

BOL ALUMINUM RAILING SYSTEM IBC 2018 AND IRC 2018

1/16/2023

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(352) 754-8555















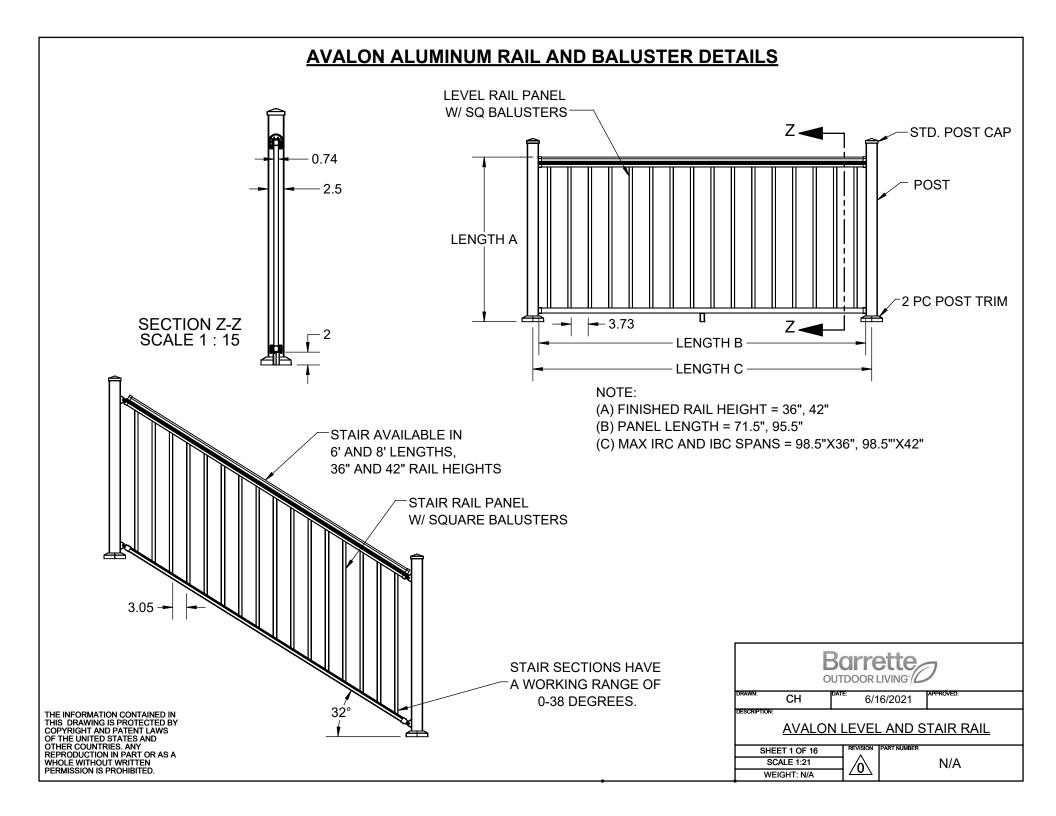
GENERAL NOTES

1. The "Avalon Railing" (*guard*) meets or exceeds the 2018 International Building Code (IBC) section 1607.8. and R301.5. 2018 International Residential Code (IRC).

2. Loads:

- 2.1. The top railing of the *guard* is capable of transferring to the anchoring connection a point load of 200 pounds (Residential applications) and 200 pounds or 50 pounds per linear foot (Commercial applications) applied in any direction.
- 2.2. The infill (pickets, glass slats, DSP panels) are capable of transferring to the anchoring connection a horizontally applied normal load of 50 pounds exerted over 1 square foot.
- 3. The professional engineer (PE) is responsible for the design of the *guard* to the bottom of the base plate, to the bottom of the post, and to the mounting surface of the upper and lower railing wall brackets. The PE is not responsible for the design of the anchoring substrate, such as, concrete or wood. Except for the fasteners specified, the PE is not responsible for the selection or location of the anchoring fasteners.
- 4. The use of this specification indemnifies and saves harmless the PE from all cost and damages including legal fees and appellate fees resulting from material and part fabrication, manufacturing, assembly, system design and erection, construction practices, and Barrette warranties. Neither the PE nor Barrette shall be held responsible or liable in any way for the use of this product in applications other than shown on this drawing.
- 5. Materials and manufacturing of the guard shall be in accordance with the Aluminum Association's 2015 "Aluminum Design Manual".
- 6. All guard extrusions shall be aluminum 6005-T5 except pickets which shall be 6063-T52.
- 7. All *guard* fasteners are 410 stainless steel.
- 8. Barrette manufacturing tolerances for the guard are equal to or tighter than allowed by the IBC and IRC. Contact Barrette for specific tolerances.
- 9. All concrete shall be uncracked only, with a minimum compressive strength of 3000psi and shall be minimum 1.5X thicker than any anchor embedment. All epoxy and grout shall meet or exceed compressive strength of the concrete and shall be iron-free, non-shrink and non -reactive. Concrete footers shall contain min 0.1% fiber mesh admixture per CY.
- 10. All wood shall be pressure treaded No. 2 Southern Yellow Pine with minimum specific gravity, G=0.55

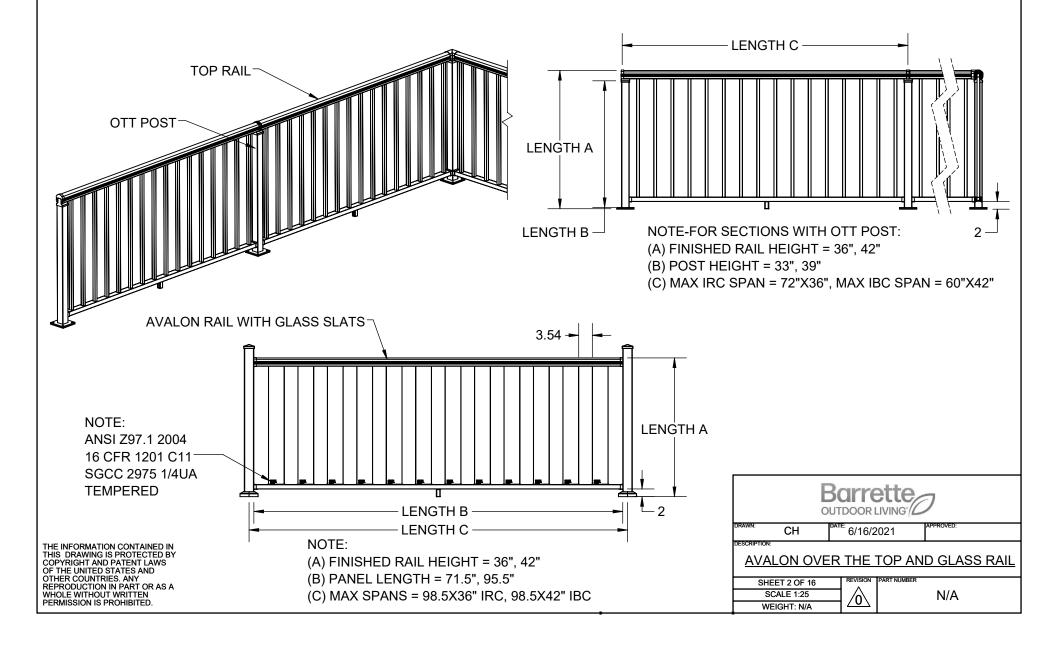
- 11. Surrounding soil to be compacted to 98% optimum density, 2500 psf minimum and
- 12. Insulate aluminum from dissimilar metals to prevent electrolysis. Insure all bare metal is protected from corrosive environments such as installation near the ocean.
- 13. Neither the PE nor Barrette is responsible for construction tolerances, field dimensions, or installation of the guard.
- 14. No changes are allowed without written authorization from the engineer.
- 15. Copies of this drawing without an original signature and seal of the engineer are invalid.
- 16. No inspection was made at this jobsite and the design depicted herein is based upon data supplied by the contractor. This engineer is to not be held liable or in any way responsible for the use of any inaccurate information supplied by others. The contractor shall field verify all measurements and information used in this design before any changes are made to field condition, fabrication and the installation of the materials.

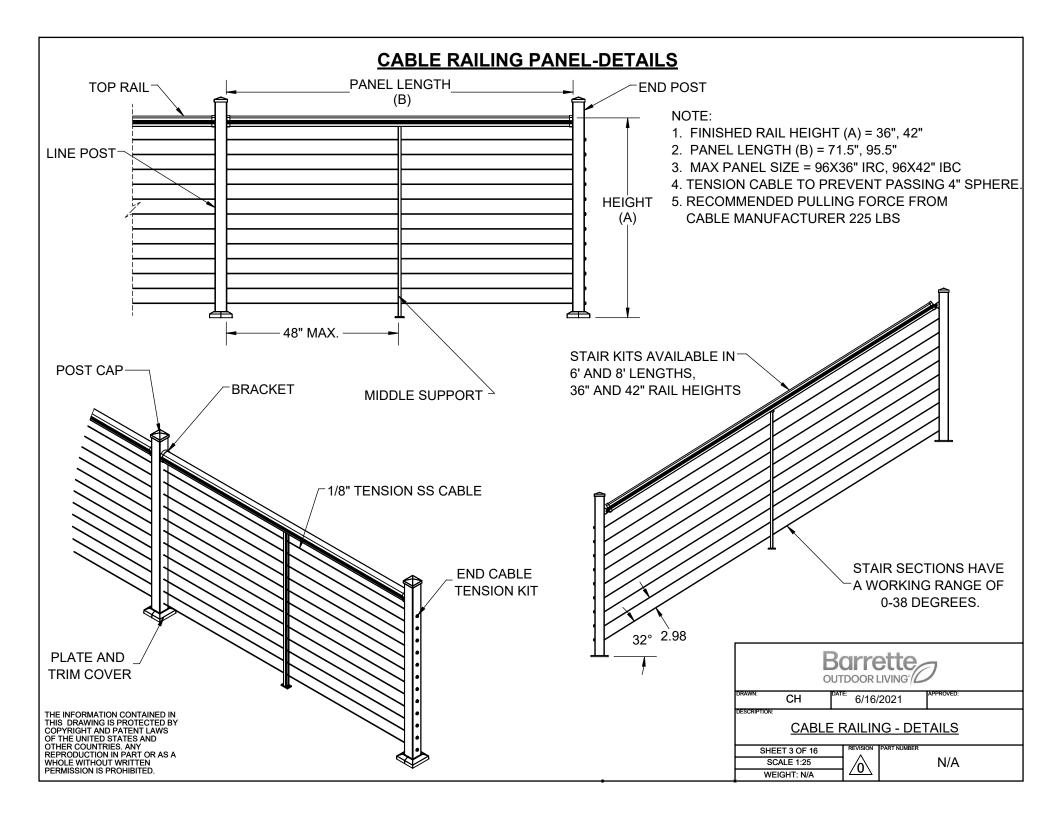


AVALON OVER THE TOP (OTT) AND GLASS LEVEL RAIL DETAILS

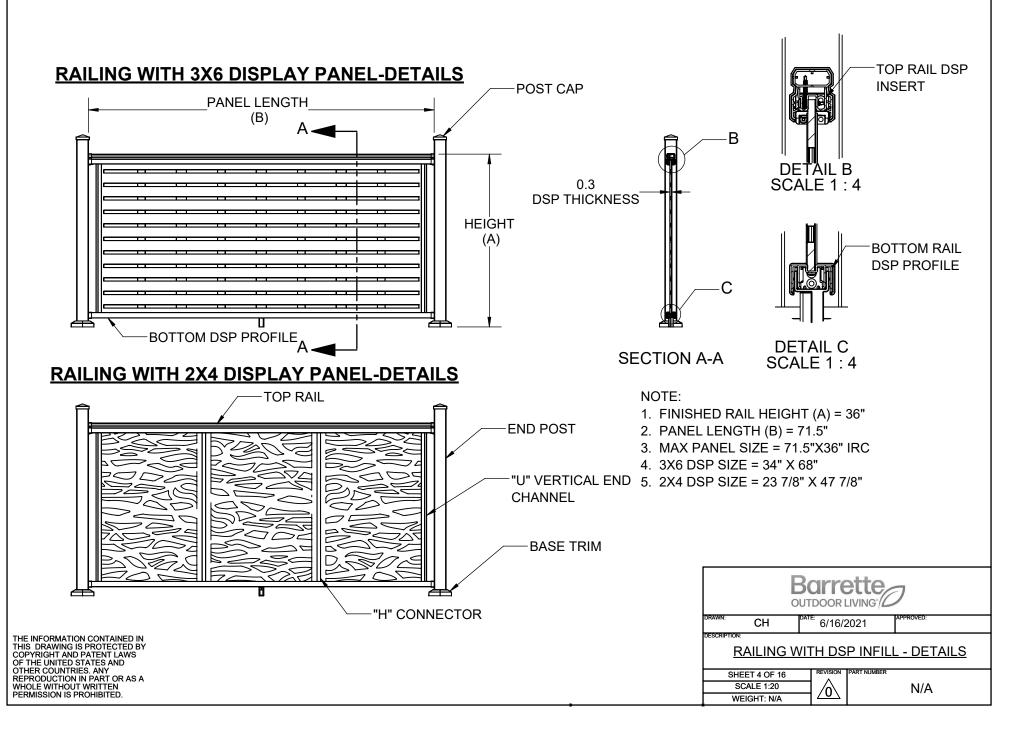
NOTE:

- 1. FOR OTT, A TOP RAIL LONGER THAN PANEL LENGTH IS NEEDED.
- IRC COMPLIANT PANELS (RESIDENTIAL) ARE 6FT MAXIMUM APPLICATIONS
- IBC COMPLIANT PANELS (COMMERCIAL) ARE 5FT MAXIMUM APPLICATIONS
- 2. NO STAIRS AVAILABLE FOR AVALON OTT OR GLASS.

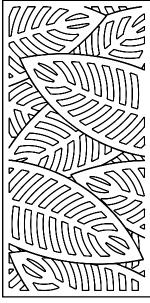




RAILING WITH DISPLAY PANEL (DSP)-DETAILS





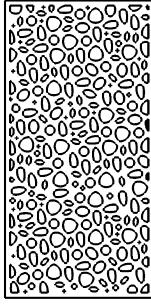


3X6 SANIBEL

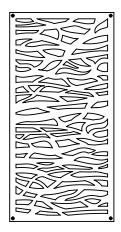


3X6 DSP SCREENS

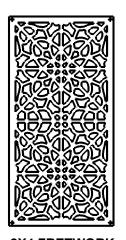
3X6 OPTIC



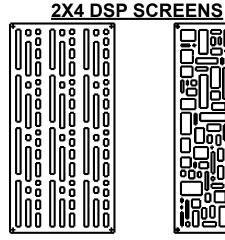
3X6 RIVER ROCK



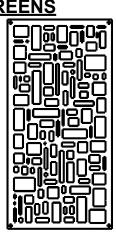
2X4 SPRIG



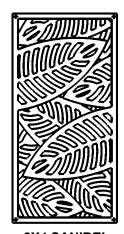
2X4 FRETWORK



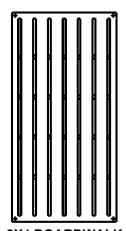
2X4 MORSE



2X4 SLATE



2X4 SANIBEL



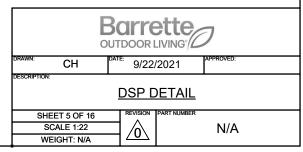
2X4 BOARDWALK

NOTE:

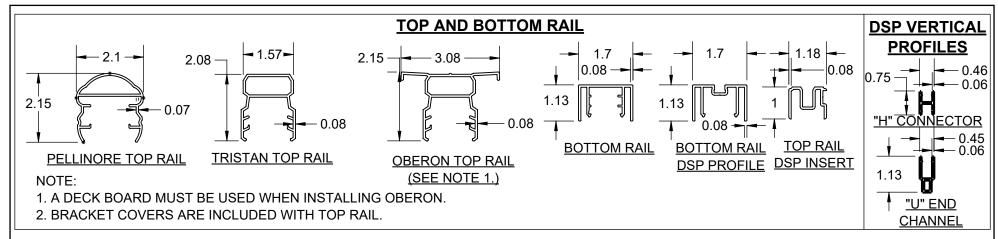


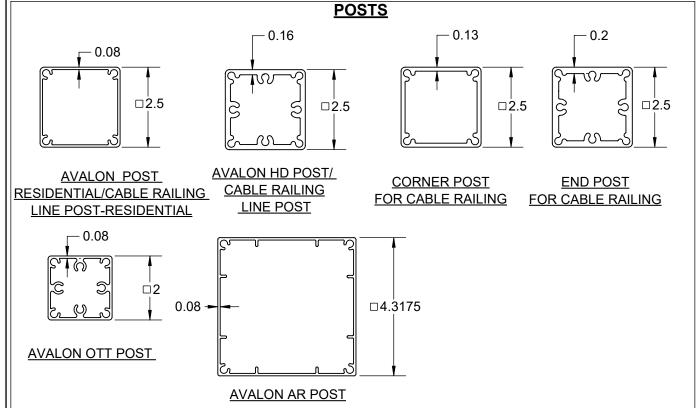
2. 2X4 DSP SIZE = 23 7/8" X 47 7/8"

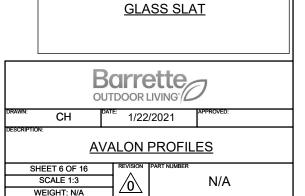
3. THICKNESS = .3"











BALUSTERS

SQ. BALUSTER

0.25 NOMINAL

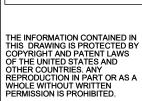
4.125 NOMINAL

_ 0.75 NOMINAL

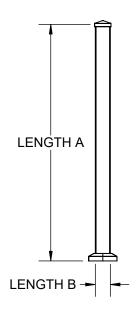
> _ 0.045 NOMINAL

1. AVALON POST RESIDENTIAL recommended for Residential applications (any width).

- 2. AVALON HD POST/CABLE RAILING LINE POST recommended for Commercial applications not wider than 8ft .
- 3. END POST FOR CABLE RAILING recommended for cabel railing applications end post only .
- 4. CORNER POST FOR CABLE RAILING recommended for cabel railing applications corner post only .
- 5. AVL OTT POST recommended for Residential 6ft wide applications and Commercial 5ft applications.
- 6. AVL AR POST can be used on any Residential or Commercial applications.



AVALON POST AND SURFACE MOUNT DETAILS



POSTS	LENGTH A	LENGTH B	
STD. POST	39"	2.50"	
STD. POST	45"	2.50"	
STD. POST	60"	2.50"	
HD. POST	45"	2.50"	
HD. POST	60"	2.50"	
OTP. POST	33"	2.00"	
OTP. POST	39"	2.00"	
AR. POST	39"	4.32"	
AR. POST	45"	4.32"	
AR. POST	108"	4.32"	

Note:

2.5" posts include factory mounted base plate, two pice trim, post cap, and leveling shims. 4.3125" post sold separately as components.

REFERENCE 2" AND 2.5" POSTS. -POST $\emptyset 0.44$ BASE PLATE 5/16" THICKNESS

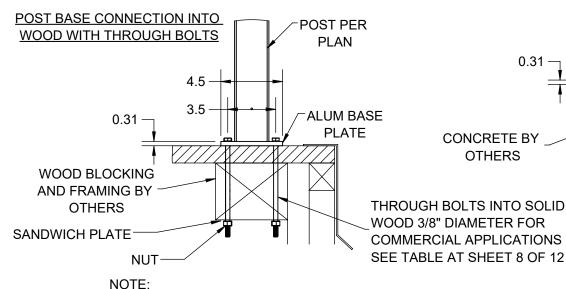
> POST PER **PLAN**

> > ALUM BASE

PLATE

NOTE: IMAGES ONLY

POST BASE CONNECTION INTO CONCRETE WITH WEDGE ANCHORS



0.31 -WATER PROOF MEMBRANE BY **OTHERS CONCRETE BY OTHERS** ANCHOR INTO CONCRETE. SEE TABLE AT SHEET 11 THROUGH BOLTS INTO SOLID **OF15** WOOD 3/8" DIAMETER FOR

4.5

3.5

CH

5/5/2020

ÄVALON POST AND SURFACE MOUNT **DETAIL**

SHEET 7 OF 16

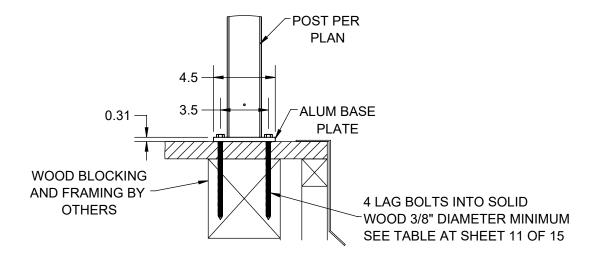
SCALE 1:16 WEIGHT: N/A N/A

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PERMISSION IS PROHIBITED

1. COMMERCIAL APPLICATIONS ARE ALWAYS BOLTED, USE 3/8" DIAMETER A307 THROUGH BOLTS INTO SOLID WOOD BLOCKING.

- 2. WOOD BLOCKING BY OTHERS.
- 3. BLOCKING MUST BE DESIGNED TO WITHSTAND PROPER LOADING.

AVALON POST AND SURFACE MOUNT DETAILS

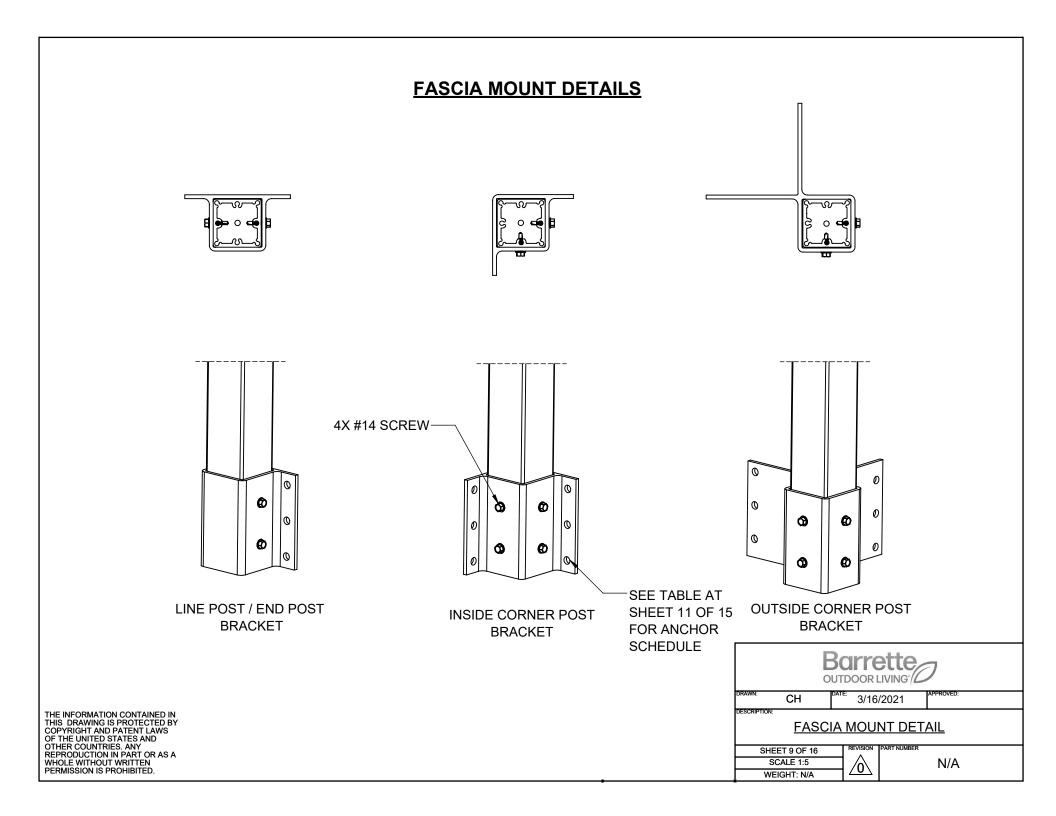


POST BASE CONNECTION INTO WOOD WITH LAG BOLTS

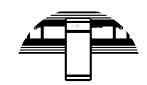
NOTE:

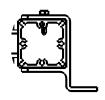
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- 1. WOOD BLOCKING BY OTHERS.
- 2. BLOCKING MUST BE DESIGNED TO WITHSTAND PROPER LOADING.

	Barrette					
١	CH		/2020	APPROVED:		
	AVALON POST AND SURFACE MOUNT					
	<u>DETAIL</u>					
I	SHEET 8 OF 16	REVISION	PART NUMBER			
I	SCALE 1:16	$\square \wedge \square$		N/A		
╛	WEIGHT: N/A	74		,, .		



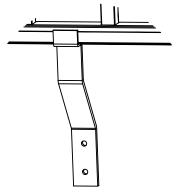
FASCIA MOUNT - JULIET DETAIL





0

JULIET BRACKET



SUPPORT FOOT

FASCIA MOUNT JULIET FASCIA MOUNT

2X #14 SCREWS

SEE TABLE AT
SHEET 11 OF 15
FOR ANCHOR
SCHEDULE

Barrette OUTDOOR LIVING'

CH

10/15/2021

APPROVED:

DESCRIPTION

FASCIA MOUNT - JULIET DETAIL

SHEET 10 OF 16 SCALE 1:5 WEIGHT: N/A REVISION PART NUMB

N/A

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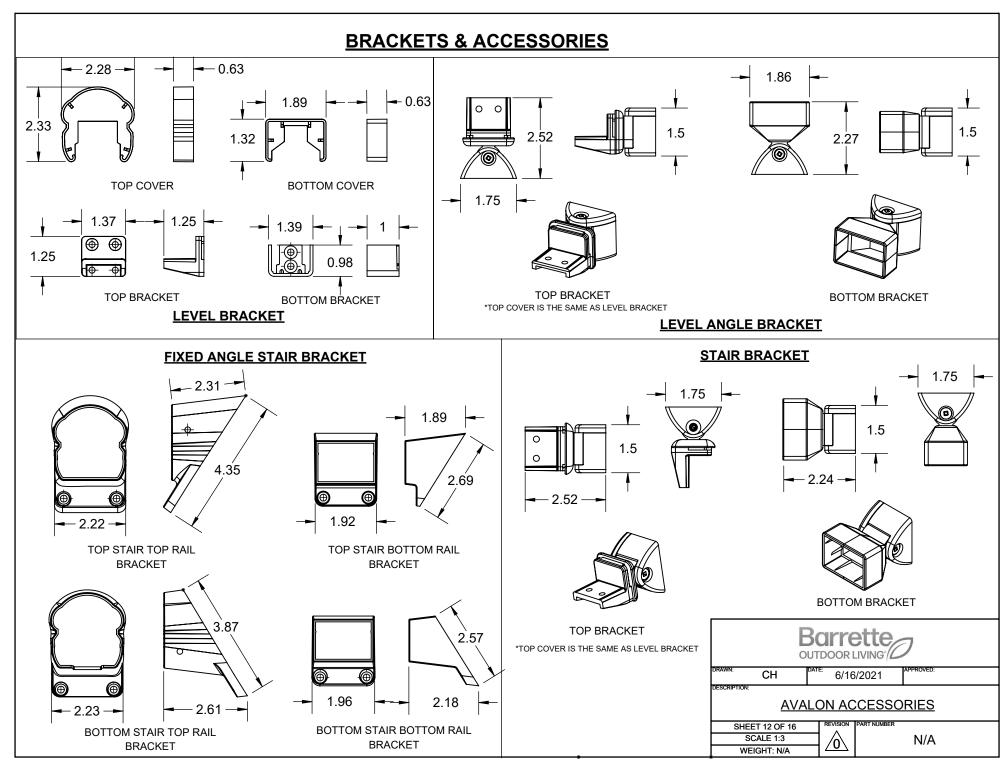
MOUNTING SCHEDULE

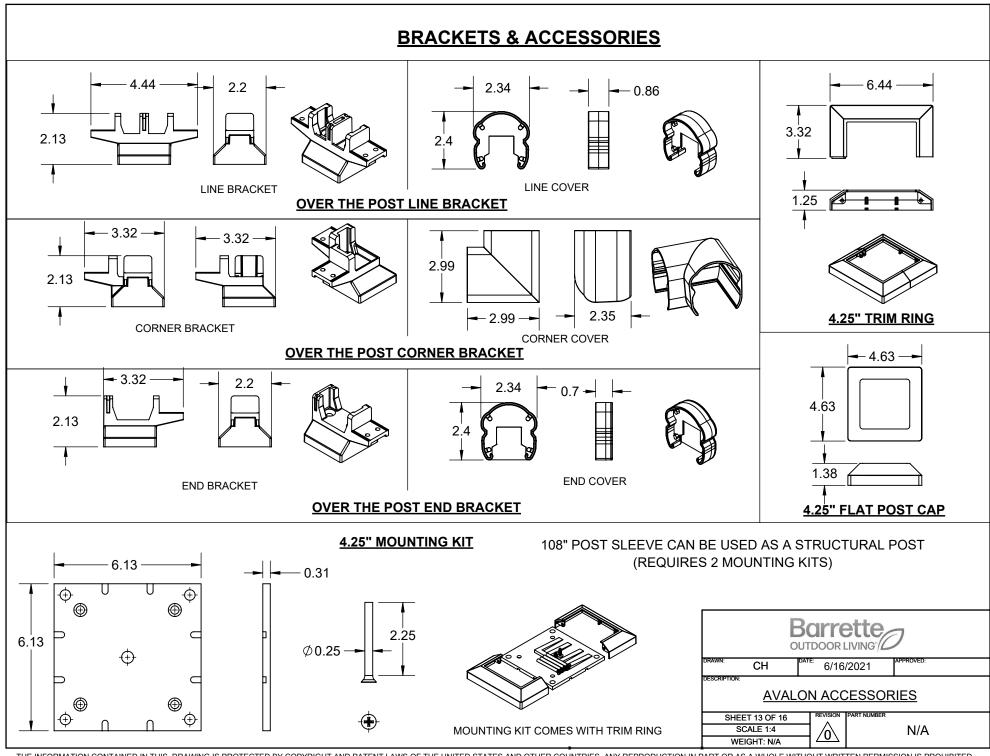
FOR RESIDENTIAL APPLICATIONS 36" HIGH					
PANEL WIDTH	LOAD	RECOMMENDED BOLT APPLICATION	FOR LAG BOLT APPLICATION 3/8" DIA. SCREW. MINIMUM EMBEDDED SCREW THREAD LENGTH REQUIRED	FOR THROUGH BOLT APPLICATION	FOR CONCRETE ANCHOR APPLICATION 3/8" TITAN HD ANCHOR MINIMUM REQUIRED LENGTH (MINIMUM DISTANCE OF 4" FORM EDGE REQUIRED)
8FT	LAG BOLT -OR- THROUGH BOLT -OR-	3.5IN	3/8" HEX BOLT	4IN	
6FT		3IN	3/8" FLAT WASHER 3/8" LOCK WASHER	3IN	
4FT	CONCRETE ANCHOR		2.5IN	3/8" NUT	3IN

	FOR COMMERCIAL APPLICATIONS 42" HIGH					
PANEL WIDTH	LOAD	RECOMMENDED BOLT APPLICATION	FOR LAG BOLT APPLICATION 3/8" DIA. SCREW. MINIMUM EMBEDDED SCREW THREAD LENGTH REQUIRED	FOR THROUGH BOLT APPLICATION	FOR CONCRETE ANCHOR APPLICATION 3/8" TITAN HD ANCHOR MINIMUM REQUIRED LENGTH (MINIMUM DISTANCE OF 4" FORM EDGE REQUIRED)	
8FT	400LBS	THROUGH BOLT -OR- CONCRETE ANCHOR	3.5IN	3/8" HEX BOLT	4IN	
6FT	300LBS	LAG BOLT -OR- THROUGH BOLT -OR- CONCRETE	3IN	3/8" FLAT WASHER 3/8" LOCK WASHER 3/8" NUT	3IN	
4FT	200LBS	ANCHOR	2.5IN		3IN	

Barrette OUTDOOR LIVING						
C/SI	AWN: QSI DATE: 1/22/2021 APPROVED:					
MOUNTING SCHEDULE						
SHEET 11 OF 16	REVISION	PART NUMBER				
SCALE 1:16	$\Box \wedge \Box$		N/A			
WEIGHT: N/A	7 🗥					

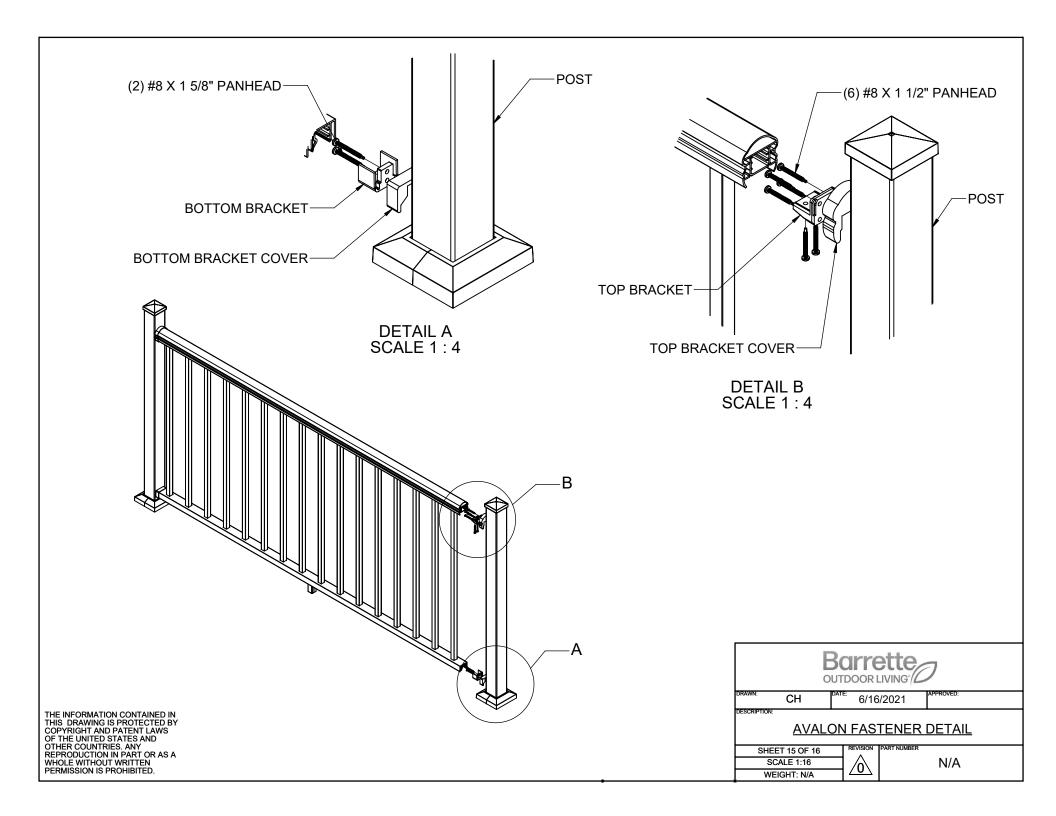
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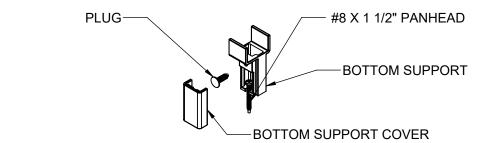


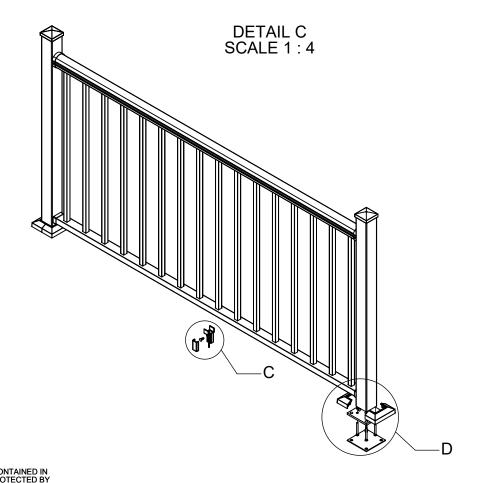


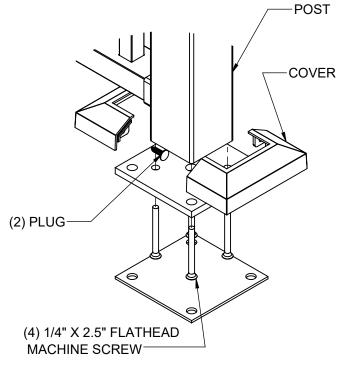
ACCESSORIES NOTES: 1) POST EXTENSION COMES WITH SCREWS, (2) J-HOOKS AND A 65" POST. FOR HANGING LIGHTS HIGH ABOVE RAILING. □2.78 -**POST EXTENSION** - 71.5 -30.56 -19.74 19.74 4.61 7.33 95.5 20.56 26.09 26.09 -20.56 4.61 7.33 2-TO-3 RAIL ADAPTER NOTES: 1) 2-3 RAIL ADAPTER FITS OVER SMALL AVALON TOP RAIL. СН 11/22/2021 2) COMES WITH SCREWS AND TWO BRACKETS. **AVALON ACCESSORIES** 3) 6' AND 8' AVAILABLE SHEET 14 OF 16 SCALE 1:4 N/A

WEIGHT: N/A









DETAIL D SCALE 1:4

DRAWN: CH DATE: 6/16/2021 APPROVED:

DESCRIPTION:

AVALON FASTENER DETAIL

SHEET 16 OF 16 REVISION PART NUMBER

N/A

WEIGHT: N/A

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