264)

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Supplier Quality Engineer -

Two Twelve Clayton (./Internal-Page.aspx?NavID=224)

University of Kentucky Academic Science Building (./Internal-Page.aspx?NavID=221)

Village Park Senior Living (./Internal-Page.aspx?NavID=222)

Washington University - Brauer Hall (./Internal-Page.aspx?NavID=92)

Montgomery, AL (./Internal-Page.aspx?NavID=268)

Maintenance Technician (./Internal-Page.aspx?NavID=271)

Manufacturing Engineer (./Internal-Page.aspx?NavID=272)

Director of Information Technology (./Internal-Page.aspx?NavID=273)

Groundskeeper (./Internal-Page.aspx?NavID=274)

Warehouse Associate - 3rd Shift - Montgomery, AL (./Internal-Page.aspx?NavID=275)

Raymond Swing Reach/Turret Truck Operator - 3rd Shift (./Internal-Page.aspx?NavID=276)

Marketing Updates (/media-marketing-news)

FAQs (/faqs)

Contact Us (/contact-us.aspx)

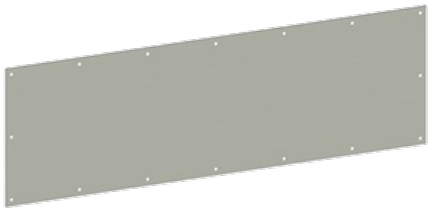
Quick Ship (/quickship.aspx)

(https://www.linkedin.com/company/hager-companies)

(https://www.youtube.com/channel/UCIPMKY9wVZEVTSEz/videos)

190S

Door Protection Plate
0.050" gauge with four beveled edges



NFPA Notes:

- NFPA 80 Standards
- 6.4.5 Protection Plates 6.4.5.1
- Factory installed protection plates shall be installed in accordance with the listing of the door. 6.4.5.2
- Field installed protection plates shall be labeled and installed in accordance with their listing. 6.4.5.3
- Labeling shall not be required where the top of the protection plate is not more than 16" (406mm) above the bottom of the door.
- Note: If needing the 190S with rounded corners, please order the 196R.

PRODUCT SPECIFICATIONS

GAUGE:
- 0.050" (1 mm)

MATERIALS:
- Aluminum, Brass, Bronze, Stainless Steel

FINISHES:
- US3, US4, US10, US10B, DBZ, US28, US32, US32D

BEVEL:
- 4 edges

ORDER:
- Furnish item #, height, width, and finish (i.e., 190S – 6" x 30", US32D).
- Plates are sized on even inches. Odd size available and priced to next larger size.
- May be ordered with countersunk holes (specify "CSK") at extra charge.

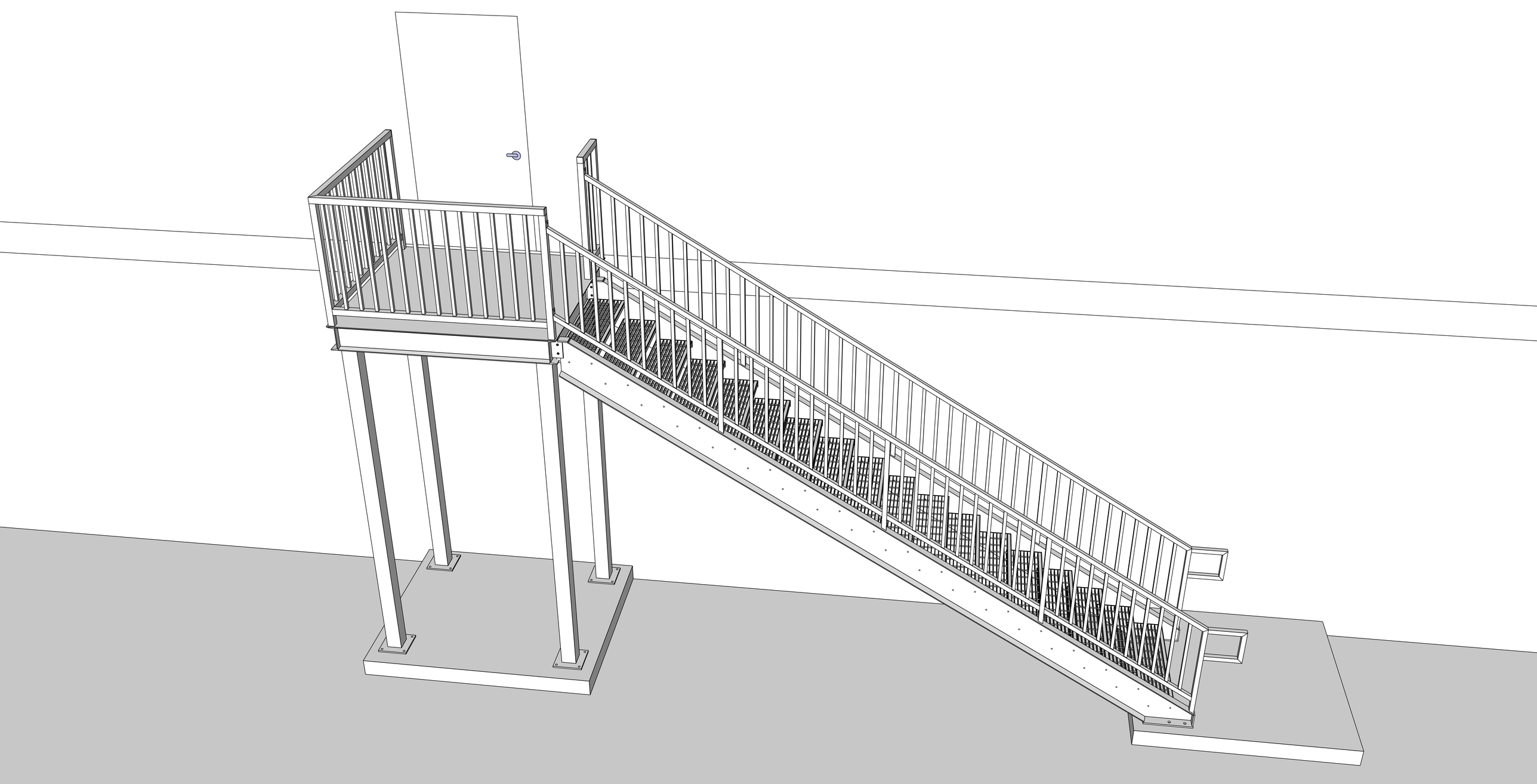
OPTIONS:
- UL listed for US32 and US32D with screw fasteners (must specify UL stamp)
- Self-adhesive tape available on all plates
- Spanner head screws
- Torx head screws
- Round corners - specify 196R
- Wrap around side and bottom return
- 0.125" material

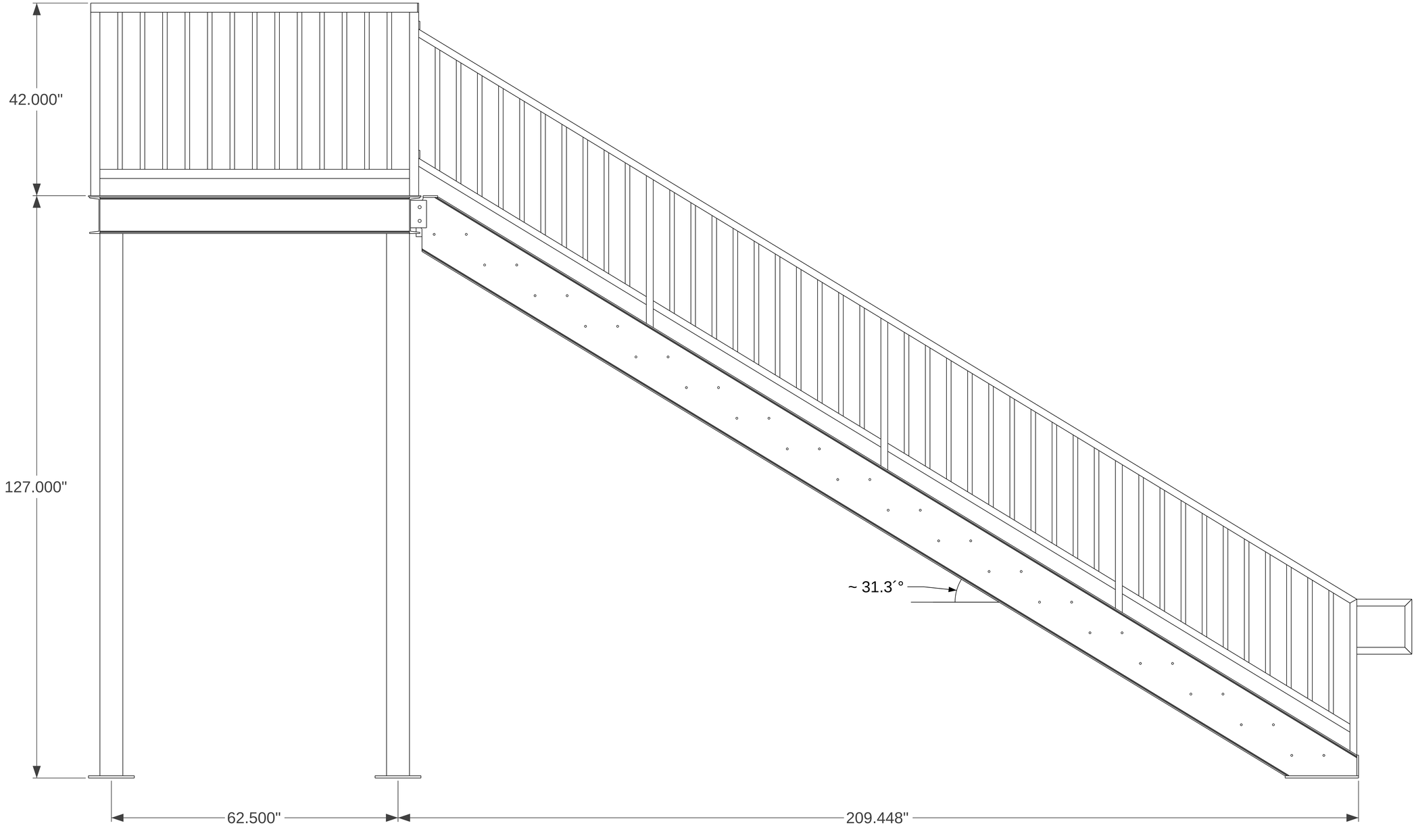
CERTIFICATION:
- Meets ANSI A156.6 for J101 Metal Armor Plate, J102 Metal Kickplate, and J103 Metal Mop Plate

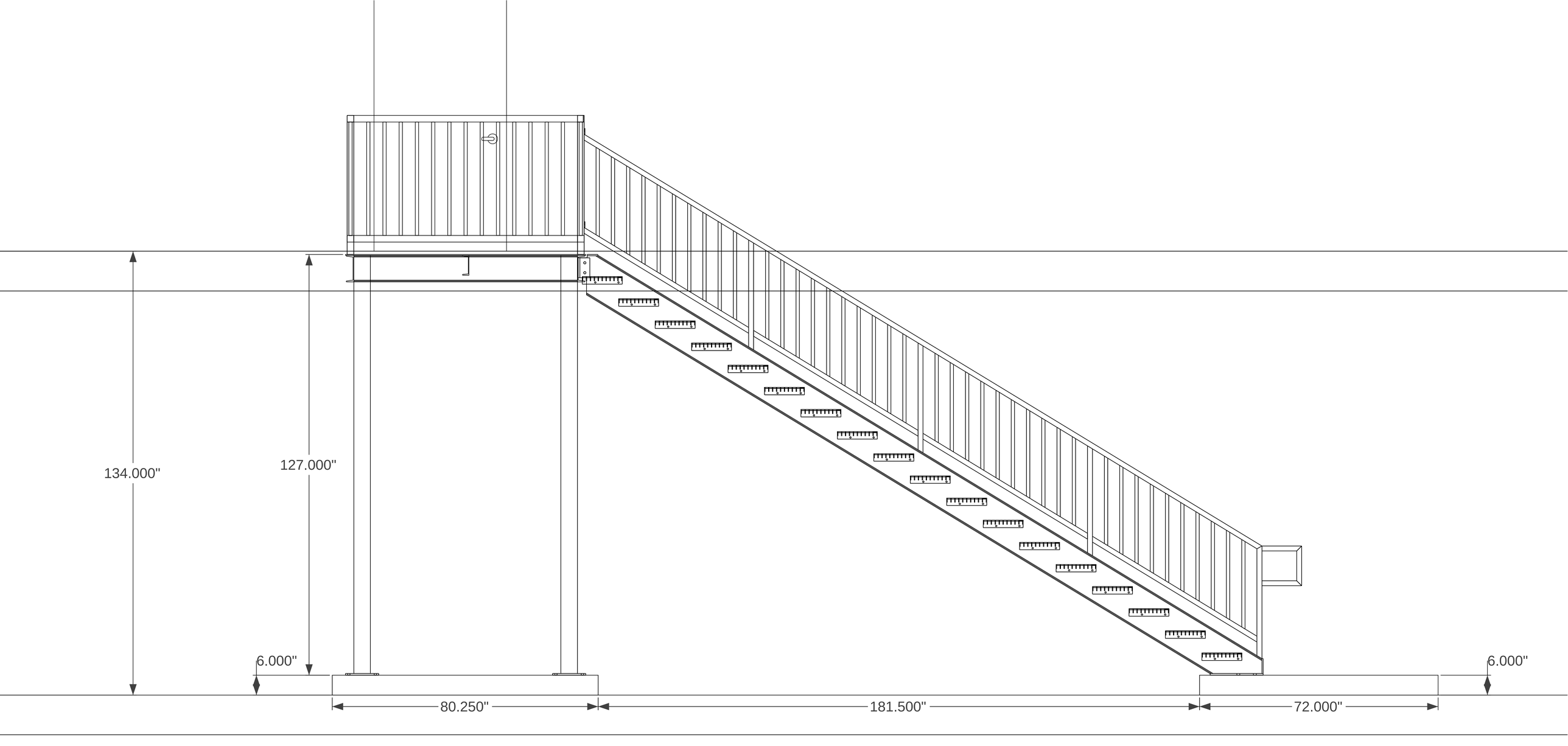
EPD:
- Door Protection Plates Environmental Product Declaration

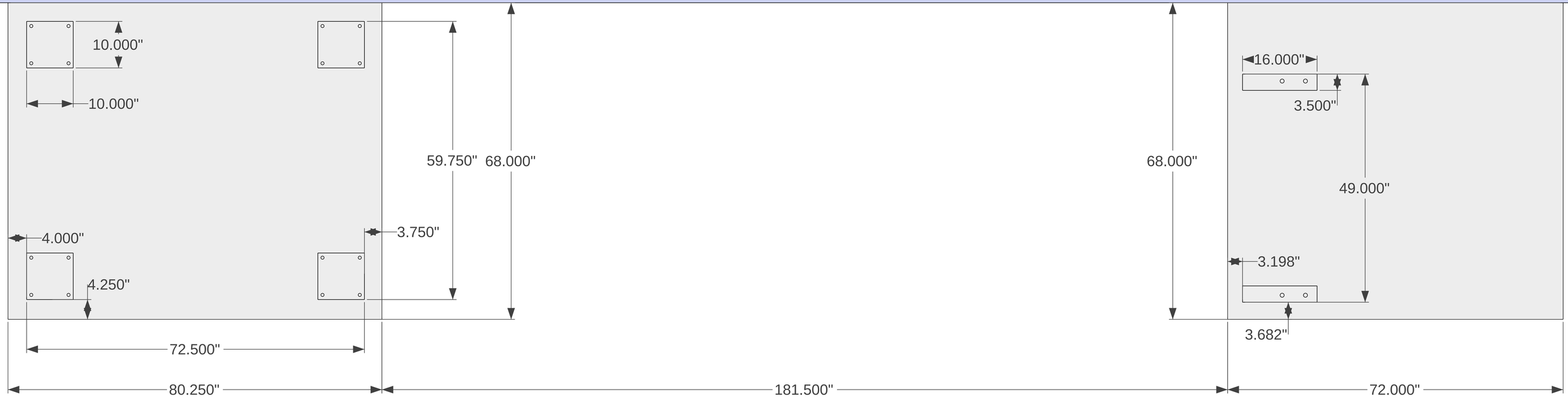
PRODUCT SIZE OPTIONS

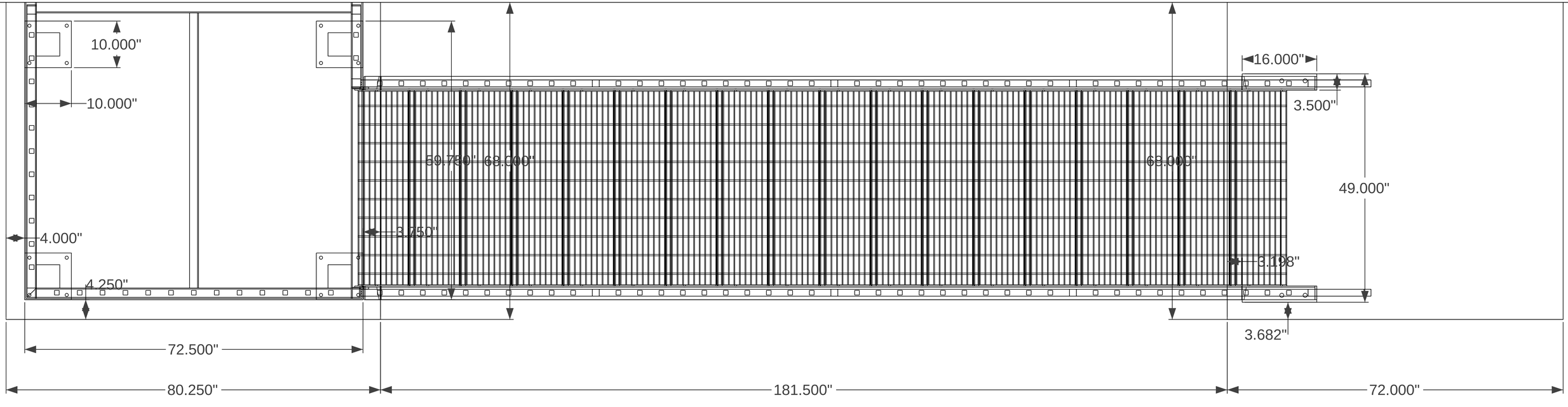
ITEM #	B&S GAUGE	US GAUGE	BEVEL	FASTENERS	QUANTITY BAG	QUANTITY CASE
190S	16	18	B4E	#6 x 5/8 truss head screws	1 each	- - -
196R	16	18	none	#6 x 5/8 truss head screws	1 each	- - -
198S	- - -	20	none	#6 x 5/8 truss head screws	1 each	- - -
199B	- - -	20	none	#6 x 5/8 truss head screws	1 each	- - -
220S	14	16	B4E	#6 x 5/8 truss head screws	1 each	- - -

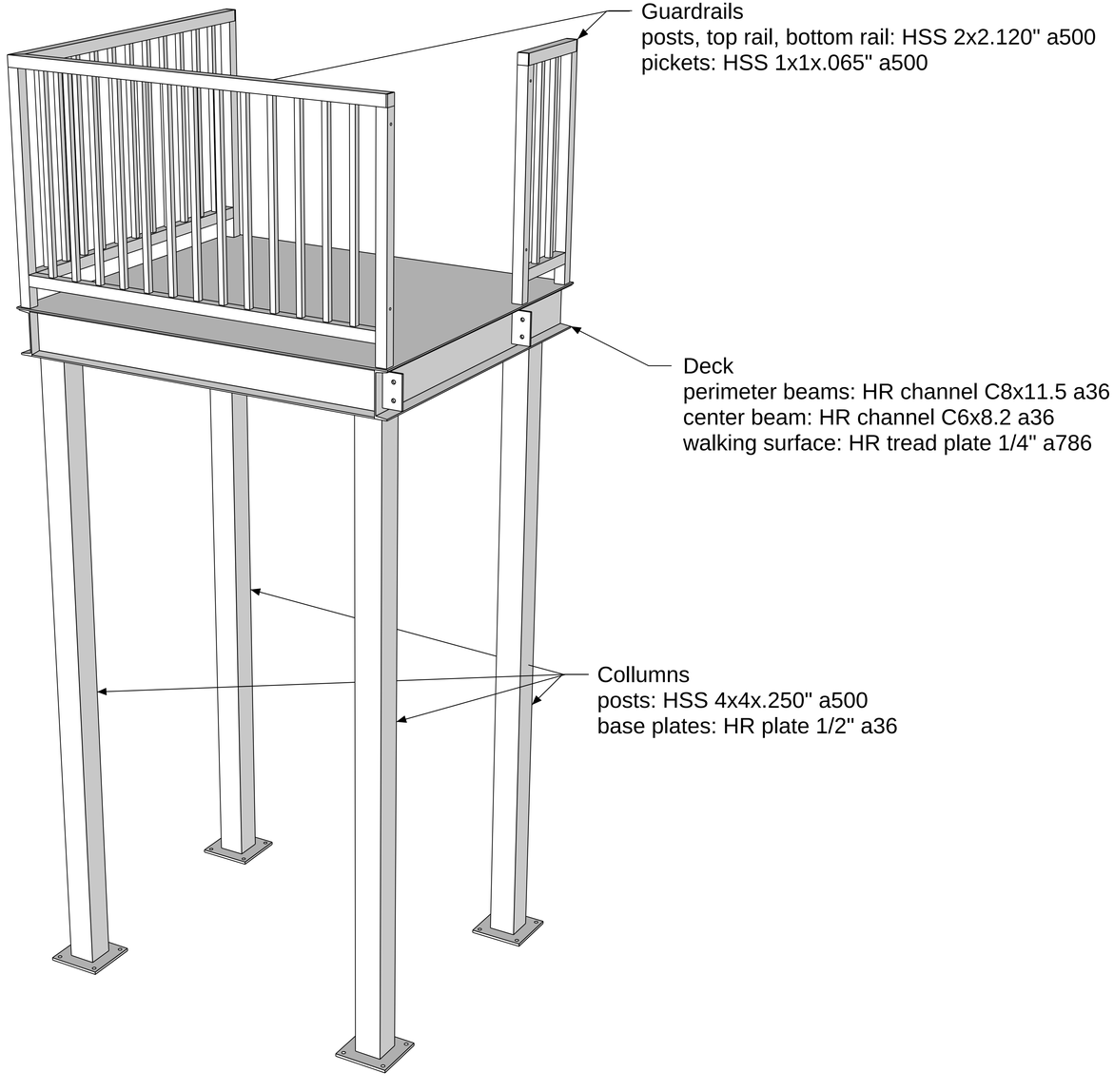


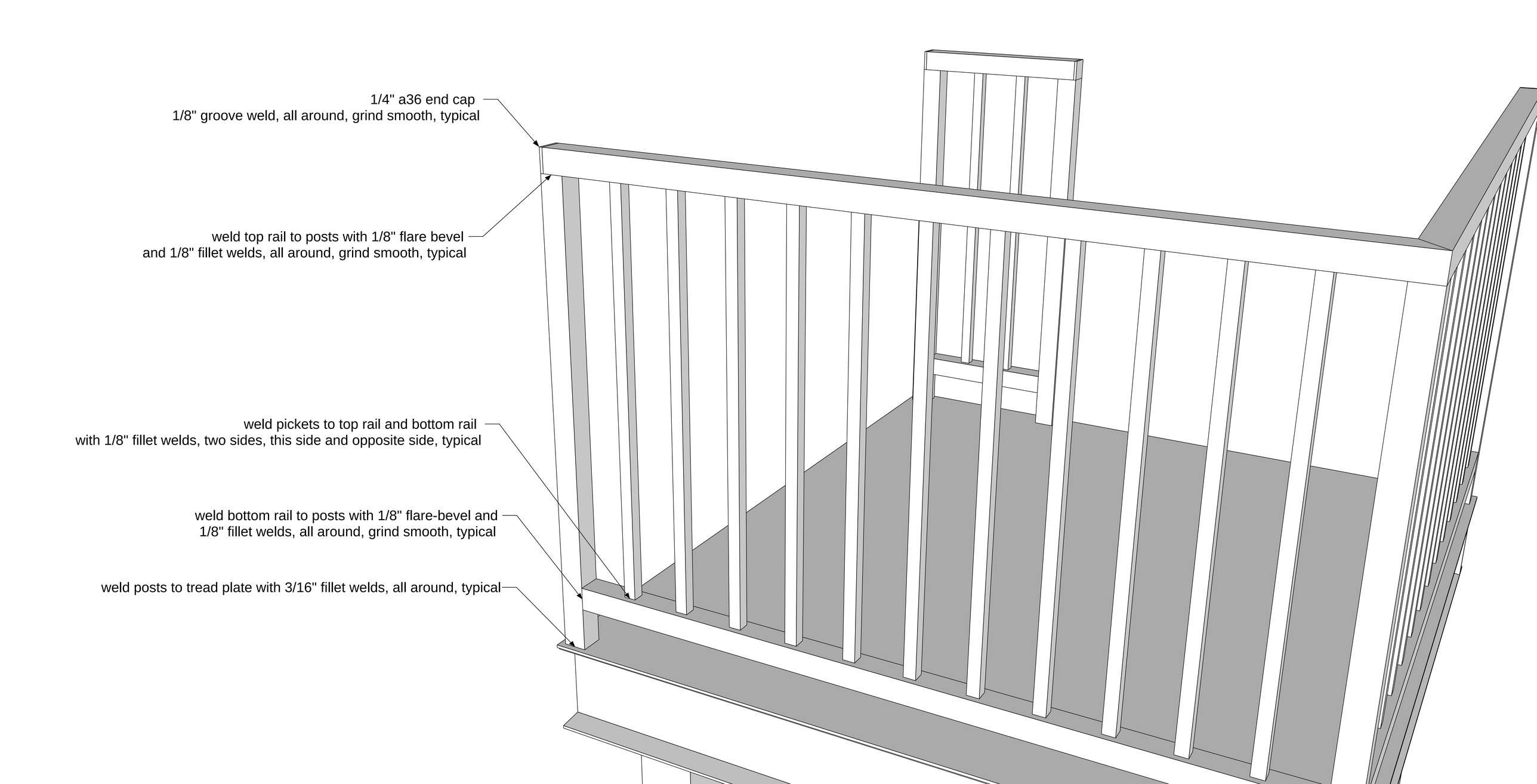

42.000"
127.000"
~ 31.3´°
62.500"
209.448"

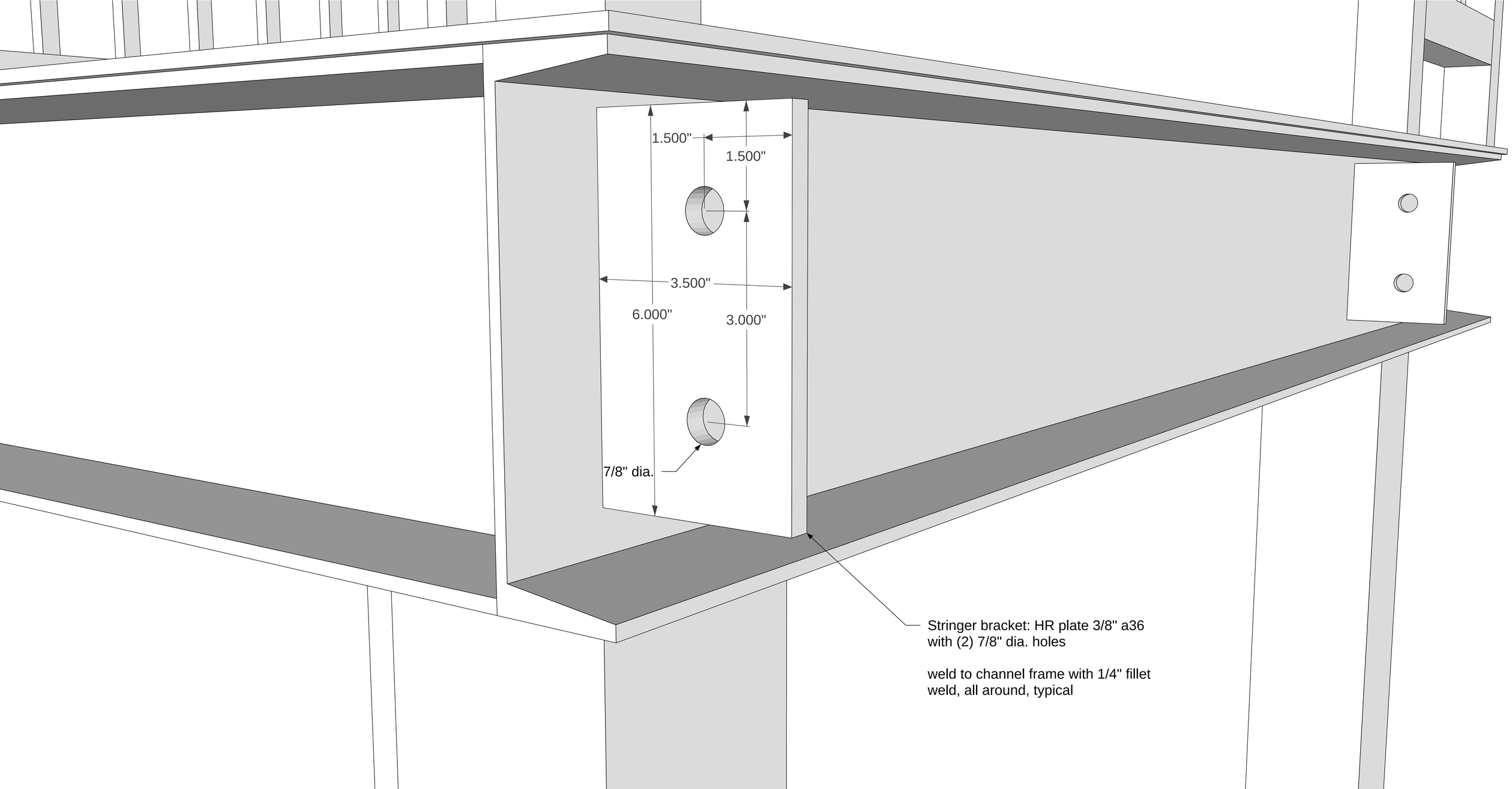

134.000"
127.000"
6.000"
6.000"
80.250"
181.500"
72.000"

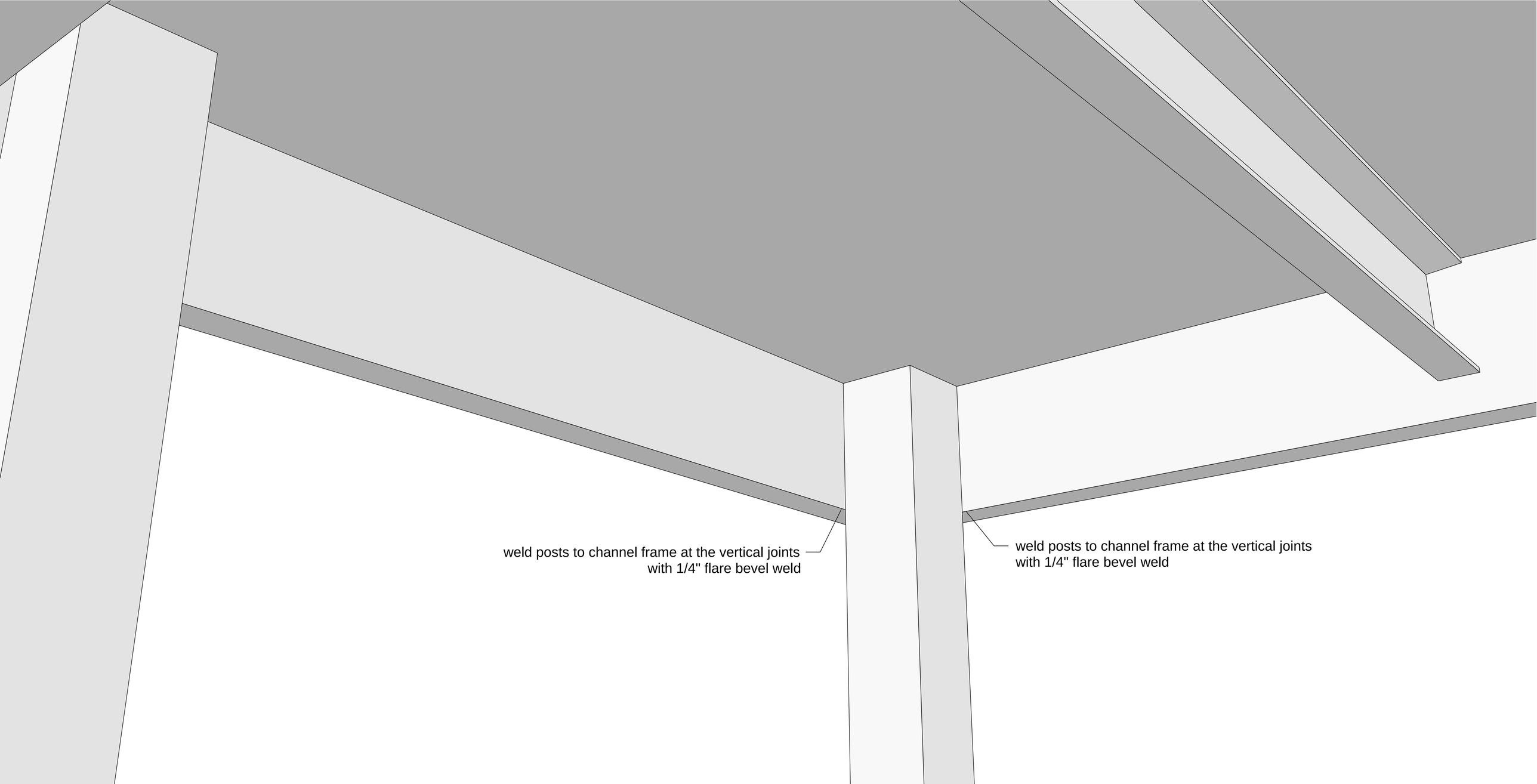

10.000"
10.000"
59.750"
68.000"
4.000"
3.750"
4.250"
72.500"
80.250"
68.000"
16.000"
3.500"
49.000"
3.198"
3.682"
181.500"
72.000"

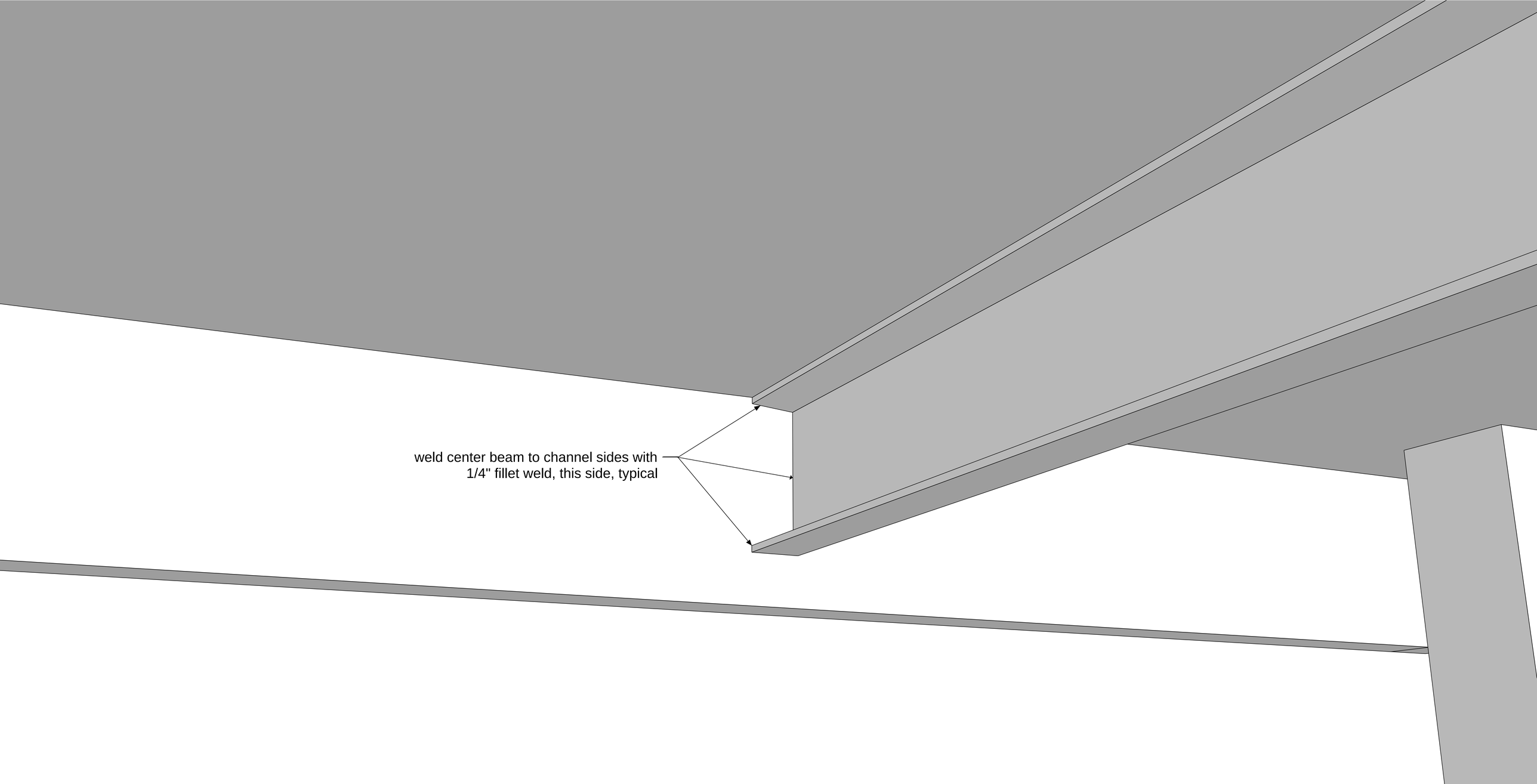

10.000"
10.000"
4.000"
4.250"
72.500"
80.250"
59.750"
68.000"
3.750"
68.000"
16.000"
3.500"
49.000"
3.198"
3.682"
181.500"
72.000"

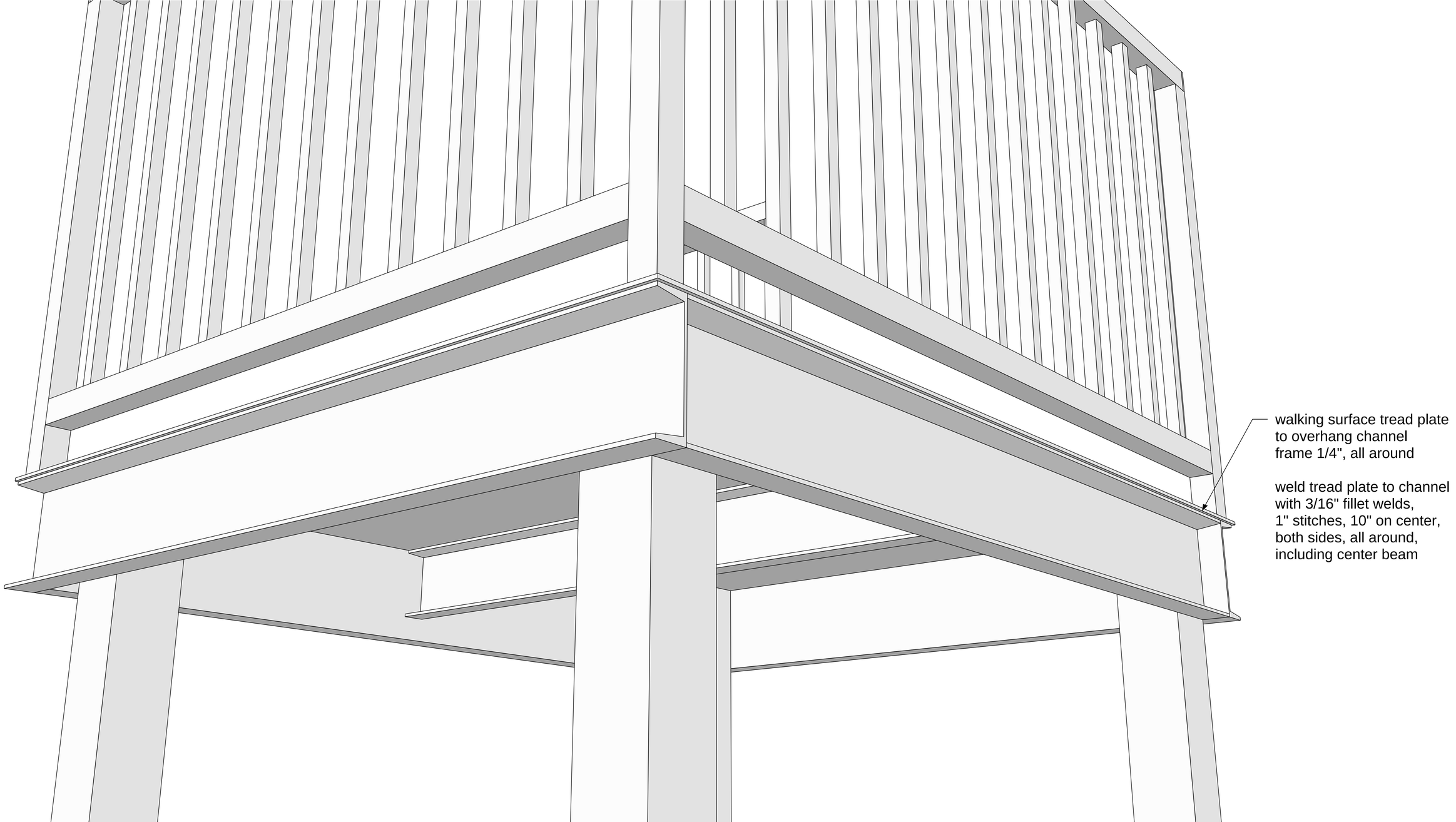

Guardrails
posts, top rail, bottom rail: HSS 2x2.120" a500
pickets: HSS 1x1x.065" a500
Deck
perimeter beams: HR channel C8x11.5 a36
center beam: HR channel C6x8.2 a36
walking surface: HR tread plate 1/4" a786
Collumns
posts: HSS 4x4x.250" a500
base plates: HR plate 1/2" a36

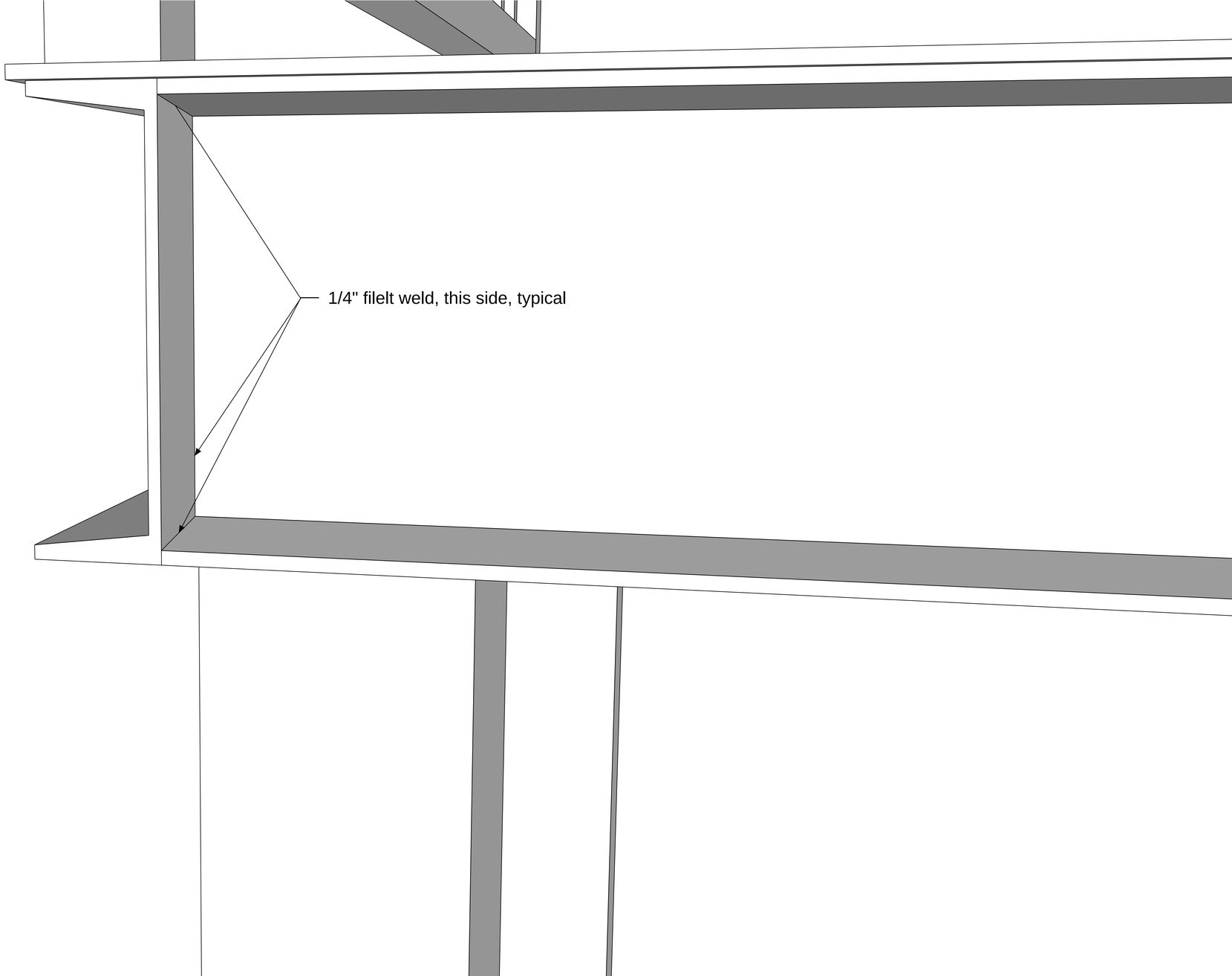

1/4" a36 end cap
1/8" groove weld, all around, grind smooth, typical
weld top rail to posts with 1/8" flare bevel
and 1/8" fillet welds, all around, grind smooth, typical
weld pickets to top rail and bottom rail
with 1/8" fillet welds, two sides, this side and opposite side, typical
weld bottom rail to posts with 1/8" flare-bevel and
1/8" fillet welds, all around, grind smooth, typical
weld posts to tread plate with 3/16" fillet welds, all around, typical

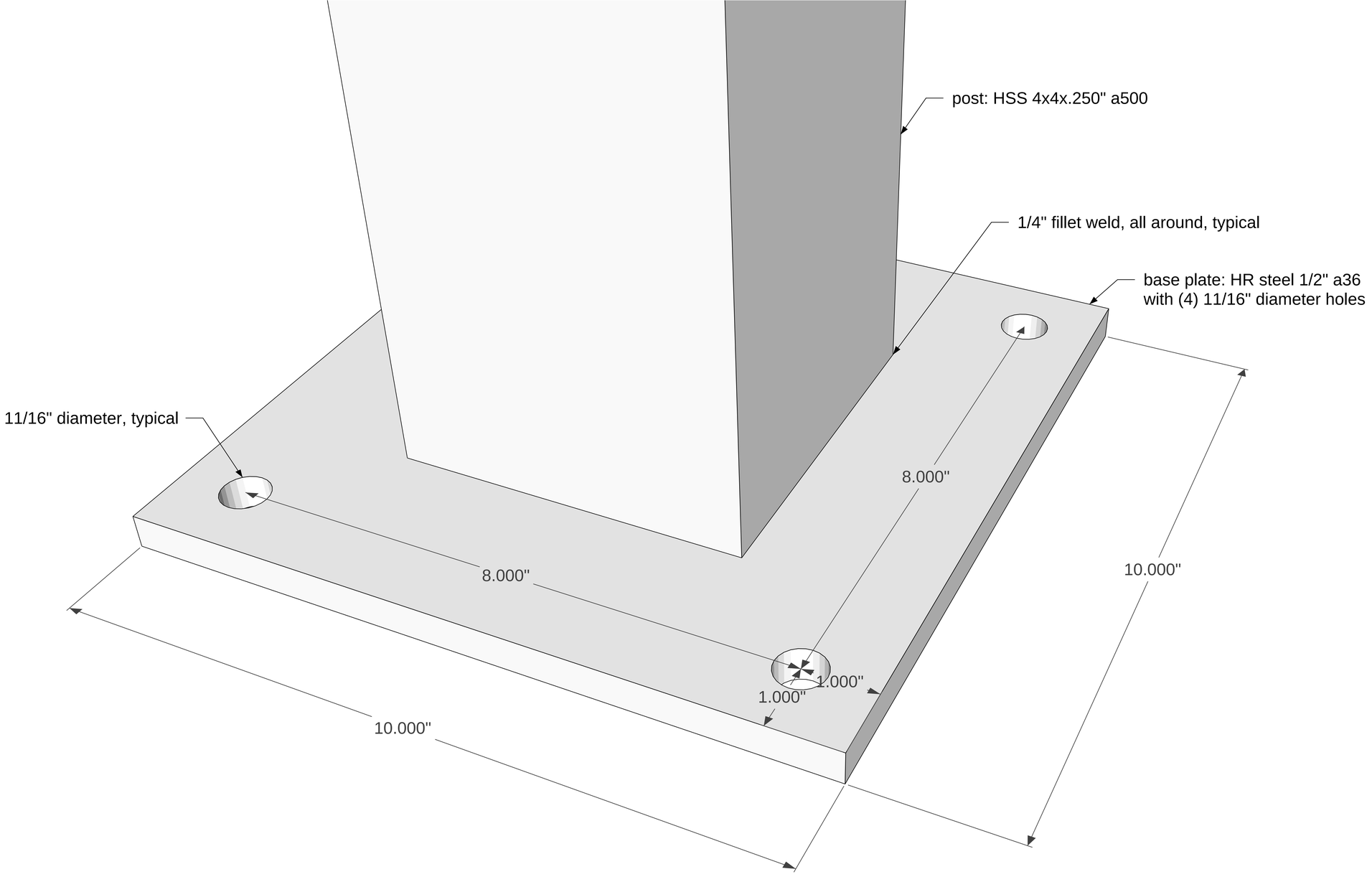

1.500"
1.500"
3.500"
6.000"
3.000"
7/8" dia.
Stringer bracket: HR plate 3/8" a36
with (2) 7/8" dia. holes
weld to channel frame with 1/4" fillet
weld, all around, typical

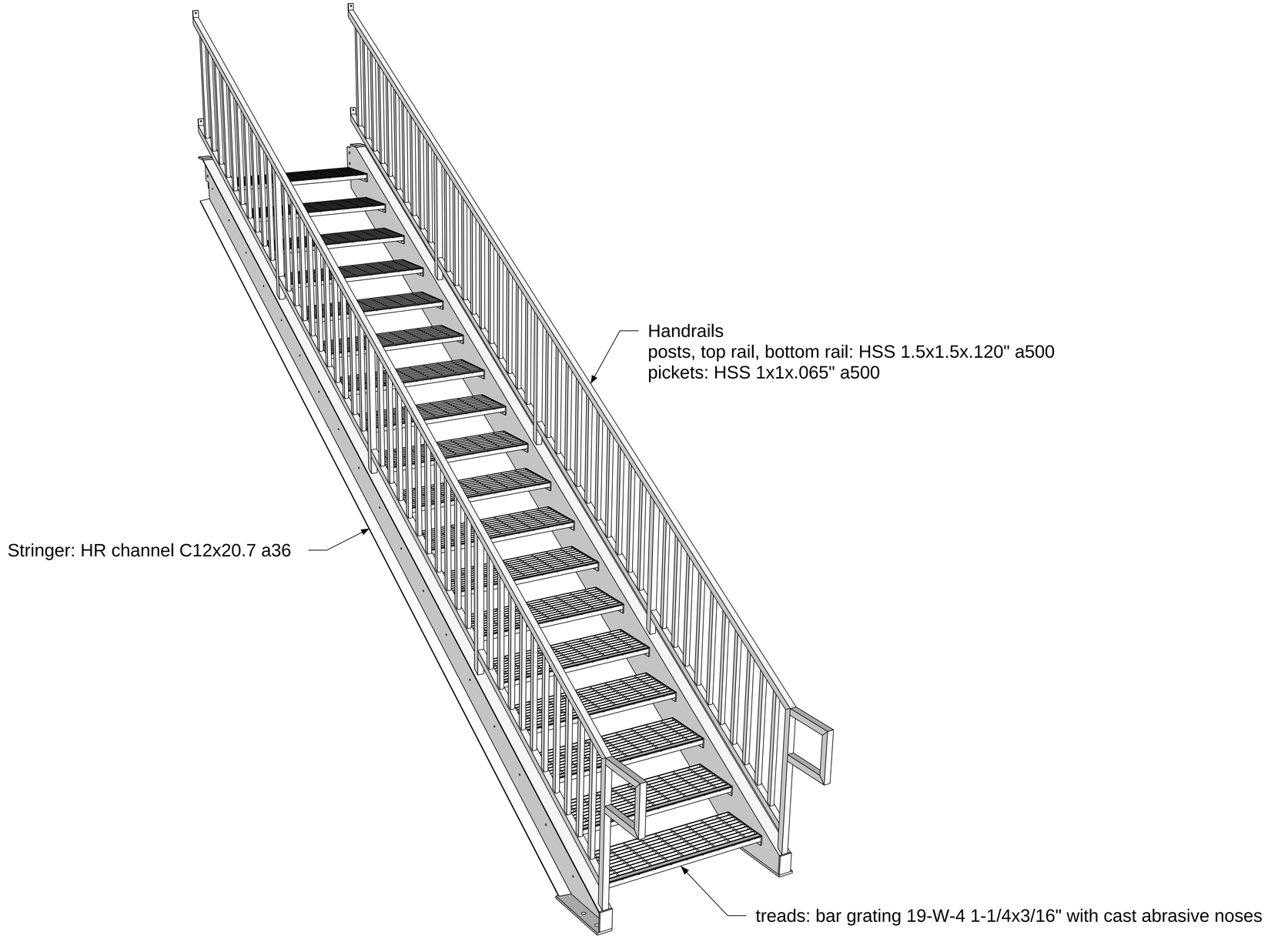

weld posts to channel frame at the vertical joints
with 1/4" flare bevel weld
weld posts to channel frame at the vertical joints
with 1/4" flare bevel weld

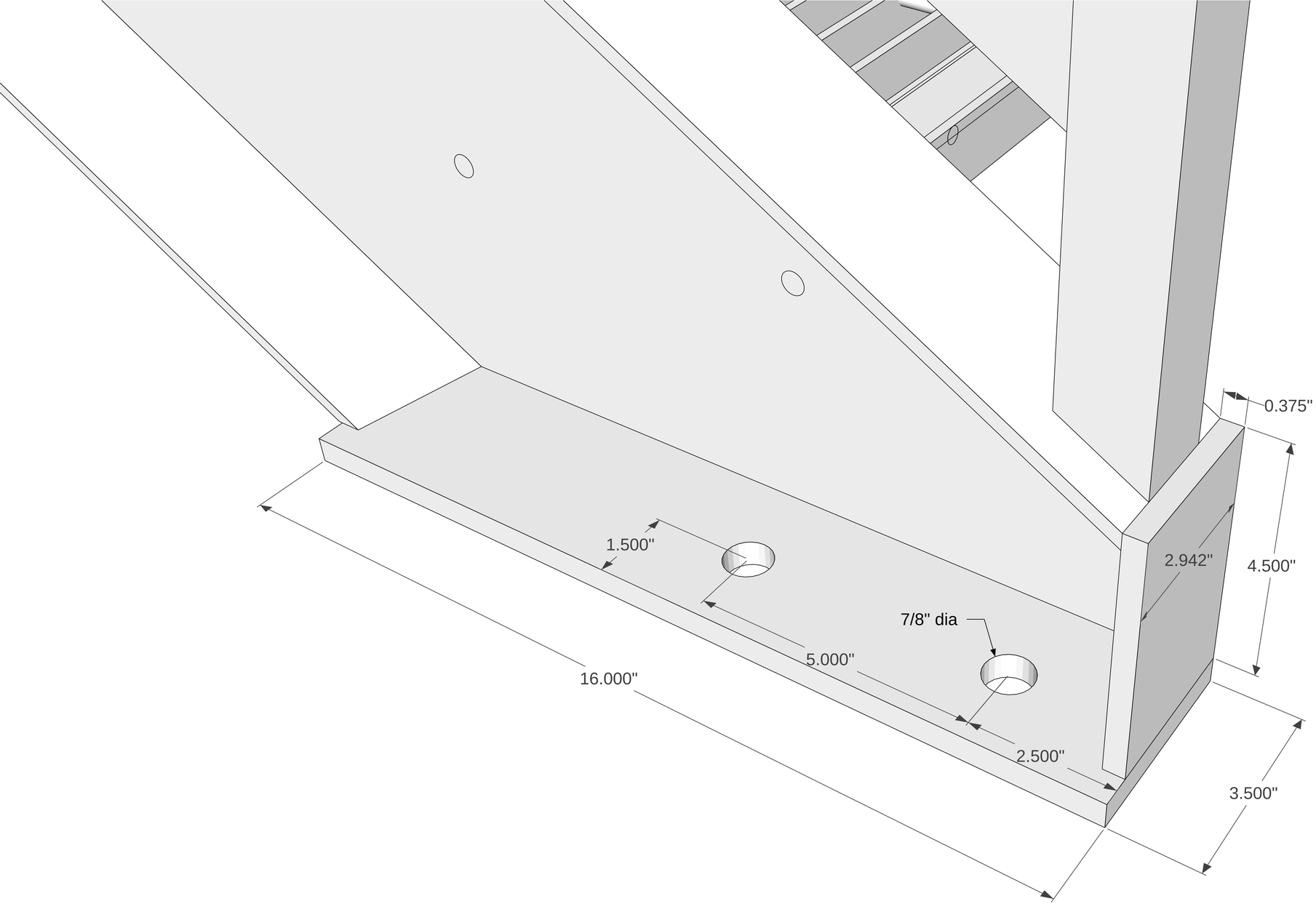

weld center beam to channel sides with
1/4" fillet weld, this side, typical

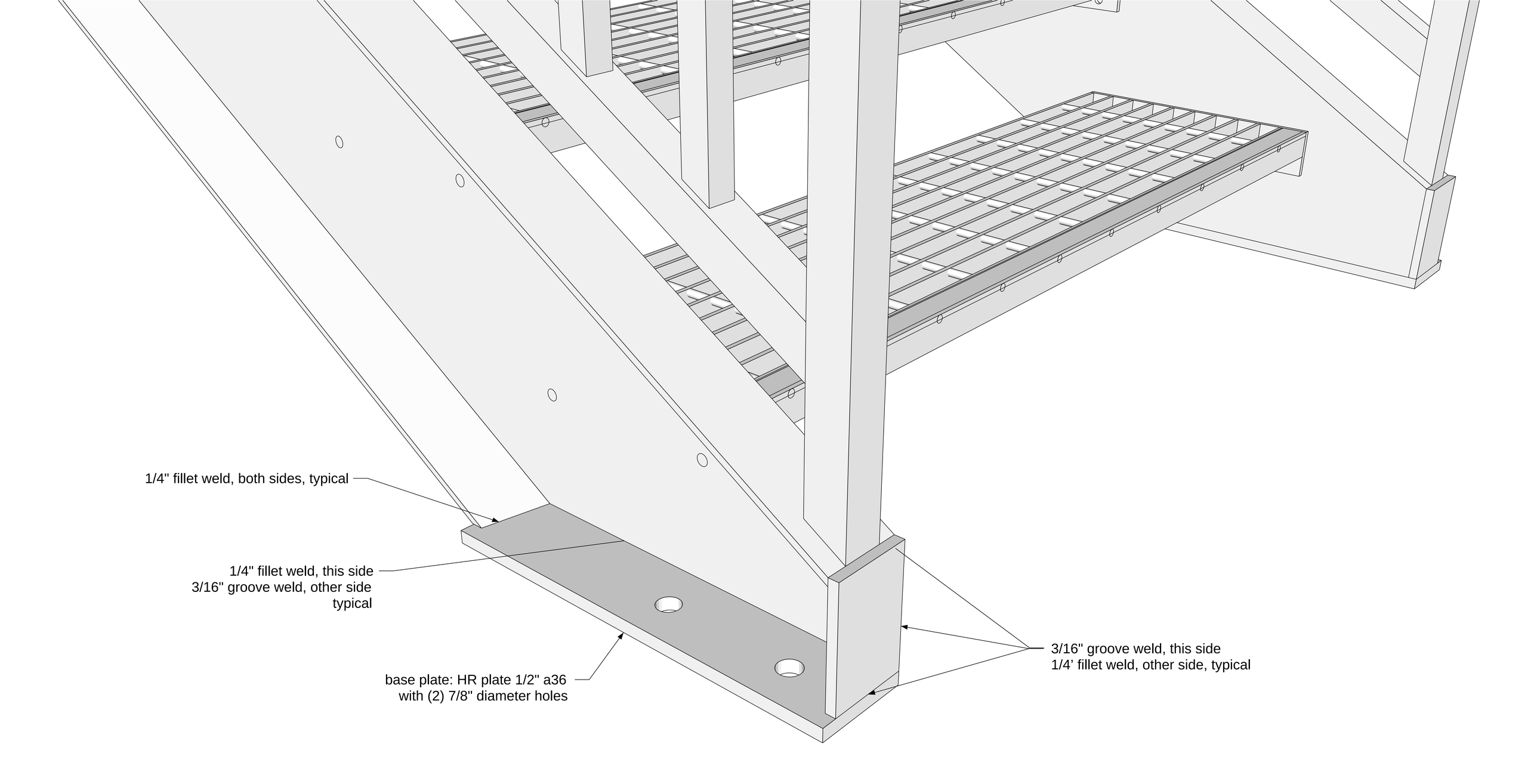

walking surface tread plate
to overhang channel
frame 1/4", all around
weld tread plate to channel
with 3/16" fillet welds,
1" stitches, 10" on center,
both sides, all around,
including center beam

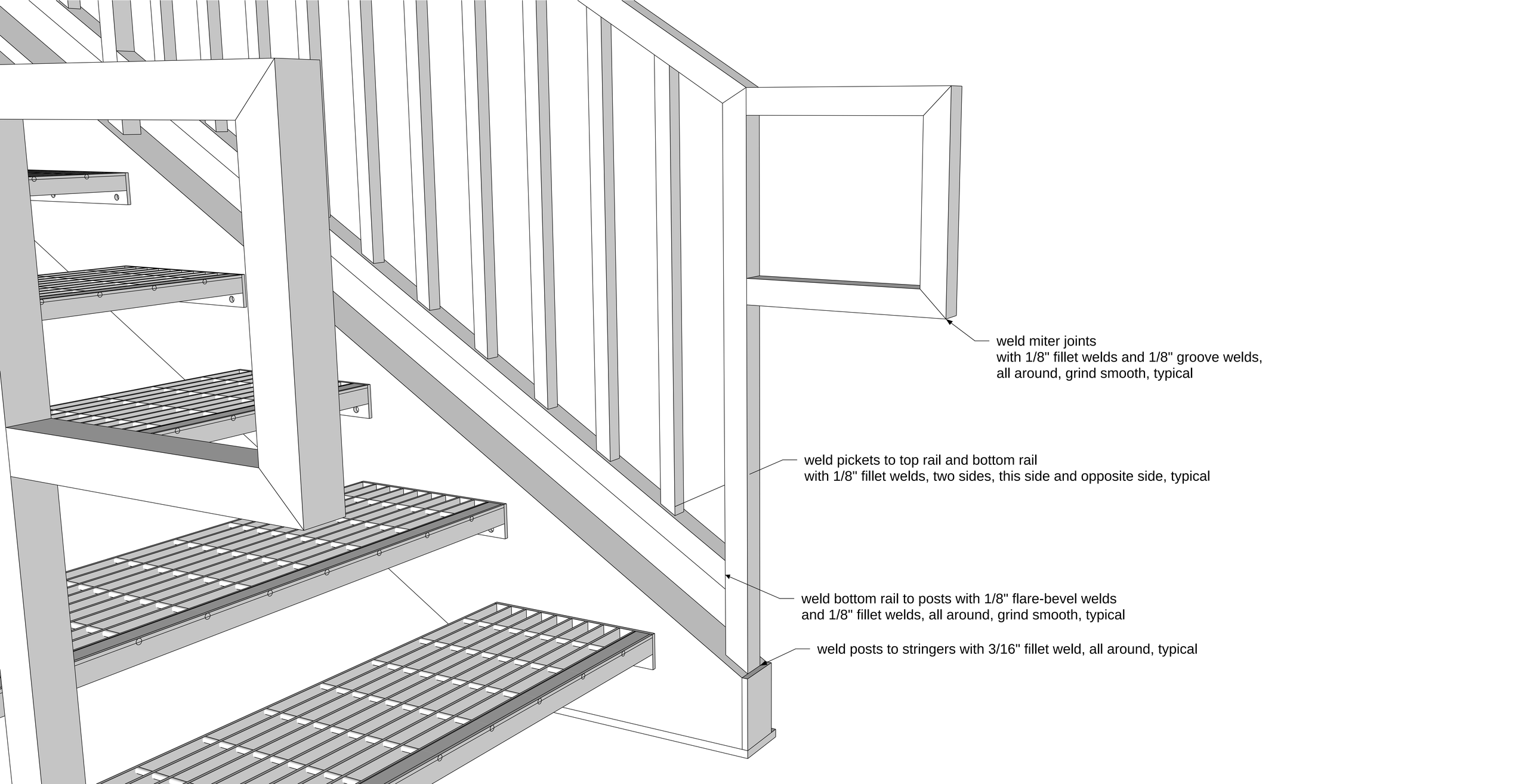

1/4" filelt weld, this side, typical

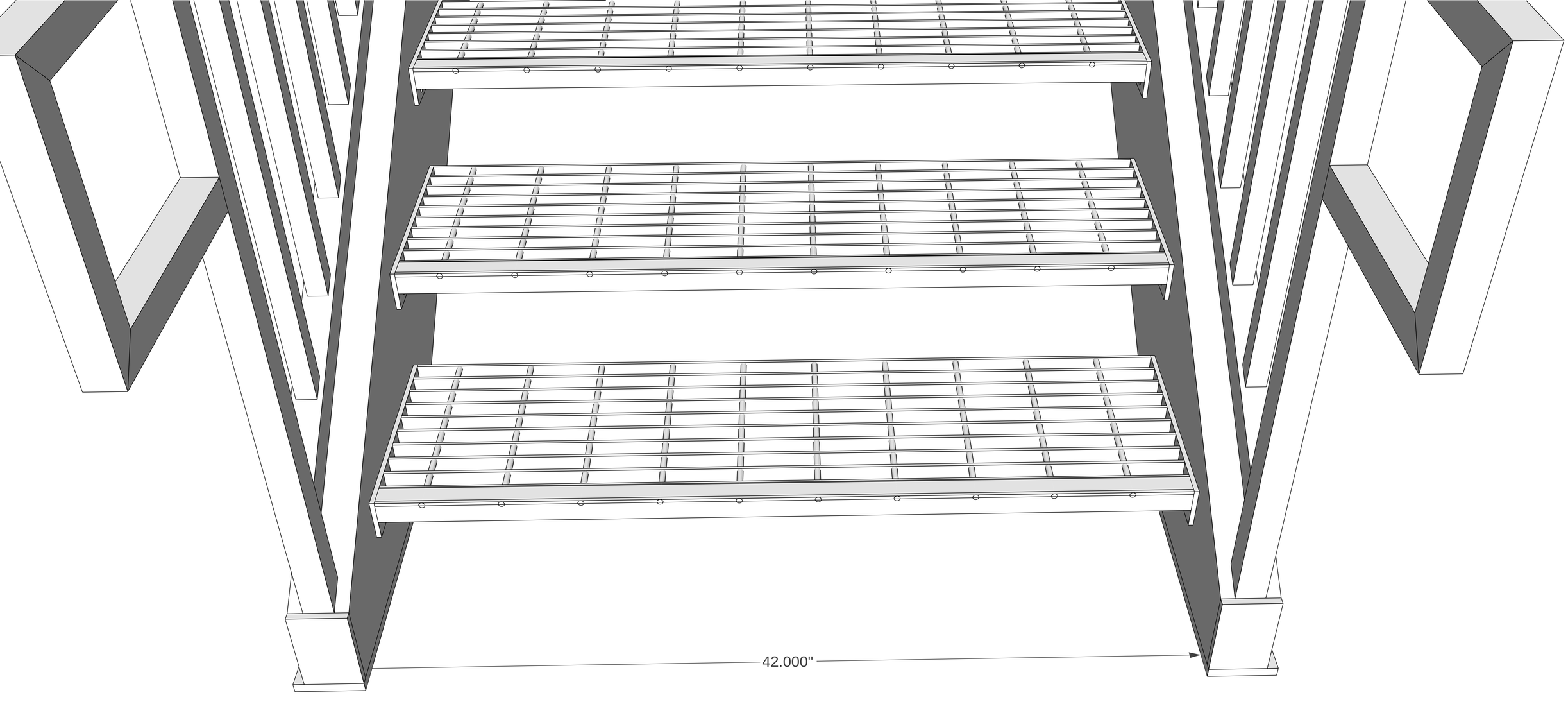

post: HSS 4x4x.250" a500
1/4" fillet weld, all around, typical
base plate: HR steel 1/2" a36
with (4) 11/16" diameter holes
11/16" diameter, typical
8.000"
8.000"
10.000"
1.000"
1.000"
10.000"

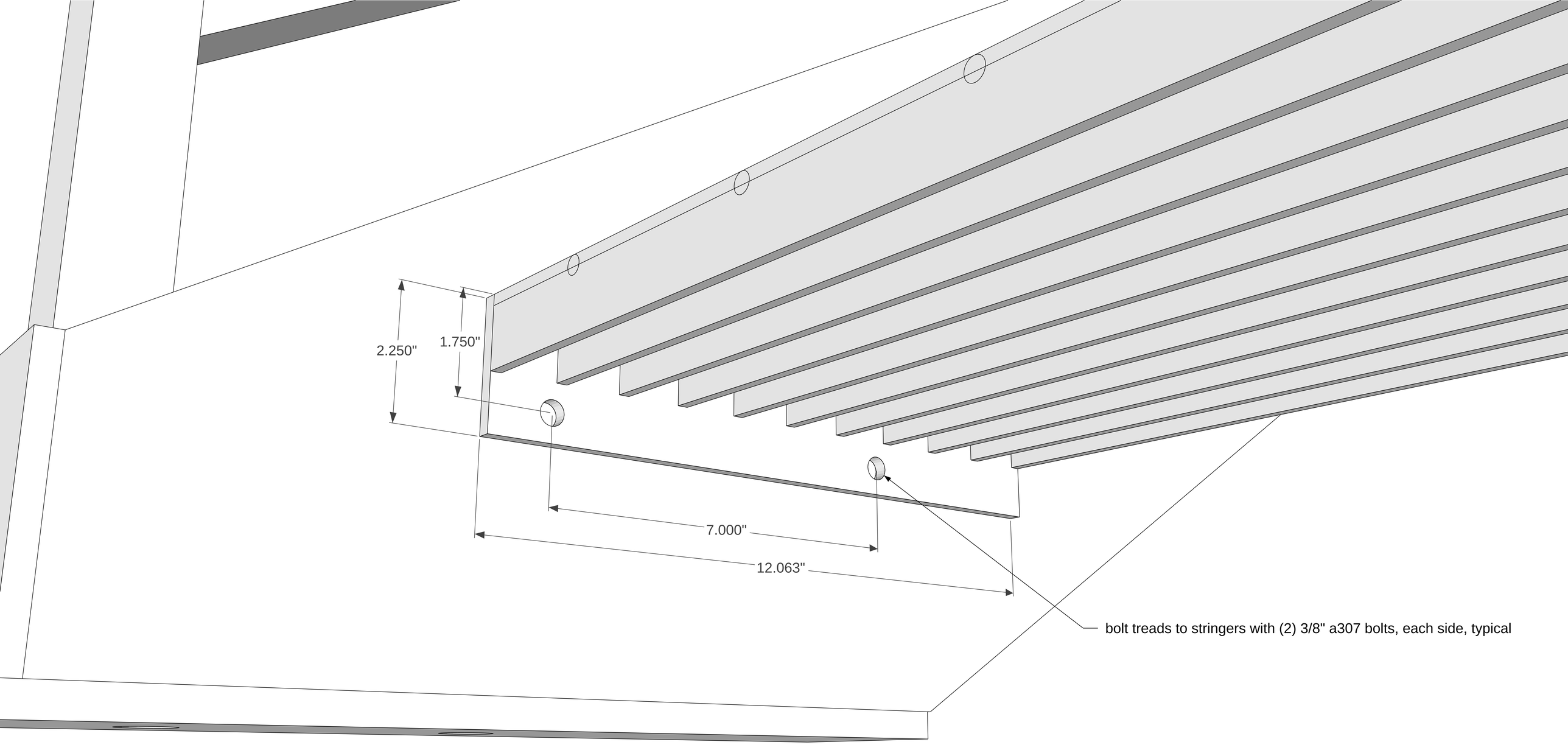

Handrails
posts, top rail, bottom rail: HSS 1.5x1.5x.120" a500
pickets: HSS 1x1x.065" a500
Stringer: HR channel C12x20.7 a36
treads: bar grating 19-W-4 1-1/4x3/16" with cast abrasive noses

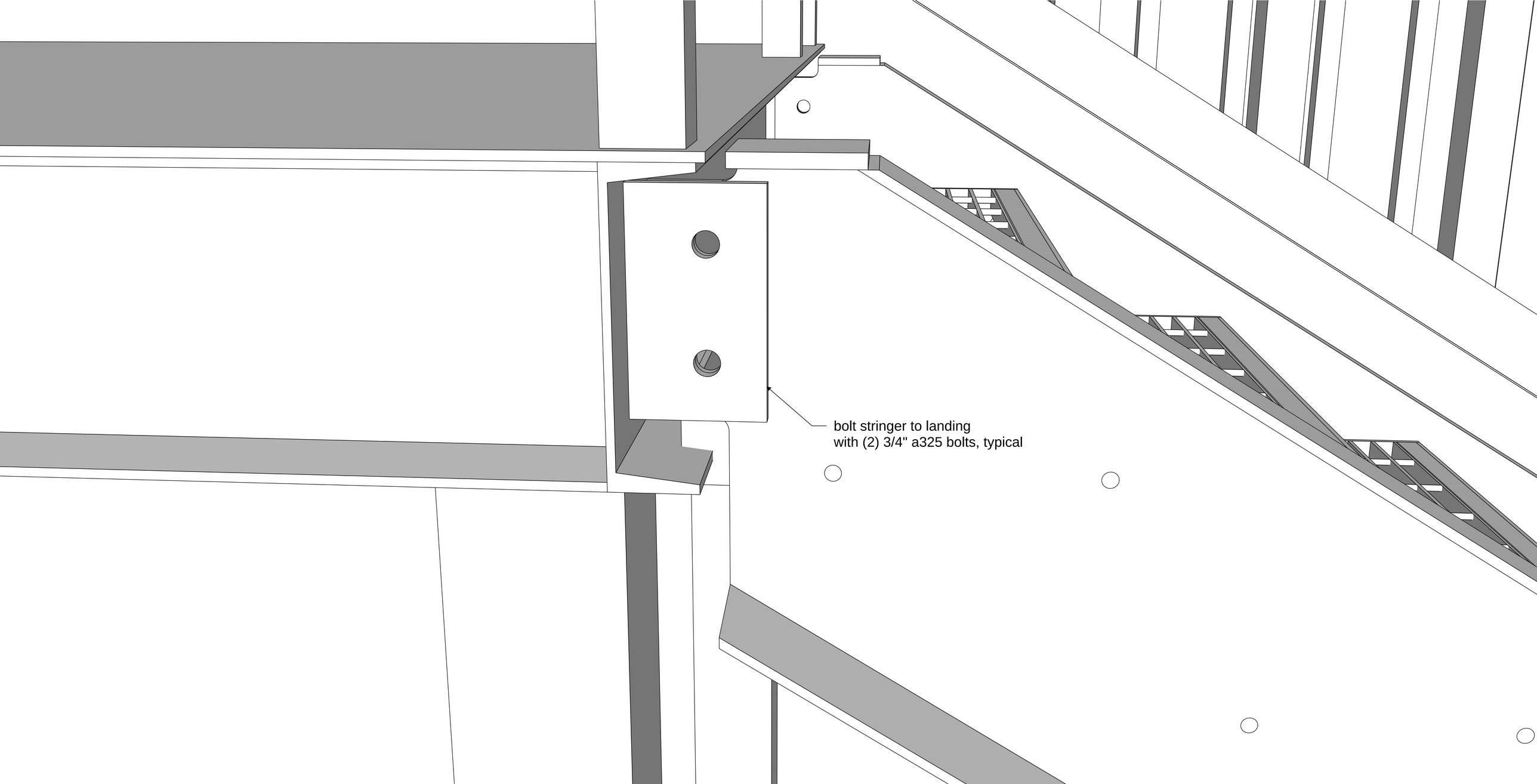

0.375"
4.500"
2.942"
1.500"
7/8" dia
5.000"
16.000"
2.500"
3.500"

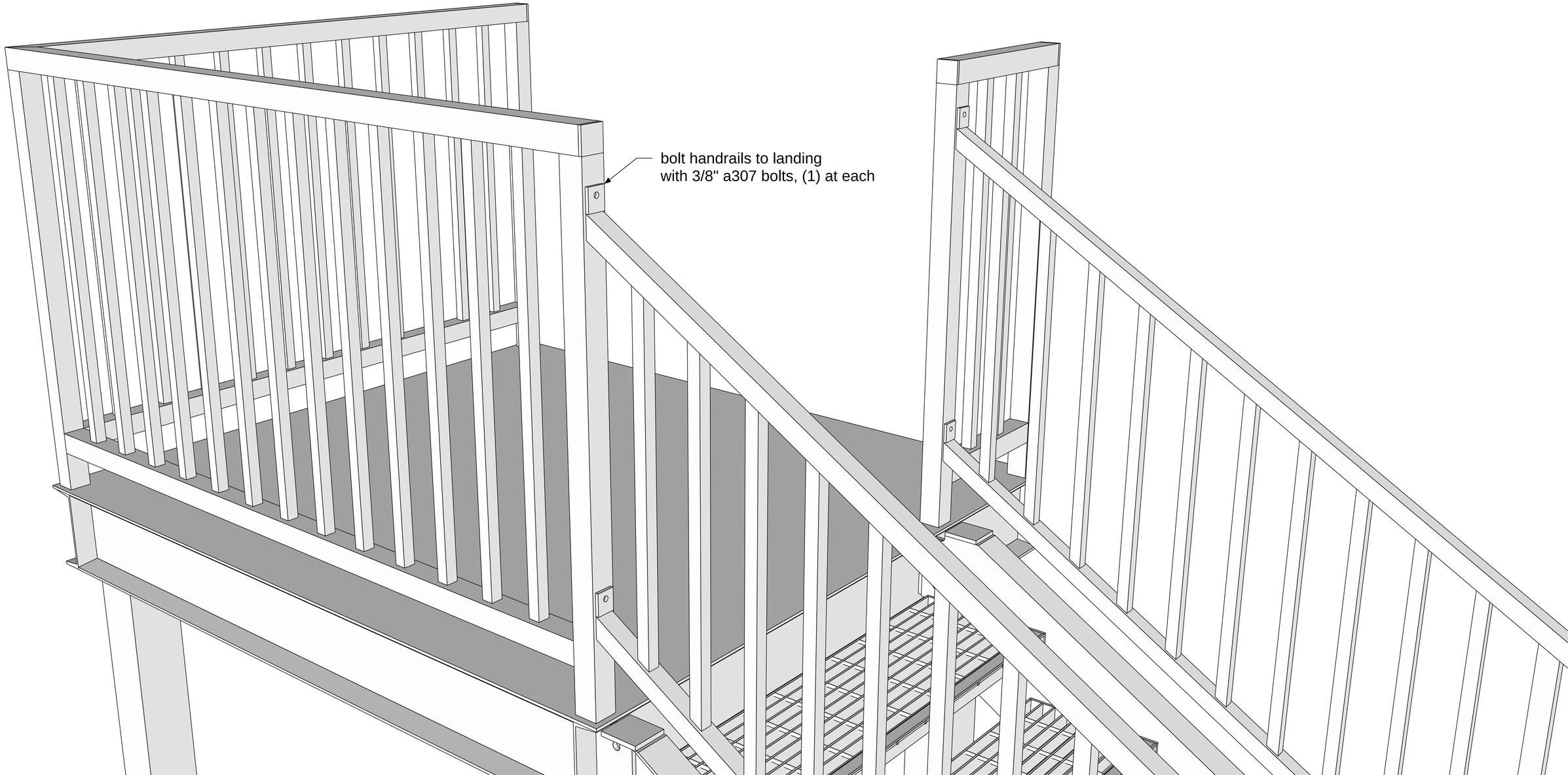

1/4" fillet weld, both sides, typical
1/4" fillet weld, this side
3/16" groove weld, other side
typical
base plate: HR plate 1/2" a36
with (2) 7/8" diameter holes
3/16" groove weld, this side
1/4’ fillet weld, other side, typical

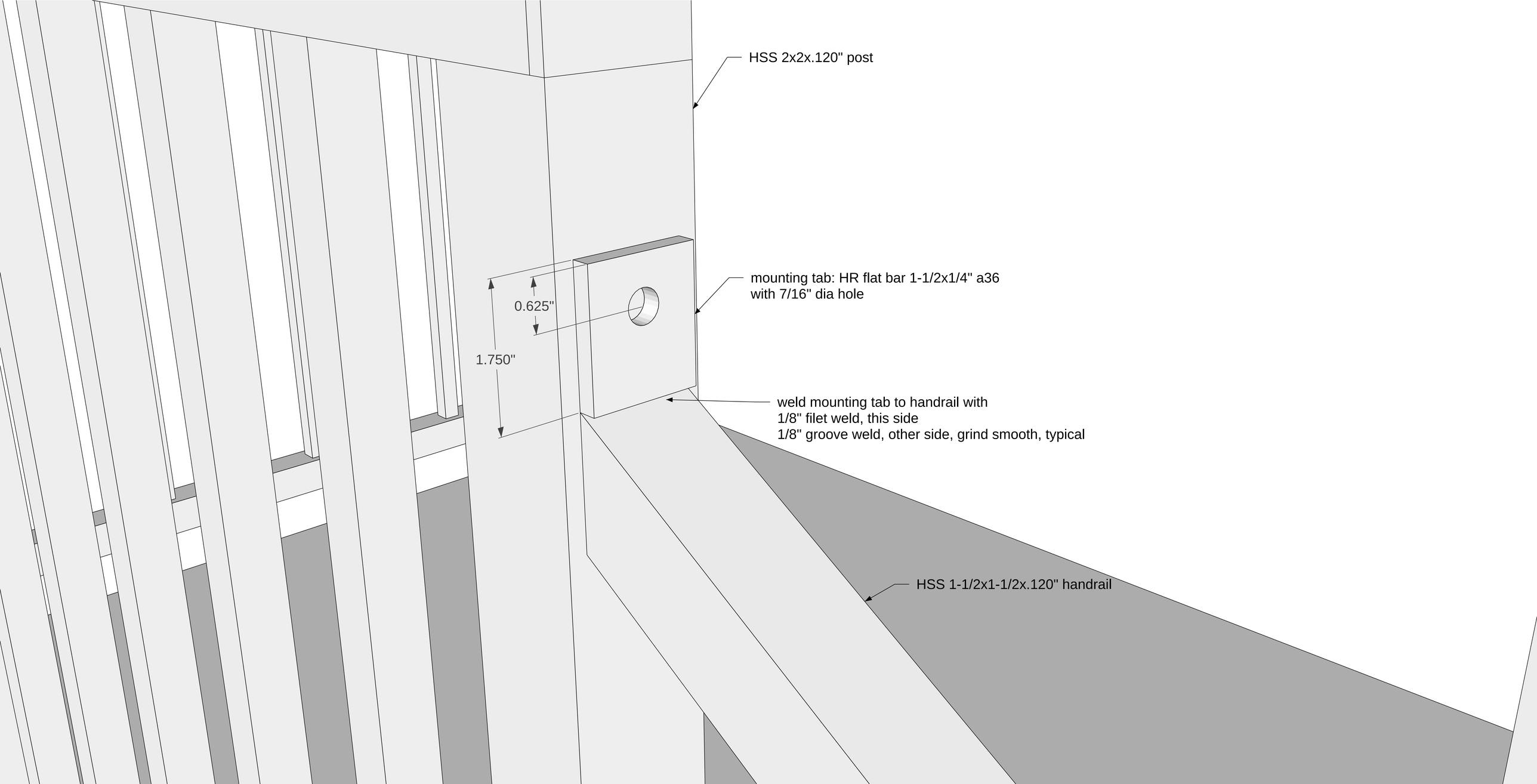

weld miter joints
with 1/8" fillet welds and 1/8" groove welds,
all around, grind smooth, typical
weld pickets to top rail and bottom rail
with 1/8" fillet welds, two sides, this side and opposite side, typical
weld bottom rail to posts with 1/8" flare-bevel welds
and 1/8" fillet welds, all around, grind smooth, typical
weld posts to stringers with 3/16" fillet weld, all around, typical

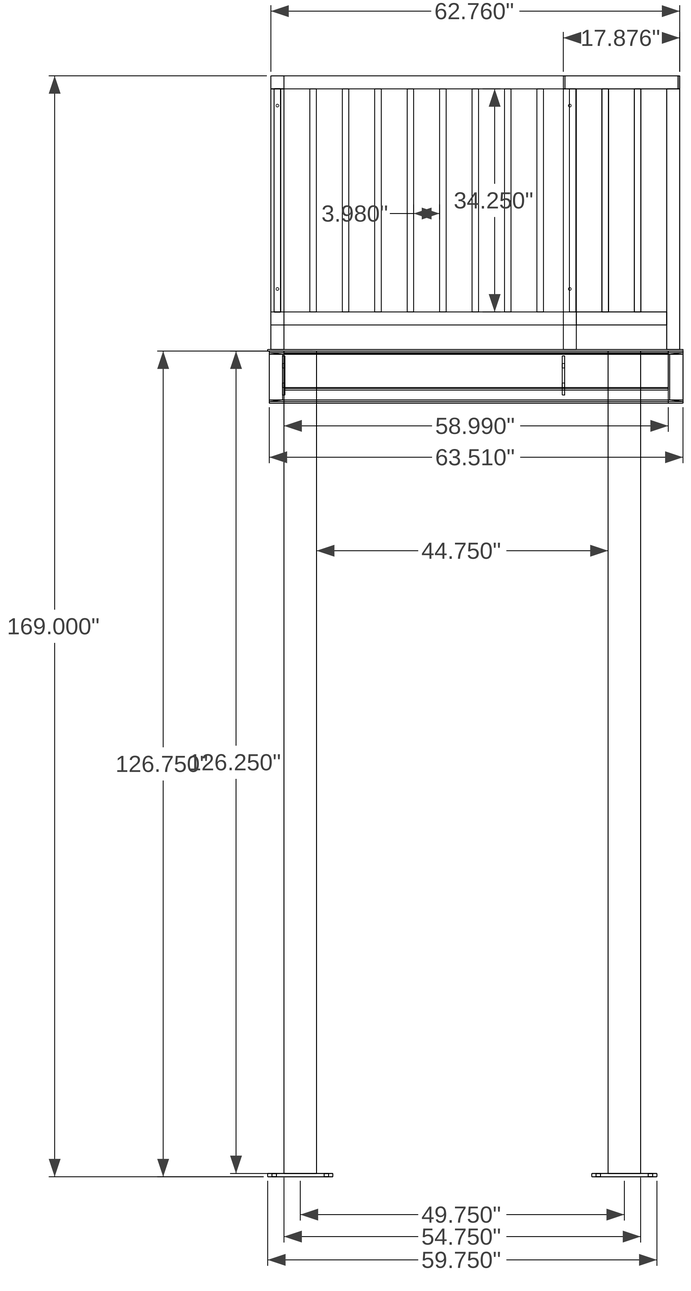

42.000"

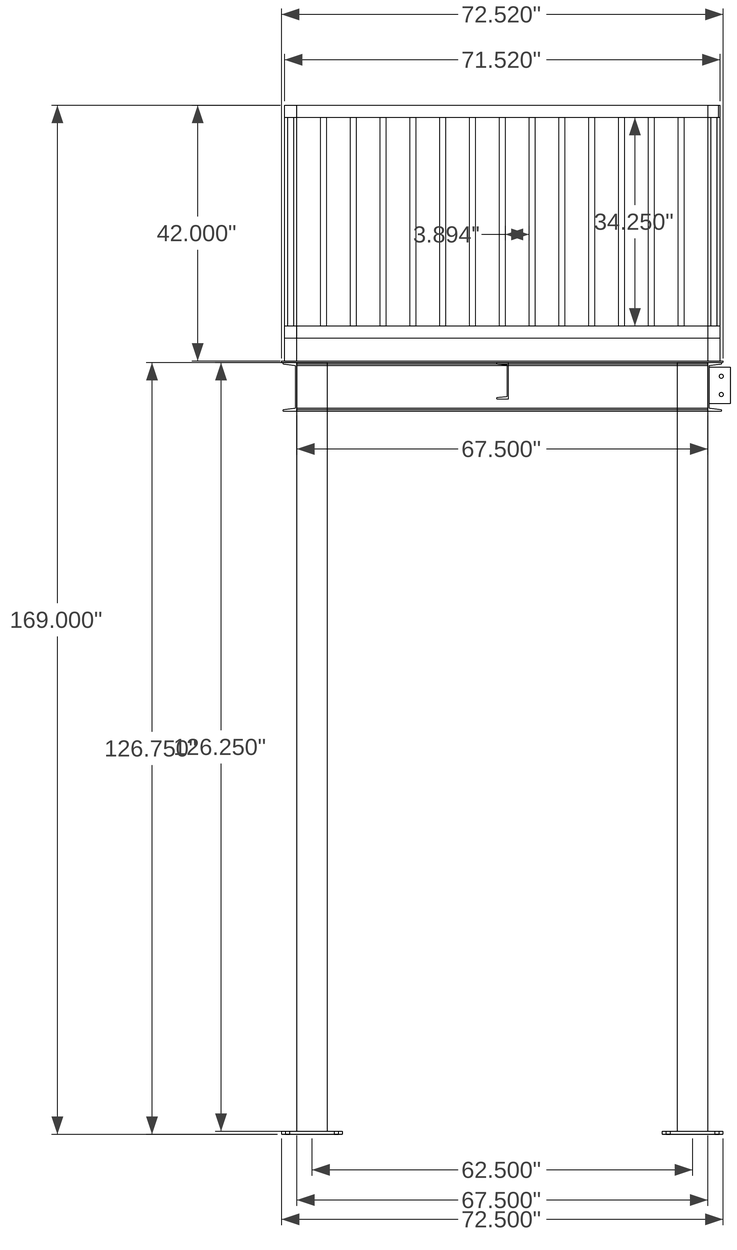

2.250"
1.750"
7.000"
12.063"
bolt treads to stringers with (2) 3/8" a307 bolts, each side, typical

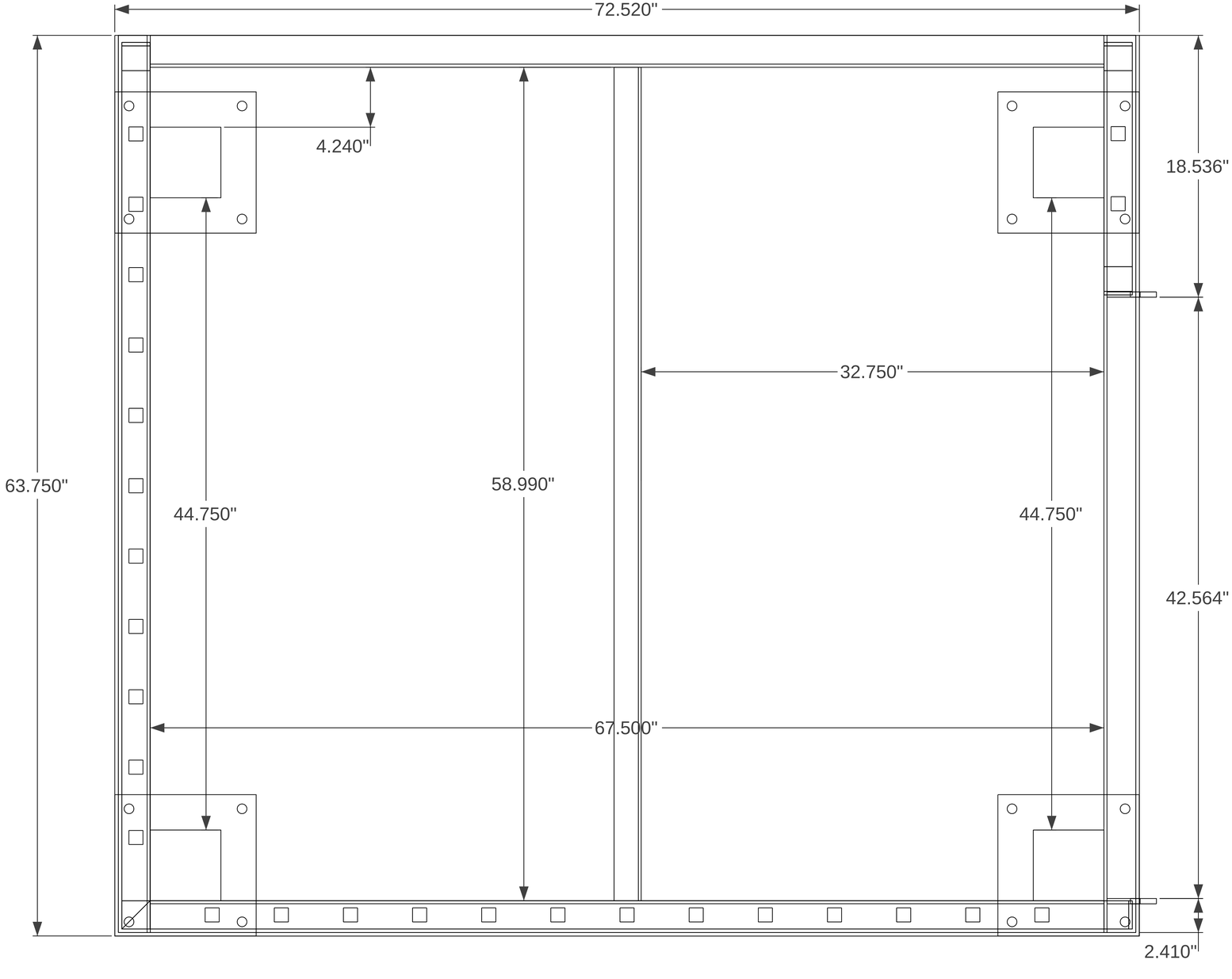

bolt stringer to landing
with (2) 3/4" a325 bolts, typical

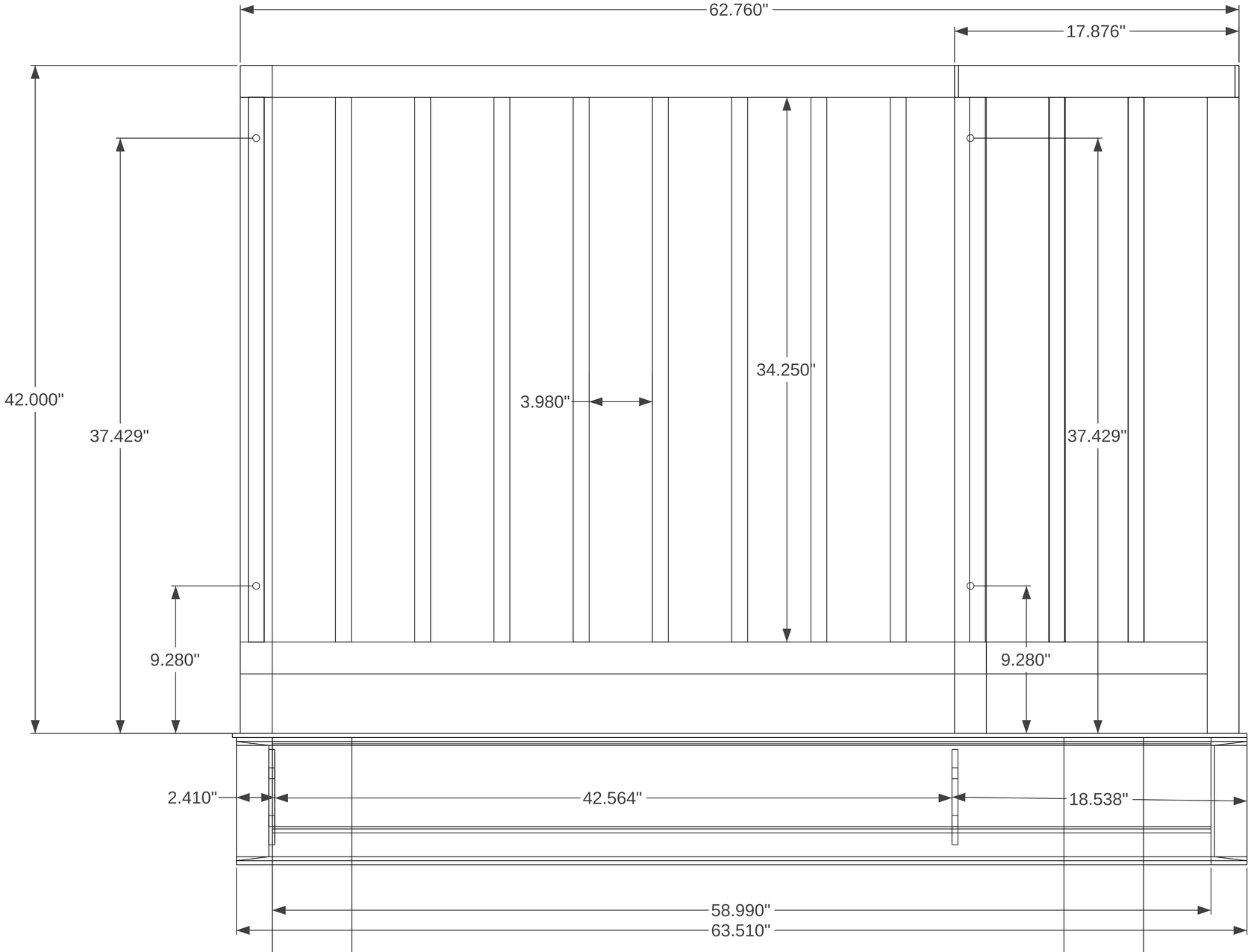

bolt handrails to landing
with 3/8" a307 bolts, (1) at each

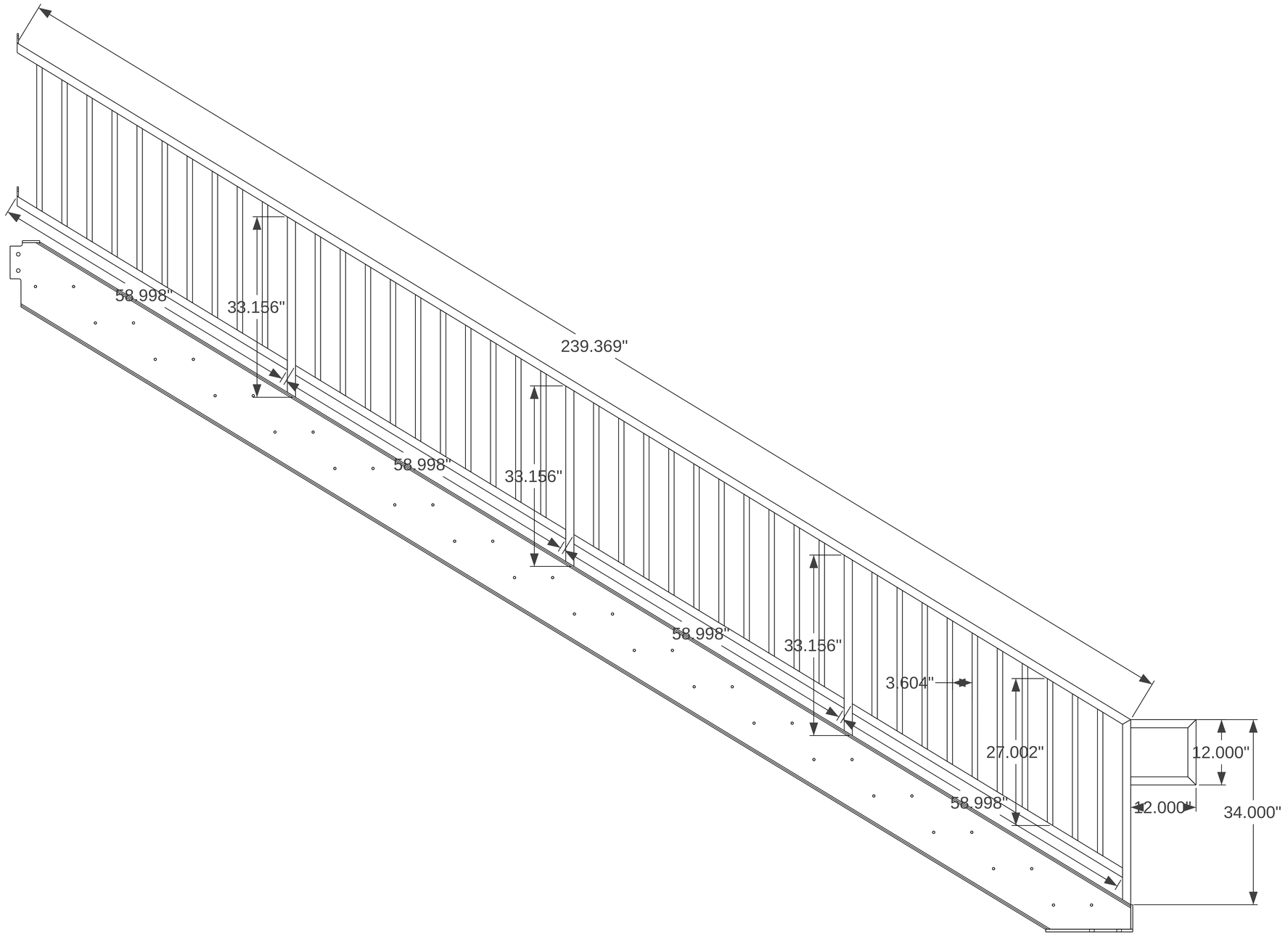

HSS 2x2x.120" post
mounting tab: HR flat bar 1-1/2x1/4" a36
with 7/16" dia hole
0.625"
1.750"
weld mounting tab to handrail with
1/8" filet weld, this side
1/8" groove weld, other side, grind smooth, typical
HSS 1-1/2x1-1/2x.120" handrail

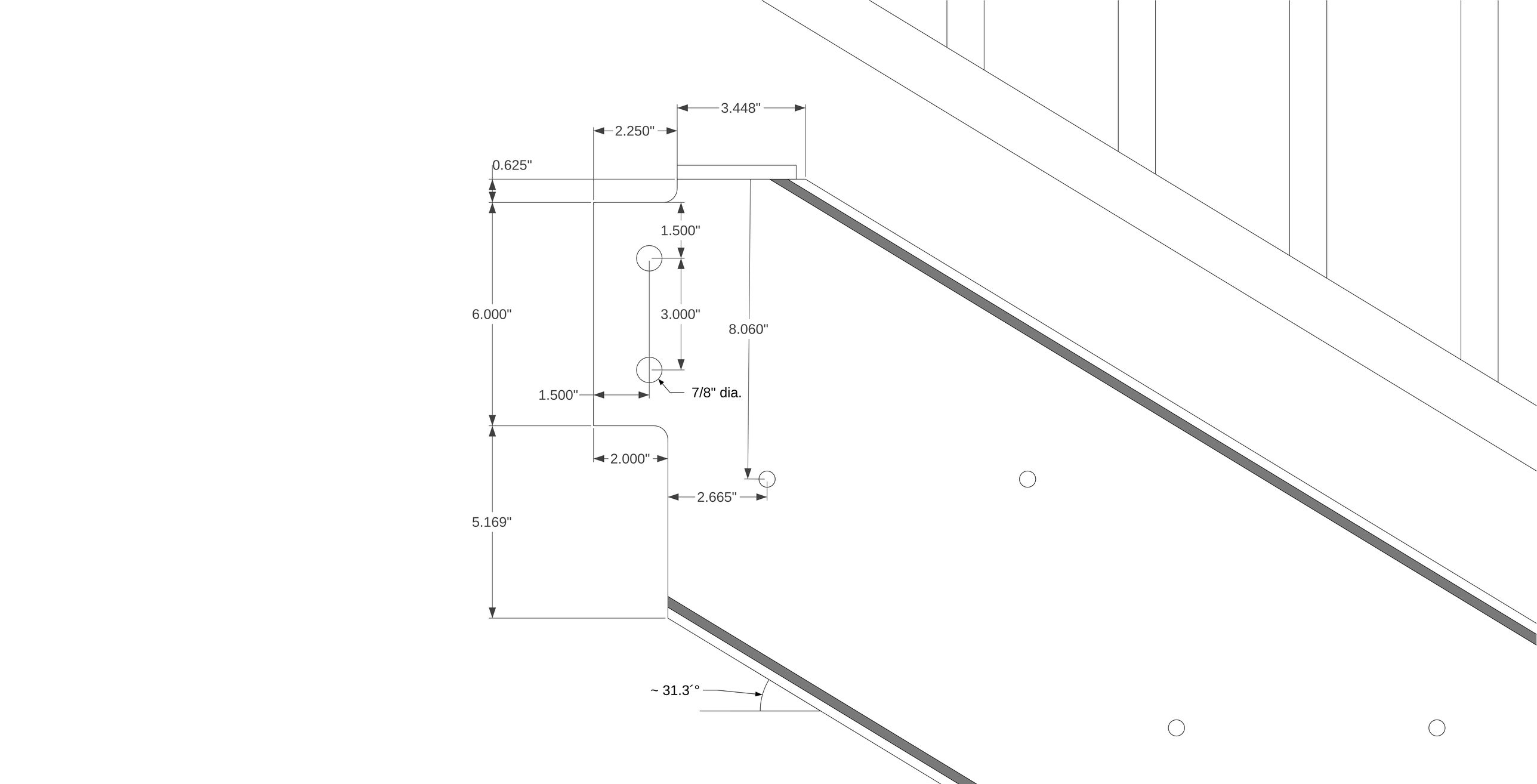

62.760"
17.876"
3.980"
34.250"
58.990"
63.510"
44.750"
169.000"
126.750"
126.250"
49.750"
54.750"
59.750"

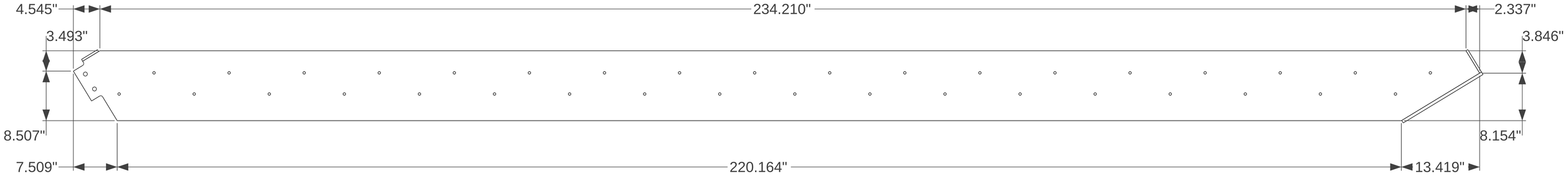

72.520"
71.520"
42.000"
3.894"
34.250"
67.500"
169.000"
126.750"
126.250"
62.500"
67.500"
72.500"

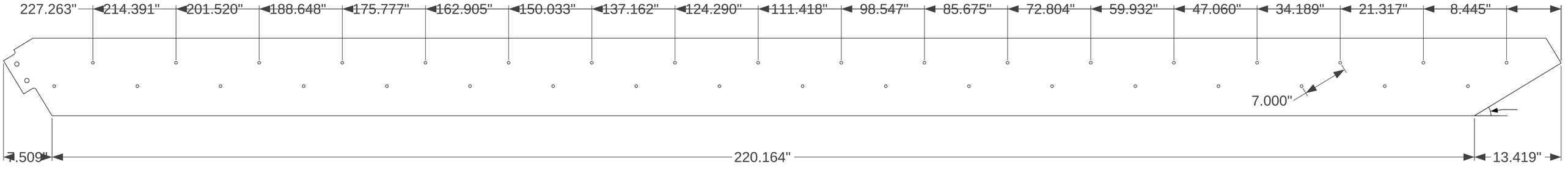

72.520"
4.240"
18.536"
63.750"
58.990"
32.750"
44.750"
44.750"
42.564"
67.500"
2.410"

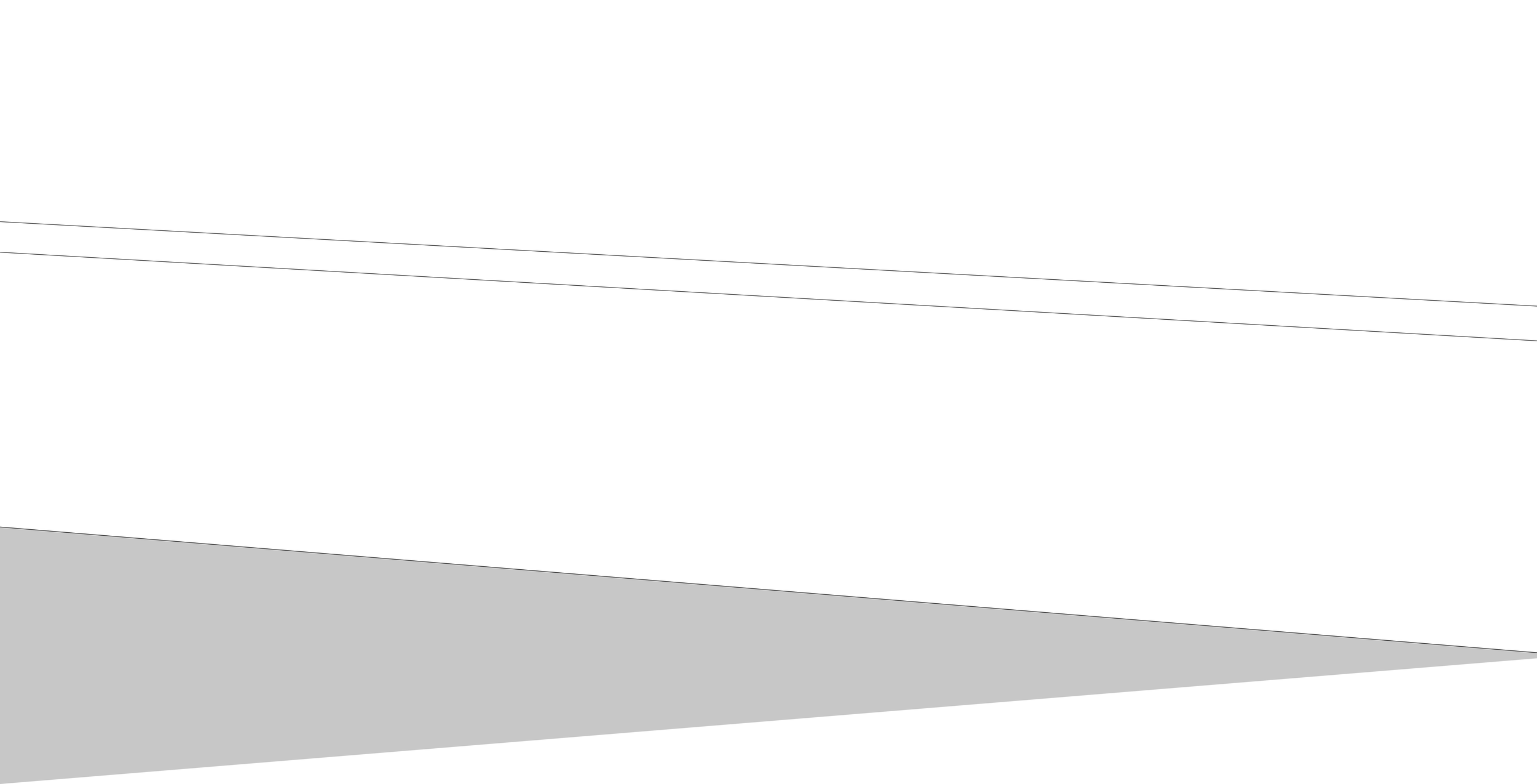

62.760"
17.876"
42.000"
37.429"
34.250"
3.980"
37.429"
9.280"
9.280"
2.410"
42.564"
18.538"
58.990"
63.510"

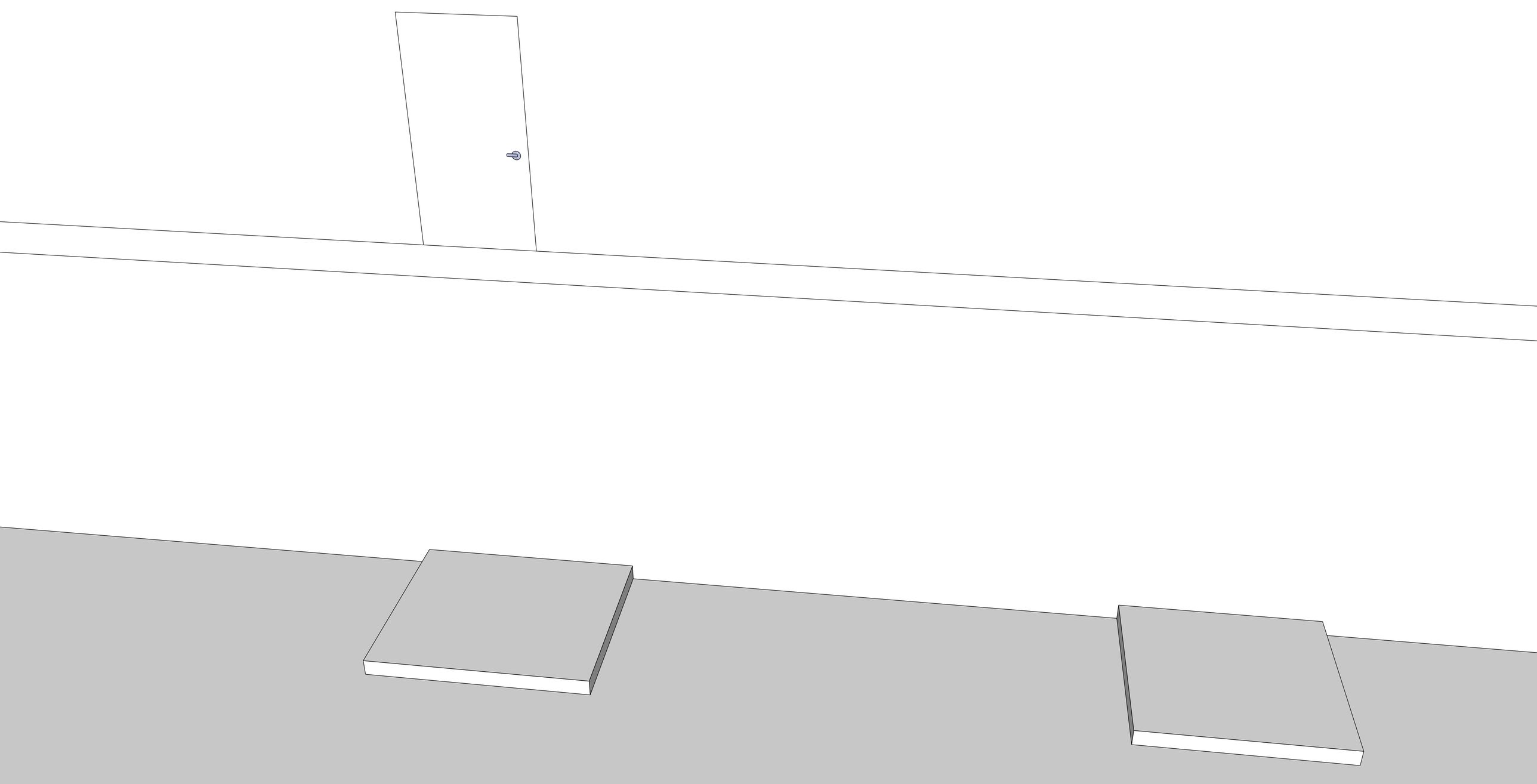

58.998"
33.156"
239.369"
58.998"
33.156"
58.998"
33.156"
3.604"
27.002"
12.000"
12.000"
34.000"
58.998"

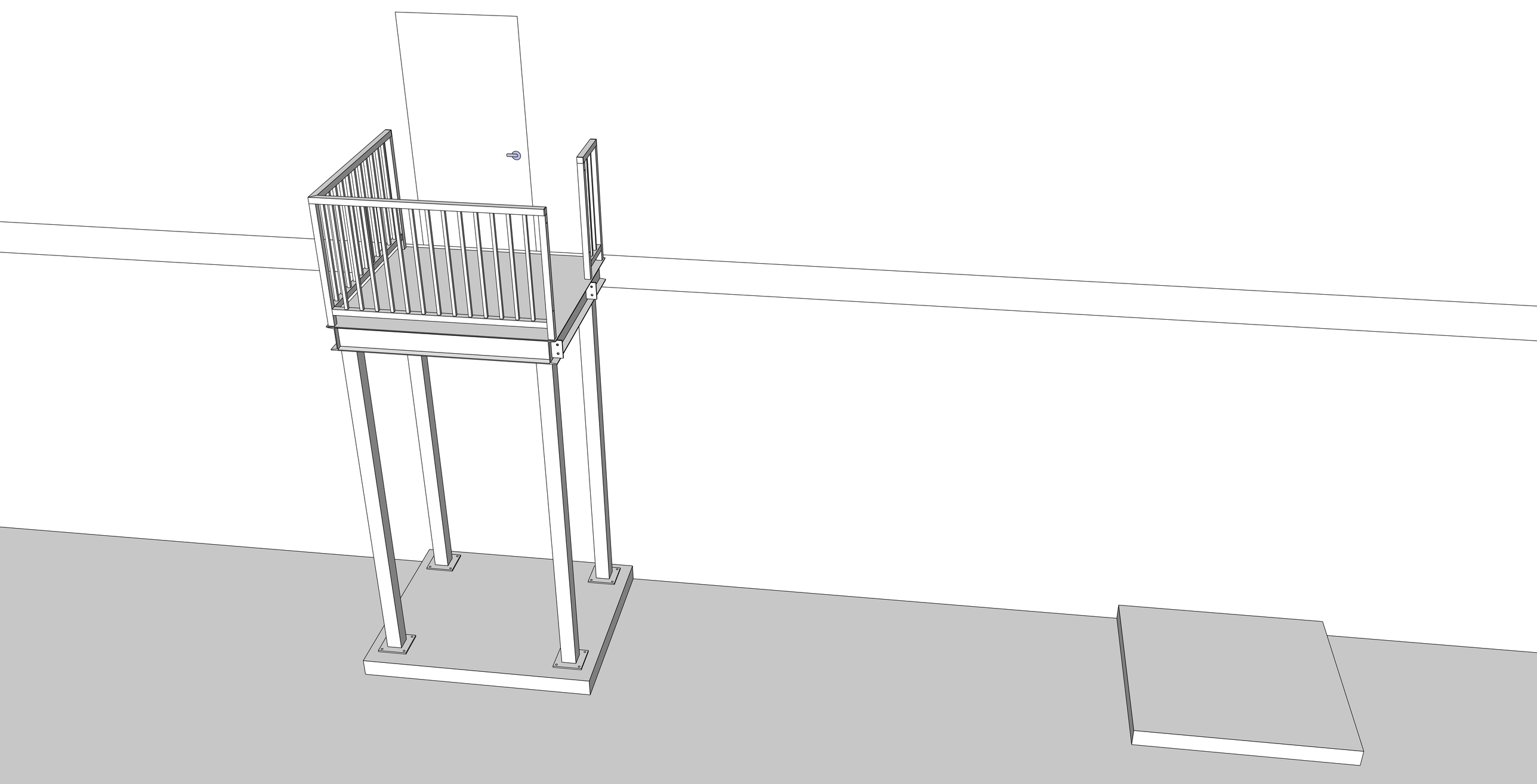

3.448"
2.250"
0.625"
1.500"
6.000"
3.000"
8.060"
1.500"
7/8" dia.
2.000"
2.665"
5.169"
~ 31.3´°

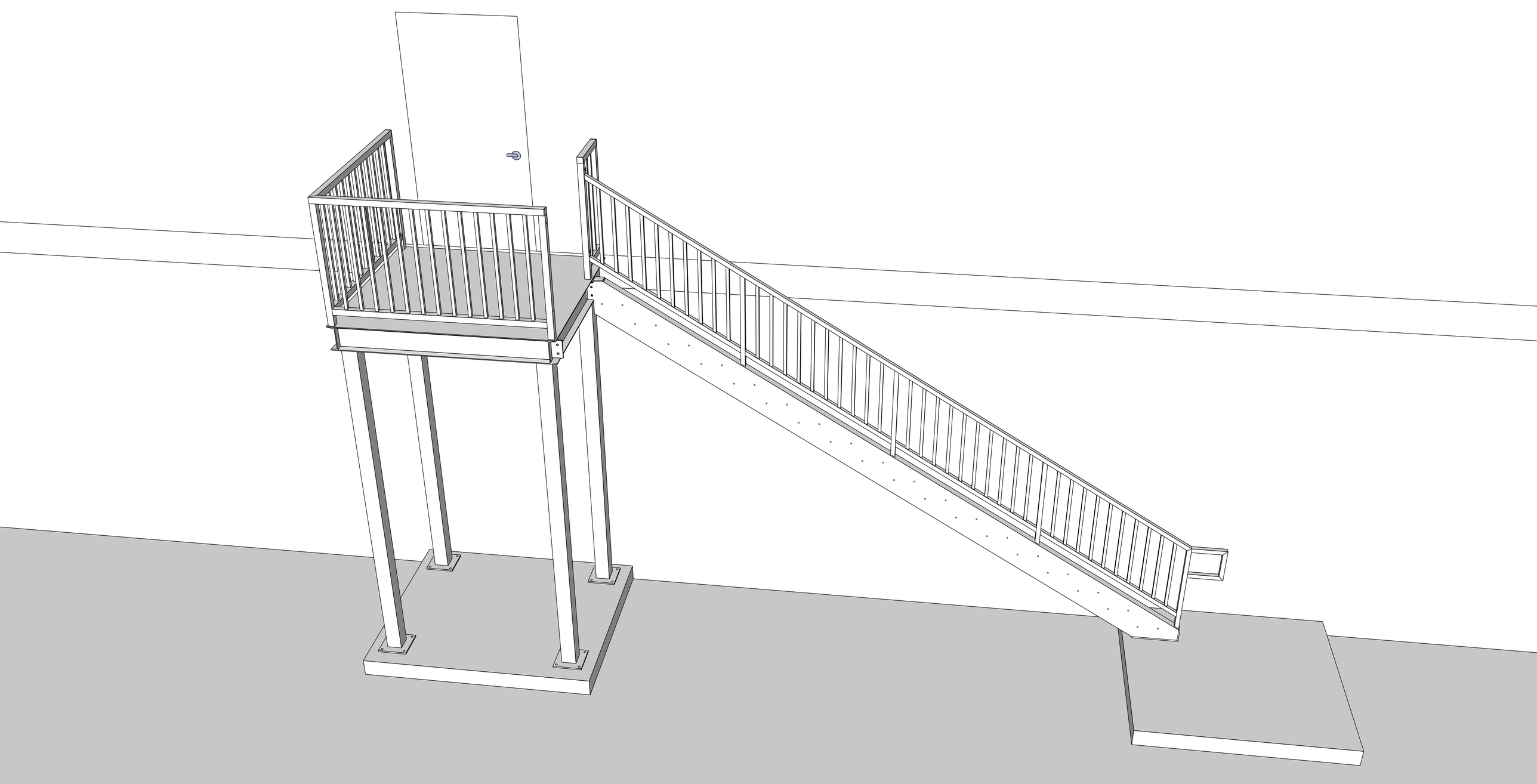

4.545"
234.210"
2.337"
3.493"
3.846"
8.507"
8.154"
7.509"
220.164"
13.419"

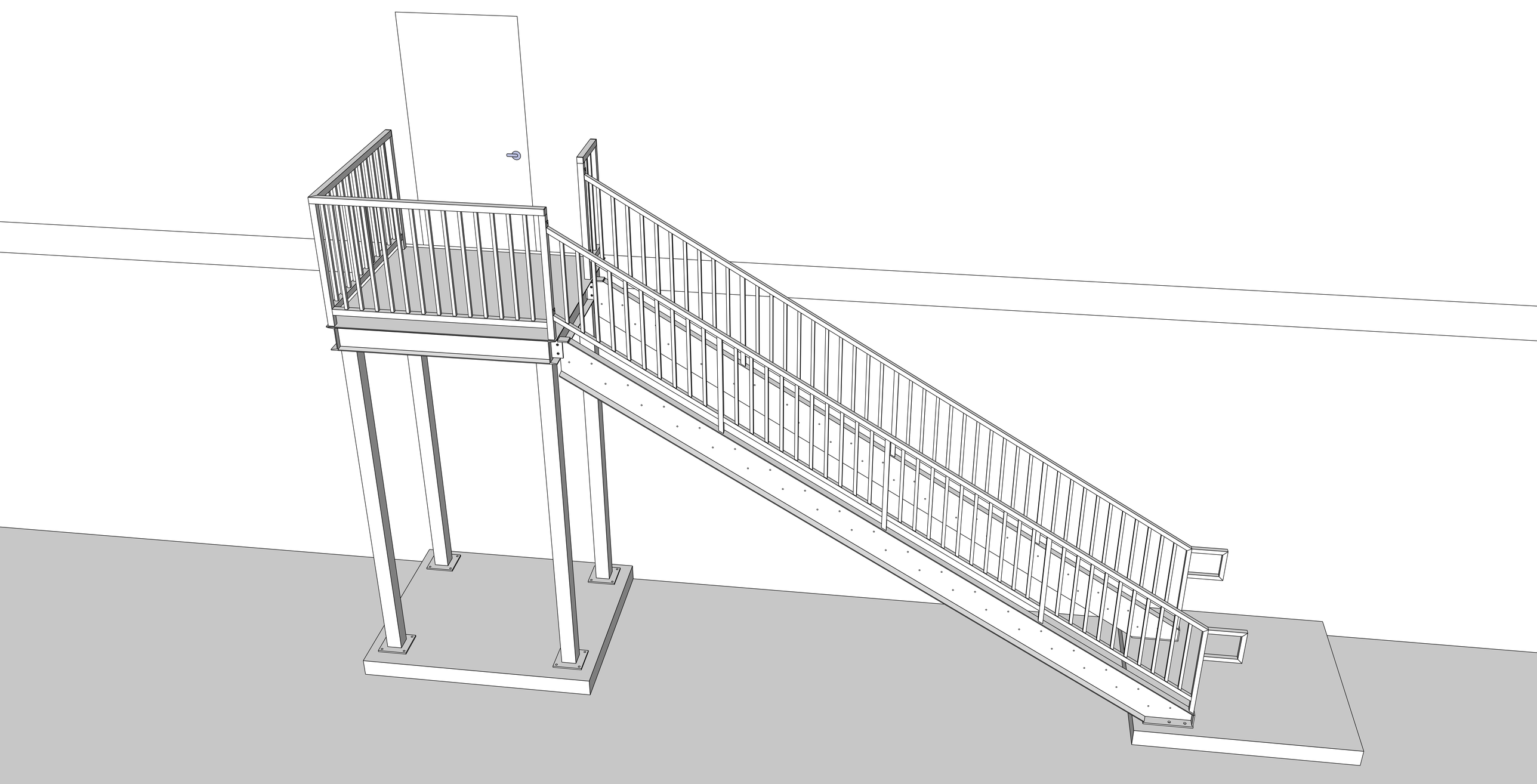

227.263"
214.391"
201.520"
188.648"
175.777"
162.905"
150.033"
137.162"
124.290"
111.418"
98.547"
85.675"
72.804"
59.932"
47.060"
34.189"
21.317"
8.445"
7.000"
4.509"
220.164"
13.419"

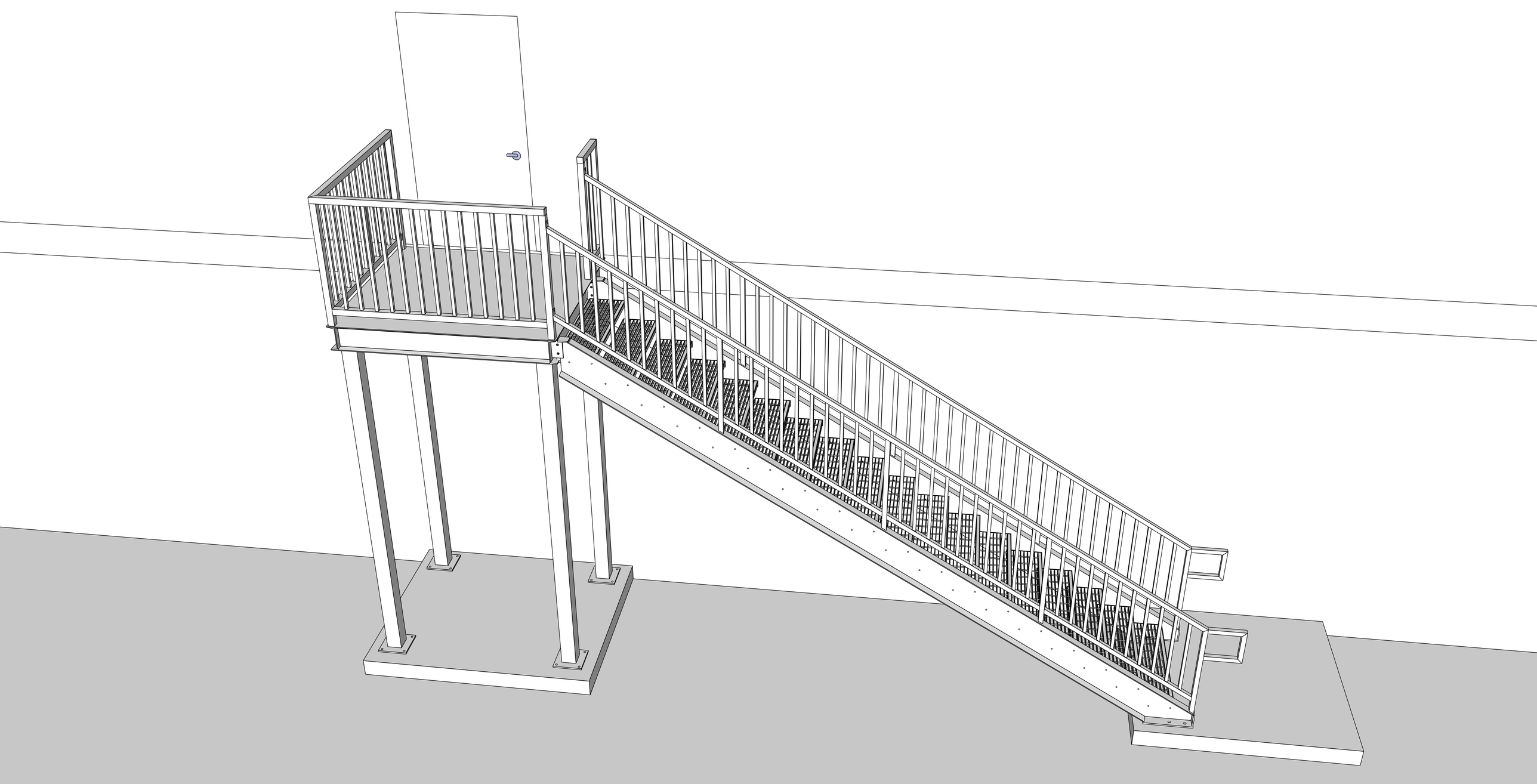


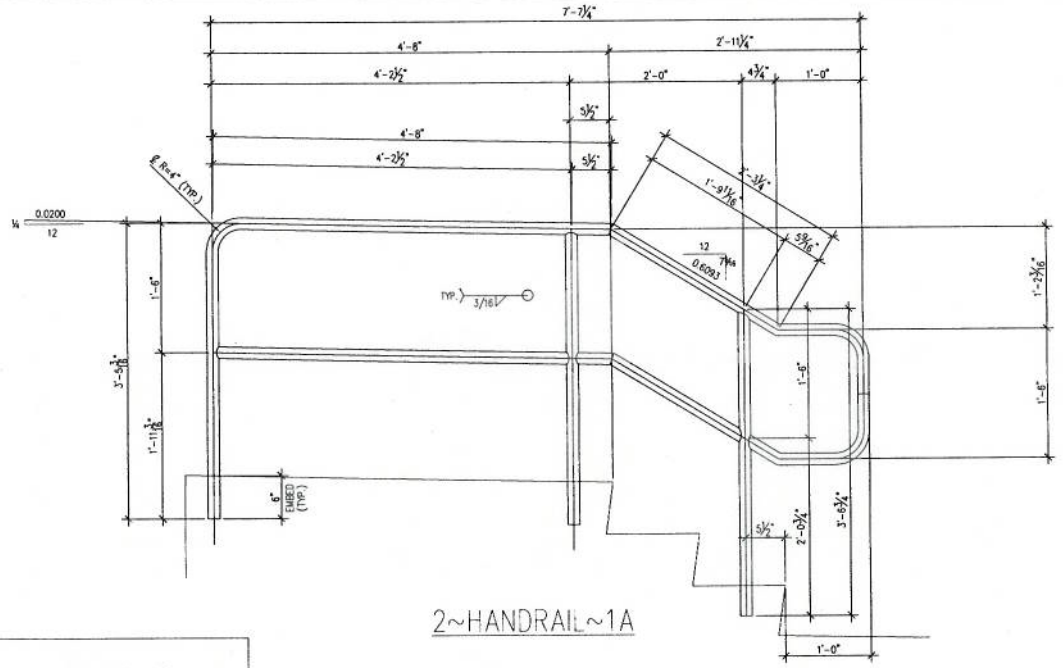




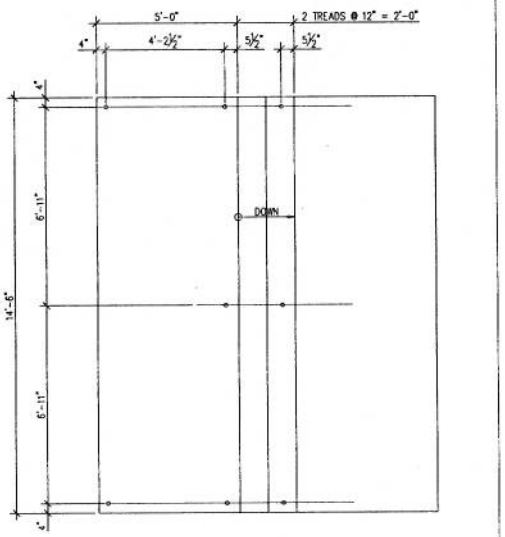




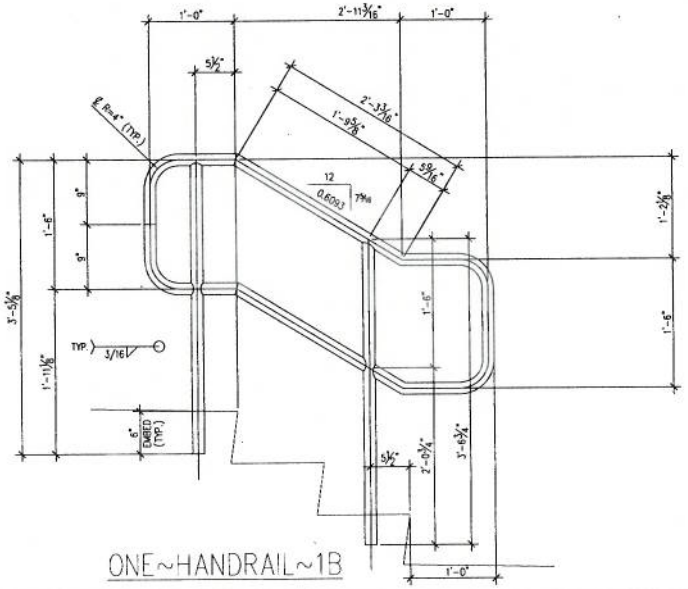




2~HANDRAIL~1A



HANDRAIL ERECTION PLAN



ONE~HANDRAIL~1B

BILL OF MATERIALS

SHIP LIST MK.	NO.	PC. MK.	NO.	SECTION	LENGTH FT.	LENGTH IN.	REMARKS
1A	2	~	~	HANDRAIL	~	~	
		a1	2	1¼"ø STD. PIPE	8	6	BEND & CUT
		b1	2	1¼"ø STD. PIPE	3	6⅛	16° \ \ 16°
		c1	2	1¼"ø STD. PIPE	2	3	BEND & CUT
		d1	2	1¼"ø STD. PIPE	2	3	BEND & CUT
		f1	2	1¼"ø STD. PIPE	1	6⅛	FIT 90° | \ 16°
		g1	2	1¼"ø STD. PIPE	1	11⅜	FIT 90° | \ 16°
		h1	2	1¼"ø STD. PIPE	0	3⅛	90°) \ 16°
		k1	2	1¼"ø STD. PIPE	4	3	90°) (90°
		m1	2	1¼"ø STD. PIPE	3	4⅛	90° | (90°
		n1	2	1¼"ø STD. PIPE	3	6⅛	90° | | 90° FIT
1B	ONE	~	~	HANDRAIL	~	~	
		b1	1				
		c1	1				
		d1	1				
		f1	1				
		g1	1				
		h1	1				
		p1	1	1¼"ø STD. PIPE	2	5	BEND & CUT
		s1	1	1¼"ø STD. PIPE	2	5	BEND & CUT
		t1	1	1¼"ø STD. PIPE	3	4⅛	90° | (90°

SHOP NOTES:
(UNLESS NOTED OTHERWISE)

MATERIALS:
W SHAPES ..... ASTM A572-50 OR A992
SHAPES, PLATES, ETC. ..... ASTM A36
PIPE COLUMNS A53-B
SQUARE AND RECTANGULAR TUBING ..... ASTM A500-B
WELDING ELECTRODES ..... AWS E7XXX
MACHINE BOLTS ..... ASTM A307
HIGH STRENGTH BOLTS ..... ASTM A325

HOLES:
NOTED

PAINT:
HOT-DIP GALVANIZE AFTER FABRICATION

REFERENCE ITEMS THIS SHEET TO:
N/A
N/A

APPROVAL REVIEW AUTHORITY

PLEASE REVIEW THIS DRAWING CAREFULLY

IT REPRESENTS OUR INTERPRETATION OF THE INTENT OF THE CONTRACT DOCUMENTS. HOWEVER, THE STEEL FABRICATOR AND THE STEEL DETAILER ASSUME NO RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION SHOWN ON THIS DRAWING. THIS IS THE RESPONSIBILITY OF THE BUYER.

UNLESS NOTED TO THE CONTRARY, ON THIS DRAWING, WHEN IT RETURNS FROM APPROVAL IT WILL BE ASSUMED THAT ALL INFORMATION SHOWN HEREON HAS THE AFFIRMATION OF THE APPROVAL REVIEW AUTHORITY.

SUBSEQUENT CHANGES TO INFORMATION SHOWN ON THESE DRAWINGS AFTER FIRST SUBMISSION WILL BE CONSIDERED AS CONTRACT CHANGES.

ADOPTED BY THE NATIONAL INSTITUTE OF STEEL DETAILING 1977

REVISED FOR APPROVAL 01/30/12

REVISION	BY

CONTRACTOR:

ENGINEER:

ARCHITECT:

DETAILED BY:

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FABRICATED BY:

ABRAHAM STEEL

PROJECT: STAIR RAILS

TITLE: HANDRAIL

DRAWN	PSH
CHECKED	RVD
DATE	JAN., 2012
R.V.D. JOB NO.	1203-RAI
SCALE	NTS
SHEET	1