Unique Aluminum Exterior Architectural Components with an Exotic Wood-Grain Look Designed for Commercial & Residential Use

With classic, clean lines and rich wood-like tones a Levanté® privacy fence will be the talk of every neighborhood. Levanté's strength of metal combined with a wood grain finish is durable and resistant to Mother-Nature's harsh elements, so a client's pride will last as long as it does.

PROTECTION POWERED BY DECORAL®

Finished with Decoral® powder coating, Levanté® wood grains are built with impeccable detail and resists fading and scratching.

MOONLIGHT KISS

TWILIGHT SUN

TOASTED MARSHMALLOW

**Material coated colors may vary from printed samples.*

800.224.2995 | www.levantealuminum.com | response@levantealuminum.com

LEVANTÉ®
ALUMINUM ARCHITECTURAL COMPONENTS

BEAUTIFUL. DURABLE. CREATED TO LAST.

INSTALL FRIENDLY
Lightweight, easy to use component system that's workable with basic hand tools. Saves time and labor and requires no special fasteners.

ALL-SEASON PERFORMANCE
Non-porous surface where moisture absorption is non-existent. Levanté® endures throughout the seasons easily handling extreme times of heat or cold.

LOW-MAINTENANCE
Levanté® creates a carefree and cost effective outdoor environment that's easy to clean and lasts a lifetime.

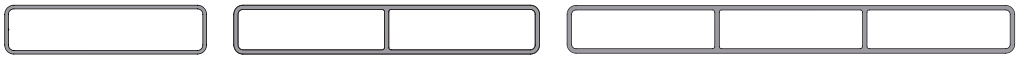
FIRE RETARDANT
ASTM E84
The Decoral® System coating on Levanté® makes it fire retardant and non-combustible.

ECO-FRIENDLY
Aluminum is one of the most sustainable materials in the world. It's infinitely 100% recyclable.

LEVANTÉ® ALUMINUM FENCE COMPONENT SYSTEM

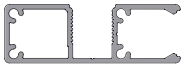
The Levanté® Fence Component System makes it easy to create your one of a kind space. Boards & 1-Way Posts are available in 19′ lengths with 18′-11″ of usable material. 3-Way Posts are available in 10′ lengths.

STANDARD BOARD
Available in 2″, 4″ & 6″ widths

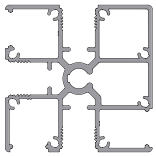


FINISHING CONCEALER

1-WAY POST



3-WAY POST

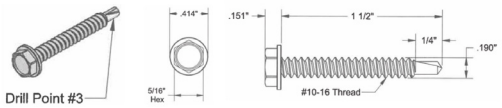


1-WAY POST CAP

3-WAY POST CAP

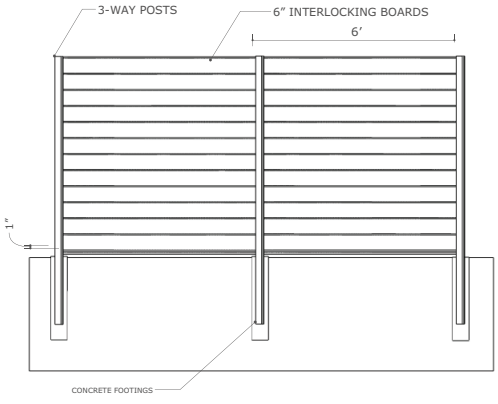
3-WAY POST BASE

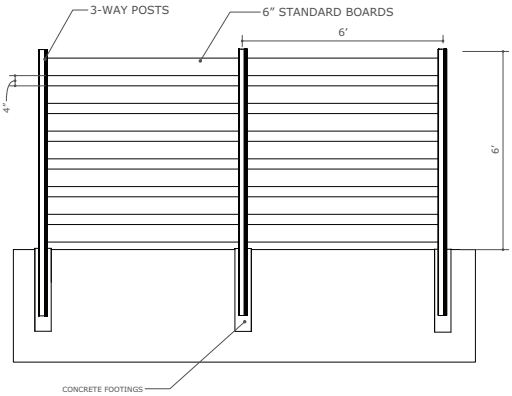
LEVANTÉ® FENCE CONNECTOR HEX HEAD



LEVANTÉ® POST BASE PHILIPS SCREWS

FENCE DETAIL





VERIFIED TESTING

Levanté® Aluminum Fencing Components have undergone various performance tests provided by a certified third-party testing agency.

DYNAMIC FENCE WIND LOAD REPORT

STRUCTURAL PERFORMANCE REPORT – ASTM F2957

MODIFIED IMPACT RESISTANCE REPORT

View the complete Levanté® Aluminum Fence Component System, visit www.levantealuminum.com

800.224.2995 | www.levantealuminum.com | response@levantealuminum.com

HALLMARK
building supplies inc.

LEVANTÉ®
ALUMINUM ARCHITECTURAL COMPONENTS

Levanté® AIA Course

ALUMINUM EXTERIOR COMPONENTS WITH WOOD-GRAIN LOOK DESIGNED FOR HIGH PERFORMANCE

COURSE NUMBER: LEV2019C1
LEARNING UNITS: 1 LU | HSW

Course Description:

Using wood accents on commercial & residential exterior facades is a growing trend. Wood accents have also maintained their popularity in the interiors of homes & commercial spaces. Using real wood has maintenance challenges. Aluminum components made with a wood-grain look provide flexibility in architectural design & low-maintenance for the end-user.

Learning Objectives

- Identify architectural component materials and discuss material selection considerations
- Describe aluminum architectural elements in terms of their manufacture, components, and function
- Discuss the use of aluminum architectural elements and evaluate their performance benefits
- Explain how to properly install and maintain aluminum architectural components

hllmark.com | 800.642.2246 | response@hllmark.com

32 31 19
DECORATIVE METAL FENCES AND GATES

Levanté® Premier Aluminum Fencing

PART 1- GENERAL:

1.1 SECTION INCLUDES

A. Decorative fence system at location indicated on Drawings.
B. Decorative fence gates at location indicated on Drawings.

1.2 RELATED SECTIONS

A. Section 01 33 23- Shop Drawings, Product Data, and Samples
B. Section 01 74 21- Construction/Demolition Waste Management and Disposal
C. Section 03 30 00- Cast-In-Place Concrete
D. Section 09 06 00- Schedule for Finishes
E. Section 31 20 00-Earth Moving

1.3 REFERENCES

A. American Society for Testing and Materials (ASTM)
   1. ASTM E84- Standard Test Method for Surface Burning Characteristics of Building Materials
   2. ASTM E330/E330M – Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference
   3. ASTM D2244 – Standard Practice for Calculation of Color Tolerances and Color Differences
   4. ASTM F2957 Section 5 – Standard Specifications for Ornamental Aluminum Fence Systems - Structural Testing
   5. ASTM D4214 – Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films
   6. ASTM D5206-13- Standard Test Method for Wind Load Resistance
B. American Architectural Manufacturers Association (AAMA)
   1. AAMA 615 – Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Plastic Profiles
   2. AAMA 2604-10 Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
C. American National Standards Institute (ANSI)
   1. Modified FM 4473 – Test Standard of Impact Resistance of Testing of Rigid Roofing Materials by impacting with Freezer Ice Balls

1.4 SUBMITTALS

A. Submit under provisions of Section 01 33 00.
B. Manufacturer's Literature and Data: Submit manufacturer's printed product literature, specifications, data sheet, and installation instructions.
C. Product Samples: Submit manufacturer's 6" product samples of fencing material in color and profile specified.
   1. 1-Way Post, 3-Way Post, standard board, self-mating board
   2. Toasted Marshmallow, Twilight Sun, Moonlight Kiss

D. Submittal Drawings: show size, configuration, and fabrication and installation details.
E. Submit manufacturer's installation instructions.
F. Manufacturer's Warranty: Submit manufacturer's warranty.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications:
   1. Products covered under this section are to be manufactured in an ISO 9001 certified facility.
   2. Provide technical and design support as needed regarding installation requirements and warranty compliance provisions.
B. Installer Qualifications:
   1. All products listed in this section are to be installed by a single installer trained by manufacturer or representative.
C. Pre-Installation Meetings:
   1. Prior to beginning installation, conduct conference to verify and discuss substrate conditions, manufacturer's installation instructions and warranty requirements, and project requirements.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver products in Manufacturer's packaging.
B. Do not stack pallets more than two high.
C. Pieces should be stored flat and in original packaging until use.
D. Mark packaging, legibly. Indicate manufacturer's name, type, and color.
E. Before installation, inspect products for damaged or defectives.
F. Scrap material should be recycled.

1.7 WARRANTY

A. Levanté®, LLC expressly warrants its products are free from manufacturing defects in material and workmanship if installed in accordance with our specifications, property maintained, and used for their intended purpose for a period of 15 years.
B. Decoral® expressly warrants for 15 years the color change will be less than five CIE Lab AE units calculated in accordance with AAMA 2604. The surface will exhibit a gloss retention of at least 30% of the original.
C. Warranty is given to either (1) the original purchaser of the products; or (2) the owner of the property at the time of installation of the product.
D. See warranty at levantealuminum.com for detailed information on terms, conditions and limitations.

PART 2- PRODUCTS:

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Levanté®, LLC, 901 Northview Rd, Suite 100, Waukesha, WI. 53188 www.levantealuminum.com
B. Acceptable Distributor: Hallmark Building Supplies, Inc., 901 Northview Rd, Suite 100, Waukesha, WI. 53188. Toll Free: 1.800.642.2246, Fax: 1.800.688.7842, www.hllmark.com

2.2 SYSTEM PERFORMANCE

A. Minor deviations to details shown on drawings to accommodate manufacturer's standard products may be acceptable by Architect of Record (AOR) when deviations do not affect design concept and specified performance.

2.3 PRODUCTS

A. Basis of Design: Section 09 06 00- Schedule for Finishes
B. Provide decorative fence and gates from one manufacturer.

C. DECORATIVE FENCE SYSTEM

1. Basis of Design Product: Levanté® 1-Way Fence Post
   a. Profile Color: Toasted Marshmallow, Twilight Sun, Moonlight Kiss
   b. Profile: Smooth woodgrain finish
   c. Finish: Semi-gloss
   d. Weight: 0.824 lbs. per ft
2. Basis of Design Product: Levanté® 3-Way Fence Post
   a. Profile Color: Toasted Marshmallow, Twilight Sun, Moonlight Kiss
   b. Profile: Smooth woodgrain finish
   c. Finish: Semi-gloss
   d. Weight: 1.961 lbs. per ft
   e. Approximate Coverage:
3. Basis of Design Product: Levanté® Standard Boards
   a. Profile Color: Toasted Marshmallow, Twilight Sun, Moonlight Kiss
   b. Profile: Smooth woodgrain finish
   c. Exposed Dimensions: 2” (50 mm), 4” (100 mm) or 6” (150 mm)
   d. Installed Panel Thickness: .63” (16 mm)
   e. Finish: Semi-gloss
   f. Weight:
      i. 2” – .270 lbs. per ft
      ii. 4” – .601 lbs. per ft
      iii. 6” – .953 lbs. per ft
   g. Approximate Coverage:
      i. 2” - 3.17 sqft per board
      ii. 4” – 6.33 sqft per board
      iii. 6” – 9.5 sqft per board
4. Basis of Design Product: Levanté® Self-mating Boards
   a. Profile Color: Toasted Marshmallow, Twilight Sun, Moonlight Kiss
   b. Profile: Smooth woodgrain finish
   c. Exposed Dimensions: 4” (100 mm) or 6” (150 mm)
   d. Installed Panel Thickness: .63” (16 mm)
   e. Finish: Semi-gloss
   f. Weight:
      i. 4” – .694 lbs. per ft (2 board thickness)
      ii. 6” – 1.378 lbs. per ft (2 board thickness)
   g. Approximate Coverage:
      i. 4” - 6.33 sqft per board
      ii. 6” – 9.5 sqft per board
5. Accessory/Components:
   a. Finishing Concealer
   b. Post Base
   c. Post Cap
   d. For a full listing of all components visit www.levantealuminum.com
6. Substitutions: Post Cap only
7. Requests for substitutions will be considered in accordance with the guidelines outlined in Section 01 60 00.

2.4 MATERIALS

A. Aluminum components manufactured utilizing an extrusion die.

B. Components are prefinished and machine applied.

C. Material Variation: It is suggested to lay out several boards at a time to look for material variation. Avoid installing similar material consecutively. If similar grain pattern repetition cannot be avoided, staggering the pattern can be helpful.

2.5 INSTALLATION COMPONENETS

A. All installation components are aluminum and have a factory finish matching the finish of the 1-Way Fence Post, 3-Way Fence Post, Self-Mating Boards and Standard Boards
B. 1-Way Fence Post
C. 3-Way Fence Post
D. Standard Boards
E. Self-Mating Boards
F. Finishing Concealers
G. Fence Post Base
H. Fence Post Cap
I. Fasteners: Corrosion resistant fasteners, such as hot-dipped galvanized screws appropriate to local building codes and practices must be used. Use Hardened Aluminum fasteners in high humidity and high-moisture regions. Panel manufacturer is not liable for corrosion resistance of fasteners. Do not use fasteners that are not rated or designed for intended use. See manufacturer's instructions for appropriate fasteners for construction method used.

PART 3: Execution

3.1 EXAMINATION

A. Verification of Conditions and Substrate
    1. Examine site to ensure substrate conditions are within proper installation tolerances.
    2. Correct substrate deficiencies.
        i. Fill
        ii. Level
        iii. Grind
    3. Do not begin installation until proper conditions are present.
    4. Do not install components that are either damaged or defective.

3.2 FENCE INSTALLATION

A. General: Install products in accordance with the latest installation guidelines of the manufacturer and all applicable building codes and other laws, rules, regulations and ordinances. Review all manufacturer installation, maintenance instructions, and other applicable documents before installation.
B. Layout fence, with minimum number of joints.
C. Installation:
    1. Set Posts as indicated on Drawings, in concrete footers minimum 36 inch depth or using post base plates.
    2. Earthwork: As specified in Section 31 20 00- Earth Moving
    3. Concrete: As specified in Section 03 30 00- Cast-In-Place Concrete
    4. Install boards as needed for desired finished design
    5. Insert Finishing Concealers as needed

3.3 GATE INSTALLATION

A. Install gates according to manufacturer's instructions.
B. Set posts plumb, as indicated on Drawings.

3.4 CLEANING AND MAINTENANCE

A. Refer to manufacturer's guidelines for detailed care instructions.

LEVANTÉ®
ALUMINUM ARCHITECTURAL COMPONENTS

FENCING
INSTALLATION GUIDELINES

These guidelines presume the installer has a working knowledge of fence installation and the tools required. It is suggested to view installation video prior to starting installation.

INSTALLATION TOOLS CHECKLIST:

- ❑ Levanté® Aluminum Standard Boards, Fence Posts, and Accessories
- ❑ Proper fasteners
- ❑ Miter saw with high tooth (*minimum 80*) count non-ferrous blade
- ❑ Tape measure and standard construction level
- ❑ Safety equipment (*glasses, ear protection, etc.*)
- ❑ Rubber mallet

HAVE QUESTIONS?

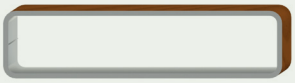
Levanté® Quick Tech Support is available Monday-Friday. Our trained support team can consult on your project and provide installation techniques, verify material usage for application, and provide general guidance on working with Levanté®. **Contact us at quicktech@levantealuminum.com for support.**

PRODUCT DESCRIPTIONS & DIMENSIONS

BOARDS

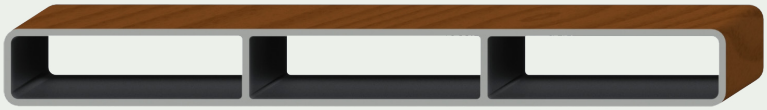
All standard boards are approximately 19′ in length. Standard board width sizes include 2″, 4″, and 6″.

50 MM (2″) STANDARD BOARD



100 MM (4″) STANDARD BOARD

150 MM (6″) STANDARD BOARD



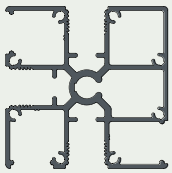
POST AND TRIM COMPONENTS

Fence Posts

Fence Posts come in two options: 3-Way Fence Post in a 10′ length or 1-Way Fence Post in a 19′ length. 1-Way Post can also be used for top rail and/or gate construction.

1-WAY POST

3-WAY POST



Finishing Concealer

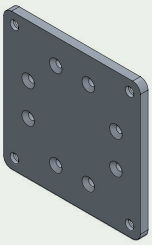
Finishing Concealer comes in 19′ length. Finishing Concealers are to be installed to cover screw channel once screws have been installed to secure boards to Fence Posts. Finishing Concealers can also be installed in between boards when spacing between boards is desired.

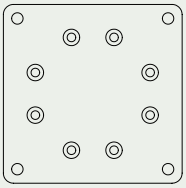
FINISHING CONCEALER

Fence Post Base

Used when attaching a Fence Post to concrete or asphalt.

3-WAY POST BASE – 4″ X 4″ X 1/4″

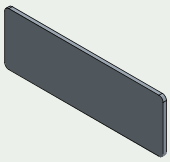




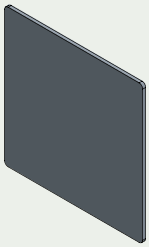
Fence Post Caps

Can be adhered to the top of the Fence Post with cyanoacrylate glue, polyurethane construction adhesive, or epoxy. Other 3″ standard post caps can be used if desired.

1-WAY POST CAP 3″X 1″X 1/16″



3-WAY POST CAP 3″X 3″ X 1/16″



GETTING STARTED

FASTENERS:
Use 1-¼" #10 self-drilling corrosion-resistant exterior hex-head screw. Choose a fastener material fit for use and climate. Attach Levanté® base plates to fence post using 1" #10 corrosion-resistant exterior tapered-head screw.

CUTTING:
Miter saw with minimum 80 tooth non-ferrous metal-cutting blade. Proper protection equipment should be used.

MATERIAL VARIATION:
It is suggested to lay out several boards at a time to look for material variation. Avoid installing similar material consecutively. If similar material cannot be avoided, staggering or flipping the board can be helpful.

POST INSTALLATION

These guidelines do not supersede any local code regulations.
Review area where Levanté® Fencing is to be installed, checking for proper post layout.

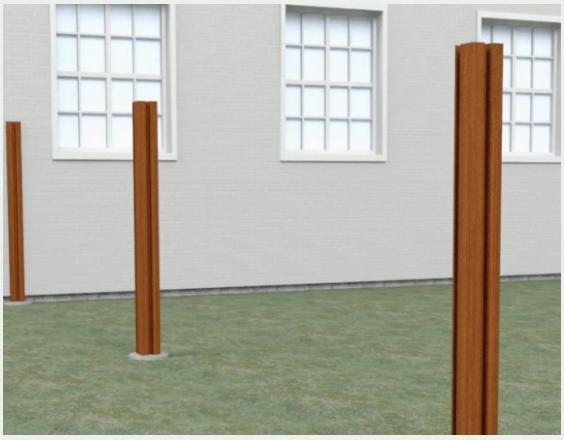
1 Inspect all material once delivered prior to installation to ensure no damage or defects.

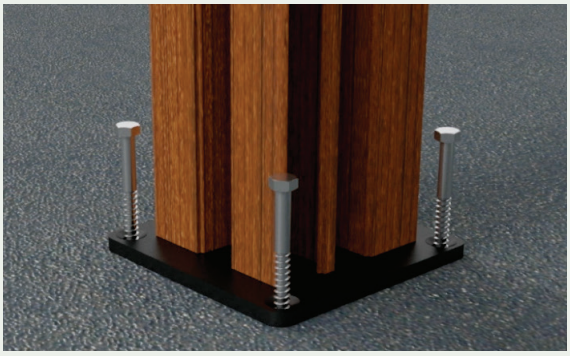
2 1-way or 3-way posts can be used at fence starting or ending points. Three-way posts should be used for corners and straight runs. We recommend installing posts no longer than 8' apart.

CONTINUED

POST INSTALLATION *CONTINUED*

3 Install posts in concrete footing below grade per local code. If installing on concrete or asphalt, install Levanté® base plates onto posts and then use appropriate lag bolts to fasten into concrete/asphalt.



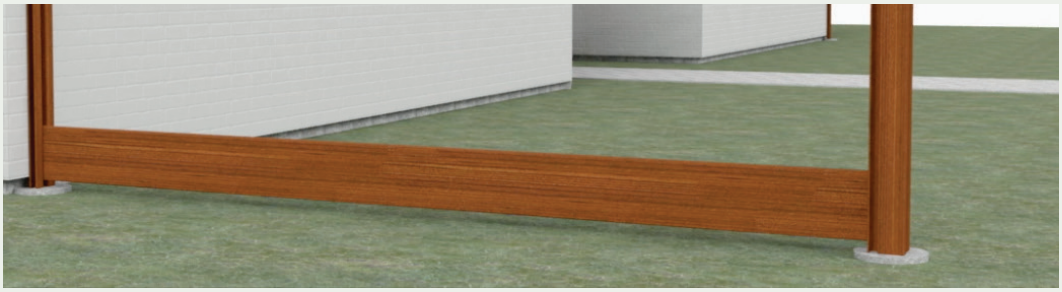


4 Take careful consideration when installing posts that will connect to gates to ensure proper placement of post for gate hinge and latch installation.

STANDARD BOARD HORIZONTAL FENCE INSTALLATION

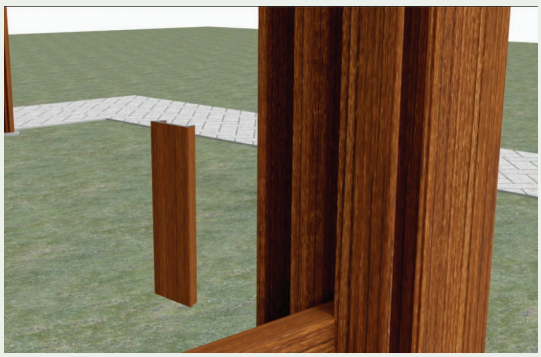
1 Cut Levanté® standard boards to size.

2 Slide board into post channel. Make sure to move board to lowest height desired.



3 Fasten board to post by using a minimum of 2 screws on each end of board through screw channel.

4 If spacing the boards is desired, cut Finishing Concealer to size. Add Finishing Concealer to spaces as you work your way up the fence.



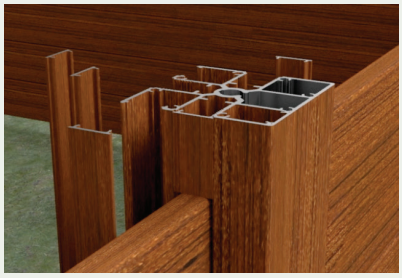
CONTINUED

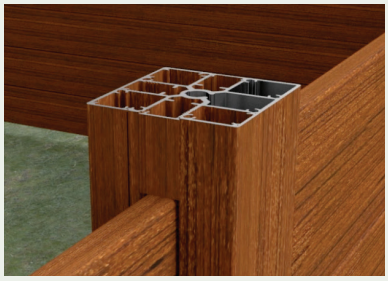
STANDARD BOARD HORIZONTAL FENCE INSTALLATION *CONTINUED*

5 Continue to slide boards into channel working from the bottom up and fasten until fence is at desired height.

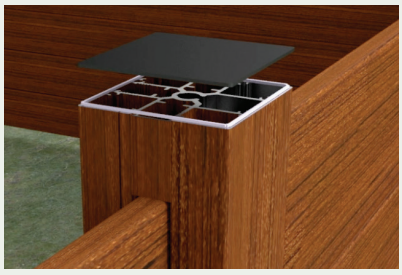
6 Vary board spacing and widths to achieve different designs.

7 Cut and insert Finishing Concealer into open channels on posts.





8 Install post caps.



GATE CONSTRUCTION USING STANDARD BOARDS AND 1-WAY POST

1 Miter 1-Way Post ends to align corners. 1-Way Posts to be used as perimeter (4 sides) of gate.

2 Cut Levanté® standard boards to size.

3 Slide board into post channel on side posts of gate. Starting board to be installed so that roughly ¾" of the board extends above the inside corner of the side posts. End post to slide onto ¾" of board extended past inside corner of post so that mitered corners align.

4 Fasten board to side posts by using a minimum of 2 screws on each end of board through screw channel. Fastner board to end post using a maximimum screw spacing of 12".

5 If spacing the boards is desired, cut Finishing Concealer to size. Add Finishing Concealer to spaces as you work your way up the gate.

6 Continue to slide boards into channel working from the bottom up and fasten until fence is at desired height. ¾" of last board required to extend past inside corner of side posts.

7 End post to slide onto ¾" of board extended past inside corners so mitered corners align.

8 Cut and insert Finishing Concealer into open channels on 1-Way Posts.

REGISTER YOUR LEVANTÉ® FENCE:

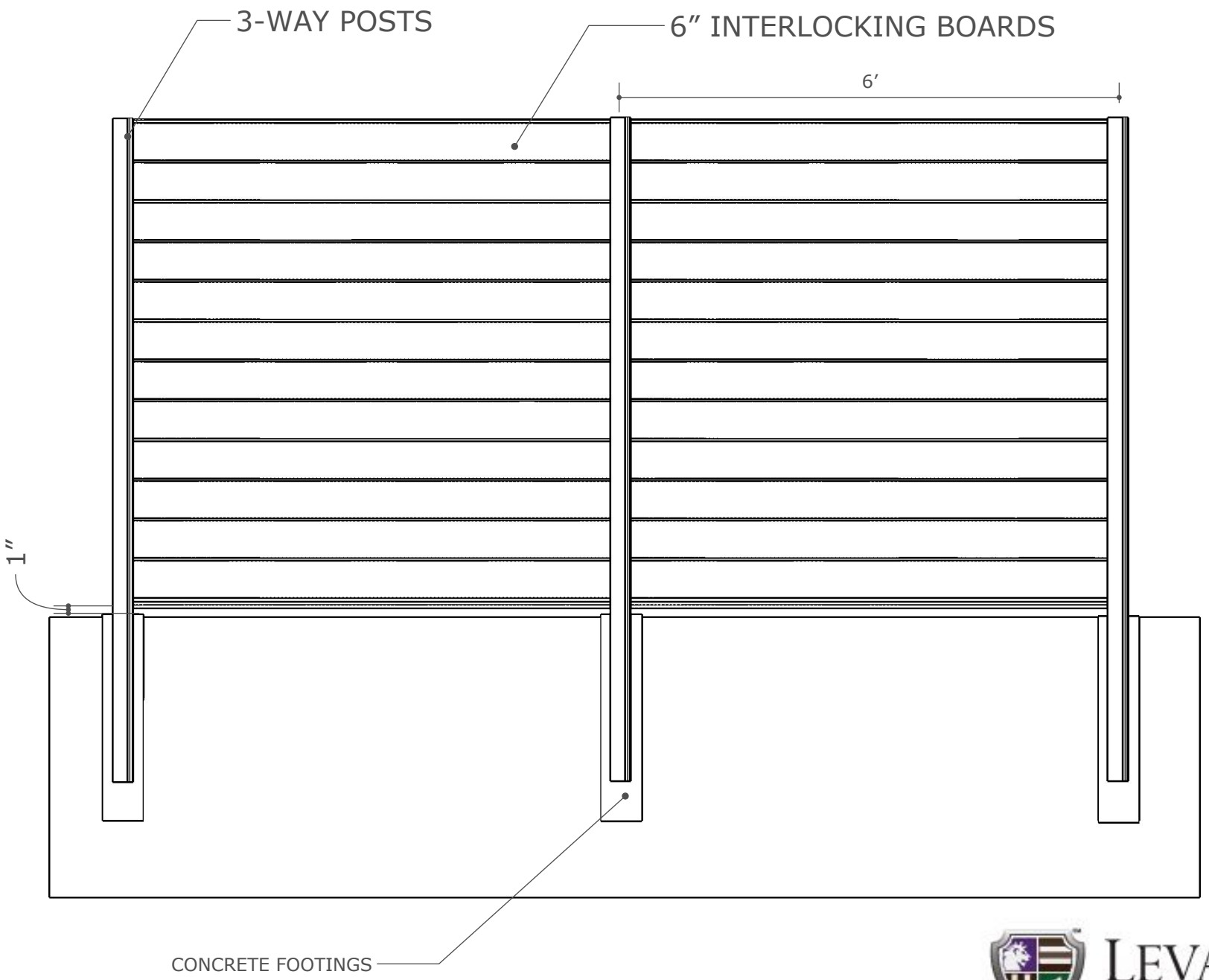
Please register your Levanté® product within 45 days of installation.

www.levantealuminum.com/warranty/

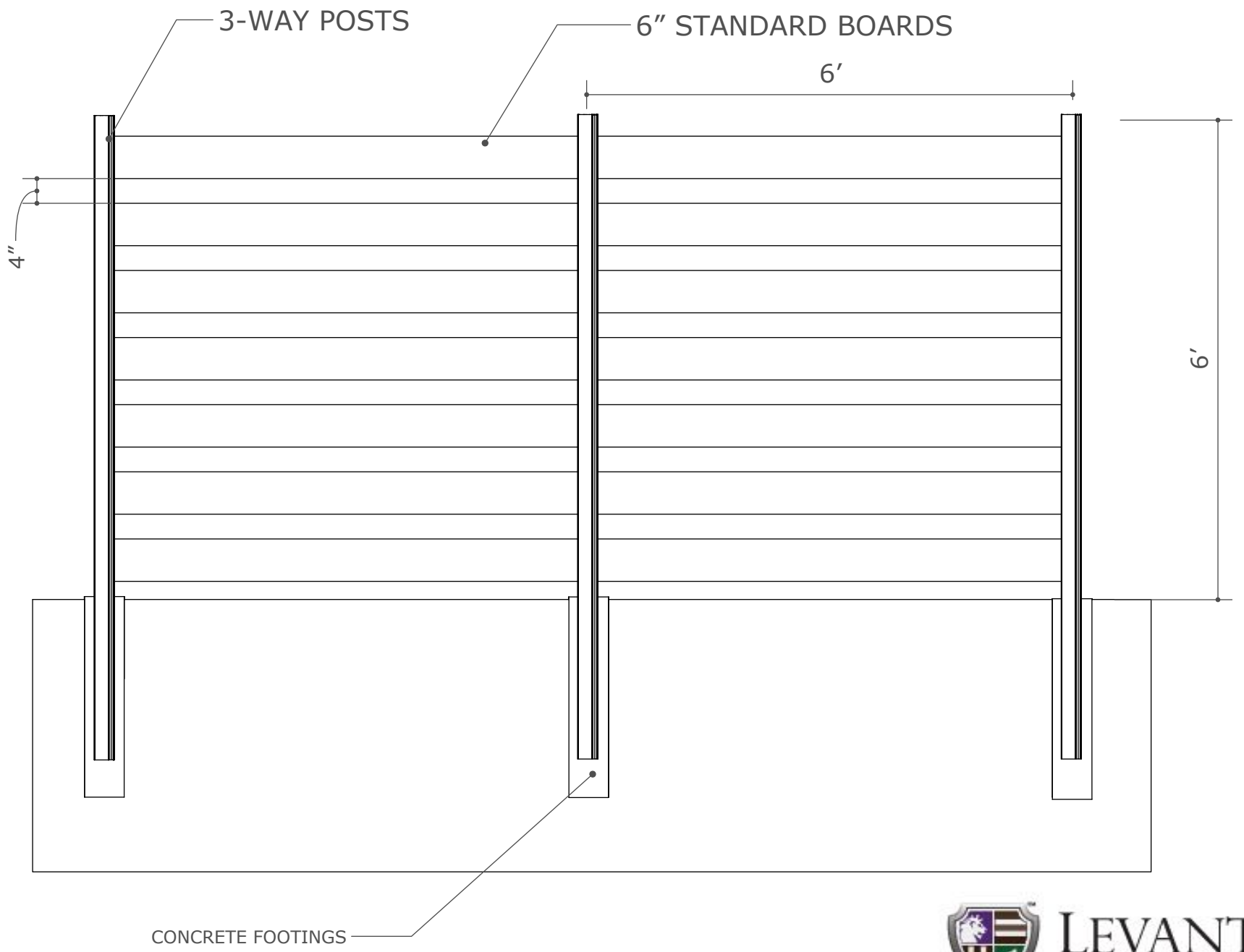
VIEW THE LEVANTÉ® FENCE INSTALLATION VIDEO:

https://levantealuminum.com/product/architectural-aluminum-applications/

QUESTIONS? Call your local Levanté® Installation Specialist at 800.642.2246.



LEVANTÉ
ALUMINUM ARCHITECTURAL COMPONENTS



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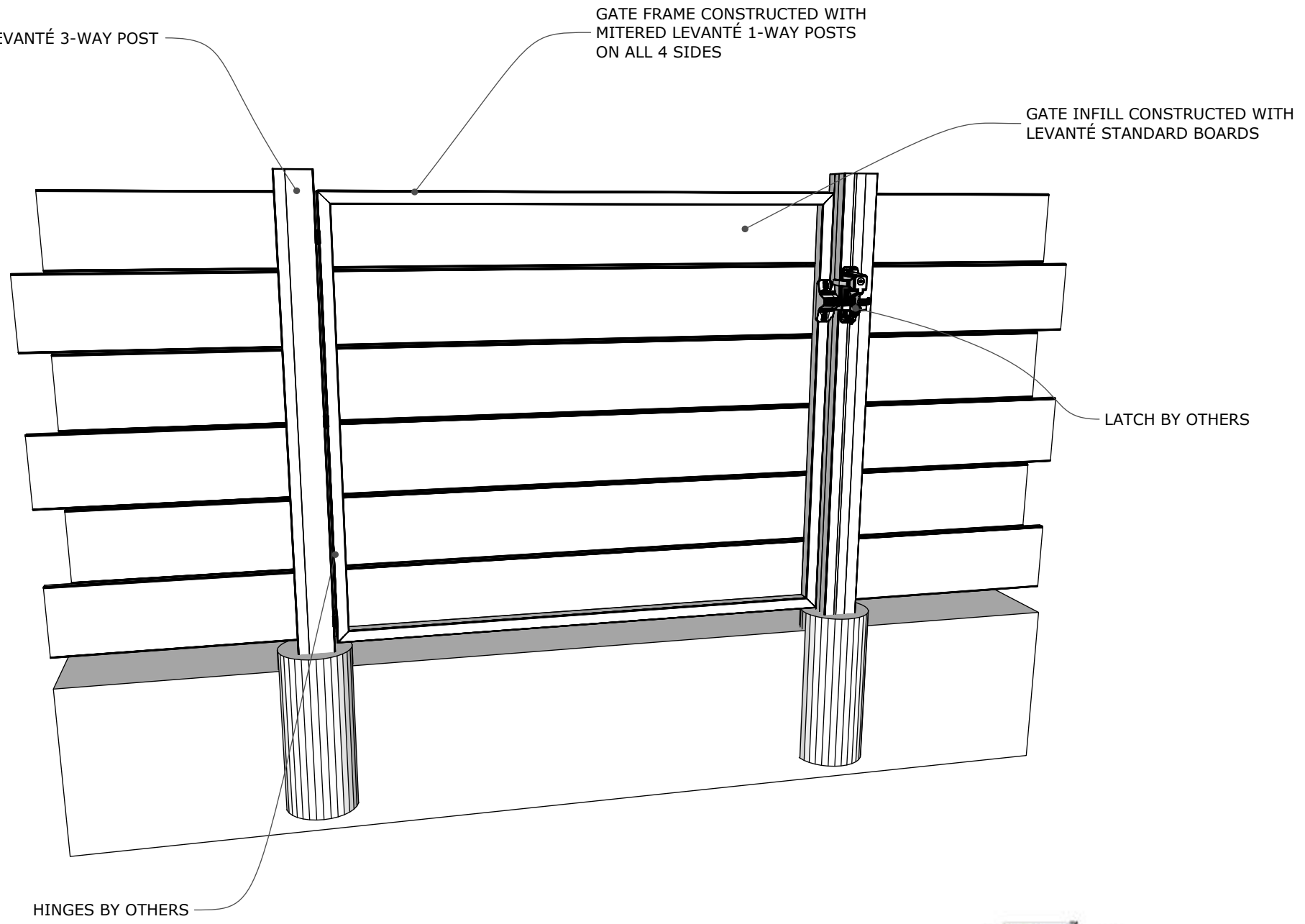
ALUMINUM ARCHITECTURAL COMPONENTS



LEVANTÉ
ALUMINUM ARCHITECTURAL COMPONENTS

intertek
Total Quality. Assured.

HALLMARK BUILDING SUPPLIES, INC.

TEST REPORT

SCOPE OF WORK
DYNAMIC WIND LOAD TESTING ON AN ALUMINUM PRIVACY FENCE SYSTEM

REPORT NUMBER
M6218.01-119-16 R0

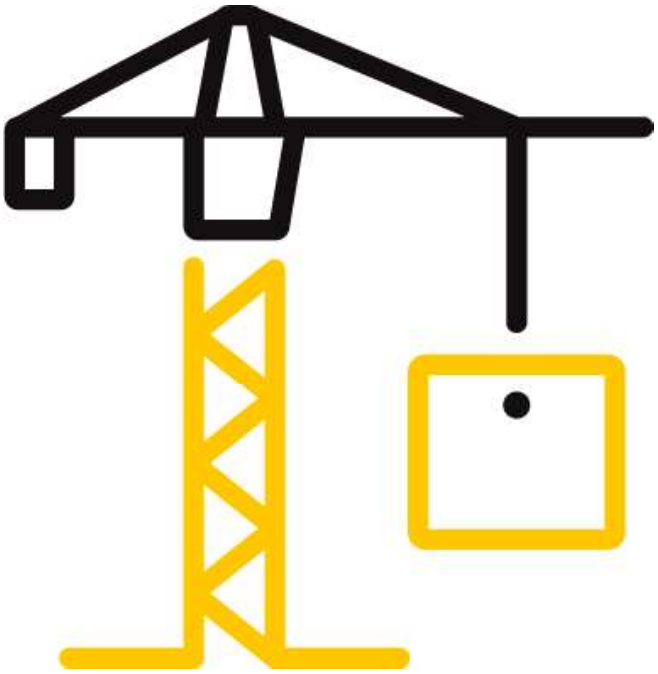
TEST DATE
07/19/21

ISSUE DATE
09/03/21

RECORD RETENTION END DATE
07/19/25

PAGES
14

DOCUMENT CONTROL NUMBER
ATI 00648 (07/24/17)
RT-R-AMER-Test-2797



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York, Pennsylvania 17406

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TEST REPORT FOR HALLMARK BUILDING SUPPLIES, INC.
Report No.: M6218.01-119-16 R0
Date: 09/03/21

REPORT ISSUED TO

HALLMARK BUILDING SUPPLIES, INC.
901 Northview Road
Suite 100
Waukesha, WI 53188

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by Hallmark Building Supplies, Inc. to perform dynamic wind load testing on their 6 ft wide by 6 ft high (nominal) aluminum privacy fence. Results obtained are tested values and were secured through the test procedure outlined below. Testing was conducted at Intertek B&C's test facility in York, PA.

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

For INTERTEK B&C:

COMPLETED BY:	Robert G. Spayd	**REVIEWED BY:**	V. Thomas Mickley, Jr., P.E.
TITLE:	Technician II	**TITLE:**	Senior Staff Engineer
SIGNATURE:	Robert G. Spayd/AAA Digitally Signed for: Robert Spayd by Amanda Ashby	**SIGNATURE:**	Digitally Signed by: Virgal Thomas Mickley, Jr.
DATE:	09/03/21	**DATE:**	09/03/21

RGS:vtm/aas

130 Derry Court
York, Pennsylvania 17406

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TEST REPORT FOR HALLMARK BUILDING SUPPLIES, INC.
Report No.: M6218.01-119-16 R0
Date: 09/03/21

SECTION 2
MATERIAL SOURCE/INSTALLATION

Test samples were provided by the client. Test samples were inspected by a representative of Intertek B&C prior to testing. No compromising defects were observed. Representative samples of the test specimens will be retained by Intertek B&C for a minimum of four years from the test completion date.

SECTION 3
EQUIPMENT

Two propeller fan wind generators were utilized for testing. The propeller of each fan had a diameter of 84 in and was comprised of either three or four Kevlar composite airfoil units belt-driven by a high-output V8 engine. Wind speed for each wind generator was calibrated according to AAMA 501.1-05. Deflections were measured with linear displacement transducers accurate to 0.01 in.

SECTION 4
LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Caitlin Kittle	Hallmark Building Supplies, Inc.
Adam J. Schrum	Intertek B&C
Christopher M. Laws	Intertek B&C

SECTION 5
TEST PROCEDURES

One specimen consisting of a 2-panel/3-post fully assembled fence section was tested. The fence panel measured approximately 6 ft wide by 6 ft high. See drawings in Section 10 for detailed descriptions of components.

A steel test fixture was designed and fabricated to simulate a rigid post embedment. The bottom of the bottom rail was fixed at 3/8 in above the top of the test fixture. Each wind generator outlet was located 4 ft from the face of the specimen and centered on the fence panel. Linear transducers were fixed on the midspan of the top of each infill area, middle of each infill area, and midspan of the bottom of each infill area for deflection measurements. See drawings in Section 10 for detailed descriptions of components and photographs in Section 9 for specimen orientation with respect to wind direction.

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TEST REPORT FOR HALLMARK BUILDING SUPPLIES, INC.
Report No.: M6218.01-119-16 R0
Date: 09/03/21

Wind load testing began at 30 mph and increased until failure or a maximum wind speed of 130 mph. Wind loads were performed with a relaxation period, following 50, 80, 115, and 130 mph wind loads, to record permanent set measurements.

SECTION 6
TEST CALCULATIONS

Wind Load Testing

The duration of the applied wind load at each wind speed was determined by using the following equation:

$$t = 3600 / Vfm \qquad \text{(Equation 1)}$$

where:

t = duration (s), required for a one mile long sample of air to pass
Vfm = "fastest mile" wind speed (mph)

Wind speeds used in testing correlate with "fastest mile" wind speeds (Vfm) for reference to codes and design standards. Maximum deflections were recorded at each load level.

SECTION 7
TEST SPECIMEN DESCRIPTION

DESCRIPTION	6 ft wide by 6 ft high (nominal) aluminum privacy fence with horizontal slats, no gaps
PANELS	Twelve, 5/8 in deep by 5-7/8 in high by 72 in long by 0.060 in thick aluminum horizontal panels per section with no gaps between the panels.
POSTS	Three, 3 in square by 0.080 in thick by 108 in long (36 in embedment) aluminum posts with three 11/16 in wide by 7/8 high grooves for panel insertion
PANEL ATTACHMENT	Panels slid into the grooves in the post and were attached to the post with two, #10-16 by 1-1/2 in (0.132 in minor diameter) hex-washer head, zinc coated, self-drilling screws per end

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SECTION 8
TEST RESULTS

WIND SPEED	DURATION	MAXIMUM DEFLECTION (Inches)					
		TOP LEFT	MID LEFT	BOTTOM LEFT	TOP RIGHT	MID RIGHT	BOTTOM RIGHT
30 mph	120 sec	0.37	0.24	0.05	0.46	0.23	0.04
40 mph	90 sec	0.46	0.31	0.06	0.49	0.24	0.05
50 mph	72 sec	0.89	0.54	0.10	0.99	0.48	0.09
0 mph	Permanent Set	0.14	0.16	0.02	0.21	0.12	0.02
60 mph	60 sec	0.89	0.58	0.10	0.89	0.45	0.08
70 mph	51 sec	0.95	0.64	0.12	1.17	0.59	0.12
75 mph	48 sec	1.19	0.78	0.16	1.48	0.74	0.17
80 mph	45 sec	1.45	0.92	0.17	1.63	0.80	0.17
0 mph	Permanent Set	0.17	0.22	0.03	0.23	0.13	0.03
90 mph	40 sec	1.72	1.11	0.21	2.10	1.06	0.24
100 mph	36 sec	1.87	1.15	0.22	2.20	1.10	0.24
115 mph	31 sec	2.11	1.32	0.24	2.50	1.24	0.27
0 mph	Permanent Set	0.31	0.35	0.07	0.37	0.21	0.05
120 mph	30 sec	2.97	1.84	0.44	3.51	1.73	0.38
130 mph	28 sec	3.76	2.21	0.50	4.44	2.15	0.57
0 mph	Permanent Set	0.57	0.52	0.22	0.70	0.38	0.23

***Observation**: No visible damage at the completion of the test.*

Maximum Sustained Wind, V_{fm} = 130 mph
Equivalent 3-second gust, $V_{3s, ASD}$ = (1.05 x V_{fm}) + 10.5 = 147 mph
Equivalent 3-second gust, $V_{3s, LRFD} = \frac{V_{3s,ASD}}{\sqrt{0.6}} = 190\ mph$

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
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SECTION 9
PHOTOGRAPHS

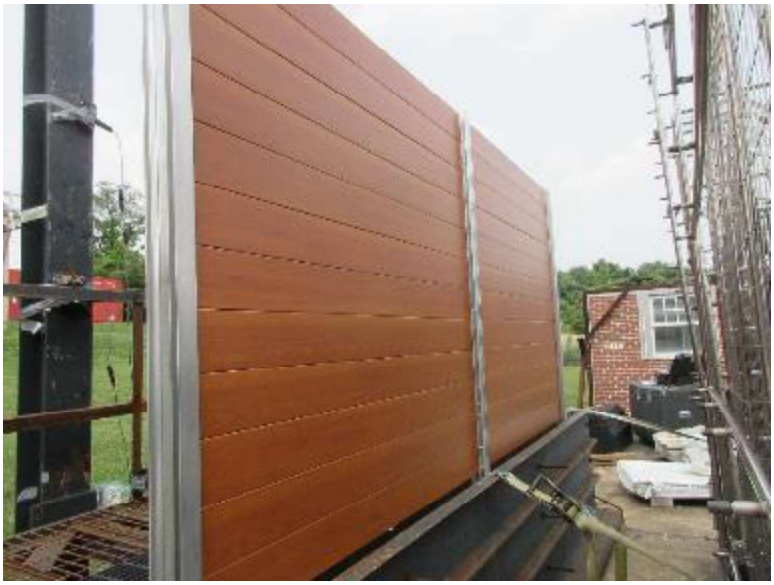

Photo No. 1
Test Specimen in Rigid Test Fixture - Front Surface

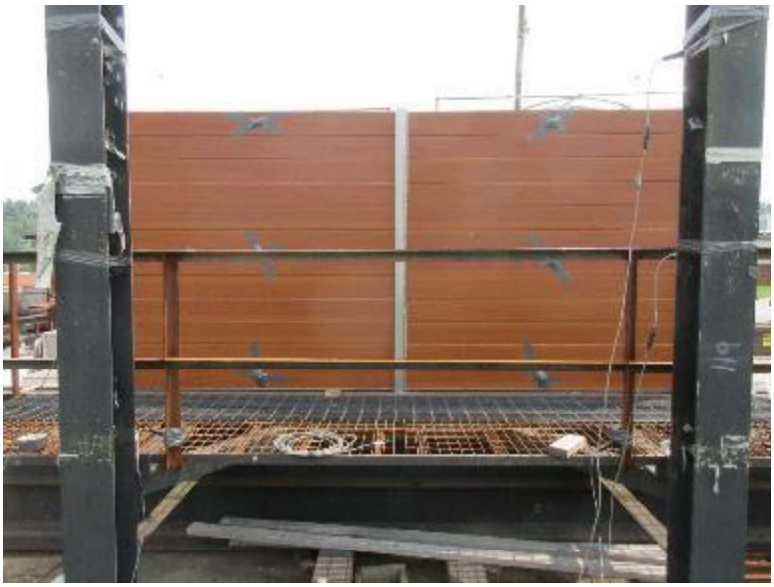

Photo No. 2
Test Specimen in Rigid Test Fixture - Rear Surface

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Photo No. 3
Wind Generator Outlet Relative to Test Specimen

SECTION 10
DRAWINGS

The "As-Built" drawings for the 6 ft wide by 6 ft high (nominal) aluminum privacy fence system, which follow, have been reviewed by Intertek B&C and are representative of the project reported herein. Project construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

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LEVANTÉ®, LLC
901 NORTHVIEW ROAD
SUITE 100
WAUKESHA, WISCONSIN 53188

Project Name:	Part Name: THREE WAY FENCE POST	
Used on assembly:	Part No.: LF3POST410	Drawing Number: HLM-AE-0033-000-B

REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
B	LOCATION OF SCREW GUIDE HAS BEEN MODIFIED TO AVOID INTERFERENCE BETWEEN SCREW HEAD AND SCREW BOSSES.	7/2/2020	EASS

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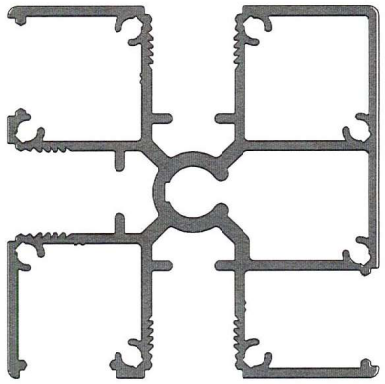
Test sample complies with these details.
Deviations are noted.
Report # M3839.01/M6218.01-119-16
Date 9/2/21 Tech AJS



EXTRUSION PROFILE
SCALE 1:1

NOTES:
1. EXTRUSION SHALL BE STRAIGHT WITHIN 1.1mm PER 1M [0.015"/FOOT]
2. EXTRUSION TWIST 1.0DEG PER 1M [1.0DEG/FOOT]
3. EXTRUSION CROSS SECTIONAL AREA IS 1.6570 sq.in. [1069.03mm sq.]
4. ALL RADII & FILLET RADIUS TO BE R0.016" [0.40mm] UNLESS OTHERWISE SPECIFIED
5. SECTIONAL MATERIAL THICKNESS 0.079" ±0.006" [2.00mm ±0.15mm] UNLESS OTHERWISE SPECIFIED
6. CRITICAL DIMENSIONS ARE SHOWN WITHIN ( )
7. REFERENCE DIMENSIONS ARE SHOWN WITHIN ( )
8. ALL DIMENSIONS ARE FINISHED PART DIMENSIONS
9. ALL DIMENSIONS AND TOLERANCES ARE TO BE INTERPRETED ACCORDING TO ASME Y14.
10. REFER TO CAD FILE FOR TOOLING
11. SURFACE FINISH AS PER CUSTOMER'S PURCHASE ORDER

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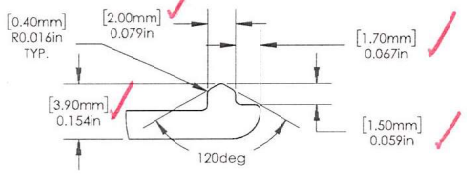
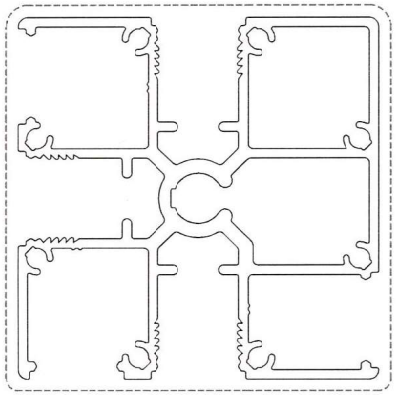
Test sample complies with these details.
Deviations are noted.
Report # M3839.01/m6218.01-19-16
Date 9/2/21 Tech AJS

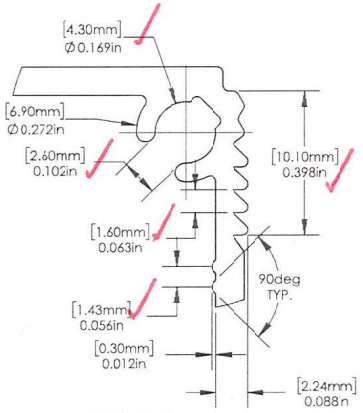


DETAIL B
SCALE 3 : 1

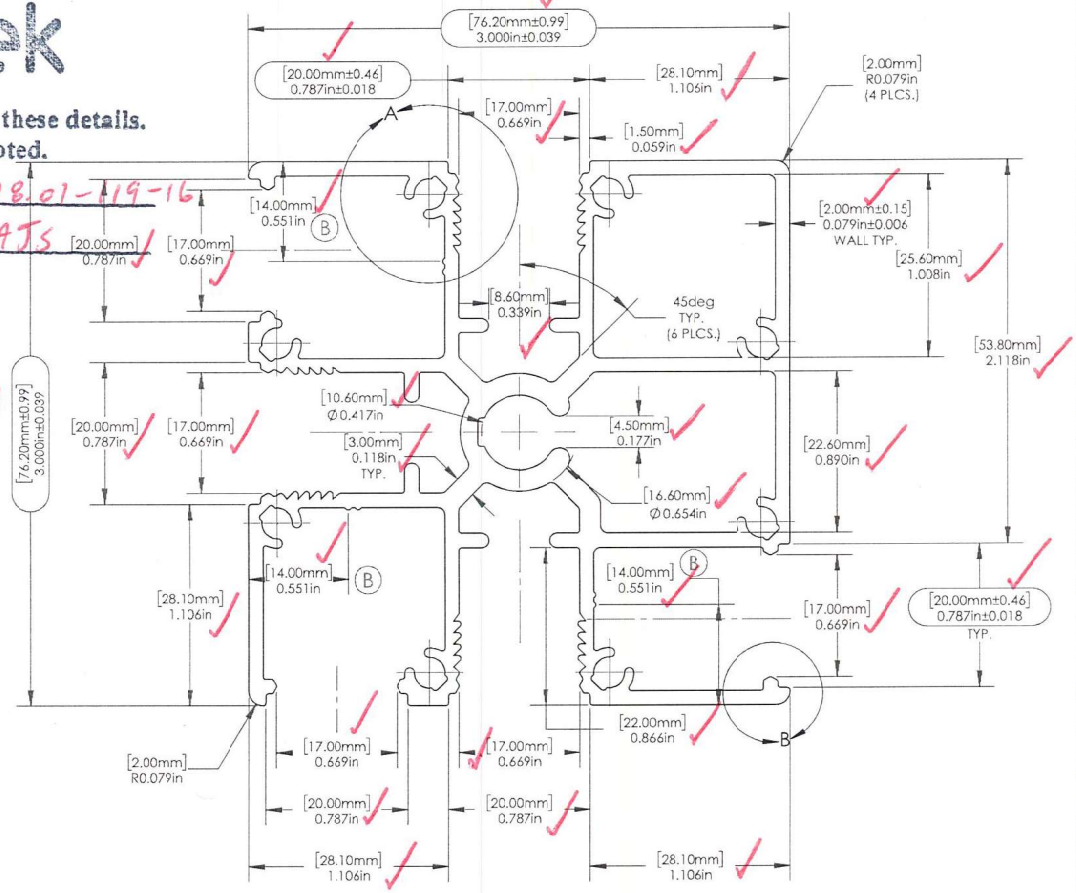
--- EXPOSED SURFACE



EXTRUSION PROFILE
SCALE 1:1



DETAIL A
SCALE 3 : 1



WEIGHT/LENGTH	2.918	kg/m	1.961	lbs./ft.
AREA	1069.03	sq. mm	1.6570	sq. in.
TOTAL PERIMETER	1048.90	mm	41.2954	in.
OUTSIDE PERIMETER	793.31	mm	31.2325	in.
EXPOSED PERIMETER	793.31	mm	31.2325	in.

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES [MM]
TOLERANCES:
MILLIMETERS X = ± .25 .XX = ± .10
INCHES [.X = ± 0.1] [.XX = ± 0.01] [.XXX = ± 0.005]
ANGLES ∠ = ± 1°
FRACTIONS X/X = ±1/64
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL 6063-T5
FINISH Powder Coat
NEXT ASSY | USED ON
APPLICATION | DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	EASS	07/02/20
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

LEVANTÉ ALUMINUM ARCHITECTURAL COMPONENTS

TITLE:
Three Way Fence Post

SIZE	PART NO.	REV
B	LF3POST410	B

SCALE: 1.5:1 | WEIGHT: 1.940 | SHEET 2 OF 2

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LEVANTÉ®, LLC
901 NORTHVIEW ROAD
SUITE 100
WAUKESHA, WISCONSIN 53188

Project Name:	Part Name:	
H.M.L.	INFILL SMALL	
Used on assembly:	Part No.: LI119	Drawing Number: AL-13617-A

REVISIONS

REV.	DESCRIPTION	DATE	APPROVED

intertek

Test sample complies with these details.
Deviations are noted.

Report # M3839.01/M6218.01-119-16

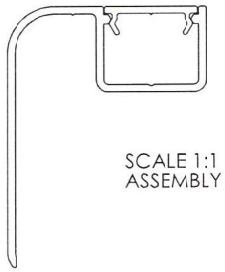
Date 9/2/21 **Tech** AJS

EXTRUSION PROFILE
SCALE 5:1

NOTES:

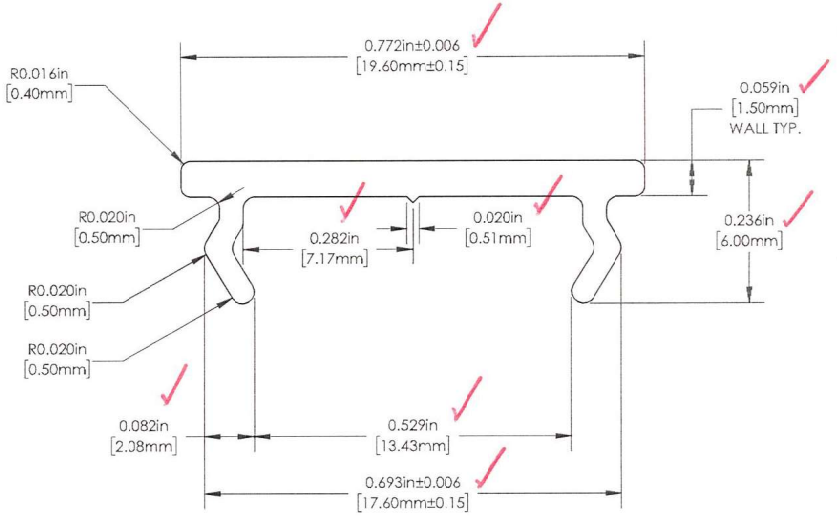
1. EXTRUSION SHALL BE STRAIGHT WITHIN 1.1mm PER 1M [0.015"/FOOT]
2. EXTRUSION TWIST 1.0DEG PER 1M [1.0DEG/FOOT]
3. EXTRUSION CROSS SECTIONAL AREA IS 39.26 mm sq. [0.0608 sq. in.]
4. ALL RADII & FILLET RADIUS TO BE 0.40mm [0.016"] UNLESS OTHERWISE SPECIFIED
5. SECTIONAL MATERIAL THICKNESS 1.50mm [0.059"] UNLESS OTHERWISE SPECIFIED
6. ALL DIMENSIONS INTERPRETED ACCORDING TO ASME Y14.
7. ALL TOLERANCES ARE BASED ON EN 755-9:2001

LI119 - Finishing Concealer



LDCF219 - Finishing Trim

SCALE 1:1
ASSEMBLY DETAIL



--- EXPOSED SURFACE

EXTRUSION PROFILE
SCALE 1:1

Material	6063-T5	
Density	2700.00 KG/M^3	167.56 LB/FT^3
Weight/Length	0.106 KG/MT	0.071 LB/FT

AREA	39.26	sq. mm	0.061	sq. in.
PERIMETER	59.62	mm	2.3471	in.
EXPOSED PERIMETER	59.62	mm	2.3471	in.

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Test sample complies with these details,
Deviations are noted.

Report #M3839.01/MC718.01-119-16

Date 9/2/21 Tech AJS

NEXT ASSY | USED ON

APPLICATION

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES [MM]
TOLERANCES:
MILLIMETERS: X = ±1, .X = ±.20, .XX = ±.10
INCHES: [.X = ±0.1] [.XX = ±0.0] [.XXX = ±0.005]
ANGLES: ∠ = ± 1°
FRACTIONS: X/X = ±1/64
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL: 6063-T5
FINISH

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	EASS	7/17/19
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

LEVANTÉ
ALUMINUM ARCHITECTURAL COMPONENTS

TITLE:
Finishing Concealer

SIZE	PART NO.	REV
B	LI119	A

SCALE: 5:1 | WEIGHT: 0.07 | SHEET 2 OF 2

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ALUMINUM ARCHITECTURAL COMPONENTS

LEVANTÉ®, LLC
901 NORTHVIEW ROAD
SUITE 100
WAUKESHA, WISCONSIN 53188

Project Name:	Part Name: 150mm STANDARD BOARD	
Used on assembly:	Part No.: LS619	Drawing Number: AL-13622-A

REVISIONS

REV.	DESCRIPTION	DATE	APPROVED

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Test sample complies with these details.
Deviations are noted.

Report # M3839.01/M6218.01-119-16

Date 9/2/21 **Tech** AJS

EXTRUSION PROFILE
SCALE 1:1

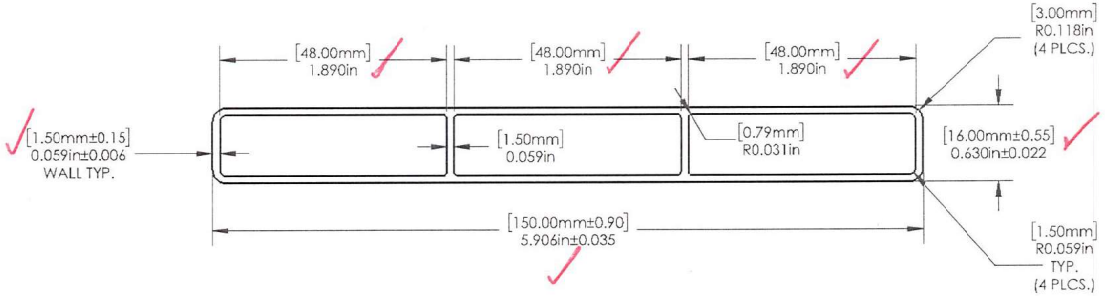
NOTES:
1. EXTRUSION SHALL BE STRAIGHT WITHIN 1.1mm PER 1M [0.015"/FOOT]
2. EXTRUSION TWIST 1.0DEG PER 1M [1.0DEG/FOOT]
3. EXTRUSION CROSS SECTIONAL AREA IS 0.8111 sq.in. [523.27mm sq.]
4. ALL RADII & FILLET RADIUS TO BE R0.031" [0.79mm] UNLESS OTHERWISE SPECIFIED
5. SECTIONAL MATERIAL THICKNESS 0.059"±0.006" [1.50mm±0.15mm] UNLESS OTHERWISE SPECIFIED
6. CRITICAL DIMENSIONS ARE SHOWN WITHIN ⬭
7. REFERENCE DIMENSIONS ARE SHOWN WITHIN ( )
8. ALL DIMENSIONS ARE FINISHED PART DIMENSIONS
9. ALL DIMENSIONS AND TOLERANCES ARE TO BE INTERPRETED ACCORDING TO ASME Y14.

intertek

Test sample complies with these details.
Deviations are noted.

Report # M3839.01/M6218.01-119-16

Date 9/2/21 Tech AJS



--- EXPOSED SURFACE

EXTRUSION PROFILE
SCALE 1:1

WEIGHT/LENGTH	1.429	kg/m	0.960	lbs./ft.
AREA	523.27	sq. mm	0.8111	sq. in.
TOTAL PERIMETER	687.57	mm	27.0698	in.
OUTSIDE PERIMETER	326.85	mm	12.8681	in.
EXPOSED PERIMETER	326.85	mm	12.8681	in.

NEXT ASSY | USED ON
APPLICATION

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES [MM]
TOLERANCES:
MILLIMETERS X = ±1 .X = ±.25 .XX = ±.10
INCHES [.X = ±0.1] [.XX = ±0.0] [.XXX = ±0.005]
ANGLES ∠ = ± 1°
FRACTIONS .X/X = ±1/64
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL 6063-T5
FINISH Powder Coat
DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	EASS	05/26/20
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

LEVANTÉ
ALUMINUM ARCHITECTURAL COMPONENTS

TITLE:
150mm Standard Board

SIZE	PART NO.	REV
B	LS619	A

SCALE: 1:1 | WEIGHT: 0.949 | SHEET 2 OF 2

130 Derry Court
York, Pennsylvania 17406

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SECTION 11
REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	09/03/21	N/A	Original Report Issue

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HALLMARK BUILDING SUPPLIES, INC.

TEST REPORT

SCOPE OF WORK
ASTM F2957 STRUCTURAL PERFORMANCE TESTING ON ALUMINUM FENCE PANEL

REPORT NUMBER
M3839.01-119-16 R0

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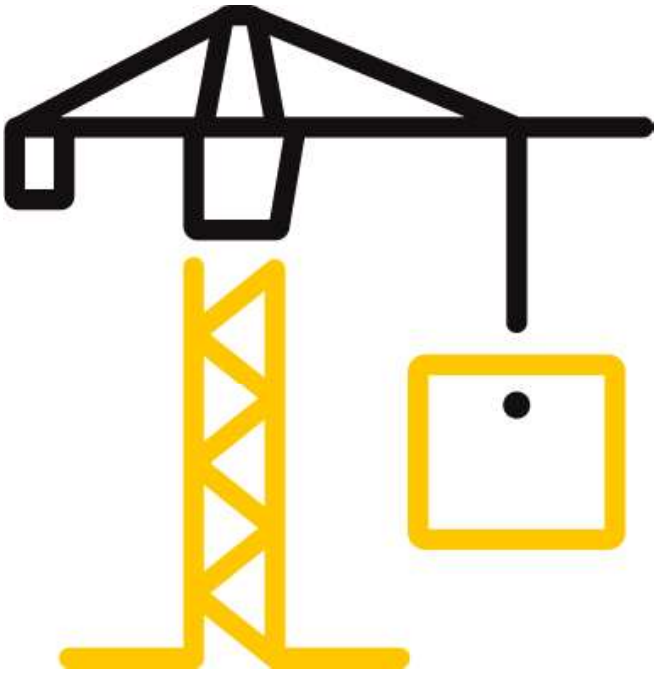
RT-R-AMER-Test-2794



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TEST REPORT FOR HALLMARK BUILDING SUPPLIES, INC.
Report No.: M3839.01-119-16 R0
Date: 09/03/21

REPORT ISSUED TO

HALLMARK BUILDING SUPPLIES, INC.
901 Northview Road
Suite 100
Waukesha, WI 53188

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by Hallmark Building Supplies, Inc. to perform structural performance testing in accordance with Section 5 of ASTM F2957 on their 6 ft wide by 6 ft high (nominal) aluminum fence sections. Results obtained are tested values and were secured by using the designated test method. Testing was conducted at the Intertek test facility in York, PA.

Intertek B&C in York, Pennsylvania has demonstrated compliance with ISO/IEC International Standard 17025 and is consequently accredited as a Testing Laboratory (TL-144) by International Accreditation Service, Inc. (IAS). Intertek B&C is accredited to perform all testing reported herein.

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

For INTERTEK B&C:

COMPLETED BY:	Adam J. Schrum	**REVIEWED BY:**	V. Thomas Mickley, Jr., P.E.
TITLE:	Project Manager	**TITLE:**	Senior Staff Engineer
SIGNATURE:	Digitally Signed by: Adam J. Schrum	**SIGNATURE:**	Digitally Signed by: Virgal Thomas Mickley, Jr.
DATE:	09/03/21	**DATE:**	09/03/21

AJS:vtm/aas

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
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SECTION 2
TEST METHOD

The specimens were evaluated in accordance with Section 5 (for 3- or 4-rail commercial fences) of the following:

> **ASTM F2957 - 13 (Reapproved May 2019)**, *Standard Specification for Ornamental Aluminum Fence Systems*

SECTION 3
MATERIAL SOURCE

Test samples were provided by the client.

Representative samples of the test specimens will be retained by Intertek B&C for a minimum of four years from the test completion date.

SECTION 4
LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Adam J. Schrum	Intertek B&C

SECTION 5
TEST PROCEDURE

Fence assembly tests were performed per ASTM F2957, Section 5 in a self-contained structural frame designed to accommodate anchorage of a fence assembly and application of the required test loads. The specimen was loaded using an electric winch mounted to a rigid steel test frame. High strength steel cables, nylon straps, and load distribution beams were used to impose test loads on the specimen. Applied load was measured using an electronic load cell located in-line with the loading system. Deflection was measured to the nearest 0.01 in using an electronic linear displacement transducer.

The fence assembly was installed and tested as a single fence section (one panel; two posts) by directly securing the post mounts to rigid steel stanchions at the designated depth to simulate actual post mount embedment. A transducer mounted to an independent reference frame was located to record movement of a reference point on the fence system component (mid-point) to determine component deflection. See photographs in Section 9 for test setups.

130 Derry Court
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TEST REPORT FOR HALLMARK BUILDING SUPPLIES, INC.
Report No.: M3839.01-119-16 R0
Date: 09/03/21

The test specimen was inspected prior to testing to verify size and general condition of the materials, assembly, and installation. No potentially compromising defects were observed. One specimen was used for all load tests which were performed in the order reported. Each design load test was performed using the following procedure:

1. Zeroed transducers and load cell at zero load;
2. Increased load to specified test load in no less than ten seconds; and
3. Held test load for no less than two minutes.
4. Removed load and checked for residual deflection

Unless otherwise noted, all loads and displacement measurements were normal to the fence (horizontal).

SECTION 6
TEST SPECIMEN DESCRIPTION

The aluminum fence systems are comprised of aluminum slat infill and posts. Drawings are included in Section 10 to verify the overall dimensions and other pertinent information of the tested product, its components, and any constructed assemblies. Photographs are provided in Section 9.

SERIES/MODEL	Aluminum Fence Panels
MATERIAL	6063-T5 extruded aluminum
PANEL HEIGHT	72 in (top of top slat to bottom of bottom slat)
PANEL LENGTH	70-1/2 in (inside of post to inside of post)
PANELS	5/8 in deep by 5-7/8 in high by 72 in long by 0.060 in thick aluminum horizontal slats
POSTS	3 in square by 0.080 in thick aluminum posts with three 11/16 in wide by 7/8 high grooves for panel insertion

Fastening Schedule

CONNECTION	FASTENER
Slat to Post	Two, #10-16 by 1-1/2 in (0.132 in minor diameter) hex-washer head, zinc coated, self-drilling screws

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TEST REPORT FOR HALLMARK BUILDING SUPPLIES, INC.
Report No.: M3839.01-119-16 R0
Date: 09/03/21

SECTION 7
TEST RESULTS

Key to Test Results Tables:

Load Level: Target test load

Test Load: Actual applied load at the designated load level (target). Where more than one value is reported, the test load was the range (min. - max.) that was held during the time indicated in the test.

Elapsed Time (E.T.): The amount of time into the test with zero established at the beginning of the loading procedure. Where more than one value is reported, the time was the range (start-end) that the designated load level was reached and sustained.

Test Series No. 1
70-1/2 in by 72 in Aluminum Ornamental Fence with 4 in Gap between Horizontal Slats

Test No. 1 - Test Date: 07/20/21
Method A: 325 lb Vertical Load Applied to the Top Rail [1]

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)	
			MAX	RESIDUAL
325 lb	325 - 343	00:20 – 02:26	0.01	0.00
			Result: Withstood load equal to or greater than 325 lb for two full minutes without failure	
Residual Deflection Evaluation: Limits per ASTM F2957: $0.25" > 0.00" \therefore ok$				

[1] *Load was equally distributed to two straps. Each strap was located 12 in on either side of the center point of the panel.*

Test No. 2 - Test Date: 07/20/21
Method B: 80 lb / 1 Square ft of Infill at Center of Infill

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)	
			MAX	RESIDUAL
80 lb	80 - 83	00:10 - 02:12	0.37	0.01
			Result: Withstood load equal to or greater than 80 lb for two full minutes without failure	
Residual Deflection Evaluation: Limits per ASTM F2957: $0.25" > 0.01" \therefore ok$				

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TEST REPORT FOR HALLMARK BUILDING SUPPLIES, INC.
Report No.: M3839.01-119-16 R0
Date: 09/03/21

Test Series No. 2
70-1/2 in by 72 in Aluminum Ornamental Fence with No Gap between Horizontal Slats

Test No. 1 - Test Date: 07/20/21
Method A: 325 lb Vertical Load Applied to the Top Rail [1]

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)	
			MAX	RESIDUAL
325 lb	325 - 341	00:36 - 02:39	0.03	0.00
			Result: Withstood load equal to or greater than 325 lb for two full minutes without failure	
Residual Deflection Evaluation: Limits per ASTM F2957: $0.25" > 0.00" \therefore ok$				

[1] *Load was equally distributed to two straps. Each strap was located 12 in on either side of the center point of the panel.*

Test No. 2 - Test Date: 07/20/21
Method B: 80 lb / 1 Square ft of Panel at Center of Panel

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)	
			MAX	RESIDUAL
80 lb	80 - 84	Time was not logged	0.29	0.00
			Result: Withstood load equal to or greater than 80 lb for two full minutes without failure	
Residual Deflection Evaluation: Limits per ASTM F2957: $0.25" > 0.00" \therefore ok$				

SECTION 8
CONCLUSION

The fence assemblies reported herein meet the structural performance requirements of Section 5 of ASTM F2957 for commercial applications.

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TEST REPORT FOR HALLMARK BUILDING SUPPLIES, INC.
Report No.: M3839.01-119-16 R0
Date: 09/03/21

SECTION 9
PHOTOGRAPHS

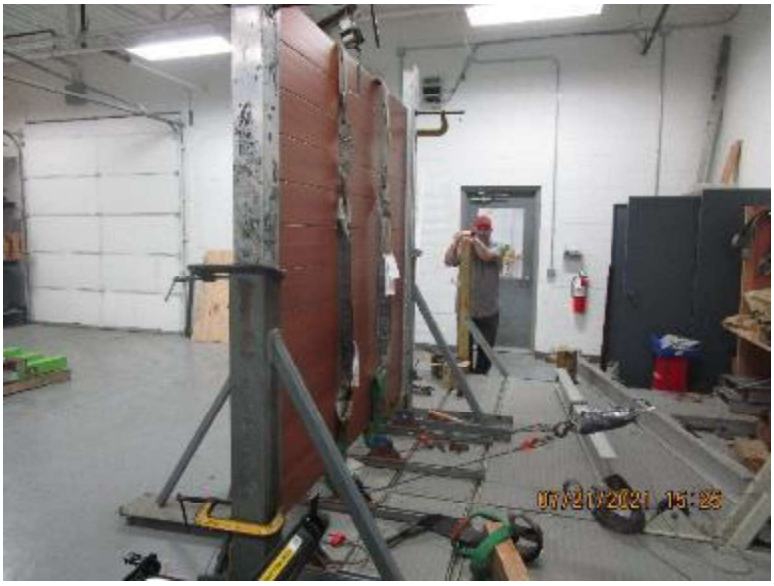

Photo No. 1
Method A Test on the Aluminum Fence System with No Gaps

Photo No. 2
Method B Test on the Aluminum Fence System with 4 in Gaps

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SECTION 10
DRAWINGS

The "As-Built" drawings for the aluminum fence which follow have been reviewed by Intertek B&C and are representative of the project reported herein. Project construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

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ALUMINUM ARCHITECTURAL COMPONENTS

LEVANTÉ®, LLC
901 NORTHVIEW ROAD
SUITE 100
WAUKESHA, WISCONSIN 53188

Project Name:	Part Name: THREE WAY FENCE POST	
Used on assembly:	Part No.: LF3POST410	Drawing Number: HLM-AE-0033-000-B

REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
B	LOCATION OF SCREW GUIDE HAS BEEN MODIFIED TO AVOID INTERFERENCE BETWEEN SCREW HEAD AND SCREW BOSSES.	7/2/2020	EASS

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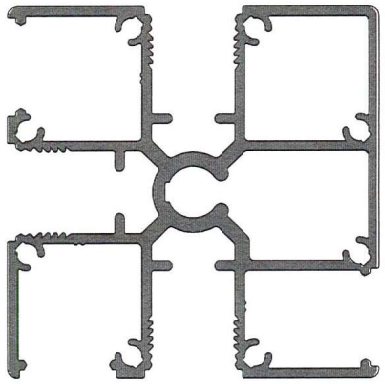
Test sample complies with these details.
Deviations are noted.
Report # M3839.01/M6218.01-119-16
Date 9/2/21 Tech AJS



EXTRUSION PROFILE
SCALE 1:1

NOTES:
1. EXTRUSION SHALL BE STRAIGHT WITHIN 1.1mm PER 1M [0.015"/FOOT]
2. EXTRUSION TWIST 1.0DEG PER 1M [1.0DEG/FOOT]
3. EXTRUSION CROSS SECTIONAL AREA IS 1.6570 sq.in. [1069.03mm sq.]
4. ALL RADII & FILLET RADIUS TO BE R0.016" [0.40mm] UNLESS OTHERWISE SPECIFIED
5. SECTIONAL MATERIAL THICKNESS 0.079" ±0.006" [2.00mm ±0.15mm] UNLESS OTHERWISE SPECIFIED
6. CRITICAL DIMENSIONS ARE SHOWN WITHIN ( )
7. REFERENCE DIMENSIONS ARE SHOWN WITHIN ( )
8. ALL DIMENSIONS ARE FINISHED PART DIMENSIONS
9. ALL DIMENSIONS AND TOLERANCES ARE TO BE INTERPRETED ACCORDING TO ASME Y14.
10. REFER TO CAD FILE FOR TOOLING
11. SURFACE FINISH AS PER CUSTOMER'S PURCHASE ORDER

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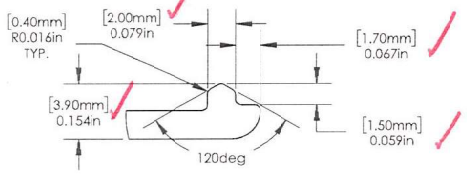
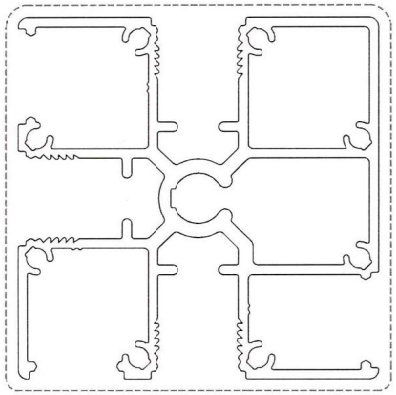
Test sample complies with these details.
Deviations are noted.
Report # M3839.01/m6218.01-19-16
Date 9/2/21 Tech AJS

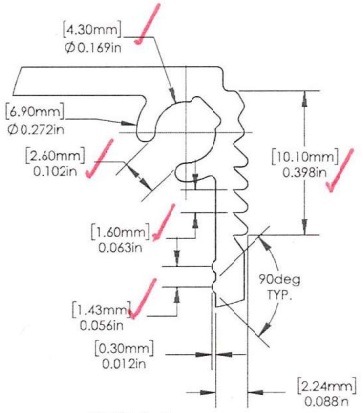


DETAIL B
SCALE 3 : 1

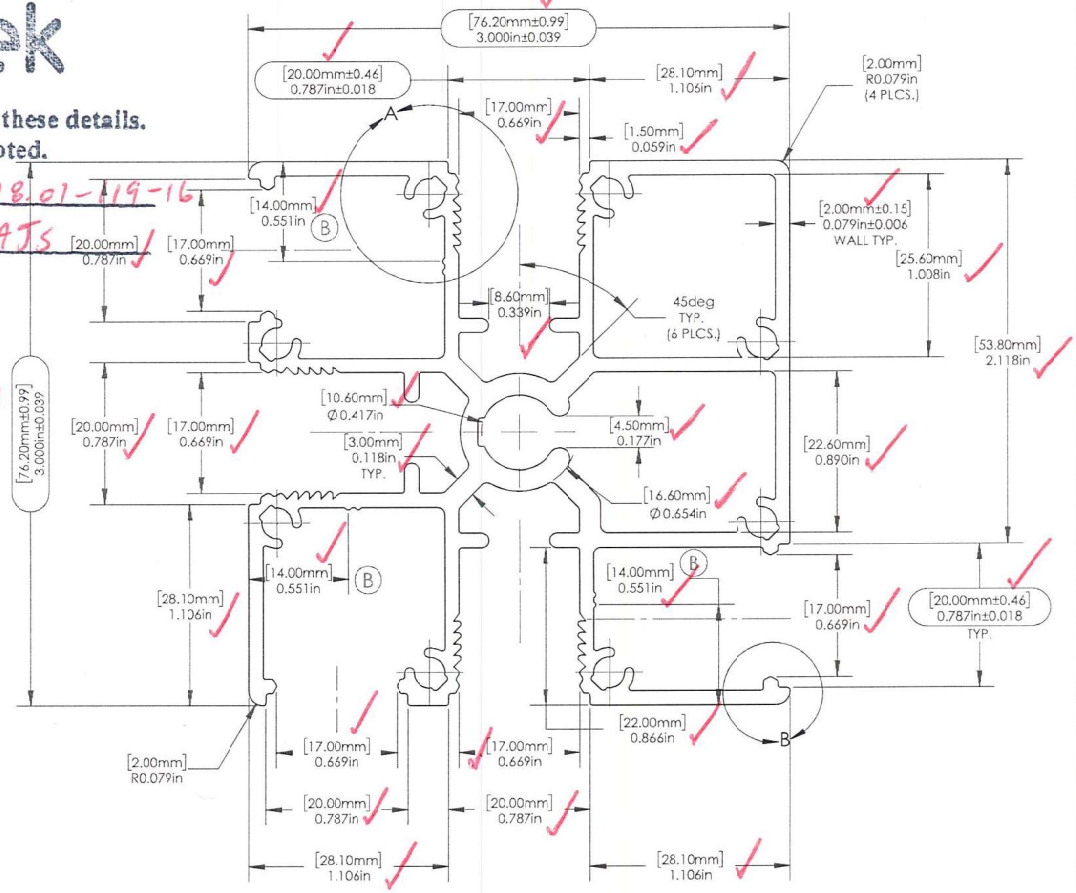
--- EXPOSED SURFACE



EXTRUSION PROFILE
SCALE 1:1



DETAIL A
SCALE 3 : 1



WEIGHT/LENGTH	2.918	kg/m	1.961	lbs./ft.
AREA	1069.03	sq. mm	1.6570	sq. in.
TOTAL PERIMETER	1048.90	mm	41.2954	in.
OUTSIDE PERIMETER	793.31	mm	31.2325	in.
EXPOSED PERIMETER	793.31	mm	31.2325	in.

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES [MM]
TOLERANCES:
MILLIMETERS X = ± .25 .XX = ± .10
INCHES [.X = ± 0.1] [.XX = ± 0.01] [.XXX = ± 0.005]
ANGLES ∠ = ± 1°
FRACTIONS X/X = ±1/64
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL 6063-T5
FINISH Powder Coat
NEXT ASSY | USED ON
APPLICATION | DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	EASS	07/02/20
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

LEVANTÉ ALUMINUM ARCHITECTURAL COMPONENTS

TITLE:
Three Way Fence Post

SIZE	PART NO.	REV
B	LF3POST410	B

SCALE: 1.5:1 | WEIGHT: 1.940 | SHEET 2 OF 2

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Project Name:	Part Name:	
H.M.L.	INFILL SMALL	
Used on assembly:	Part No.: LI119	Drawing Number: AL-13617-A

REVISIONS

REV.	DESCRIPTION	DATE	APPROVED

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Test sample complies with these details.
Deviations are noted.

Report # M3839.01/M6218.01-119-16

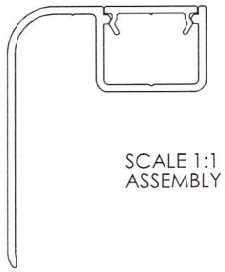
Date 9/2/21 **Tech** AJS

EXTRUSION PROFILE
SCALE 5:1

NOTES:

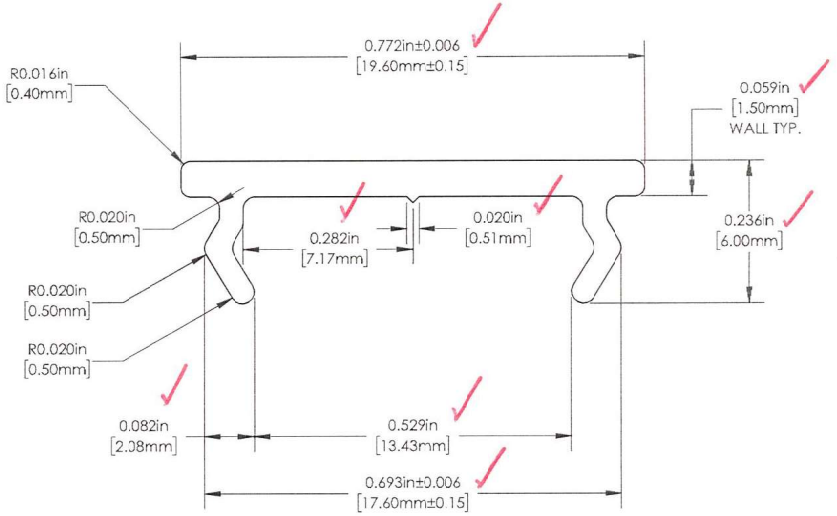
1. EXTRUSION SHALL BE STRAIGHT WITHIN 1.1mm PER 1M [0.015"/FOOT]
2. EXTRUSION TWIST 1.0DEG PER 1M [1.0DEG/FOOT]
3. EXTRUSION CROSS SECTIONAL AREA IS 39.26 mm sq. [0.0608 sq. in.]
4. ALL RADII & FILLET RADIUS TO BE 0.40mm [0.016"] UNLESS OTHERWISE SPECIFIED
5. SECTIONAL MATERIAL THICKNESS 1.50mm [0.059"] UNLESS OTHERWISE SPECIFIED
6. ALL DIMENSIONS INTERPRETED ACCORDING TO ASME Y14.
7. ALL TOLERANCES ARE BASED ON EN 755-9:2001

LI119 - Finishing Concealer



LDCF219 - Finishing Trim

SCALE 1:1
ASSEMBLY DETAIL



--- EXPOSED SURFACE

EXTRUSION PROFILE
SCALE 1:1

Material	6063-T5	
Density	2700.00 KG/M^3	167.56 LB/FT^3
Weight/Length	0.106 KG/MT	0.071 LB/FT

AREA	39.26	sq. mm	0.061	sq. in.
PERIMETER	59.62	mm	2.3471	in.
EXPOSED PERIMETER	59.62	mm	2.3471	in.

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Test sample complies with these details,
Deviations are noted.

Report #M3839.01/MC718.01-119-16

Date 9/2/21 Tech AJS

NEXT ASSY | USED ON

APPLICATION

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES [MM]
TOLERANCES:
MILLIMETERS: X = ±1, .X = ±.20, .XX = ±.10
INCHES: [.X = ±0.1] [.XX = ±0.0] [.XXX = ±0.005]
ANGLES: ∠ = ± 1°
FRACTIONS: X/X = ±1/64
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL: 6063-T5
FINISH

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	EASS	7/17/19
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

LEVANTÉ
ALUMINUM ARCHITECTURAL COMPONENTS

TITLE:
Finishing Concealer

SIZE	PART NO.	REV
B	LI119	A

SCALE: 5:1 | WEIGHT: 0.07 | SHEET 2 OF 2

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LEVANTÉ®, LLC
901 NORTHVIEW ROAD
SUITE 100
WAUKESHA, WISCONSIN 53188

Project Name:	Part Name: 150mm STANDARD BOARD	
Used on assembly:	Part No.: LS619	Drawing Number: AL-13622-A

REVISIONS

REV.	DESCRIPTION	DATE	APPROVED

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Test sample complies with these details.
Deviations are noted.

Report # M3839.01/M6218.01-119-16

Date 9/2/21 **Tech** AJS

EXTRUSION PROFILE
SCALE 1:1

NOTES:
1. EXTRUSION SHALL BE STRAIGHT WITHIN 1.1mm PER 1M [0.015"/FOOT]
2. EXTRUSION TWIST 1.0DEG PER 1M [1.0DEG/FOOT]
3. EXTRUSION CROSS SECTIONAL AREA IS 0.8111 sq.in. [523.27mm sq.]
4. ALL RADII & FILLET RADIUS TO BE R0.031" [0.79mm] UNLESS OTHERWISE SPECIFIED
5. SECTIONAL MATERIAL THICKNESS 0.059"±0.006" [1.50mm±0.15mm] UNLESS OTHERWISE SPECIFIED
6. CRITICAL DIMENSIONS ARE SHOWN WITHIN ⬭
7. REFERENCE DIMENSIONS ARE SHOWN WITHIN ( )
8. ALL DIMENSIONS ARE FINISHED PART DIMENSIONS
9. ALL DIMENSIONS AND TOLERANCES ARE TO BE INTERPRETED ACCORDING TO ASME Y14.

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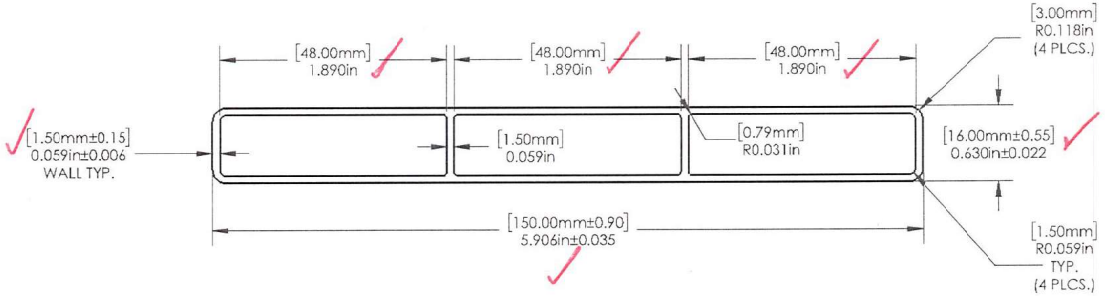
Test sample complies with these details.
Deviations are noted.

Report # M3839.01/M6218.01-119-16

Date 9/2/21 Tech AJS



--- EXPOSED SURFACE

EXTRUSION PROFILE
SCALE 1:1

WEIGHT/LENGTH	1.429	kg/m	0.960	lbs./ft.
AREA	523.27	sq. mm	0.8111	sq. in.
TOTAL PERIMETER	687.57	mm	27.0698	in.
OUTSIDE PERIMETER	326.85	mm	12.8681	in.
EXPOSED PERIMETER	326.85	mm	12.8681	in.

NEXT ASSY | USED ON
APPLICATION

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES [MM]
TOLERANCES:
MILLIMETERS X = ±1 .X = ±.25 .XX = ±.10
INCHES [.X = ±0.1] [.XX = ±0.0] [.XXX = ±0.005]
ANGLES ∠ = ± 1°
FRACTIONS .X/X = ±1/64
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL 6063-T5
FINISH Powder Coat
DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	EASS	05/26/20
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

LEVANTÉ
ALUMINUM ARCHITECTURAL COMPONENTS

TITLE:
150mm Standard Board

SIZE	PART NO.	REV
B	LS619	A

SCALE: 1:1 | WEIGHT: 0.949 | SHEET 2 OF 2

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SECTION 11
REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	09/03/21	N/A	Original Report Issue

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HALLMARK BUILDING SUPPLIES, INC.

TEST REPORT

SCOPE OF WORK
MODIFIED FM 4473 IMPACT RESISTANCE TESTING OF LEVANTE, INTERLOCKING BOARDS

REPORT NUMBER
M4644.01-109-44

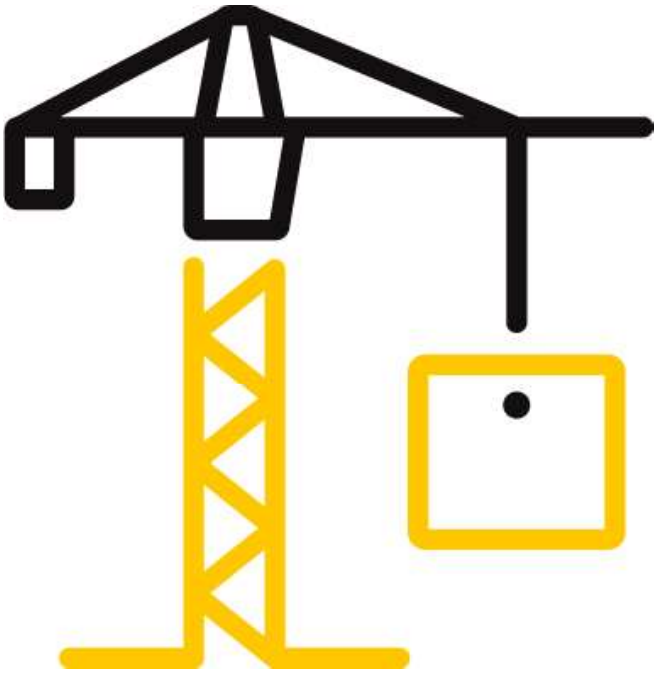
TEST DATE(S)
07/19/21

ISSUE DATE
08/12/21

RECORD RETENTION END DATE
07/19/25

PAGES
15

DOCUMENT CONTROL NUMBER
ATI 00371 (08/24/17)
RT-R-AMER-Test-2957



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TEST REPORT FOR HALLMARK BUILDING SUPPLIES, INC.
Report No.: M4644.01-109-44
Date: 08/12/21

REPORT ISSUED TO

HALLMARK BUILDING SUPPLIES, INC.
901 Northview Road
Suite 100
Waukesha, Wisconsin 53188

SECTION 1

SCOPE

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by Hallmark Building Supplies, Inc. to perform testing in general accordance with FM 4473 on their Levante, interlocking boards. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at the Intertek B&C test facility in York, Pennsylvania.

For INTERTEK B&C:

COMPLETED BY:	Richard E. Hartman III	**REVIEWED BY:**	Vicki L. McElwain
TITLE:	Technician – Product Testing	**TITLE:**	Supervisor – Product Testing
SIGNATURE:	Richard Hartman III Digitally Signed by: Richard Hartman III	**SIGNATURE:**	Vicki L. McElwain Digitally Signed by: Vicki L. McElwain
DATE:	08/12/21	**DATE:**	08/12/21

REH:nls

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TEST REPORT FOR HALLMARK BUILDING SUPPLIES, INC.
Report No.: M4644.01-109-44
Date: 08/12/21

SECTION 2
TEST METHOD(S)

The specimen was evaluated in general accordance with the following:

> **Modified ANSI/FM 4473 (2011),** *Specification Test Standard for Impact Resistance Testing of Rigid Roofing Materials by Impacting with Freezer Ice Balls*. American National Standard, FM Approvals (January 2011).

SECTION 3
MATERIAL SOURCE/INSTALLATION

Test specimen(s) was provided by the client. Representative samples of the test specimen(s) will be retained by Intertek B&C for a minimum of four years from the test completion date.

Installation of the tested product was performed by the Intertek B&C. The specimen was placed on a wood test deck and was secured with #8 x 1-5/8" pan head screws located 16" on center through the panels and into the studs. The panels interlocked and overlapped 7/16" at the top and bottom.

SECTION 4
EQUIPMENT

Cannon: Constructed from steel piping utilizing compressed air to propel the missile
Missile: 44.5 mm (1-3/4") and 50.8 mm (2.0") diameter ice balls
Cannon Identification Number: A1207
Timing Device: Electronic Beam Type
Timing Device Calibration Date: 8/18/21
Tape Measure Verification: 63788
Weather Station: 63316

SECTION 5
LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Caitlin Kittle	Hallmark Building Supplies, Inc.
Vicki L. McElwain	Intertek B&C
Richard E. Hartman III	Intertek B&C

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TEST REPORT FOR HALLMARK BUILDING SUPPLIES, INC.
Report No.: M4644.01-109-44
Date: 08/12/21

SECTION 6
TEST SPECIMEN DESCRIPTION

Product Type: Interlocking Boards
Series/Model: Levante
Color: Brown
Finish: Wood Grain
Overall Assembly Size: 1219 mm (48") width by 949 mm (37-3/8") length
Nominal Thickness: 1.8 mm (0.069")

Tile Description: Extruded aluminum with a male interlock at the bottom and a female interlock at the top
Individual Tile Weight: 1500 g (3.3 lb)
Individual Tile Size: 1219 mm (48") width by 187 mm (7-3/8") length
Exposed Tile Size: 1219 mm (48") width by 149 mm (5-7/8") length
Number of Tiles: 6

Deck Construction:
The wood test deck was 4' wide x 3' high and was constructed from 2x4 Spruce-Pine-Fir construction lumber at the perimeter with three studs spaced 16" on center.

Panel Construction:
The panels were constructed from extruded aluminum. An extruded aluminum starter strip was utilized.

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TEST REPORT FOR HALLMARK BUILDING SUPPLIES, INC.
Report No.: M4644.01-109-44
Date: 08/12/21

SECTION 7
TEST RESULTS

Modified FM 4473, *Ice Ball Impact Resistance*

Sample Conditioning Temperature: 26°C (79°F) for at least 4 hours
Sample Conditioning Relative Humidity: 59% for at least 4 hours
Ice Ball Conditioning Temperature: -22°C (-7°F) for at least 48 hours
Muzzle Distance from Test Specimen: 1524 mm (60")

The ambient temperature during testing was 27°C (80°F). The results are tabulated as follows.

Class 3 Ice Ball Impacts:

LOCATION/ IMPACT	MISSILE					IMPACT AREA	OBSERVATIONS	RESULTS
	VELOCITY m/s (fps)	ORIENTATION	WEIGHT g (lbs)	DIAMETER mm (in.)	ENERGY ft-lb			
1 - 1	30.5 (100.0)	15° of vertical	43.0 (0.095)	44.5 (1.75)	14.73	Left side, center edge of panel	No visible cracking or breakage	Pass
1 - 2	30.4 (99.8)	15° of vertical	42.1 (0.093)	44.5 (1.75)	14.37	Left side, center edge of panel	No visible cracking or breakage	Pass
2 - 1	30.7 (100.6)	15° of vertical	43.0 (0.095)	44.5 (1.75)	14.91	Top left corner, edge of panel	No visible cracking or breakage	Pass
2 - 2	30.6 (100.3)	15° of vertical	42.1 (0.093)	44.5 (1.75)	14.51	Top left corner, edge of panel	No visible cracking or breakage	Pass
3 - 1	30.1 (98.7)	15° of vertical	42.1 (0.093)	44.5 (1.75	14.05	Bottom of panel next to stud	No visible cracking or breakage	Pass
3 - 2	30.1 (98.7)	15° of vertical	43.0 (0.095)	44.5 (1.75)	14.35	Bottom of panel next to stud	No visible cracking or breakage	Pass

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TEST REPORT FOR HALLMARK BUILDING SUPPLIES, INC.
Report No.: M4644.01-109-44
Date: 08/12/21

Class 3 Ice Ball Impacts: (Continued)

LOCATION/ IMPACT	MISSILE					IMPACT AREA	OBSERVATIONS	RESULTS
	VELOCITY m/s (fps)	ORIENTATION	WEIGHT g (lbs)	DIAMETER mm (in.)	ENERGY ft-lb			
4 - 1	30.1 (98.7)	15° of vertical	42.1 (0.093)	44.5 (1.75)	14.05	Bottom of panel, between studs, at interlock	No visible cracking or breakage	Pass
4 - 2	30.2 (99.0)	15° of vertical	44.0 (0.097)	44.5 (1.75)	14.78	Bottom of panel, between studs, at interlock	No visible cracking or breakage	Pass
5 - 1	30.3 (99.3)	15° of vertical	42.1 (0.093)	44.5 (1.75)	14.22	Center of panel, between studs	No visible cracking or breakage	Pass
5 - 2	30.5 (100.0)	15° of vertical	43.0 (0.095)	44.5 (1.75)	14.73	Center of panel, between studs	No visible cracking or breakage	Pass
6 - 1	30.1 (98.9)	15° of vertical	42.1 (0.093)	44.5 (1.75)	14.11	Center of panel, next to stud	No visible cracking or breakage	Pass
6 - 2	30.7 (100.6)	15° of vertical	42.1 (0.093)	44.5 (1.75)	14.60	Center of panel, next to stud	No visible cracking or breakage	Pass
7 - 1	30.8 (101.1)	15° of vertical	42.1 (0.093)	44.5 (1.75)	14.74	Bottom of panel, next to stud, at interlock	No visible cracking or breakage	Pass
7 - 2	31.3 (102.7)	15° of vertical	42.1 (0.093)	44.5 (1.75)	15.22	Bottom of panel, next to stud, at interlock	No visible cracking or breakage	Pass
8 - 1	31.5 (103.3)	15° of vertical	42.1 (0.093)	44.5 (1.75)	15.39	Center of panel, next to stud	No visible cracking or breakage	Pass
8 - 2	30.7 (100.6)	15° of vertical	42.1 (0.093)	44.5 (1.75)	14.60	Center of panel, next to stud	No visible cracking or breakage	Pass

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TEST REPORT FOR HALLMARK BUILDING SUPPLIES, INC.
Report No.: M4644.01-109-44
Date: 08/12/21

Class 3 Ice Ball Impacts: (Continued)

LOCATION/ IMPACT	MISSILE					IMPACT AREA	OBSERVATIONS	RESULTS
	VELOCITY m/s (fps)	ORIENTATION	WEIGHT g (lbs)	DIAMETER mm (in.)	ENERGY ft-lb			
9 - 1	30.3 (99.5)	15° of vertical	42.1 (0.093)	44.5 (1.75)	14.28	Bottom of panel, between studs, at interlock	No visible cracking or breakage	Pass
9 - 2	31.0 (101.6)	15° of vertical	42.1 (0.093)	44.5 (1.75)	14.89	Bottom of panel, between studs, at interlock	No visible cracking or breakage	Pass
10 - 1	30.1 (98.6)	15° of vertical	42.1 (0.093)	44.5 (1.75)	14.02	Center of panel, between studs	No visible cracking or breakage	Pass
10 - 2	30.3 (99.5)	15° of vertical	42.1 (0.093)	44.5 (1.75)	14.28	Center of panel, between studs	No visible cracking or breakage	Pass
11 - 1	29.9 (98.0)	15° of vertical	43.0 (0.095)	44.5 (1.75)	14.15	Right side, center edge of panel	No visible cracking or breakage	Pass
11 - 2	29.8 (97.8)	15° of vertical	43.0 (0.095)	44.5 (1.75)	14.09	Right side, center edge of panel	No visible cracking or breakage	Pass
12 - 1	31.1 (102.0)	15° of vertical	43.0 (0.095)	44.5 (1.75)	15.33	Top right corner, edge of panel	No visible cracking or breakage	Pass
12 - 2	31.4 (103.1)	15° of vertical	42.1 (0.093)	44.5 (1.75)	15.33	Top right corner, edge of panel	No visible cracking or breakage	Pass

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Report No.: M4644.01-109-44
Date: 08/12/21

Class 4 Ice Ball Impacts:

LOCATION/ IMPACT	MISSILE					IMPACT AREA	OBSERVATIONS	RESULTS
	VELOCITY m/s (fps)	ORIENTATION	WEIGHT g (lbs)	DIAMETER mm (in.)	ENERGY ft-lb			
1 - 1	32.2 (105.5)	15° of vertical	63.0 (0.139)	50.8 (2.00)	24.03	Left side, bottom edge of panel	No visible cracking or breakage	Pass
1 - 2	32.5 (106.7)	15° of vertical	65.0 (0.143)	50.8 (2.00)	25.36	Left side, bottom edge of panel	No visible cracking or breakage	Pass
2 - 1	32.7 (107.3)	15° of vertical	63.0 (0.139)	50.8 (2.00)	24.85	Top of panel, next to stud	No visible cracking or breakage	Pass
2 - 2	31.6 (103.8)	15° of vertical	65.0 (0.143)	50.8 (2.00)	24.00	Top of panel, next to stud	No visible cracking or breakage	Pass
3 - 1	32.5 (106.7)	15° of vertical	63.0 (0.139)	50.8 (2.00)	24.58	Center of panel, between studs	Small indentation	Pass
3 - 2	33.3 (109.1)	15° of vertical	64.0 (0.141)	50.8 (2.00)	26.10	Center of panel, between studs	No additional damage	Pass
4 - 1	33.3 (109.1)	15° of vertical	63.0 (0.139)	50.8 (2.00)	25.69	Bottom of panel, next to stud	Small indentation	Pass
4 - 2	32.5 (106.7)	15° of vertical	65.0 (0.143)	50.8 (2.00)	25.36	Bottom of panel, next to stud	Small indentation	Pass
5 - 1	32.7 (107.3)	15° of vertical	63.0 (0.139)	50.8 (2.00)	24.85	Bottom of panel, between studs, at interlock	No visible cracking or breakage	Pass
5 - 2	31.6 (103.8)	15° of vertical	65.0 (0.143)	50.8 (2.00)	24.00	Bottom of panel, between studs, at interlock	No visible cracking or breakage	Pass

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TEST REPORT FOR HALLMARK BUILDING SUPPLIES, INC.
Report No.: M4644.01-109-44
Date: 08/12/21

Class 4 Ice Ball Impacts: (Continued)

LOCATION/ IMPACT	MISSILE VELOCITY m/s (fps)	ORIENTATION	WEIGHT g (lbs)	DIAMETER mm (in.)	ENERGY ft-lb	IMPACT AREA	OBSERVATIONS	RESULTS
6 - 1	32.0 (105.1)	15° of vertical	63.0 (0.139)	50.8 (2.00)	23.85	Right side, bottom edge of panel, at interlock	No visible cracking or breakage	Pass
6 - 2	32.4 (106.2)	15° of vertical	63.0 (0.139)	50.8 (2.00)	24.35	Right side, bottom edge of panel, at interlock	No visible cracking or breakage	Pass

SECTION 8
CONCLUSION

The sample tested showed no evidence of visible cracking, breakage, splits, punctures, or disengagement of lap elements.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. Intertek B&C will service this report for the entire test record retention period. The test record retention period ends four years after the test date. Test records, such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained for the entire test record retention period.

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.

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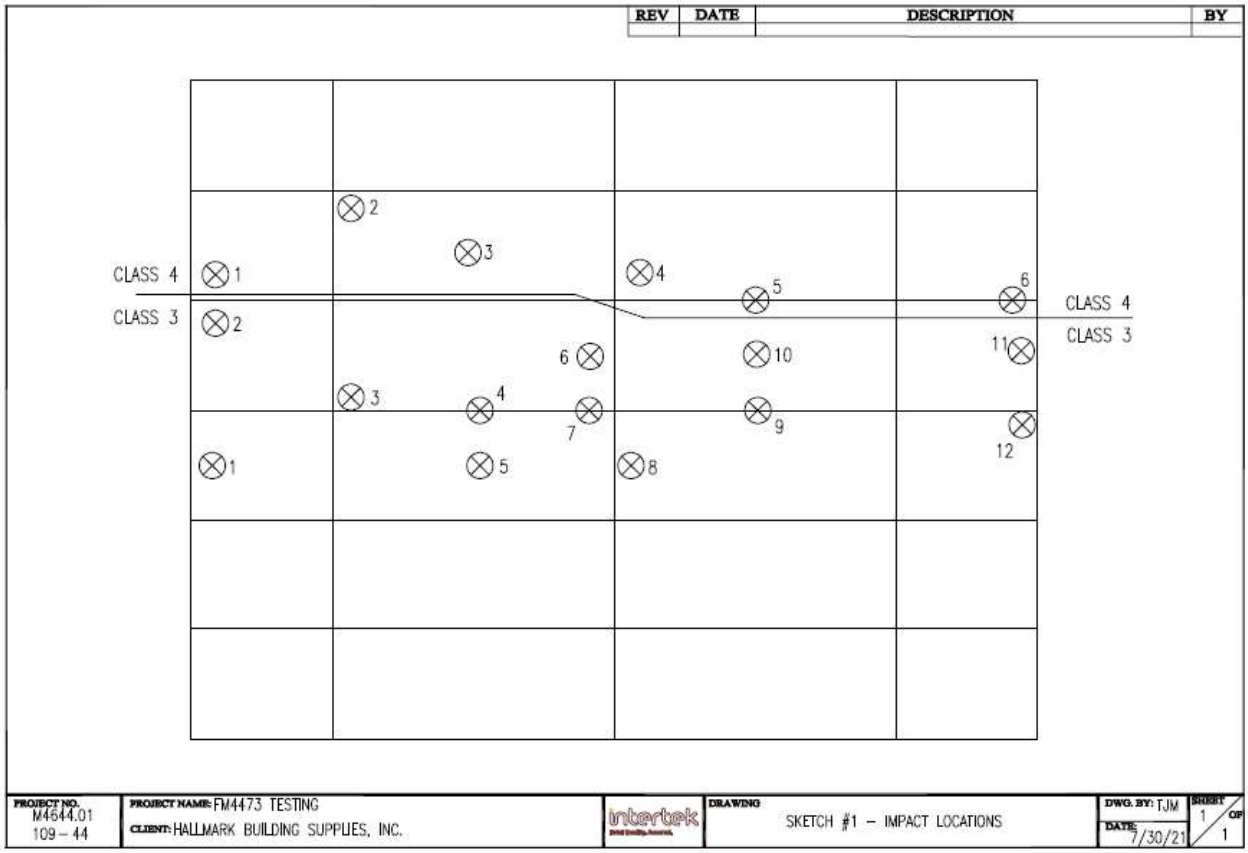
SECTION 9
SKETCH(ES)



Sketch No. 1
Impact Locations

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SECTION 10
PHOTOGRAPH

Photo No. 1
View of Test Specimen Prior to Impacts with Stud Spacing Marked

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SECTION 1
DRAWINGS

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.

LEVANTÉ®
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LEVANTÉ®, LLC
901 NORTHVIEW ROAD
SUITE 100
WAUKESHA, WISCONSIN 53188

Project Name:	Part Name: 150mm - 6" INTERLOCKING BOARD	
Used on assembly:	Part No.: LDC619	Drawing Number: AL-13689-D

REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
B	DIMENSION INDICATED BY A RED LETTER "B" HAS BEEN MODIFIED FROM 0.587" [14.90mm] TO 0.557" [14.15mm]. SLOT CUTS HAVE BEEN ADDED ALONG PROFILE'S LENGTH.	4/17/2020	EASS
C	LOCATION OF SLOT HOLES HAVE BEEN MODIFIED TO BE ALONG V-GROOVE SECTION. NUMBER OF SLOT HOLE ROWS WAS DECREASED FROM TWO ROWS TO ONE ROW.	5/14/2020	EASS
D	SLOT WIDTH HAS BEEN DECREASED FROM 0.197" [5.00mm] TO 0.1695" [4.30mm]; SLOT LENGTH HAS BEEN MODIFIED FROM 0.591" [15.00mm] TO 0.6610" [16.80mm]; TYPICAL SPECING BETWEEN EACH SLOT HAS BEEN MODIFIED FROM 0.986" [25.05mm] FROM SLOTS EDGES TO 4.000" [101.60mm] FROM SLOT CENTERS; FIRST AND LAST SLOT STARTS/ENDS 1.000" [25.40mm] FROM EDGES.	6/1/2020	EASS

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Date: 7/22/2021
Verified by:

EXTRUSION PROFILE
SCALE 1:1

NOTES:
1. EXTRUSION SHALL BE STRAIGHT WITHIN 1.1mm PER 1M [0.015"/FOOT]
2. EXTRUSION TWIST 1.0DEG PER 1M [1.0DEG/FOOT]
3. EXTRUSION CROSS SECTIONAL AREA IS 0.7451 sq.in. [480.72mm sq.]
4. ALL RADII & FILLET RADIUS TO BE R0.016" [0.40mm] UNLESS OTHERWISE SPECIFIED
5. SECTIONAL MATERIAL THICKNESS 0.071" [1.80mm] UNLESS OTHERWISE SPECIFIED
6. CRITICAL DIMENSIONS ARE SHOWN WITHIN ⬭
7. REFERENCE DIMENSIONS ARE SHOWN WITHIN ( )
8. ALL DIMENSIONS INCLUDE SURFACE FINISH
9. ALL DIMENSIONS AND TOLERANCES ARE TO BE INTERPRETED ACCORDING TO ASME Y14.

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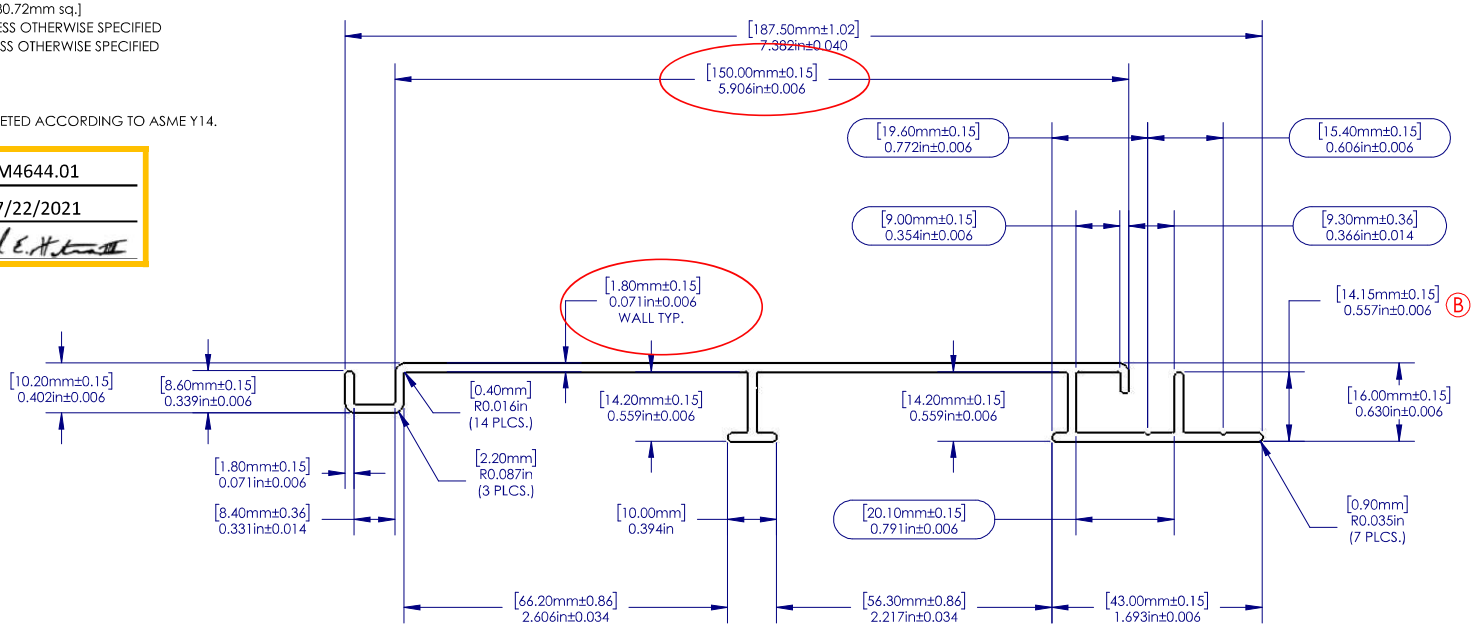
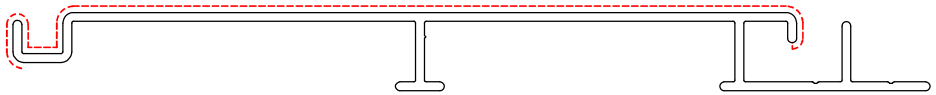


--- EXPOSED SURFACE



EXTRUSION PROFILE
SCALE 1:1

WEIGHT/LENGTH	1.294	kg/m	0.867	lbs./ft.
AREA	479.37	sq. mm	0.7430	sq. in.
TOTAL PERIMETER	532.55	mm	20.9665	in.
OUTSIDE PERIMETER	532.55	mm	20.9665	in.
EXPOSED PERIMETER	190.38	mm	7.4952	in.

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES [MM]
TOLERANCES:
MILLIMETERS X = ±1 .X = ± .25 .XX = ±10
INCHES [.X = ± 0.1] [.XX = ±0.01] [.XXX = ±0.005]
ANGLES = ± 1°
FRACTIONS X/X = ±1/64
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL 6063-T5
FINISH Powder Coat
NEXT ASSY | USED ON
APPLICATION | DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	EASS	06/01/20
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

LEVANTÉ® ALUMINUM ARCHITECTURAL COMPONENTS

TITLE:
150mm - 6" Interlocking Board

SIZE	PART NO.	REV
	LDC619	D

SCALE: 1:1 | WEIGHT: 16.677 | SHEET 2 OF 3

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SECTION 2

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	08/12/21	N/A	Original Report Issue

LEVANTÉ®
ALUMINUM ARCHITECTURAL COMPONENTS

Levanté® Cleaning and Maintenance Guide

Levanté® requires an initial clean after installation and periodic cleaning and maintenance for the lifecycle of the product. Levanté's finish possesses exceptional resistance to corrosion, discoloration and wear, and its natural beauty can be marred by harsh chemicals, rough conditions, or neglect. Marks resulting from mistreatment may be permanent, however such conditions normally affect only the surface finish and do not reduce the service life of the product.

Initial Cleaning after Installation

Clean Levanté® products once material has been installed to ensure the removal of construction debris such as metal shavings, concrete, plaster, and paint before they dry. Failure to remove construction debris at this stage may cause attachment onto surface of product and may require the use of abrasive cleaning materials and techniques which has the potential to damage the finish surface.

Maintenance Cleanings

Levanté® products should be regularly washed using warm water and non-abrasive, pH neutral detergent solutions. Small quantity of detergent (tablespoon) should be mixed into a bucket (3-4 gallons) of warm water. Surfaces need to be rinsed with warm water before any cleaning agents are applied. Clean in small sections to avoid drying before all cleaning agents can be rinsed. A soft cloth, sponge, or soft bristle brush can be used to clean residual debris on surface.

Recommended Maintenance Cleaning Schedules

Frequency of cleaning depends on several factors: environment surrounding the building, atmospheric pollution, winds and air borne debris (i.e. sand, salt water, dirt), protection from surrounding buildings or natural features, and geographical location. Below is a list of typical maintenance cleaning schedules:

- Non-aggressive Environments: Check and Clean every 12 months
- Tropical Environments: Check and Clean every 9 months
- Chlorinated Swimming and Leisure Pools: Check and Clean every 6 months
- Marine Environments: Check and Clean every 3 months
- Heavy Industrial Environments: Check and Clean every 3 months
- Aggressive/Hazardous Environments: Check and Clean every 1 month

Cleaning should be done on a mild day and never in direct sunlight.

Soil Level on Levanté® product will determine how material should be cleaned

Light Surface Soil

Always start the cleaning process from the top of the area working down or from the building working away. Surfaces need to be rinsed with warm water before any cleaning agents are applied. Use moderate water pressure to dislodge soil from surface. If soil is still visible after drying, the use of a mild cleaning agent and soft brush or cloth will be necessary. Clean surface with light uniform pressure in both a horizontal and vertical motion. Always rinse the area with warm water after a cleaning agent has been installed, making sure to remove all chemical residue.

Medium Surface Soil

If surface soil is still visible after Light Surface Cleaning, the use of a cleaning pad can assist with removal of debris. Hand scrub the surface using a wet cleaning pad with the woodgrain of the finish. After scrubbing the surface, always rinse the area with warm after to make sure to remove all chemical residue.

Use of power cleaning tools may be necessary for removal of medium to heavy surface soil. While using a power cleaning tool, the surface being cleaned must be constantly wet with clean water and/or mild detergent to provide lubrication and allow dirt to wash away. Overlap passes and clean in two directions to maximize cleaning. After area has been power cleaned, rinse area with clean warm water and scrub with a soft plastic bristle brush to remove cleaning residue. Lastly, rinse scrubs surface with clean warm water.

Always test power cleaning and cleaning agents on a small, non-visible area initially to verify no color change or damage will occur.

Heavy Surface Soil

If surface soil is still visible after Medium Surface cleaning, the use of stronger detergents or solvents may be required. Some detergents and solvents may have an adverse effect on Levanté®'s surface finish so care should be taken before using this method. Always consult the Manufacturer and test solvents on a small, non-visible area.

Always follow Cleaning Agent's Manufacturer recommendations and proper concentrations/dilutions.

After area has been cleaned, rinse area with clean warm water and scrub with a soft plastic bristle brush to remove cleaning residue. Lastly, rinse scrubs surface with clean warm water.

Warning!

Under no circumstances use strong solvents such as thinners or solutions containing Chlorinated Hydrocarbons, Esters, or Ketones. Never use aggressive alkaline or acid cleaners on finishes or cleaning agents containing Tri-sodium Phosphate, Phosphoric Acid, Hydrochloric Acid, Hydrofluoric Acid, Fluorides, or similar compounds. Cutting compounds and abrasive cleaners should never be used.

Never use excessive abrasive rubbing to remove stains. These procedures may produce an undesired change in appearance and finish.

Avoid using white spirits to assist with stubborn stains.

Avoid overspray or run-off of cleaner onto other building components. When cleaning other building components be cautious of cleaner running onto Levanté® products.

Never mix cleaning agents together. Some mixtures can be dangerous. Always rinse building components thoroughly after cleaning agents have been installed.

Some cleaning agents may be harmful to the environment. Always check the surroundings and cleaning agent's label to ensure compatibility.

LEVANTÉ®
ALUMINUM ARCHITECTURAL COMPONENTS

Levanté® Product Warranty

Subject to the terms and conditions of this Warranty, Levanté®, LLC expressly warrants its products are free from manufacturing defects in material and workmanship if installed in accordance with our specifications, property maintained, and used for their intended purpose. For the purposes of this Warranty, the intended purpose of the Levanté® products is defined as residential and commercial cladding, residential and commercial fencing and residential decking and piers.

Material Warranty

1. Buckling: Levanté®, LLC hereby warrants that the product will be free of any buckling not associated with the substrate and/or structure to which the product is attached. For purposes of this warranty, buckling shall be defined as warping of the product exceeding 1/4" inch out of plane per linear foot.
2. Rust and Corrosion: When installed in accordance with Levanté®, LLC's installation specifications and properly maintained, Levanté®, LLC warrants that the product will be free of rusting and corrosion.
3. Effect of Defect: If a defect in material or workmanship occurs during the Warranty period, Levanté®, LLC will, at Levanté®, LLC's sole option, repair or replace the defective portion(s) of the product. If it is not possible to repair or replace the product, we will refund your original material purchase price. In no case will Levanté®, LLC be responsible for labor charges.
4. Excluded Events: This Warranty does not extend to, and will not cover, damages caused by or arising out of:
   a. Shipping, handling or processing;
   b. Installation;
   c. Use of the products beyond normal use and service conditions, including use for purposes other than the intended use of the products;
   d. Alteration of the products;
   e. Insects or animals;
   f. Structural defects in the structure on which the product is installed;
   g. Movement, distortion, collapse or settling of the ground upon which the products, or the structure on which the product is installed;
   h. Improper handling or storage;
   i. Acts of vandalism;
   j. Abuse or neglect of the product;
   k. Exposure to corrosive or aggressive atmospheres, including but not limited to chemical fumes, salt, standing water, and other corrosive elements;
   l. Excessive heat, including damage caused by high heat sources such as grills and firepits;
   m. Exposure to salt-water or salt air in marine or coastal areas;
   n. Fire, flood, earthquakes, war, lightning, hail and acts of God; and
   o. Ordinary wear and tear.

Decoral® Finish

1. Checking, Chalking: During the warranty period there will be no visible checking, chalking, cracking or fading per ASTM DG154/D2244 and D4214
2. Scratch Resistance: The material is scratch resistant per ASTM D4060
3. Stain Resistance: The product is considered stain resistant in accordance with AAMA 615 including bleach

4. Color: The color change due to sun exposure will be less than five CIE Lab AE units calculated in accordance with AAMA 2604. Color and pattern variation of components should be expected.
5. Gloss Retention: The surface will exhibit a gloss retention of at least 30% of the original. Gloss retention shall be measured on the exposed paint surface which has been cleaned of oil, grease, chalk, oxidized film or other contaminants. (Panel stored in the dark at temperatures below 30 degrees C.)
6. Maintenance Required: Warranty is void if product is not cleaned annually in accordance with our Care and Maintenance Guide. Your maintenance records should indicate the date, time, specific products used along with the maintenance companies name and person providing the service.
7. Effect of Defect: If a defect in finish under this warranty has been deemed to have occurred, Levanté®, LLC will, at its sole option, either repair, refinish, or replace the product. All warranty work will be performed by a company or contractor selected by Levanté®, LLC, in its sole discretion. Color variance between repaired or refinished product and the original product shall not be indicative of a defect. If it is not possible to repair or replace the product, we will refund your original material price. In no case will Levanté®, LLC be responsible for labor charges.

Warranty Terms and Conditions

1. Warranty: This Warranty is given to either (1) the original purchaser of the products; or (2) the owner of the property at the time of installation of the product.
2. Term: The period of the Warranty is 15 years.
3. Non-transferrable: This warranty is non-transferrable, without the express written consent of Levanté®, LLC, which may be withheld or conditioned in its sole discretion.
4. Warranty Registration: Levante product must be registered within 45 days of installation. Warranty Registration must be completed by following the directions on the Levante website: https://levantealuminum.com/. Warranty Registration form and supporting documentation must be submitted to attain Levante Warranty.
5. Claims: Any claims must be made within 30 days of discovery. Claims must include proof of registration or original purchase receipt. Levanté®, LLC must be given a reasonable opportunity to inspect and verify the claim. Claims must be submitted on the Levante Website: https://levantealuminum.com/. Claim Form and supporting documentation must be submitted to process claim.
6. Entire Agreement: This Warranty represents the entire agreement between the Levanté®, LLC and the recipient of this non-transferrable Warranty. This Warranty supersedes any and all previous agreements or understanding, whether written or oral, in relation to the subject matter of this Warranty.
7. No Further Liability: The limited warranties contained in this Warranty represent the full and entire liability of Levanté®, LLC with respect to the products covered by Levanté®, LLC. Levanté®, LLC shall have no liability for any incidental or consequential damages, whether such damages are sought in contract, tort (including but not limited to negligence or strict liability) or otherwise. No person is authorized to make any representation or warranty related to the subject matter of this Warranty on behalf of Levanté®, LLC, and any such representation or warranty shall not be binding on Levanté®, LLC.
8. No Warranty of Merchantability: Levanté®, LLC makes no warranty of any kind, express or implied, any warranty or merchantability or fitness for a particular purpose.
9. No Warranty of Workmanship: Levanté®, LLC makes no warranty, express or implied, of the workmanship of any installer. Levanté®, LLC makes no warranty which would have the effect of imposing on Levanté®, LLC any liability for unsatisfactory performance caused by faulty workmanship upon installation.