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Additional Listee

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Biddeford, ME 04005
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REPORT SUBJECT:

Intex Millwork Solutions, LLC

Cellular PVC Guardrail Systems:

- *Dartmouth RS30 Rail System*
- *Hampton RS40 Rail System*
- *Liberty RS60 Rail System*

Integrity Composites

- *Duralife Rockport Rail System*

1.0 SCOPE OF EVALUATION

2015 International Building Code (IBC)

2012 International Building Code (IBC)

2015 International Residential Code (IRC)

2012 International Residential Code (IRC)

2014 Florida Building Code (FBC)
(*Excluding High Velocity Hurricane Zone)*

Dartmouth, Hampton, Liberty and Duralife Rockport cellular PVC guardrail systems have been evaluated for the following properties:

- Durability
- Service Burning

See Table 1 for applicable Code sections related to these properties.

2.0 USES

2.1. General – *Dartmouth RS30, Hampton RS40, Liberty RS60,* and *Duralife Rockport* railing systems are guardrails or guards under the definitions of the referenced codes intended for exterior use on elevated walking areas in buildings and walkways as required by the referenced codes.

2.2. Guard Assemblies - Railing systems are provided as level guards for level walking areas such as decks, balconies, and porches, and sloped guards for open sides of stairways.

3.0 DESCRIPTION

3.1. Level guards are provided in lengths up to 144 inches and an overall installed height of 42 inches. See Tables 2, 4, 7 and 9 for qualified configurations.

3.2. Stair guards are provided in lengths up to 120 inches between supports projected along the stair slope and 42 inches high projected vertically from the leading edge of the stair tread. See Tables 2,4,7, and 9 for qualified configurations.

3.3. Materials and Processes - Railings are an assemblage of extruded components utilizing a cellular Poly Vinyl Chloride (PVC) material, aluminum reinforcements, and stainless steel mounting brackets. The systems consist of the following components:

3.3.1. The *Dartmouth* top rail is either a RS30-400 cap profile with overall dimensions of 4.0 inches wide by 2.34 inches tall or a RS30-350 cap profile 3.5 inches wide by 1.75 inches tall (See Figure 1). Both rails clip to a "baluster cap" 2.75 inches wide by 0.91 inches tall (See Figure 3).

3.3.2. The *Hampton* top flat rail cap is 7/8 inches high by 3.5 inches wide flat profile over a top rail base that is 1.5 inches high by 2-5/16 inches wide. The *Hampton* peaked rail cap is 1.35 inches high by 3.5 inches wide. See Figure 8.

3.3.3. The *Liberty* top flat rail cap is 13/16 inches high by 3-1/2 inches wide flat profile over a common rail that is 2-5/8 inches high by 2-3/4

inches wide. The *Liberty* contoured rail cap is 7/10 inches high by 3.5 inches wide. See Figure 15.

3.3.4. The *Rockport* top flat rail cap is 3/4 inches high by 3-3/4 inches wide over a common rail that is 1-1/2 inches high and 2-3/4 inches wide. See Figures 26 and 27.

3.3.5. The *Dartmouth* bottom rail is a "U" shaped profile with overall dimensions of 3.25 inches wide by 1.75 inches tall with a nominal 0.375 inch wall thickness. See Figure 2.

3.3.6. The *Hampton* bottom rail is "U" shaped profile with overall dimensions of 1.50 inches high by 2.94 inches wide. See Figure 9.

3.3.7. The *Liberty* bottom rail is "U" shaped profile with overall dimensions of 2-5/8 inches high by 2-3/4 inches wide. See Figure 16.

3.3.8. The *Rockport* bottom rail is a "U" shaped profile with overall dimensions of 1-1/2 inches high by 2-3/4 inches wide. See Figure 27.

3.3.9. Square Balusters – extruded solid cellular PVC, 1.5 inches by 1.5 inches along the entire length are used in the *Dartmouth* Rail System and 1.25 inch square extruded cellular PVC balusters are used in the *Hampton*, Liberty, and Rockport Rail Systems. See Figure 6.

3.3.10. Glass Balusters - 4 inches wide by ¼ inch thick tempered glass.

3.3.11. Extruded aluminum inserts provide reinforcement for the top and bottom rails. See Figure 4 for *Dartmouth*, Figure 10 for *Hampton*, Figure 17 for *Liberty,* and Figure 28 for *Rockport.*

3.3.12. Top and bottom *Dartmouth* rails are connected to posts with stainless steel brackets secured to the posts with stainless steel screws. See Figure 5 and Table 3.

3.3.13. Top and bottom *Hampton* rails are connected to posts with stainless steel brackets secured to the posts with stainless steel screws. See Figure 10 and Tables 5 and 6.

3.3.14. Top and bottom *Liberty* rails are connected to posts with stainless steel brackets secured to the posts with stainless steel screws. See Figure 19 and Table 8.

3.3.15. Top and bottom *Rockport* rails are connected to the posts fastened with stainless steel brackets. See Figures 29, 30, 31 and Table 10.

3.3.16. Support blocks for the *Dartmouth* rail system are cut from 1.5 inches by 1.5 inches square balusters and attached to the bottom rail every 36 inches. The support blocks for the *Hampton and Liberty* Rail systems are cut from 1.25 square balusters and attached to the bottom rail every 36 inches. Support blocks for the *Rockport* rail system are 1-1/4 in square extruded rigid cellular PVC picket cut to length and secured to the underside of the bottom rail every 36 inches.

3.3.17. Cellular PVC post sleeves have a 3/4 inch wall thickness, non-structural and, provide a vinyl cover for conventional 4x4 wood posts.

4.0 PERFORMANCE CHARACTERISTICS

4.1. The guards listed in this report have demonstrated the capacity to resist the design loads specified in Chapter 16 of the IBC when tested in accordance with ICC-ES AC174.

4.2. Structural performance has been adequately demonstrated for a temperature range from -20°F to 125°F.

4.3. Materials used are deemed equivalent to preservative treated or naturally durable wood for resistance to weathering effects, decay, and attack from termites.

4.4. Cellular PVC materials used have a flame spread index not exceeding 200 per referenced criterion in AC174.

5.0 INSTALLATION

The Cellular PVC guardrails produced by Intex Millwork Solutions must be installed in accordance with the manufacturer's published installation instructions, the applicable Code and this Research Report. The manufacturer's published installation instructions and this Research Report must be strictly adhered to, and a copy of the instructions must be available on the jobsite during installation.

5.1. Railing assemblies consist of top and bottom rails. Aluminum railing reinforcements are inserted in the rails during assembly as specified for the type and length of railing. See Tables 2, 4, 7 and 9.

5.2. Guards are attached to supports with stainless steel brackets that utilize stainless steel screws for anchorage. See Tables 3 and 6 for fastening schedules.

5.3. Railing systems may be attached to conventional wood posts or other suitable wood support structure. Wood in the supporting structure shall have a specific gravity of 0.50 or greater (Southern Yellow Pine or better) and a minimum thickness to allow full penetration of the bracket mounting screws. Conventional wood posts or other wood supports are not within the scope of this report.

6.0 SUPPORTING EVIDENCE

6.1. Manufacturer's drawings and installation instructions.

6.2. Reports of testing in accordance with ICC-ES AC174, Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails), revised December 2014 with additional testing including increased test loads to address IBC Section 2407.1.1 for assemblies that utilize a glass in-fill panel.

6.3. Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

7.0 CONDITION OF USE

The Cellular PVC Guardrail systems described in this Research Report complies with, or is a suitable alternative to, what is specified in those Codes listed in Sections 1.0 and 2.0 of this report, subject to the following conditions:

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

7.2. All systems are manufactured in Millville, New Jersey, by INTEX Millwork Solutions in accordance with the manufacturer's approved quality control system with inspections by Architectural Testing (IAS AA-676).

7.3. Conventional wood guardrail supports are not within the scope of this report and are subject to evaluation and approval by the building official.

7.4. Conventional wood posts and structural support framing for post installations must satisfy the design load requirements specified in Chapter 16 of the building code and must provide suitable material for anchorage. Where required by the building official, engineering calculations and details shall be provided.

7.5. Compatibility of fasteners, brackets, and other metallic components with the supporting structure, including chemically treated wood, is not within the scope of this report.

7.6. Only those types of fasteners and fastening methods described in this report have been evaluated for the installation of the INTEX Cellular PVC guardrails; other methods of attachment are outside the scope of this report.

7.7. The glass in-fill panel of guardrails is considered a hazardous location as defined by Section 2406.4 of the IBC. Glass must be identified by permanent etching as required by Section 2406.3 of the IBC. Each section of glass must bear the manufacturer's name or mark and the applicable test standard. (Class A of ANSI Z97.1 and Category II of 16 CFR 1201).

7.8. Guardrails using glass in-fill shall not be used in wind-borne debris regions as defined by the IBC in accordance with Section 2407.1.4.

8.0 IDENTIFICATION

The vinyl guardrail assemblies produced by INTEX Millwork Solutions and identified in this report shall be identified with labeling on the individual components or the packaging that includes the name and/or trademark of the manufacturer, the Code Compliance Research Report mark and report number (CCRR-0155), the maximum allowable span rating for the railing assembly, and when applicable, the statement "For Use in One- and Two-Family Dwellings Only."

9.0 CODE COMPLIANCE RESEARCH REPORT USE

9.1. Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

9.2. Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Architectural Testing.

9.3. Reference to the Intertek website address: whdirectory.intertek.com is recommended to ascertain the current version and status of this report.

TABLE 1 – PROPERTIES EVALUATED

PROPERTY	IBC SECTION	IRC SECTION
Durability	1607	R301
Surface Burning	2603.3	R507.3.2

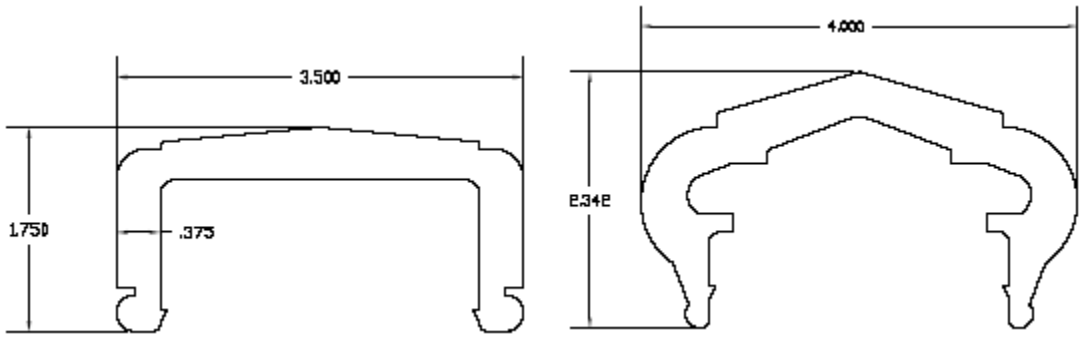
Table 2 – Dartmouth (RS30) Guardrail Systems Code Use Categories

Style	Code	Type	Maximum Length[1]	Overall Guard Rail Height[2]	Rail Insert	Baluster
Dartmouth (RS30)	IBC FBC[4]	Level	144 inches	42 inches	"U" Shape (Figure 4)	1.5 inch square
		Stair	96 inches	42 inches[3]		
	IRC	Stair	96 inches	36 inches		

[1] Maximum length is the actual top rail length measured from the inside of the post to the inside of the post.
[2] Overall rail height is measured from the top of the top rail to the walking surface or leading edge of the stair tread.
[3] Stair construction requires box stringers or other closure beneath bottom rails to prevent clearance that allows passage of a six inch diameter sphere within the triangle formed by the stair riser and tread.
[4] Excluding HVHZ, High-Velocity Hurricane Zone

Table 3 - *Dartmouth* Assembly Fastening

Connection	Fastener
Top & Bottom Level Rail Bracket to Rail	Four #8 x 1-1/4 inch square-drive T17 18-8SS screws
Top Level Rail Bracket to Post	Three #10 x 3 inch slot-hex washer head TA 18-8SS screws
Bottom Level Rail Bracket to Post	Two #10 x 3 inch slot-hex washer head TA 18-8SS screws
Stair Rail Bracket to Rail	Four #8 x 1-1/4 inch square-drive T17 18-8SS screws
Stair Rail Bracket to Post	Three #10 x 3 inch slot-hex washer head TA 18-8SS screws
Aluminum to Baluster Cap to Rail Cap (RS30-350)	One #8 x 1-7/8 inch square-drive T17 18-8SS screw (one at each end and 1 in center between balusters)
Aluminum to Baluster Cap to Rail Cap (RS30-)400	One #8 x 2-1/4 inch square-drive T17 18-8SS screw (one at each end and 1 in center between balusters)
Aluminum to Baluster Cap to Baluster	One #8 x 2-1/2 inch square-drive T17 18-8SS screw (every three balusters)
Baluster to Baluster Cap	One #8 x 2-1/2 inch square-drive T17 18-8SS screw
Baluster to Bottom Rail	One #8 x 2-1/2 inch square-drive T17-18-8SS screw One #8 x 1-1/2 inch square-drive T17 18-8SS screw
Support Block to Bottom Rail	One #8 x 2-1/2 inch square-drive T17 18-8SS screw



RS30 - 350 RS30 - 400

Figure 1 – *Dartmouth* Top Rail Profiles

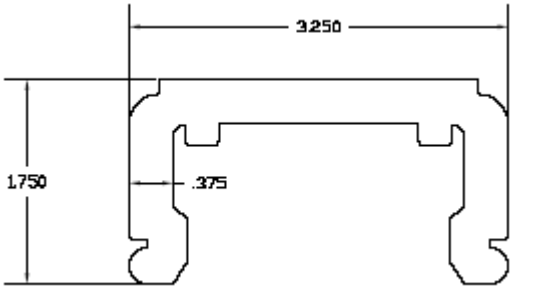


Figure 2 – *Dartmouth* Bottom Rail Profile

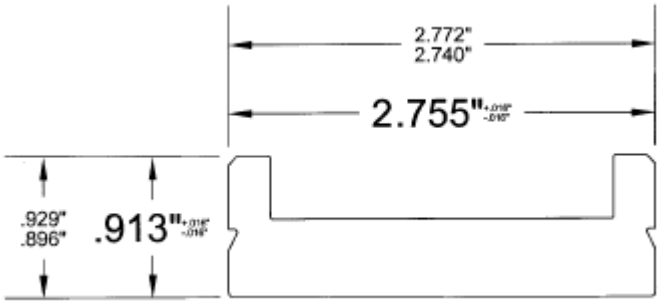


Figure 3 - *Dartmouth* Baluster Cap

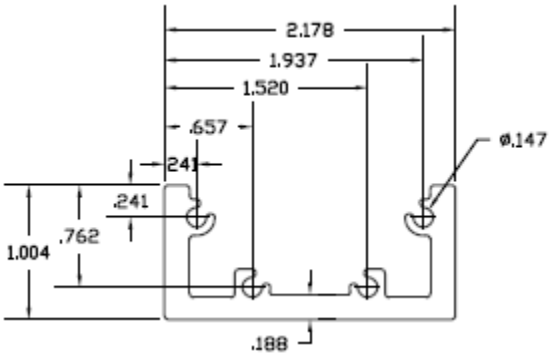
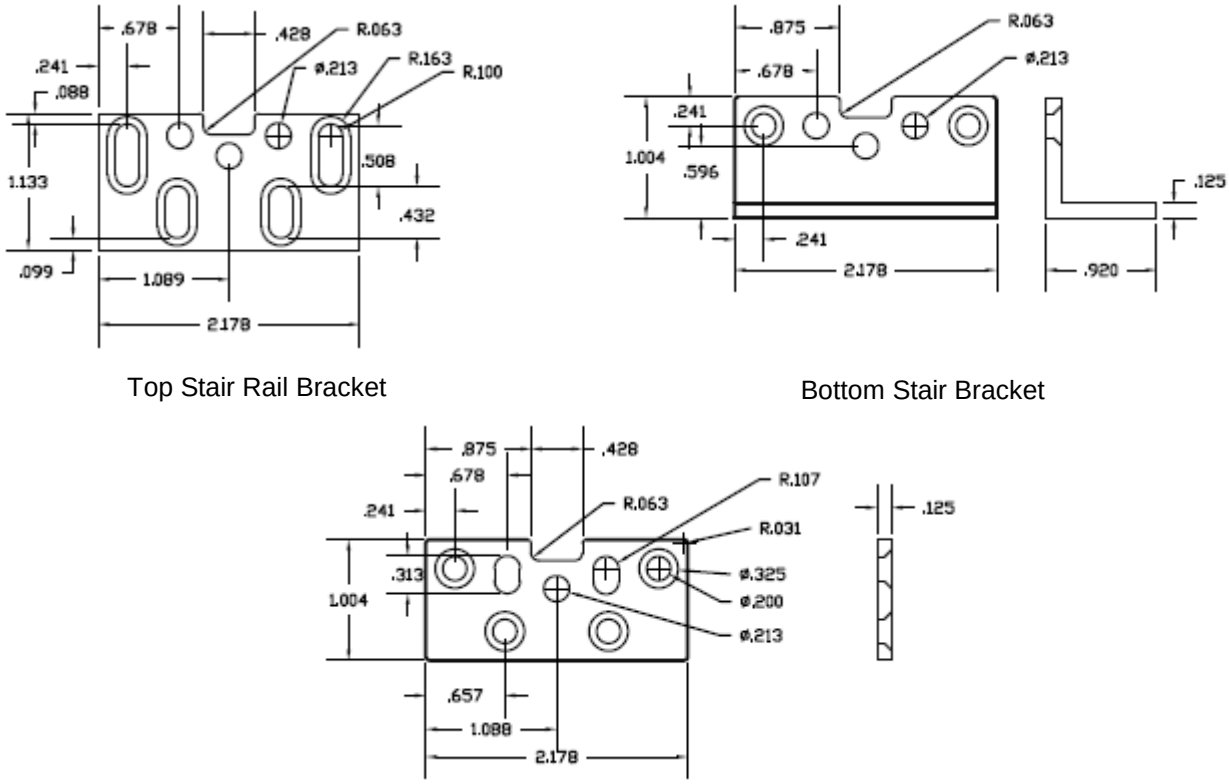


Figure 4– *Dartmouth* Aluminum Insert

(Top and Bottom Rail)



Top Stair Rail Bracket

Bottom Stair Bracket

Straight Rail Bracket

Figure 5 – *Dartmouth* Brackets

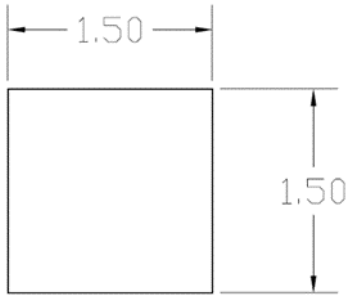


Figure 6 – *Dartmouth* 1.5 inch Square Baluster

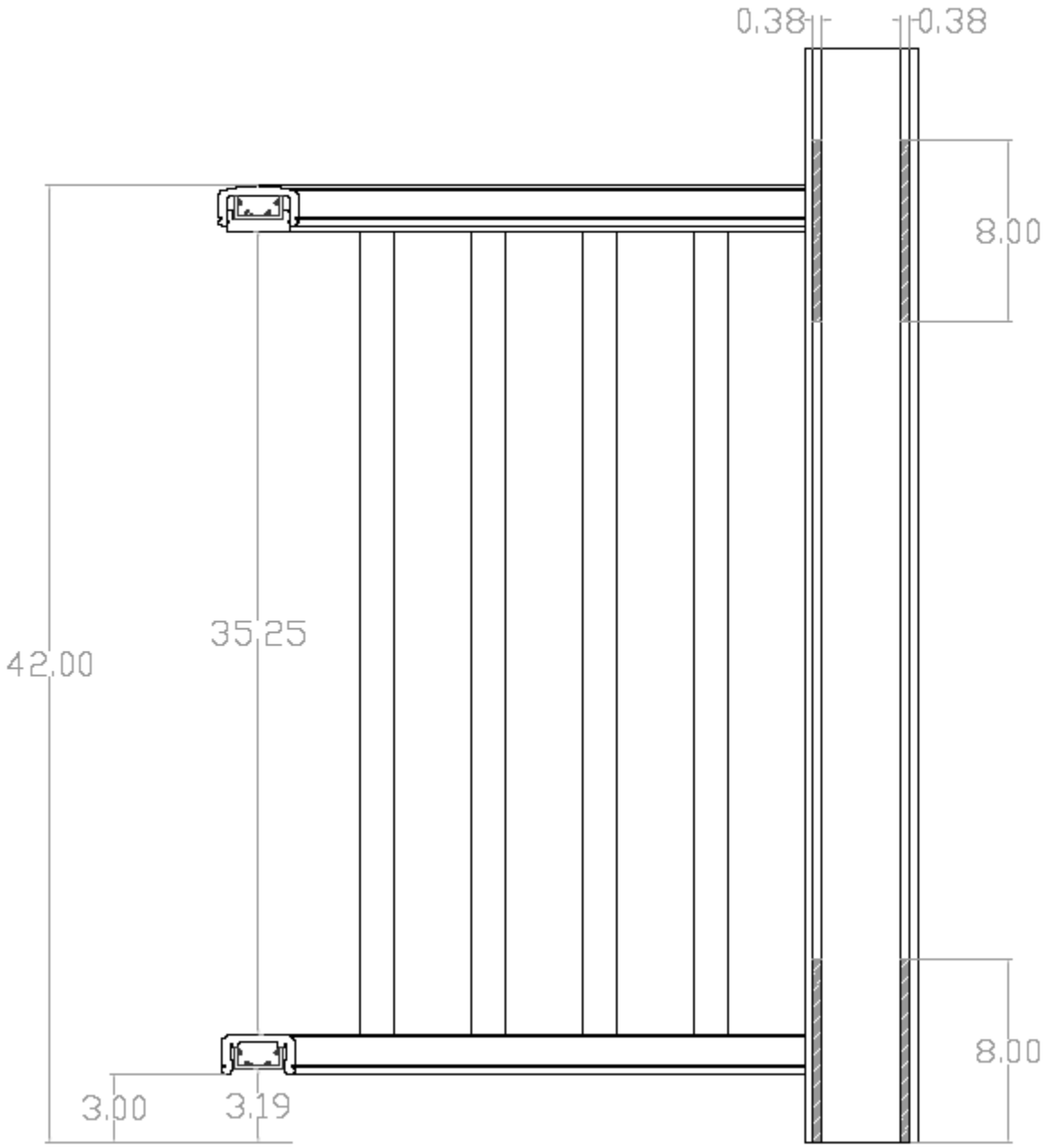


Figure 7 – *Dartmouth* Typical Level Installation to Post Sleeve

Table 4 - Hampton (RS40) Guardrail Systems Code Use Categories

	Code	Type	Maximum Length[1]	Overall Guard Rail Height[2]	Rail Insert	Baluster
Hampton (RS40)	IBC FBC[3]	Level	120 inches	42 inches	"U" Shape (Figure 10)	1.25 inch Square Rigid Cellular PVC Picket
		Stair	96 inches	42 inches		
	IRC	Level	96 inches	42 inches	"U" Shape (Figure 10)	4 inches wide by 1/4 in Thick Tempered Glass

[1] Maximum length is the actual top rail length measured from the inside of the post to the inside of the post.
[2] Overall rail height is measured from the top of the top rail to the walking surface or leading edge of the stair tread.
[3] Excluding HVHZ, High-Velocity Hurricane Zone

Table 5 - Hampton Assembly Fastening for Glass Baluster Installation

Connection	Fastener
Rail Bracket to Post	(2) #10-11 x 3" (0.131 in minor diameter) hex washer head, slotted drive, stainless steel screws
Rail Bracket to Rail	(4) #8-15 x 1-1/4" (0.117 in minor diameter) square drive, flat head, stainless steel screws
Common Rail to Baluster Retainer [1]	(26) #8-8 x 1-1/2" (0.117 in minor diameter) square-drive, flat-head, type 17 point, stainless steel screw
Common Rail to Aluminum Reinforcing Insert [2]	(4) #8-8 x 1-1/2" (0.131 in minor diameter) square-drive, flat-head, type 17 point, stainless steel screw
Bottom Rail to Foot Block	(1) #8-8 x 2-1/2" (0.117 in minor diameter) square-drive, flat-head, type 17 point, stainless steel screw
Baluster to Baluster Retainer	Slip fit into routing - no mechanical connection

[1] Fasteners are located at each end of the rail and two between each baluster.
[2] Fasteners are located at every third opening between balusters.

Table 6 - *Hampton* Assembly Fastening for 1-1/4" Picket Installation

Connection	Fastener
Top Rail Bracket to Post [1]	(2) #12-11 x 4" (0.156 in minor diameter) trim head, phillips drive, stainless steel screws
Top Rail Bracket to Post [2]	(2) #10-12 x 3" (0.131 in minor diameter) hex washer head, slotted drive, stainless steel screws
Bottom Rail Bracket to Post [3]	(2) #10-12 x 3" (0.131 in minor diameter) hex washer head, slotted drive, stainless steel screws
Top / Bottom Rail Bracket to Rail - Level and Stair (High End)	(4) #8-15 x 1" (0.117 in minor diameter) trim head, square drive, stainless steel screws
Top / Bottom Rail Bracket to Rail - Stair (Low End)	(2) #8-15 x 1" (0.117 in minor diameter) trim head, square drive, stainless steel screws
Baluster to Top Common Rail - Level and Stair	(1) #10-8 x 2-1/2" (0.112 in minor diameter, 0.129 in shank diameter) trim head, square drive, type 17 point, stainless steel screw
Baluster to Common Rail to Aluminum Insert - Level and Stair [4]	(1) #10-8 x 2-1/2" (0.112 in minor diameter, 0.129 in shank diameter) trim head, square drive, type 17 point, stainless steel screw
Baluster to Bottom Common Rail	(1) #10-8 x 2-1/2" (0.112 in minor diameter, 0.129 in shank diameter) trim head, square drive, type 17 point, stainless steel screw and (1) #8-8 x 1-1/2" (0.112 in minor diameter, 0.129 in shank diameter) trim head, square drive, type 17 point, stainless steel screw
Top Common Rail to Top Rail Cap [5]	(1) #8-8 x 1-3/4" (0.112 in minor diameter, 0.128 in shank diameter), trim head, square drive, type 17 point, stainless steel screw
Bottom Rail to Foot Block	(1) #10-8 x 2-1/2" (0.112 in minor diameter, 0.129 in shank diameter) trim head, square drive, type 17 point, stainless steel screw

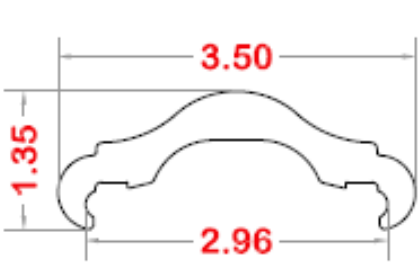
[1] Used for 10 ft level guardrails and all stair guardrails.

[2] Used for level guardrails 8 ft long and under.

[3] Used for all level and stair guardrails.

[4] Occurs at balusters 1, 4, and 7 from each end for the stair rail, balusters 1, 4, 7, 10, 13, 16, 19, and 22 for the 10 ft level guardrail and 2, 5, 8, 11, 14, and 17 for the 8 ft level guardrail.

[5] Located between 1st and 2nd baluster and at 1/3rd points for the 10 ft level guardrail and 8 ft stair guardrail and between the 1st and 2nd baluster and at the midpoint for the 8 ft level guardrail.



Peaked Rail Cap



Flat Rail Cap

Figure 8 – *Hampton* Rail Top Rail Cap Profiles



Figure 9 – *Hampton* Top Subrail and Bottom Rail

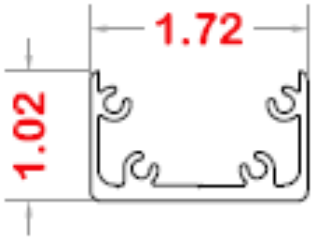
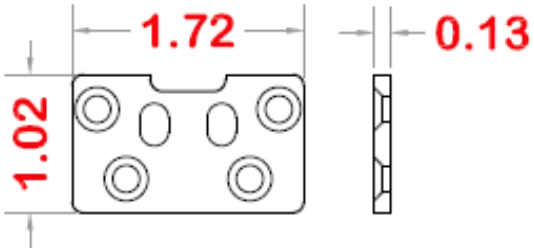
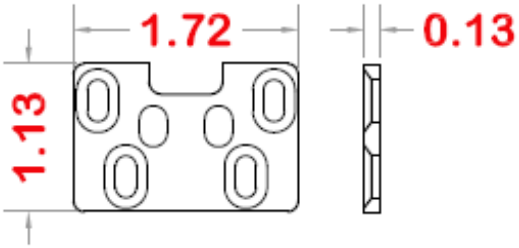


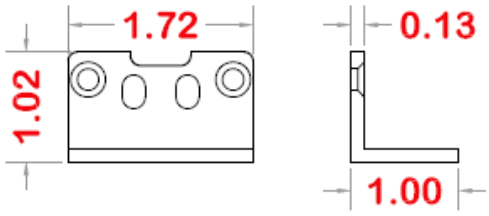
Figure 10 – *Hampton* Aluminum Insert



Level Rail Bracket



Top End Stair Bracket



Bottom End Stair Bracket

Figure 11 – *Hampton* Brackets

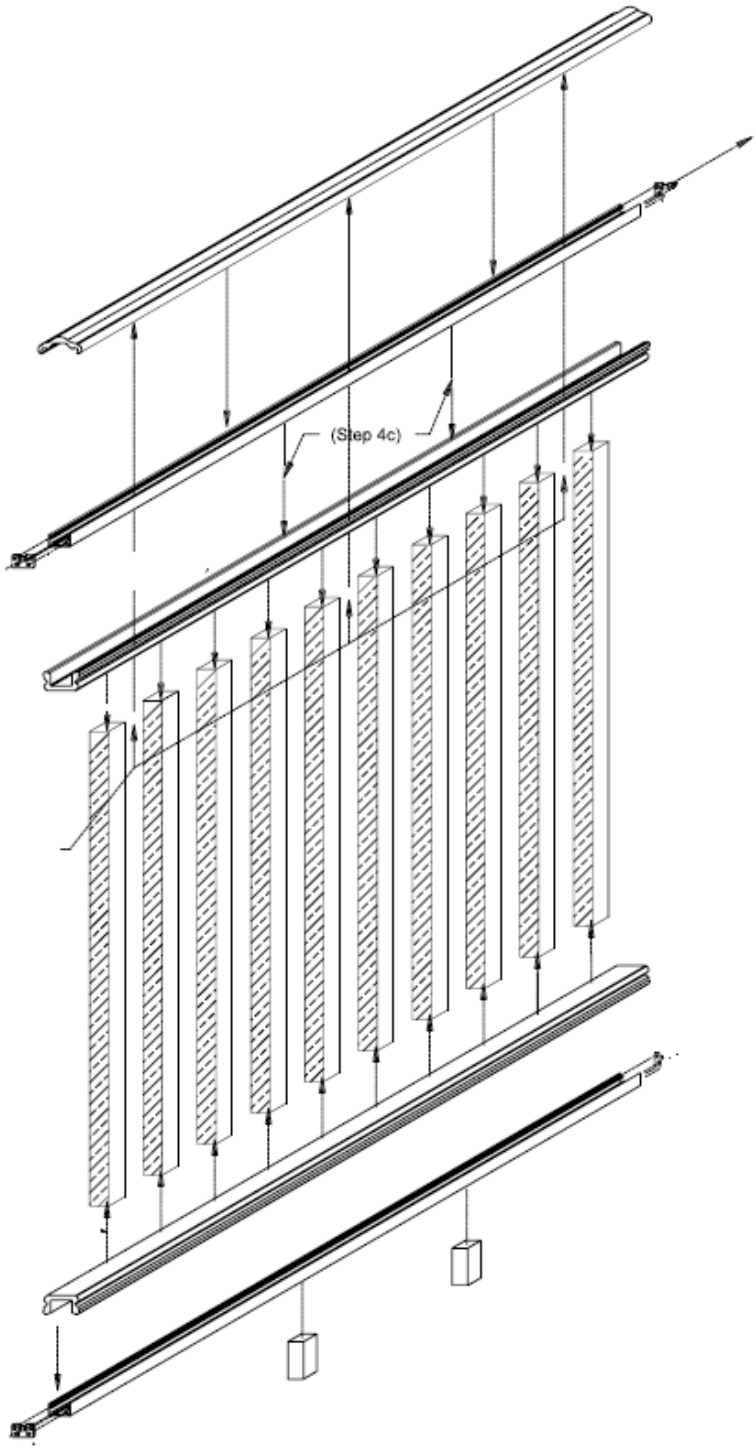


Figure 12 – *Hampton* Typical Level and Stair Rail Assembly with Pickets

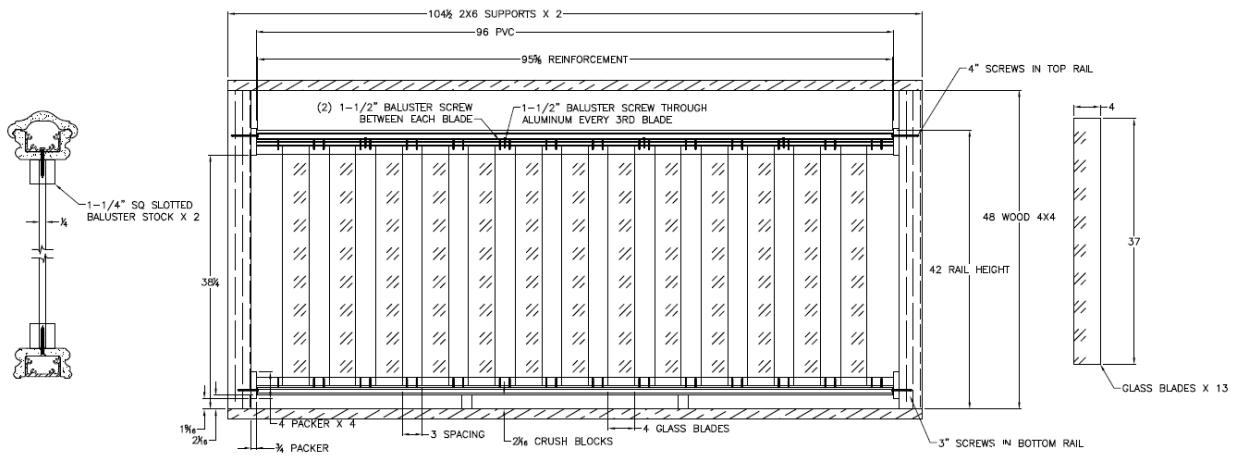


Figure 13 – 8' *Hampton* Level Rail Assembly with Glass Balusters

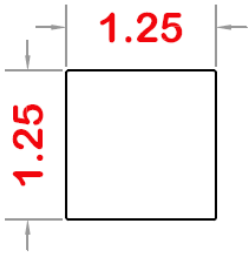


Figure 14 – Hampton 1.5 inch Square Baluster

Table 7 – Liberty (RS60) Guardrail Systems and Code Use Categories

Style	Code	Type	Maximum Length[1]	Overall Guard Rail Height[2]	Rail Insert	Baluster
Liberty (RS60)	IBC FBC[4]	Level	120 inches	42 inches	"H" Shape (Figure 18)	1.25 inch Square Rigid Cellular PVC Picket
		Stair	96 inches	42 inches[3]		
	IRC	Level	120 inches	36 inches		
		Stair	120 inches	36 inches		
	IRC	Level	96 inches	42 inches	"H" Shape (Figure 18)	4 inches wide by 1/4 in Thick Tempered Glass

[1] Maximum length is the actual top rail length measured from the inside of the post to the inside of the post.
[2] Overall rail height is measured from the top of the top rail to the walking surface or leading edge of the stair tread.
[3] Stair construction requires box stringers or other closure beneath bottom rails to prevent clearance that allows passage of a six inch diameter sphere within the triangle formed by the stair riser and tread.
[4] Excluding HVHZ, High-Velocity Hurricane Zone

Table 8 - *Liberty* Assembly Fastening

Connection	Fastener
Rail Bracket to Post	(2) #10-11 x 3" (0.131 in minor diameter) hex washer head, slotted drive, stainless steel screws
Rail Bracket to Rail	(3) #8-15 x 1-1/4" (0.117 in minor diameter) square drive, flat head, stainless steel screws
Bottom Rail to Foot Block	(1) #8-8 x 2-1/2" (0.117 in minor diameter) square drive, flat head, type 17 point, stainless steel screw
Baluster to Top Support Rail [1]	(1) #8-8 x 2-1/2" (0.117 in minor diameter) square-drive, flat-head, type 17 point, stainless steel screw
Baluster to Common Rail	Slip fit into routing - no mechanical connection

[1] Fastening is only required in the 10'/36 section, the 8' section does not require any baluster fastening.

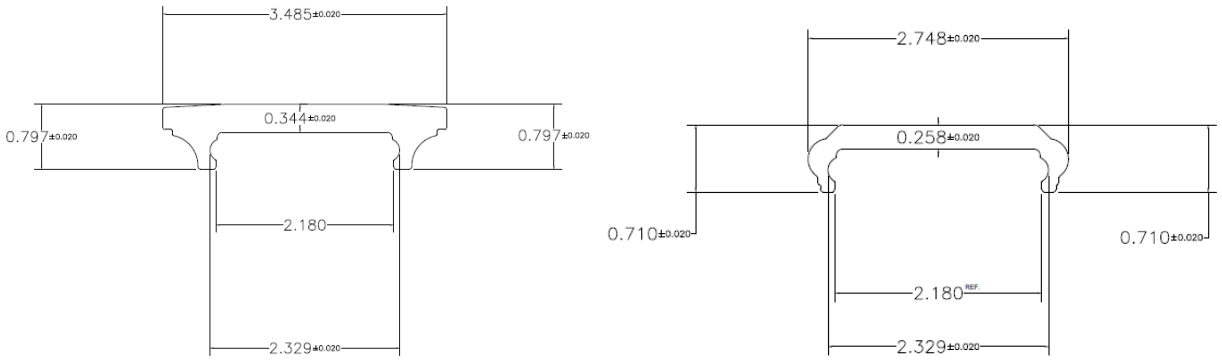


Figure 15 – *Liberty* Top Rail Profiles

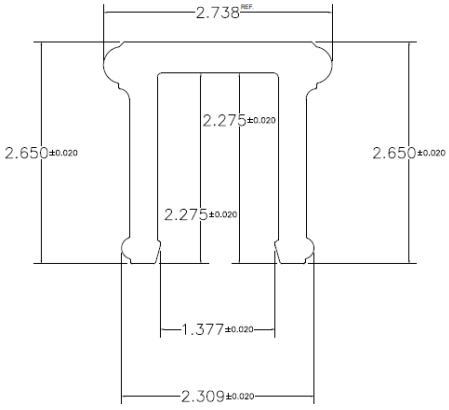


Figure 16 – *Liberty* Common Rail Top Subrail and Bottom Rail

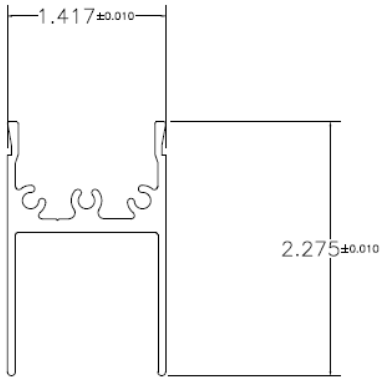


Figure 17 – *Liberty* Aluminum Reinforcement

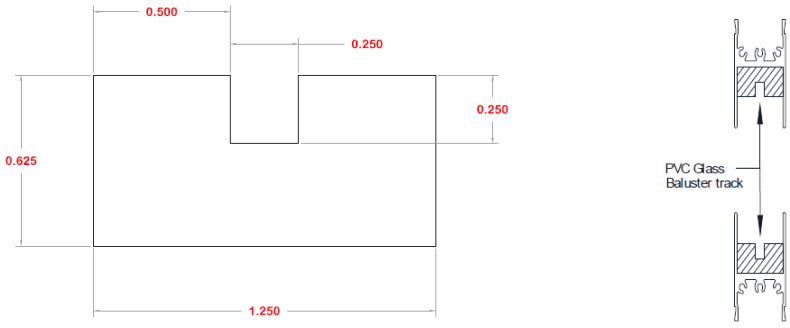


Figure 18 – *Liberty* Support Channel for Glass Balusters

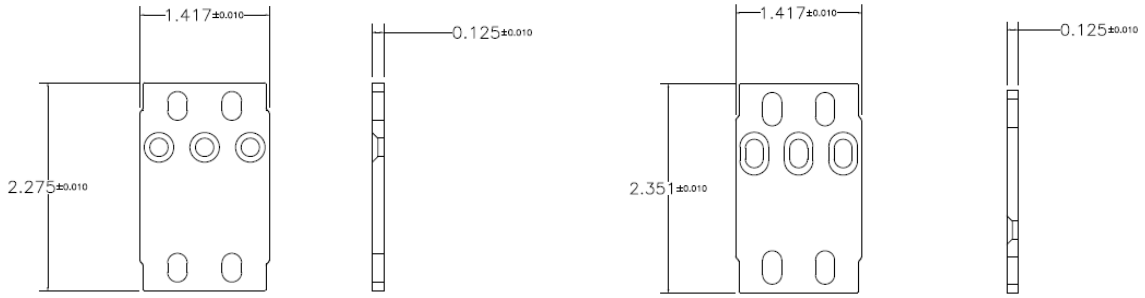


Figure 19 – *Liberty* Level (left) and Stair (right) Brackets

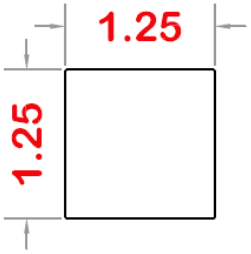


Figure 20- *Liberty* 1.25 inch Square Baluster

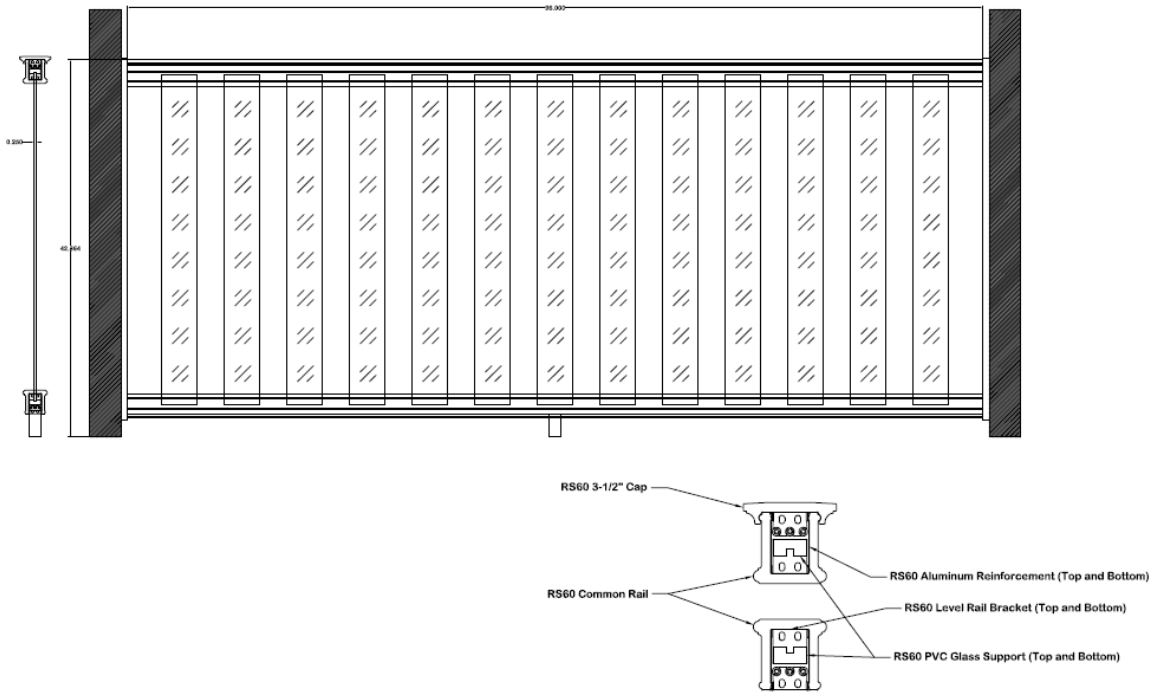


Figure 21 – *Liberty* 8' x 42" Glass Rail with 3.5" Cap and Glass Balusters

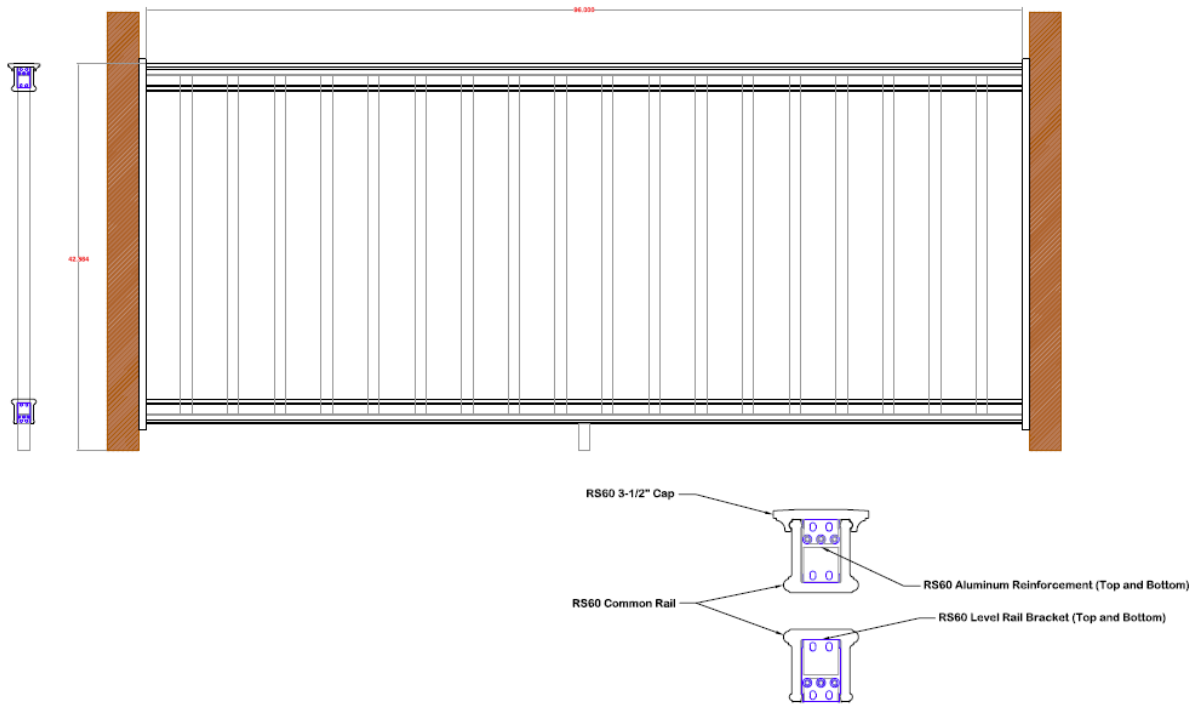


Figure 22– *Liberty* 8' x 42" Level Rail with 3.5" Top Rail and Square Balusters

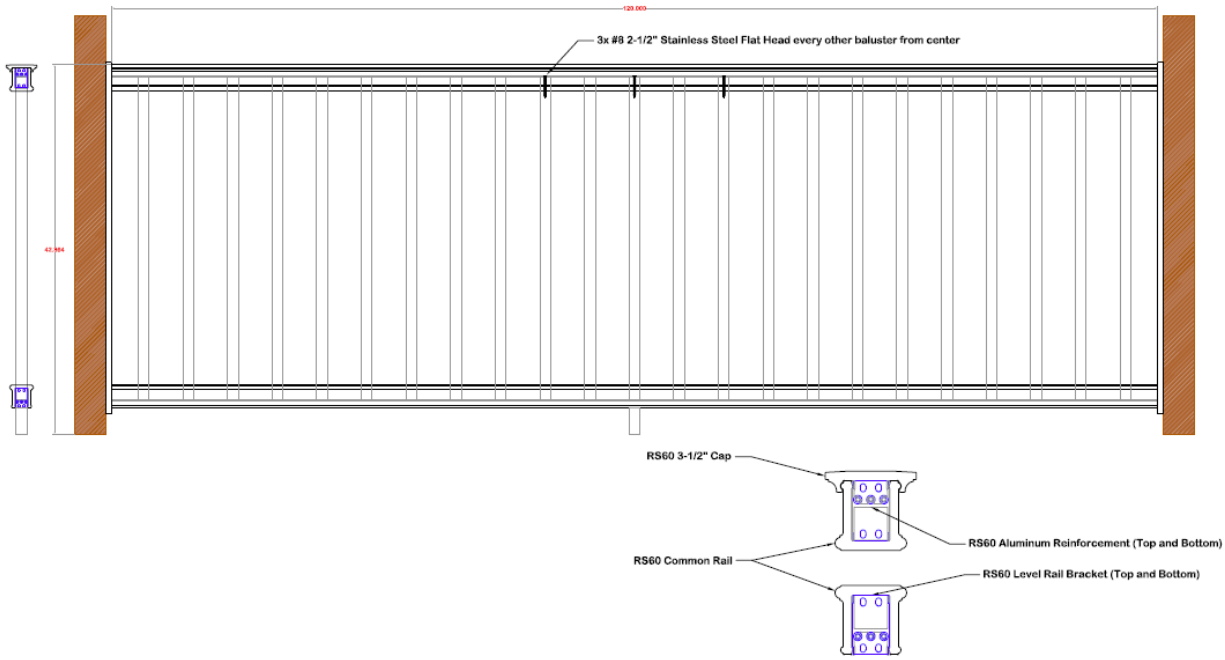


Figure 23 – *Liberty* 10' x 42" Assembly with 3.5" Top Rail and Square Balusters

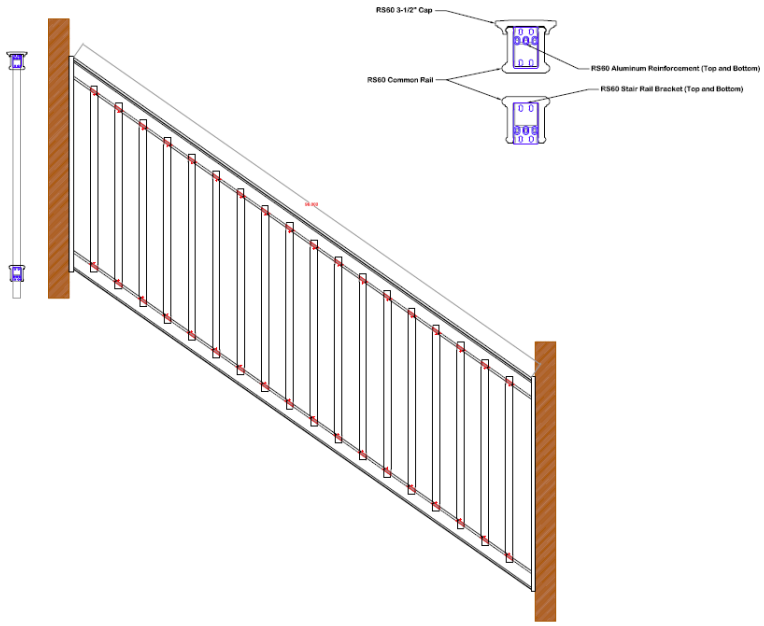


Figure 24 - *Liberty* 8’ x 36” Stair Assembly with 3.5” Top Rail and Square Balusters

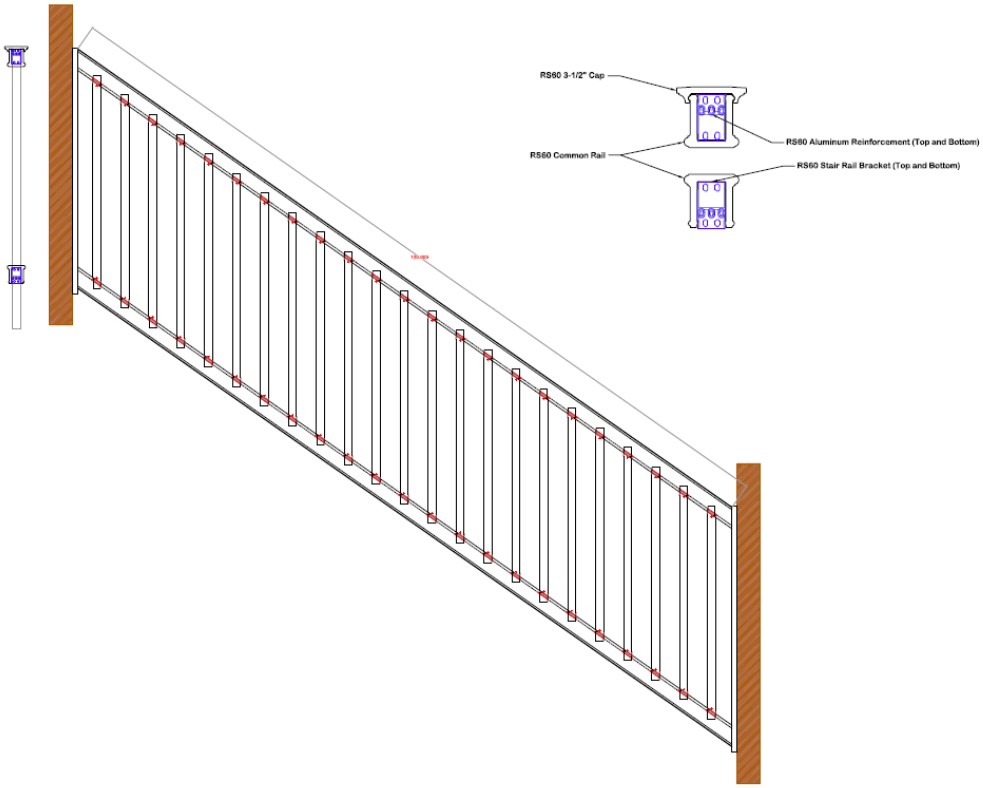


Figure 25 - Liberty10’ x 36” Stair Assembly with 3.5” Top Rail and Square Balusters

Table 9 – Duralife Rockport Guardrail Systems and Code Use Categories

Style	Code	Type	Maximum Length[1]	Overall Guard Rail Height[2]	Rail Insert	Baluster
Duralife Rockport	IBC FBC[3]	Level	120 inches	42 inches	"U" Shape (Figure 10)	1.25 inch Square Rigid Cellular PVC Picket
		Level	96 inches	42 inches		
		stair	96 inches	42 inches		

[1] Maximum length is the actual top rail length measured from the inside of the post to the inside of the post.
[2] Overall rail height is measured from the top of the top rail to the walking surface or leading edge of the stair tread.
[3] Excluding HVHZ, High-Velocity Hurricane Zone

Table 10- Rockport Level and Stair Assembly Fastening

Connection	Fastener
Rail Bracket to Post (96 in Level Rail)	(2) #10-12 x 3" (0.134 in minor diameter) hex washer head, slotted drive, stainless steel screws
Rail Bracket to Post (120 in Level Rail and 96 in Stair Rail)	(2) #12-11 x 4" (0.159 in minor diameter) hex washer head, Hex drive, stainless steel screws
Rail Bracket to Rail	(4) #8-15 x 1-1/4" (0.120 in minor diameter) square drive, flat head, stainless steel screws
Top Common Rail to Baluster	(23 – 120 in Rail), (18 – 96 in Rail) #8-8 x 2-1/2" (0.114 in minor diameter, 0.125 in shank diameter) square-drive, flat-head, Type 17 point, stainless steel screw
Top Common Rail to Aluminum Reinforcing Insert to Baluster [1,2]	(7 – 120 in Rail), (6 – 96 in Rail) #8-8 x 2-1/2" (0.114 in minor diameter) square-drive, flat-head, Type 17 point, stainless steel screw
Bottom Common Rail to Baluster	(1) #8-8 x 2-1/2" (0.114 in minor diameter, 0.125 in shank diameter) trim head, square drive, Type 17 point, stainless steel screw and (1) #8-8 x 1-1/2" (0.114 in minor diameter, 0.125 in shank diameter) trim head, square drive, Type 17 point, stainless steel screw
Bottom Rail to Foot Block	(1) #8-8 x 2-1/2" (0.114 in minor diameter, 0.125 in shank diameter) square-drive, flat-head, Type 17 point, stainless steel screw

[1] Fasteners are located at baluster numbers 3, 6, 9, 12, 15, 18 and 21 on the 120 in rail.
[2] Fasteners are located at baluster numbers 2,5,8,11,14 and 17 on the 96 in rail.

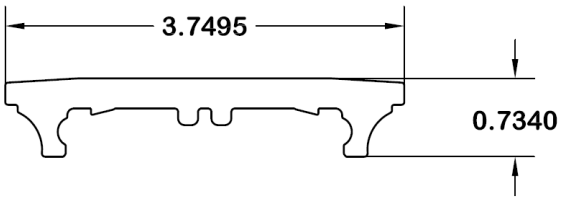


Figure 26 – Rockport Top Rail Cap

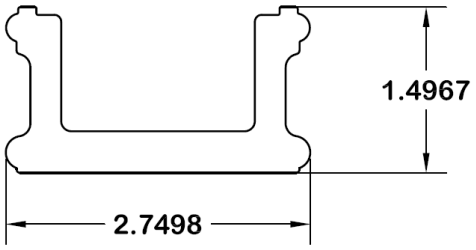


Figure 27 – Rockport Common Rail Top Sub Rail and bottom Rail

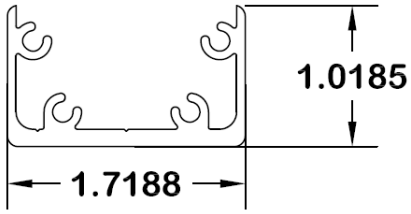


Figure 28 - Rockport Aluminum Reinforcement

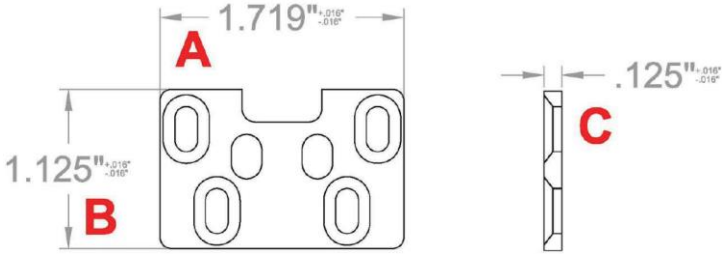


Figure 29 – Rockport Upper End Stair Bracket

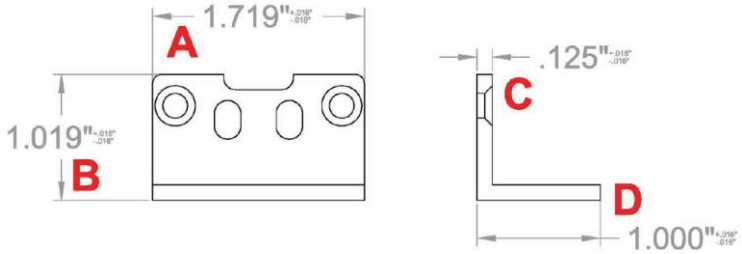


Figure 30 – Rockport Lower End Stair Bracket

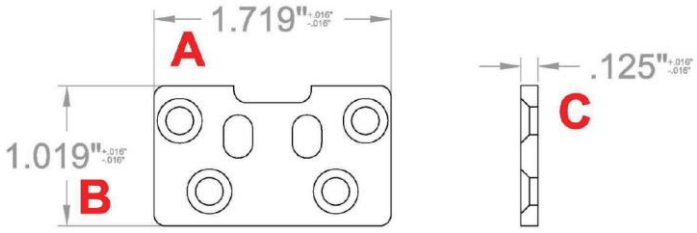


Figure 31 – Rockport Level Bracket

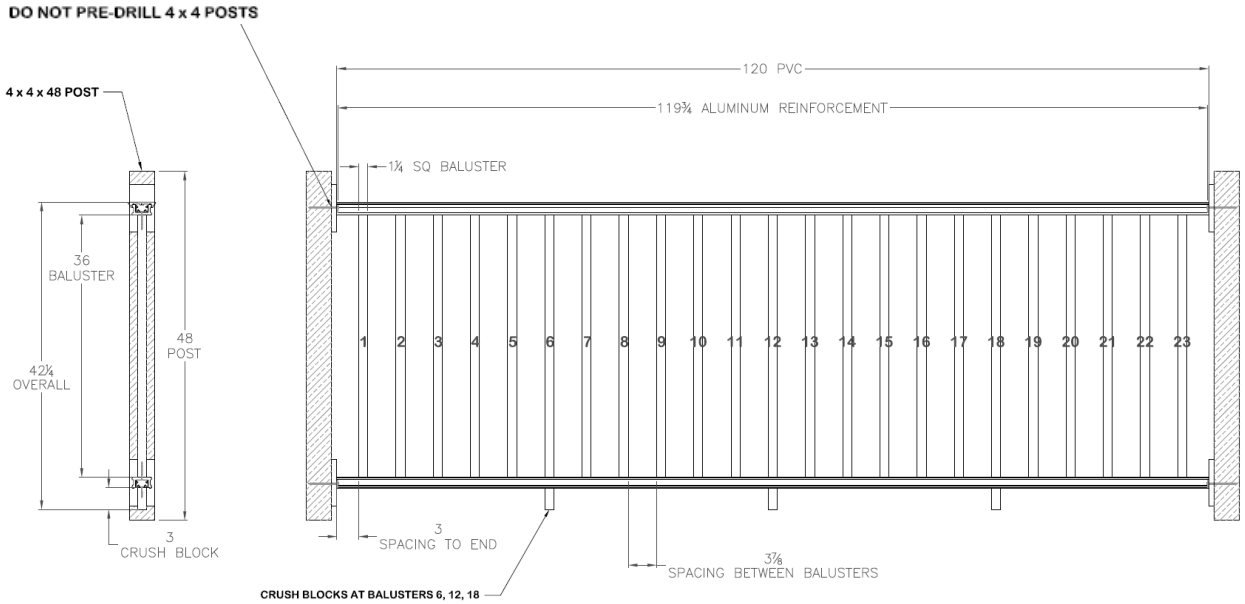


Figure 32- Rockport Level 10' x 42" Level Assembly

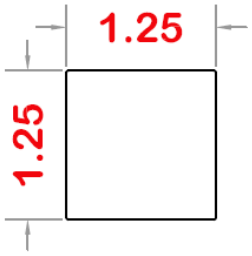


Figure 33– 1.25 inch Square Rockport Baluster

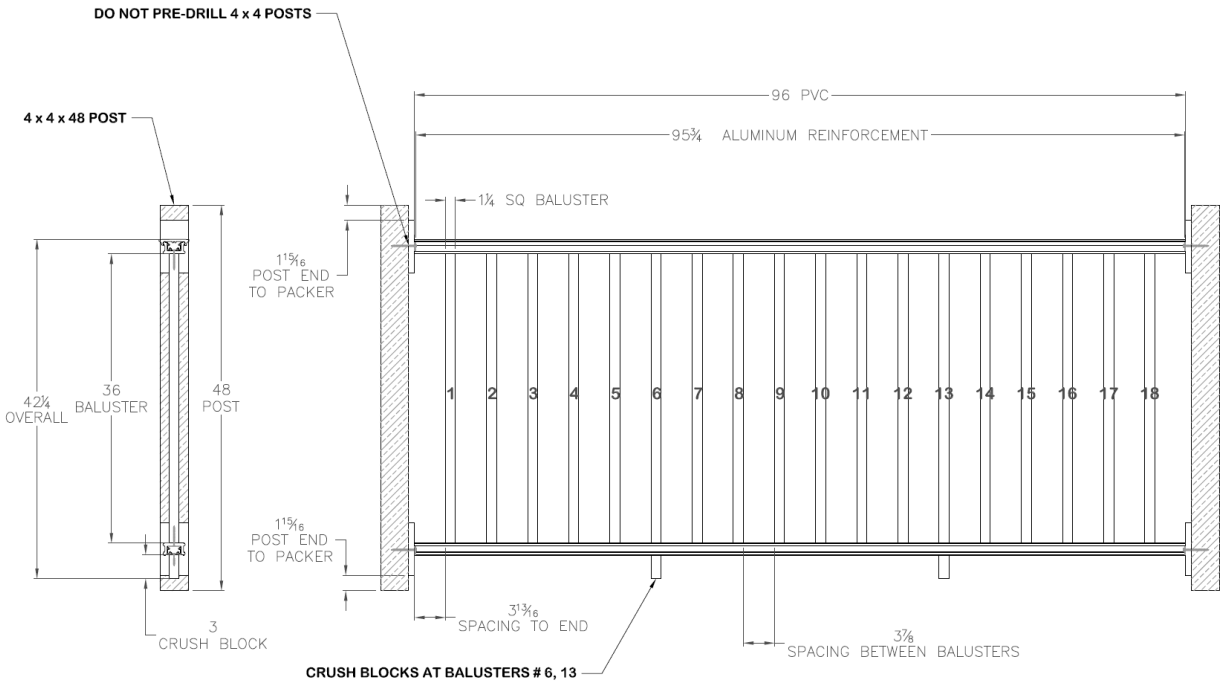


Figure 34- Rockport Level 8' x 42" Level Assembly

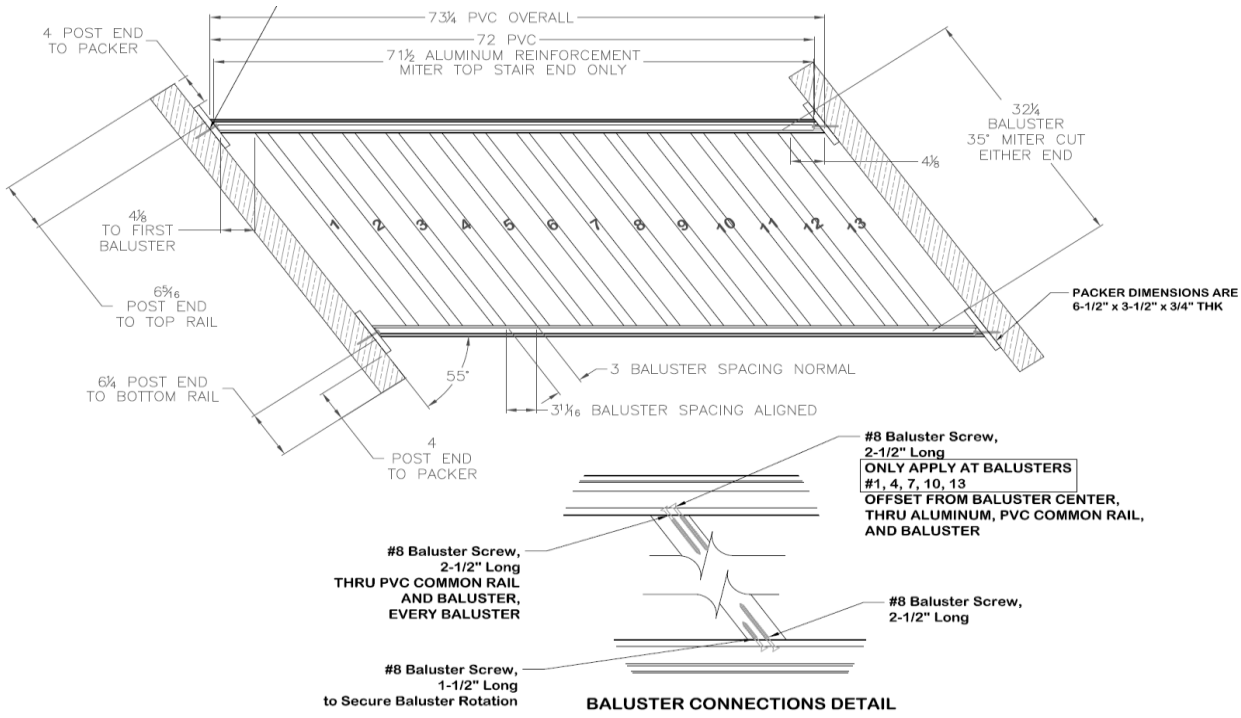


Figure- 35 Rockport 6' x 36" Stair Assembly

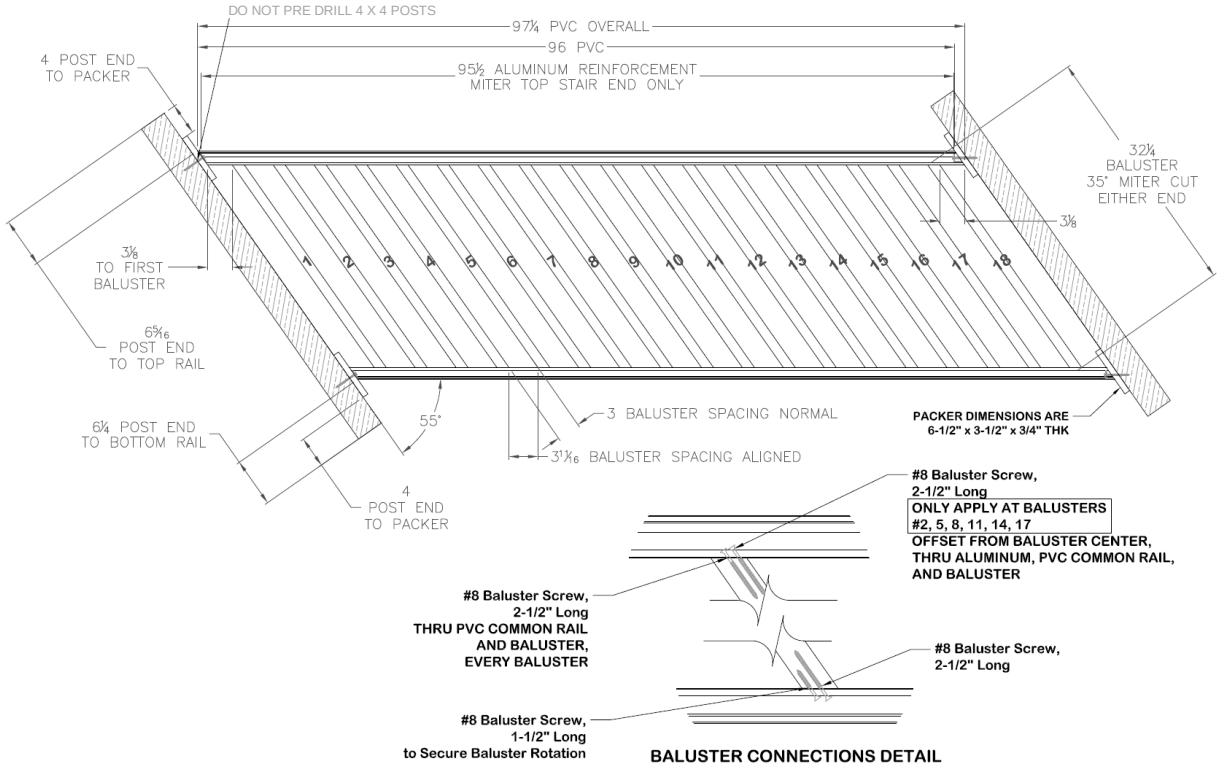


Figure-36 Rockport 8’ x 36” Stair Assembly