Hae Young Han 348 Hunner Road Pasadena, Maryland 20850 jkee301@gmail.com 301-760-0876

Friday, October 17, 2025

Anne Arundel County Office of Planning and Zoning 2664 Riva Road, (MS 6301) Annapolis, MD 21401

Dear Anne Arundel County Planning and Zoning Board,

I am submitting this letter to formally request a Critical Area Variance for Property at 348 Hunner Road, Pasadena, Maryland. This request concerns the in-kind replacement of an existing two-story deck. The lot is situated about 60 to 70 feet from the shoreline, within the 100-foot Critical Area Buffer but outside the most environmentally sensitive zones. Strict enforcement of the Critical Area regulations would impose an undue hardship, as it would prohibit the replacement of the existing structure, which has become structurally unsafe.

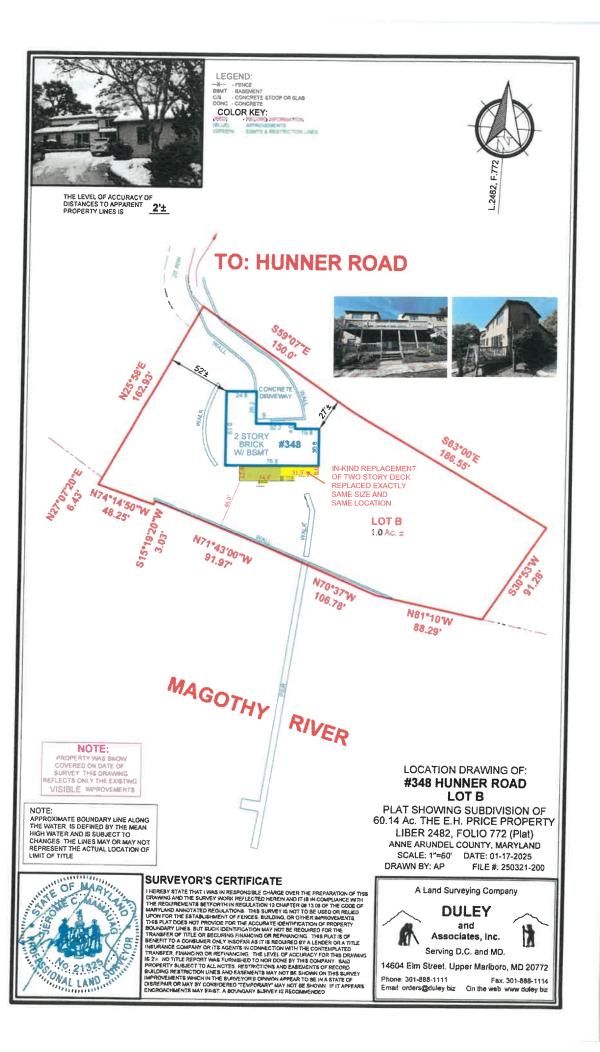
Given the minimal scope of work, the absence of grading or vegetation removal, the relatively flat slope of the site, and the lack of mapped environmentally sensitive features, this project poses no significant risk to water quality, surrounding natural resources, or the ecological function of the Critical Area.

For these reasons, I respectfully request that the Anne Arundel County Planning and Zoning Board grant this variance to allow the proposed in-kind deck replacement within the Critical Area Buffer.

Thank you for your time and consideration. Should additional information be needed, please feel free to contact my daughter, Judy Kee, at 301-760-0876 or by email at jkee301@gmail.com.

Sincerely,

Hae Young Han



# CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS 1804 WEST STREET, SUITE 100 ANNAPOLIS, MD 21401

# PROJECT NOTIFICATION APPLICATION

# GENERAL PROJECT INFORMATION

Jurisdiction:	Anne Arundel	County			Date: 11-19-2025
					FOR RESUBMITTAL ONLY
Tax Map#	Parcel #	Block #	Lot#	Section	Corrections
0032	0133		В		Redesign
	0.00				No Change
					Non-Critical Area
Tax ID: 9	0046380				*Complete Only Page 1
Tuk ID.					General Project Information
	2	94 + +	. A X		
Project Name	(site name, sub	odivision name	e, or other)		
	77. 34	2110 11110	2010		
Project location	on/Address	348 Hunr	iei isa.		
	1.				T=: 1 01/23
City Pasa	dena				Zip   2/1/2/2
Local case nu	mber				
Applicant:	Last name	Han			First name Hat Young
					<u> </u>
Company	IA				
Annlication 7	Гуре (check al	I that apply).			
Application	type (check at	tmat appry):			
Desil dies er Danne	-14			Variance	$\square$
Building Perm		H		Rezoning	
Buffer Manag		片		Site Plan	
Conditional U		H			ian H
Consistency F		$\vdash$		Special Except Subdivision	1011 H
Disturbance >					
Grading Perm	at			Other	
Local Jurisdi	ction Contact	Information:			
	440 7 2 2	A 3 1 1 1 1	04	_	
Last name	AACo Zoning	Administratio	n Section	First name	
	410 000 7407		_		TDD
Phone #	410-222-7437		Respo	nse from Comn	nission Required By TBD
					(ID)
Fax #				Hearing date	IRD

# SPECIFIC PROJECT INFORMATION

Describe Proposed use		ite:	1-11			
in-kind replace	ment o	t an ex	45ting 2	story deck		
				,		
Intra-Family Transfer Grandfathered Lot	Yes			Growth Allocation Buffer Exemption Are	Yes	
Project Type (check al	l that app	ly)			_	
Commercial				Recreational		
Consistency Report				Redevelopment		
Industrial	Ħ			Residential	V	
Institutional	H			Shore Erosion Control	ı 🗇	
Mixed Use	H			Water-Dependent Fac	=	
	H			Water Dependent Fac		
Other						
SITE INVENTORY (I					Acres	Sq Ft
	Acre	S	Sq Ft	Total Disturbed Area		648
IDA Area						
LDA Area						
RCA Area				# of Lots Created		
Total Area	l					
		Acres	Sq Ft		Acres	Sq Ft
E dain Franch/Was dland	L/Trace	710103	36,000	Existing Lot Coverage		7348
Existing Forest/Woodland Created Forest/Woodland			30,000	New Lot Coverage		0
			Ø	Removed Lot Coverage		d
Removed Forest/Woodlan	id/Trees		¥ —	Total Lot Coverage		7348
			1	Total Lot Coverage		1240
VARIANCE INFORM	IATION (	Check all t	hat apply)			
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n C nin i		Acres	Sq Ft	Buffer Forest Clearing	1 (0103	Ø
Buffer Disturbance			648	Mitigation Mitigation		-
Non-Buffer Disturbance			048	ivittigation	1	
Variance Type	,			Structure		
Buffer [	1		Α	cc. Structure Addition		
Forest Clearing	Ħ			arn $\Box$ .		
HPA Impact	╡			eck		
	╡			welling		
Lot Coverage	4			welling Addition		
Expanded Buffer	╡			arage		
Nontidal Wetlands	4		-			
Setback	_			azebo		
Steep Slopes	_			atio 📙		
Other	ك			2001		
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Revised 12/14/2006

# **Critical Area Narrative Statement**

Applicant Name: Hae Young Han

**Property Address:** 348 Hunner Road, Pasadena, Maryland, 20850

**Project Type:** Residential **Date:** Friday, October 17, 2025

# I. History of subject property

The existing single-family residence and two-story deck were originally built with a permit to build issued in July 1986, prior to Anne Arundel County's formal adoption of the Maryland Critical Area Program in 1988 - including the implementation of the 100-foot buffer zone regulation. At the time of construction, the project was completed in full compliance with the applicable building codes and environmental regulations in effect at that time.

Following the adoption of the Critical Area regulations, the property now falls within the 100-foot Critical Area Buffer. The applicant acknowledges and supports the purpose of the Maryland Critical Area Program, which aims to protect and improve water quality, conserve natural habitats, and preserve the ecological health of the Chesapeake Bay and its tidal tributaries through the regulation of land use and development within designated Critical Areas.

In keeping with the intent of the program, the applicant proposes only an in-kind replacement of the existing deck's boards, railings, and stairs. The structure will not be enlarged, relocated, or otherwise altered. No expansion of the existing footprint is proposed.

All work will be carried out with care to avoid disturbing surrounding vegetation and will comply with applicable sediment and erosion control measures, ensuring that no runoff, debris, or silt will enter the Bay or nearby tributaries as a result of this project.

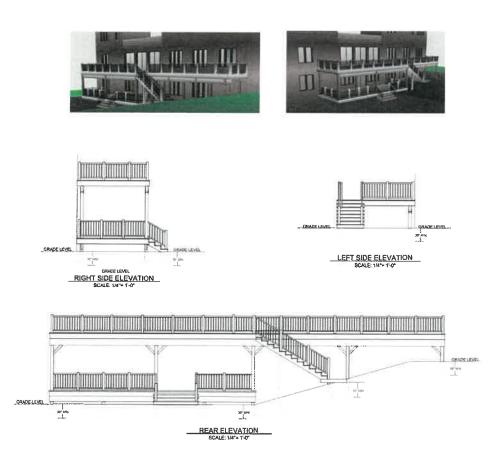
# II. Description of Proposed In-Kind Replacement

The applicant proposes to replace an existing two-story deck located at the rear of a single-family residence. The deck is supported by shared posts and connected by an exterior staircase. The purpose of this project is to address current safety concerns and ensure continued structural integrity due to conditions such as unstable boards, wobbly railings, and worn surfaces.

This project is an in-kind replacement:

- Same size and footprint as the existing deck
- No increase in height or deck area
- No change in setback from the house or property lines
- No new roof, enclosure, or structural expansion

The scope of work includes removing the existing decking boards, installing new framing, guardrails, and decking surfaces, and replacing boards on the existing staircase. All work will be performed in the same location using comparable materials. This replacement will be completed in compliance with all applicable building and environmental regulations and is designed to minimize impact on surrounding natural vegetation.



# III. Description of the Critical Area

# A. Existing Land Cover and Vegetation

The property contains a mix of native and ornamental vegetation, including, e.g., eastern red cedars, common junipers, laurel oaks, boxwoods, Caroline hemlocks, crape myrtles, and azaleas. (See actual photos in appendix.)



Approximately 36,000 square feet of the property is currently vegetated with trees and shrubs. The proposed development will disturb approximately 0 square feet of this area.

The proposed deck replacement will be conducted entirely within the existing deck footprint, and minimal ornamental vegetation on the property will be disturbed during construction. Prep work will be staged, and materials stored in the driveway of the home. All construction activity will be confined to the existing area of the deck. No clearing, grading, or impact to adjacent trees, shrubs, or native vegetation is proposed. This approach ensures that the natural vegetation remains intact, and the ecological value of the property is preserved.

# B. Existing Structures and Impervious Surfaces

For the in-kind replacement of the existing deck of 648 square feet surface structure, there is no increase in impervious surface. The total impervious surface area on the lot will remain unchanged at approximately 7,400 square feet. All impervious areas have been accounted for, including residence, deck, driveways, walkways, and gravel surfaces.

- Residence ± 4700 square feet
- Deck 648 square feet
- Driveway ± 1100 square feet
- Walkways/gravel surfaces ± 900 square feet

# C. Water and Septic Information

# Water Supply:

The property is served by a private well, located approximately 46 feet west of the residence. The well is properly capped and in active use for domestic water supply. There are no known issues with water quality or yield. The location of the well is shown on the site sketch below.

# Sewage Disposal:

Wastewater is managed via a private on-site septic system, including a septic tank and pump pit. The septic tank is located 20 feet from house, and the primary drain field extends toward the southeast portion of the lot. Detailed map is shown on next page.

Critical Area Considerations: No components of these systems will be disturbed during the proposed in-kind deck replacement.



ANNE ARUNDEL COUNTY HEALTH DEPARTMENT  ANAPOLIS, MARYLAND 21401
CERTIFICATE OF COMPLIANCE HOT INDIVIDUAL SENAGE DISPOSAL SYSTEM (SEPTIC) FOR PERMIT NO. 93062770 - TD/R348
This Certificate of Compliance of the individual taxage disposal system is your record that the system has been installed or remodeled, and has been inspected by a representative of the Anne Arundel County Health Department.
SEVERAGE SYSTEM
Permit Issued: 1 87 Now: XX Remodel:
Date of Final Inspection: 1/13/87 Requested by: LARRY TUCK
Owner: SANG KOD , 480 OLD DECHAED CIR, MILLERSVILLE 21108
Location of Work: 346 HUPNER Rd.
Lot: B Block: Section: Tank Size 1500 gallons.
For Tile Fields: Total length: 70 No. Trenches: / Length each: 70
Width: 3 Total effective area: Location:
For Dry Wells: Total depth:ft. Diameterft. No. of pits:
Effective depth: ft. Effective area: Location:
Special Requirements: DEBTH 10' PIPE BT 4'
19/ 10 0 0
APPROVED BY: J. Howard Beard, M.D.  INSPECTED BY: Jon Ciulian Environmental Health Division
Health Officer (13/87
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AADH 609 July 15, 1981

# D. Topography and Slope

# Slope Area:

Slope was determined using topographic data available from the <u>CBCA Map Viewer</u>. According to the publicly available data, the proposed in-kind replacement is located on a relatively flat portion of the lot. The property's slope has been calculated at approximately 2%, based on a vertical rise of 13 feet over a horizontal distance of approximately 650 feet at its widest point. This gentle slope greatly reduces the potential for erosion, runoff, or sediment transport during construction. Therefore, the project presents minimal risk to nearby waterways and surrounding natural resources.

slope 
$$\% = \left(\frac{\text{vertical rise}}{\text{horizontal distance}}\right) \times 100$$

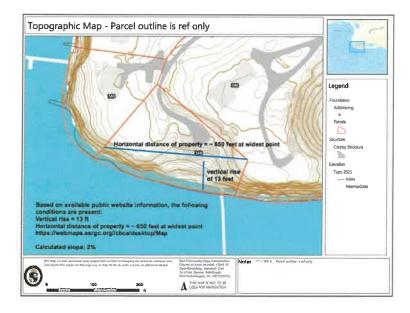
Vertical rise = 13 ft

Horizontal distance of property = ~ 650 feet at widest point

# E. Water Features and Buffers

Due to the current placement of the deck, the in-kind replacement will occur approximately 60-70 feet from the shoreline. While within the 100-foot Critical Area Buffer, the deck remains outside the most sensitive zones closest to the water. No grading, tree removal, or footprint expansion is proposed, and the project will not further encroach toward the water.

- Distance to Shoreline: 60-70 feet
- Buffer Zones Present: within 100-foot Critical Area Buffer
- Wetlands/Streams on or Near Property: No



# F. Environmental Resource or Sensitive Areas:

The following information was determined using data available from the Maryland Environmental Resource and Land Information Network (MERLIN). The subject property does not contain or lie adjacent to any mapped environmentally sensitive areas. The proposed in-kind deck replacement will have no adverse impacts on mapped environmental features of statewide or local importance.

- Rare or endangered species habitat Not present
- Anadromous fish propagation waters Not present
- Colonial waterbird nesting sites Not present
- Riparian forests or Natural Heritage Areas Not present
- Local plant and wildlife habitat areas of significance Not present

# IV. Impact Avoidance and Minimization Measures

To reduce environmental impacts during construction, the following methods will be used:

- All construction will be confined to the existing footprint of the structure. No expansion or encroachment into undisturbed areas will occur.
- Ground disturbance will be limited to what is necessary for safe removal and replacement of the boards. No grading or excavation is proposed.
- Ground disturbance will be limited to what is necessary for safe removal and replacement of the structure. No grading or excavation is proposed.
- No mature trees or native vegetation will be removed.
- Temporary erosion and sediment control measures, such as silt fencing, will be used as needed to prevent runoff into adjacent natural areas or waterways. All disturbed soil will be stabilized immediately after construction.
- Work will be scheduled during dry weather to reduce the chance of runoff or erosion.
- Work will be completed with hand tools or light equipment where feasible to minimize ground compaction and site impact.
- The replacement does not increase impervious surface area; the deck is reconstructed with the same dimensions and structure.

# Conclusion

This narrative has been prepared to support the application for a Critical Area variance. The proposed project has been designed to minimize impacts to the Critical Area, with consideration for water quality, vegetation, habitat protection, and impervious surface limits. Mitigation measures will be implemented as necessary to ensure environmental compliance and long-term site stability.

Photo 1: Perspective of the front of the home



Photo 2: Left side of residence looking from the front of the home



Photo 3: Left side of residence walking left from the front of the home



Photo 4: Right side of residence looking from the front of the home



Photo 5: Left side of residence looking from the back of the home

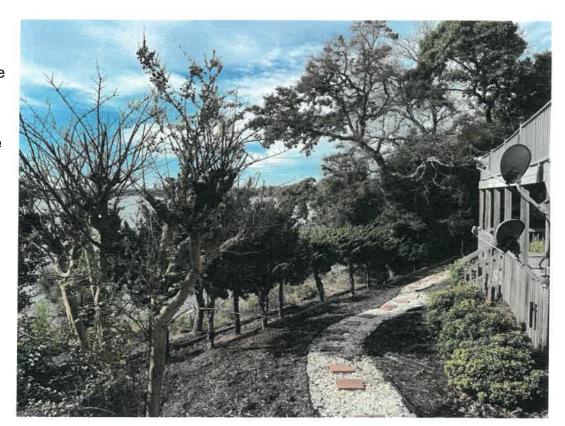


Photo 6: Right side of residence looking from the back of the home



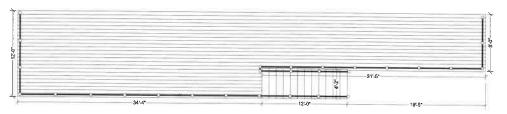
# 346 HUNNER ROAD PASADENA, MD 21122

ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE INTERNATIONAL RESIDENCE CODE (IRC) AND INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2018 EDITION, AS AMENDED BY ANNE ARRINDEL COUNTY EXECUTIVE REGULATION.

ALL CHAPTERS, TABLES, SECTIONS, FIGURES AND APPENDICES REFERENCED HEREIN ARE FROM THE IRC AND IECC AS AMENDED. THIS DOCUMENT CONTAINS AND EXPLAINS ITEMS WRITTEN ON APPROVED PLANS; IT IS NOT INTENDED AS A SUBSTITUTE FOR CODES OF THEIR PROVISIONS.

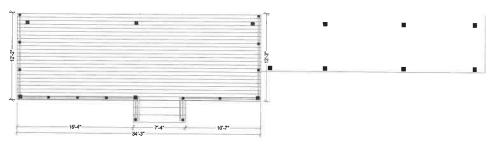






PROPOSED UPPER DECK PLAN

SCALE: 1/4"= 1'-0"



PROPOSED LOWER DECK PLAN

# DRAWING INDEX:

07-25-2025 TAX ID: 90046380 LOT: D BLOCK:

### SCOPE OF WORK

REMOVE AND RE-BUILD TWO STORY WOOD DECK ON REAR, NEW DECK TO BE THE EXACT SAME SIZE AND ON THE SAME LOCATION

### GENERAL NOTES

- ALL WORK BYALL COMEN WITH ALL APPLICABLE CODES, STANDARS, ORENIANCES, REGULATIONS AND LAWS OF THE STATE OF MAYOR LAW.

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### DESIGNER:

FREDDY MOREL (DRAFTER)
1 MONTFORD COURT
SILVER SPRING, MD 20905
(202) 760- 9438
morelgc@hotmall.com

### JOB ADDRESS:

348 HUNNER ROAD PASADENA, MD 21122

MARK	REVISION	DATE
_		
		-

### OWNER:

348 HUNNER ROAD PASADENA, MD 21122

### PROJECT TITLE:

WOOD DECK ADDITION

DESIGNER	FREDDY MOREL			
DRAFTER	FREDDY MOREL			
SCALE	1/4"=1"-0"			
PROJ. MGR				
PROJ #	124152			

### SHEET TITLE:

### DECK PLANS

A-1



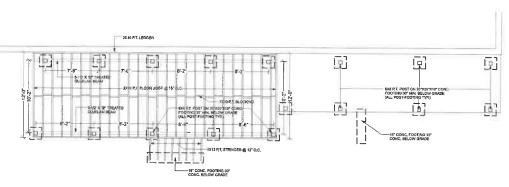
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# 2X10 P.T. LEDGER 16'-11"

UPPER DECK FOUNDATION - FLOOR FRAMING
SCALE: 1/4"= 1'-0"

2X12 P.T. STRINGER 20 12" O.C.



LOWER DECK FOUNDATION - FLOOR FRAMING
SCALE: 1/4"= 1'-0"

### DRAWING INDEX:

### 07-25-2025 TAX ID: 90046380 LOT: D BLOCK:

### SCOPE OF WORK

REMOVE AND RE-BUILD TWO STORY WOOD DECK ON REAR

# **GENERAL NOTES**

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(202) 780-9438
morelgo@hotmail.com



DECK SIDE SECTION

JOB ADDRESS:

348 HUNNER ROAD PASADENA, MD 21122

MARK	REVISION	DATE
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		-

### OWNER:

348 HUNNER ROAD PASADENA, MD 21122

PROJECT TITLE:

WOOD DECK ADDITION

DESIGNER	FREDDY MOREL
DRAFTER	FREDDY MOREL
SCALE	1/4*=1*-0*
PROJ. MGR	
PROJ, #	124152

### SHEET TITLE:

DECK FOUNDATION -FRAMING

# 346 HUNNER ROAD PASADENA, MD 21122

ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE INTERNATIONAL RESIDENCE CODE (IRC) AND INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2018 EDITION, AS AMENDED BY ANNE ARUNDEL COUNTY EXECUTIVE REGULATION,

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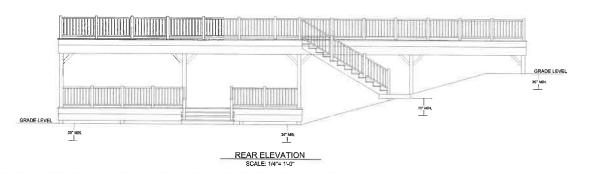








LEFT SIDE ELEVATION



### DRAWING INDEX:

07-25-2025 TAX ID: 90046380 LOT: D BLOCK:

### SCOPE OF WORK

REMOVE AND RE-BUILD TWO STORY WOOD DECK ON REAR

### **GENERAL NOTES**

- ALL WORK SHALL COMEY WITH ALLAPPLICABLE CODES, STANDARS, ORDINANCES, RECOLATIONS AND LAWS OF THE STATE OF MARTHAM STATE OF THE STATE OF MARTHAM STATE OF THE STAT

### DESIGNER:

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moralgc@hotnail.com

### JOB ADDRESS:

348 HUNNER ROAD PASADENA, MD 21122

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### OWNER:

348 HUNNER ROAD PASADENA, MD 21122

### PROJECT TITLE:

WOOD DECK ADDITION

DESIGNER	FREDDY MOREL		
DRAFTER	FREODY MOREL		
SCALE	1/4"=1'-0"		
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PROJ.#	124152		

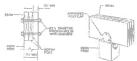
### SHEET TITLE:

ELEVATIONS

**A-3** 

### POST TO BEAM CONNECTION

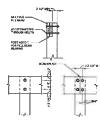
Deck beams shall be attached to deck post is a manner capable of transferring vertical loads and resisting hottomic displacement. Where multiple span beams bear on intermediate posts each by must leve full bearing or till per (Municipating decid to beam connectors and the sized of the post and beam sizes. Both shall be weathers under the heat and nut. I provided the post of the post of the size of the post and beam sizes. Both with debt provided. For tiple member above, post-beam shall be attended in accordance with debt provided. For tiple member above, provided we finding pattern above in the ordain enterties on each side; however slaggared rows shall be offset so as not to occur in the same location.



POST-BEAM CONNECTION



POST-BEAM CONNECTION AT SPLICE



NOTCHED POST TO BEAM CONNECTION



### DECK TYPES

Attached Dock: a deck structure that is physically attached to and supported by the house with a ledger board. Note: Note and the support of the state of the state of the house. Ledger Board state of the support of the support of the state of the state of the state of the support of the valuatives of commency, and free noon subsets are not permitted, care pos-supporting attached decks shall be capable of supporting the new deck. Deck joists shall be parallel to line house joists, if the condition can't be verified a free-standing deck or full plan submission will be required

Free-Standing Deck: a self-supporting deck structure built independently from the house, requires two support beams.

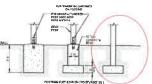




Counterputie bolts are not Permitted

### 3. DECK FOOTINGS

Foolings shall be minimum 25 inches square or 22 (niches diameter. Bottom of loolings shall be a minimum of 30 inches below grade and shall bear on undisturbed sall. Deak foolings acloser than 5-0" to an exterior houses foundation, shall have some shall bear as the existing houses foundation, Distances to the edges of the fooling and commetion's embediened must be an exceedance with the manufacturer's embedded of the fooling and commetion's embediened must be in accordance with the manufacturer's



- DECK POOTINGS

  a. Ports shall be restrained to provent learned all place between support by manufacture contractors or yet minimum of 12° in a minimum grots or converse judge, where supports long compressible, shall not or order upstantiates also are present, adds so limited for the descriptions also are present, adds so limited for the descriptions. Or when yet potential to produce the property of the produced presentative.

### 4. DECK POSTS

Desk post also shall be in accordance with Teible 1. The height of the post is measured from grade or top of foundation (whichever is higher) to the underside of the isome. Post shall be continued on the fooling. Cut enter and notiched of post shall be indicated such that he depressed with the experience of post to the beam by motiving as shown in Pigura 7. There per the fact or control with an expressed post cap to contract the post to the beam by motiving as shown in Pigura 7. There per the fact or control motivation is sufficient in sublice provided by multidisturate considers in the provided in sublice provided by multidisturate considers. Provided diagonal branching all each post provided the height (or part is that on the beam) as shown in Figura 7. Diverge the provided is subject to the post at one and with Y' disk. Leg screws. One said of diagonal branching that be facilitied provided in the beam and notice to provide the beam of the post at one of the post at one of the post at one of the post at the post of the post at one of the post and post at the post of the post at one of the post and post at one of the post at one of th

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6x6	92
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10-10-2024 TAX ID: 90046380 LOT: D BLOCK:

DESIGNER:

FREDDY MOREL (DRAFTER) 1 MONTFORD COURT SILVER SPRING, MD 20305 (202) 760- 9438

JOB ADDRESS:

348 HUNNER ROAD PASADENA, MD 21122

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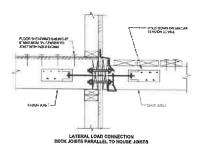
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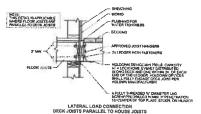
PROJECT TITLE: WOOD DECK ADDITION

FREDDY MOREL DESIGNER FREDDY MOREL SCALE

PROJ. MGR PROJ.# SHEET TITLE:

DECK DETAILS





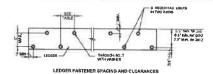
### DECKING

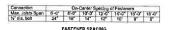
Description of perspendicular to joints may consist of zos estudural furnities supported by joints epised at 3° ca. maximum of 15 sizes have described as the properties of the perspendicular to the perspendicular control of the perspendicular con

Plastic comjustie duck boards and stair beads will be accepted if they are liabilist to indicate compliance with ASTM DYDGZ, a complies current code avaluation report for the manufactured decking system that indicate be mentionam disvisable load and span must be provided to the building haspender at the time of feating inspection, Manufactured decking systems must be installed in accordance with the code weakabot report and manufacturer is applications.



### LEDGER BOARD FASTENERS

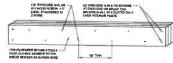




Through-Boits
Through-Boits shall have a clameter of 37, Peol holes for through-boits shall be 17/32" to 6/16" in diameter,
Through-Boits require weshers at the boit head and nut.

### DECK LATERAL LOAD CONNECTION

bade shall be positively anchored to the primary structure. The Islami premotion shall be permitted in percentance with details. For conditions where the house joint are partial to the dead joints includ-found reviews shall be premoted by the primary of the p



**BUILT-UP BEAM CONNECTION** 

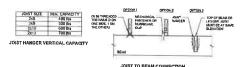
### DECK JOIST

Maderium ellowable span for dock jobs to be as per Taibé 3. The maderium cantilever shall be limited to onefound to the solute digitater jobs span or the maximum cantilevand length shown on table 3. Whichever is less. The worst of places shall seven sell as than 1.4° bearing on voice or meals. Jobs framing into the saids of a less. The worst of places shall seven sell as than 1.5° bearing on voice or meals. Jobs framing such the saids of a less than the state of the supported by approved piots integers. Jost and and bearings shall be provided with below in relations. It is not to be supported by the shall be and the state of the support of below in the support of the support of the support of below in the support of the support of below in the support of the support of below in the support of the support

SPECIES	SIZE	ALLOWABLE JÓIST SPAN BPACHIG OF DECK JOISTS (Inches)			MAXIMUM CANTILEVER BPACING OF DECK JOISTS WITH CANTILEVER (inclus)		
		12	16	24	12	18	24
Southern Pine No. 2	2x6	9'-11"	9'-0"	7.7	157	11.4"	17-6"
	2x8	13-1"	11'-10"	8'-8"	2'-1'	2.3	2.5
- min mo. 2	2x10	16'-2"	14'-0"	117-51	3'-4'	3.6"	2-10
	2x12	18'-0"	1856	13'.6"	4' 0.	41.00	

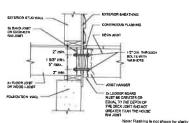
### JOIST TO BEAM CONNECTION

Each joint shall be allumbed to the beams as thour on cleatine, below my low on an overflowing past the beam faces where Option in or Option at leases and troubles is increased between pinks at lease mentional lasteness or humanism days must have an infinition rigid and eleteral lead expansity of 100 bits in both mind shall be disclosed. In the contract of the past of the shall be the side of this server will joint hanging and south and shall be disclosed. In the contract of the beam. Joint images and be to flavore perladge of beam displit, Inside may be a shall be to the beam. Joint images and be to flavore to support dock joint one production of the period of the period



### LEDGER DECK ATTACHMENT

The ledger board shall be equal to or greater than the dock joint depth but equat or less than the house band or mit lost. Ledger board statistications is to be ordered with shall be constituted as indicated in details. The ledger of the conscious control that but the constitute of the conscious shall be a 2 mornior shall be the conscious shall be a 2 mornior shall be the conscious of that but the 2 mornior shall be a 2 mornior shall be the conscious of the conscious shall be a 2 mornior shall be the 2 mornior shall be a 2 morni



LEDGER BOARD TO RIM JOIST ATTACHMENT

10-10-2024 TAX ID: 90046380 LOT: D BLOCK:

DESIGNER: FREDDY MOREL (DRAFTER) 1 MONTFORD COURT SILVER SPRING, MD 20905 (202) 760-9438 morelgo@hotmall.com

JOB ADDRESS:

348 HUNNER ROAD PASADENA, MD 21122

MARK	REVISION	DATE
		-
		-

OWNER:

348 HUNNER ROAD PASADENA, MD 21122

PROJECT TITLE:
WOOD DECK ADDITION

DESIGNER FREDDY MOREL

DRAFTER FREDDY MOREL

SCALE 1/4"=11.0"

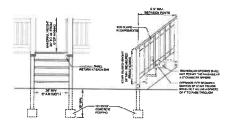
PROJ. MGR

PROJ. # 124152

SHEET TITLE:

DECK DETAILS

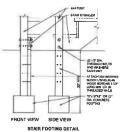
A-5



STAIR AND GUARDRAIL REQUIREMENTS

STAIR FOOTING REQUIREMENTS
Where the stair meets the grade, stach the stringers
to the stair guard post as shown on details. Post shell
beer on foolings. All footing shall beer on solid
ground at least 30° below grade. Stringers hall beer
on 2x4 bearing block attached to the post as shown.

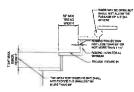
STAIR LIGHTING REQUIREMENTS
Statinways shall have a light source located at the top landing such that all state and lendings are illuminated. The light switch shall be operated from the inside of the house, Median detected or timed switches are ecceptable



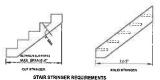
### STAIR REQUIREMENTS

Stair, stair stringers, and guerds shall meet the requirements shown on dotals. All stringers shall be a minimum of 2x12. Stair stringers shall not span more than the dimensions shown. An intermediate landing may also be provided to absolve the stringer span. If the total vertical height for a stainway exceeds 12-0° and intermediate landing will be required.

All Internentials a table familities must be combused on a monitoring rich during the deaths in his document. Sher whell hav information of \$0^{\circ}\$ valued to other call adheren as must, as minimum of \$0^{\circ}\$ valued to reduce a famility of the combustion of an end sold stringers can be used for small be placed it anatheren speaker for \$1^{\circ}\$ to make the placed state of the combustion of our land sold stringers can be used for small be placed it anatheren speaker for \$1^{\circ}\$ to make the placed state of the combustion of \$0^{\circ}\$ to make the placed stringers must be fully apported or connected to the oder destruction, and the placed stringers must be fully apported or connected to the oder destruction of the combustion of \$0^{\circ}\$ to make the combustion of the



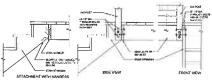
TREAD AND RISER DETAIL



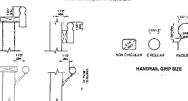




TREAD CONNECTION REQUIREMENTS



STAIR STRINGER ATTACHMENT



HANDRAIL MOUNTING EXAMPLES

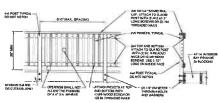


RIM JOIST CONNECTION DETAIL

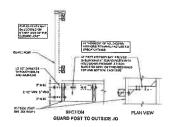
### DECK GUARDRAIL

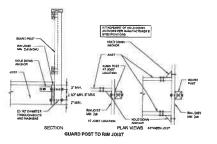
At divide gratier than 6" above grade are required to have a guard constructed as shown in Figure At Ded grant past shall be an element of the final past and the place to the state of the place and the place to the state of the place and th

ASTA CONTROL OF THE STATE AND ASTALLAND ASTALL



DECK GUARD DET





10-10-2024 TAX ID: 90046380 LOT: D BLOCK:

DESIGNER:
FREDDY MOREL (DRAFTER)
1 MONTFORD COURT
SILVER SPRING, MD 20905
(202) 760-9438
morelgc@hotmsil.com

JOB ADDRESS:

348 HUNNER ROAD PASADENA, MD 21122

MARK	REVISION	DATE

OWNER:

348 HUNNER ROAD PASADENA, MD 21122

PROJECT TITLE: WOOD DECK ADDITION

DESIGNER	FREDDY MOREL	
DRAFTER	FREDDY MOREL	
SCALE	1/4"=1'-0"	
PROJ. MGR		
PROJ.#	124152	

SHEET TITLE:

A-6

DECK DETAILS



# Code Compliance Research Report CCRR-0326

Issue Date: 07-27-2020 Revised Date: 08-12-2021 Renewal Date: 08-31-2022

DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES Section: 06 63 00 – Plastic Railings

### **REPORT HOLDER:**

Shoreline Vinyl Systems 1114 Park Lane Denton, Maryland 21629 410-364-9050

www.shorelinevinyl.com

### **ADDITONAL LISTEES:**

TW Perry 8101 Snouffer School Road Gaithersburg, Maryland 20879 888-897-3779

Wolf Home Products 20 West Market Street York, Pennsylvania 17401

wolfhomeproducts.com

### REPORT SUBJECT:

800-388-9353

twperry.com

Shoreline PVC Railing Assemblies

100 Series (Traditional Rail)

200 Series (Deckboard Rail)

300 Series (Warrior Rail, Builders Mark Rail)

600 Series (Breadloaf Rail)

# 1.0 SCOPE OF EVALUATION

- **1.1** This Research Report addresses compliance with the following Codes:
- 2021, 2018 International Building Code® (IBC)
- 2021, 2018 International Residential Code® (IRC)

- **1.2** The *Shoreline PVC Railing Assemblies* has been evaluated for the following properties:
- Structural Performance
- Durability
- Surface Burning
- **1.3** The *Shoreline PVC Railing Assemblies* have been evaluated for the following uses:
- The Shoreline PVC Railing Assemblies are guards (aka. guardrails) under the definitions of the referenced codes and are intended for use on elevated walking areas in buildings and walkways, including stairs and ramps, as required by the referenced codes.
- Guard assemblies are provided as level guards for level walking areas such as decks, balconies and porches, and sloped guards for open sides of stairways.
- Guard assemblies recognized in this report may be used in One- and Two-Family Dwellings regulated by the IRC and all construction types regulated by the IBC in accordance with IBC Section 705.2.2 and 705.2.3.1 [1406.3], Exception 2 and 3. Guards less than 42 inches high are limited to use in One- and Two-Family Dwellings (IRC). See Tables 1 through 4 for additional restrictions based upon Use and Occupancy Classification

### 2.0 STATEMENT OF COMPLIANCE

The Shoreline PVC Railing Assemblies complies with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.

### 3.0 DESCRIPTION

**3.1** The Shoreline 100 Series, Traditional Rail is an assemblage of white co-extruded and molded components, with aluminum reinforcements and nylon mounting brackets. See Figure 1.









- **3.1.1** Top rails are nominally 3-1/2 inches high by 3-1/2 inches wide with 0.08-inch nominal wall thickness, "T" shaped extruded PVC rail profile, reinforced with an aluminum "H" or "A" insert.
- **3.1.2** Bottom rails are nominally 2 inches high by 3-1/2 inches wide, extruded PVC rail profile, reinforced with an aluminum "T" insert.
- **3.2** The Shoreline 200 Series, Warrior Rail and Builders Mark Rail are an assemblage of white co-extruded and molded components, with aluminum reinforcements and nylon mounting brackets. See Figure 2.
- **3.2.1** Top rails are nominally 2 inches high by 3-1/2 inches wide, extruded PVC rail profile, reinforced with an aluminum "A" insert.
- **3.2.2** Bottom rails are nominally 2 inches high by 3-1/2 inches wide, extruded PVC rail profile, reinforced with an aluminum "T" insert.
- **3.3** The *Shoreline 300 Series, Traditional Rail* is an assemblage of white co-extruded and molded components, with aluminum reinforcements and nylon mounting brackets. See Figure 3.
- **3.3.1** Top rails are nominally 3 inches high by 1-3/4 inches wide with 0.104-inch nominal wall thickness, "T" shaped extruded PVC rail profile, reinforced with an aluminum insert.
- **3.3.2** Bottom rails for the Warrior Rail are nominally 2-1/4 inches high by 2 inches wide, extruded PVC rail profile, reinforced with an aluminum "H" insert. The Builders Mark Rail bottom rails are nominally 2 inches high by 3-1/2 inches wide, extruded PVC rail profile, reinforced with an aluminum "T" insert.
- **3.4** The *Shoreline 600 Series, Breadloaf Rail* is an assemblage of white co-extruded and molded components, with aluminum reinforcements and nylon mounting brackets. See Figure 4.
- **3.4.1** Top rails are nominally 2-1/4 inches high by 2-13/16 inches wide with 0.08-inch nominal wall thickness, bread loaf shaped extruded PVC rail profile, reinforced with an aluminum insert.

- **3.4.2** Bottom rails are nominally 2-1/4 inches high by 2 inches wide, extruded PVC rail profile, reinforced with an aluminum "H" insert, or alternatively a nominally 2 inches high by 3-1/2 inches wide, extruded PVC rail profile, reinforced with an aluminum "T" insert.
- **3.5** Infill for *Shoreline PVC Railing Assemblies* are provided in three styles; square PVC pickets, PVC spindles, and round aluminum pickets. Rails are routed to the shape of the infill profile to receive the infill. See Figure 5.
- **3.5.1** Square PVC pickets are hollow, extruded PVC of 1-3/8 inch or 1-1/2-inch square, with 0.07-inch nominal wall thickness.
- **3.5.2** PVC spindles are hollow, thermoformed PVC with 1-1/4 inch or 1-1/2-inch square ends, and 0.06-inch nominal wall thickness.
- **3.5.3** Round aluminum pickets are hollow, extruded aluminum of 3/4 inch diameter and 0.05-inch nominal wall thickness.
- **3.6** Top and bottom rails are connected to support posts using nylon brackets, as defined in Table 5. Support posts may be sleeved conventional wood posts, *LMT Galvanized* post mounts or *LMT Blu-Mount* post mounts. The LMT post mounts include PVC post guides (mounting blocks) for securing the rail brackets.
- **3.6.1** *LMT Galvanized* post mounts consist of a 2-inch square galvanized steel tube with a 0.073-inch-thick wall, continuously fillet welded to a 3-1/2-inch square, 0.300-inch-thick steel base plate. Four 0.40-inch diameter holes are located at each corner of the plate, with the center of the holes 0.40 inches from each edge.
- **3.6.2** *LMT Blu-Mount* post mounts consist of a 2-inch square steel tube with 0.152-inch-thick wall, continuously fillet welded to a 3-1/2-inch square, 0.623-inch-thick steel base plate. Four 0.38-inch diameter holes are located at each corner of the plate, with the center of the holes 0.38 inches from each edge.











### 4.0 PERFORMANCE CHARACTERISTICS

- **4.1** The Shoreline PVC Railing Assemblies described in this report has demonstrated the capacity to resist the design loads specified in Chapter 16 of the IBC, as well as Section R301 of the IRC when tested in accordance with ICC-ES AC174.
- **4.2** Structural performance has been 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** Materials used in the railing assemblies have a flame spread index not exceeding 200 when tested in accordance with ASTM E84.

### 5.0 INSTALLATION

- **5.1** The Shoreline PVC Railing Assemblies must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.
- **5.2** Railing assemblies consist of top and bottom rails with pre-routed holes to receive infill. Aluminum railing reinforcements are inserted in the rails during assembly as specified for the type and length of railing (see Tables 1 through 4). Aluminum insert lengths must be the same length as the PVC railings to assure bracket screws penetrate the aluminum inserts.
- **5.3** Railings are secured to sleeved 4x4 wood posts, *LMT Galvanized* post mounts, or *LMT Blu-Mount* post mounts with nylon brackets and stainless-steel screws. The 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. Rail attachment shall be in accordance with Table 5.
- **5.4** The *LMT Galvanized* and *LMT Blu-Mount* post mounts may be surface mounted to concrete utilizing four anchor bolts. The type and length of the anchor bolts is dependent upon the material and condition of the supporting structure

and is not within the scope of this report. See Section 6.0, Conditions of Use for additional requirements.

### 6.0 CONDITIONS OF USE

- **6.1** Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.
- **6.2** See Section 1.3 for construction type(s) and use classifications.
- **6.3** Conventional wood railing supports including 4x4 posts, and framing are not within the scope of this report and are subject to evaluation and approval by the building official. Supports must satisfy the design load requirements specified in Chapter 16 of the IBC. Supports and framing must provide suitable material for anchorage of the rail brackets and post mount, respectively. Where required by the building official, engineering calculations and details shall be provided.
- **6.4** Concrete anchors and anchoring systems for use with the *LMT Galvanized* and *LMT Blu-Mount* post mounts are not within the scope of this report and are subject to evaluation and approval by the building official. Anchors must satisfy the design load requirements specified in Chapter 16 of the building code and must meet the following minimum requirements:
- **6.4.1** A minimum of four anchor bolts must be used and located in the four pre-drilled holes in the post base plate.
- **6.4.2** The anchors must be stainless steel, galvanized steel or other approved material compatible with the steel post mount system.
- **6.4.3** The anchor bolts must have a minimum diameter of 3/8 inches and utilize flat washers. The type and length of the anchor bolts is dependent upon the material and condition of the supporting structure and is not within the scope of this report.
- **6.4.4** When the supporting structure is a wood framed deck, installation must include anchorage to suitable structural framing. Decking is not considered structural framing, and anchorage to decking alone is not an approved installation method.



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- **6.4.5** Where required by the building official, engineering calculations and details shall be provided. The calculations shall verify that the anchorage and supporting structure complies with the building code for the type and condition of the supporting construction.
- **6.5** Any component or configuration not identified in this report has not been evaluated for performance and/or compliance to the referenced codes. Identification of such components with the CCRR program mark or number is prohibited.
- **6.6** Only those types of fasteners and fastening methods described in this report have been evaluated for the installation of the Shoreline Vinyl Railing Assemblies; other methods of attachment are outside the scope of this report.
- **6.7** Compatibility of fasteners and other installation hardware with the supporting construction including treated wood is not within the scope of this report.
- **6.8** The *Shoreline PVC Railing Assemblies* is manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

### 7.0 SUPPORTING EVIDENCE

- 7.1 Manufacturer's drawings and installation instructions.
- **7.2** Reports of testing demonstrating compliance with ICC-ES AC174, Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails), revised December 2014.
- **7.3** Reports of testing and engineering analysis demonstrating compliance with the performance requirements of ASTM D7032-17 [-14], Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite and Plastic Lumber Deck Boards, Stair Treads, Guards, and Handrails.
- **7.4** Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

### 8.0 IDENTIFICATION

The Shoreline PVC Railing Assemblies are identified with the manufacturer's name (Shoreline Vinyl Systems), address and telephone number, the product name, the statement "See CCRR-0326 at <a href="www.intertek.com/building/ccrr">www.intertek.com/building/ccrr</a> for uses and performance levels.", the phrase "For Use in One- and Two-Family Dwellings Only" for the applicable railing assemblies (See Tables 1 through 4), the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0326).



### 9.0 OTHER CODES

This section is not applicable.

### 10.0 CODE COMPLIANCE RESEARCH REPORT USE

- **10.1** 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.
- **10.2** Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.
- **10.3** Reference to the <a href="https://bpdirectory.intertek.com">https://bpdirectory.intertek.com</a> is recommended to ascertain the current version and status of this report.







TABLE 1 – 100 SERIES (TRADITIONAL RAIL) PVC RAILING ASSEMBLIES FOR USE GROUP CLASSIFICATIONS

Туре	Maximum Railing Dimensions (1)	Top Rail Aluminum Reinforcement	Support Post (2)	Use Group Classification	
Level	96 inch x 42 inch	Aluminum "H" profile with 0.085-inch nominal wall thickness	Conventional 4x4 wood post or LMT Blu-Mount post mount	IBC – All Use Groups	
Stair	94 inch x 42 inch	Aluminum "H" profile with 0.085-inch nominal wall thickness	Conventional 4x4 wood post or LMT Blu-Mount post mount	IRC – One and Two- Family Dwellings	
Level -	96 inch x 36 inch	Aluminum "H" profile with 0.060-inch nominal wall thickness	Conventional 4x4 wood post or LMT Galvanized post mount	IRC – One and Two- Family Dwellings	
	120 inch x 36 inch	Aluminum "H" profile with 0.085-inch nominal wall thickness	Conventional 4x4 wood post or <i>LMT Galvanized</i> post mount		
	117 inch x 36 inch	Aluminum "A" profile with 0.085-inch nominal wall thickness	Conventional 4x4 wood post or LMT Galvanized post mount		

<sup>(1)</sup> Level rail lengths are maximum clear length between supports. Railing height is the minimum installed height from walking surface to top of top rail. Stair rail lengths are the sloping clear distance between supports.

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<sup>(2)</sup> Anchorage of wood posts and post mounts to the supporting structure is not included in the scope of this report. See Section 6.4 for conditions of use.

<sup>(3)</sup> Bottom rails are 2-inch x 3.5-inch profile reinforced with an aluminum "T" profile with 0.055-inch nominal wall thickness.



# **Code Compliance Research Report CCRR-0326**

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# TABLE 2 – 200 SERIES (DECKBOARD RAIL) PVC RAILING ASSEMBLIES FOR USE GROUP CLASSIFICATIONS

Туре	Maximum Railing Dimensions (1)	Top Rail Aluminum Reinforcement	Support Post (2)	Use Group Classification	
Levei	120 inch x 42 inch	Aluminum "A" profile with 0.085-inch nominal wall thickness	Conventional 4x4 wood post or LMT Blu-Mount post mount	IBC – All Use Groups IRC – One and Two- Family Dwellings	
Stair	94 inch x 42 inch	Aluminum "A" profile with 0.085-inch nominal wall thickness	Conventional 4x4 wood post or LMT Blu-Mount post mount		
Level	96 inch x 36 inch	Aluminum "A" profile with 0.060-inch nominal wall thickness	Conventional 4x4 wood post or LMT Galvanized post mount	IRC – One and Two- Family Dwellings	

<sup>(1)</sup> Level rail lengths are maximum clear length between supports. Railing height is the minimum installed height from walking surface to top of top rail. Stair rail lengths are the sloping clear distance between supports. Stair heights indicate minimum allowed height as measured vertically from the leading edge of the stair nose.





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<sup>(2)</sup> Anchorage of wood posts and post mounts to the supporting structure is not included in the scope of this report. See Section 6.4 for conditions of use.

<sup>(3)</sup> Bottom rails are 2-inch x 3.5-inch profile reinforced with an aluminum "T" profile with 0.055-inch nominal wall thickness.



# **Code Compliance Research Report CCRR-0326**

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# TABLE 3 – 300 SERIES (WARRIOR RAIL, BUILDERS MARK RAIL) PVC RAILING ASSEMBLIES FOR USE GROUP CLASSIFICATIONS

Туре	Maximum Railing Dimensions (1)	Top Rail Aluminum Reinforcement	Support Post (2)	Use Group Classification	
Level	96 inch x 42 inch	Aluminum profile with 0.100-inch nominal wall thickness		IBC – All Use Groups	
Stair	89-1/2 inch x 42 inch	Aluminum profile with 0.100-inch nominal wall thickness	or <i>LMT Blu-Mount</i> post mount	IRC – One and Two- Family Dwellings	
	96 inch x 42 inch	Aluminum profile with 0.070-inch nominal wall thickness	Conventional 4x4 wood		
Level	120 inch x 42 inch	Aluminum profile with 0.100-inch nominal wall thickness	or <i>LMT Galvanized</i> post mount		
Stair	95-1/2 inch x 42 inch	Aluminum profile with 0.070-inch nominal wall thickness	Conventional 4x4 wood post or <i>LMT Galvanized</i> post mount	IRC – One and Two- Family Dwellings	
Stair	119 inch x 42 inch  Aluminum profile with 0.100-inch nominal wall thickness		Conventional 4x4 wood post or <i>LMT Blu-Mount</i> post mount		

<sup>(1)</sup> Level rail lengths are maximum clear length between supports. Railing height is the minimum installed height from walking surface to top of top rail. Stair rail lengths are the sloping clear distance between supports. Stair heights indicate minimum allowed height as measured vertically from the leading edge of the stair nose.

- Warrior Rail: 2-inch x 2.25-inch profile reinforced with aluminum "H" profile with 0.055-inch nominal wall thickness
- Builders Mark Rail: 2-inch x 3.5-inch profile reinforced with an aluminum "T" profile with 0.055-inch nominal wall thickness.





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<sup>(2)</sup> Anchorage of wood posts and post mounts to the supporting structure is not included in the scope of this report. See Section 6.4 for conditions of use.

<sup>(3)</sup> Bottom rails are one of two options:







# TABLE 4 – 600 SERIES (BREADLOAF RAIL) PVC RAILING ASSEMBLIES FOR USE GROUP CLASSIFICATIONS

Туре	Maximum Railing Dimensions <sup>(1)</sup>	Top Rail Aluminum Reinforcement	Support Post (2)	Use Group Classification
Level	96 inch x 42 inch	Aluminum profile with 0.100-inch nominal wall thickness	Conventional 4x4 wood post Groups	
Stair	94 inch x 42 inch	Aluminum profile with 0.100-inch nominal wall thickness	or LMT Blu-Mount post mount	IRC – One and Two- Family Dwellings
	96 inch x 42 inch	Aluminum profile with 0.070-inch nominal wall thickness	Conventional 4x4 wood post	
Level	Top rails: aluminum profile with 0.100-inch nominal wall thickness		or <i>LMT Galvanized</i> post mount	IRC – One and Two- Family Dwellings
Stair	118-1/2 inch x 42 inch	Top rails: aluminum profile with 0.100-inch nominal wall thickness	Conventional 4x4 wood post or <i>LMT Blu-Mount</i> post mount	

<sup>(1)</sup>Level rail lengths are maximum clear length between supports. Railing height is the minimum installed height from walking surface to top of top rail. Stair rail lengths are the sloping clear distance between supports. Stair heights indicate minimum allowed height as measured vertically from the leading edge of the stair nose.

- 2-inch x 2.25-inch profile reinforced with aluminum "H" profile with 0.055-inch nominal wall thickness
- 2-inch x 3.5-inch profile reinforced with an aluminum "T" profile with 0.055-inch nominal wall thickness.





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<sup>(2)</sup> Anchorage of wood posts and post mounts to the supporting structure is not included in the scope of this report. See Section 6.4 for conditions of use.

<sup>(3)</sup> Bottom rails are one of two options:





# **TABLE 5 – FASTENING SCHEDULE**

CONNECTIO	CONNECTION		FASTENER	QUANTITY
4000	Top Rail Bracket	to Post	#10-10 by 1-1/2 inch (0.121-inch minor diameter), pan-head, zinc-coated, self-drilling screws	4
		to Rail	#10-16 by 1 inch (0.141-inch minor diameter), pan-head, zinc-coated, self-drilling screws	4
100 Series	Bottom Rail	to Post	#10-10 by 1-1/2 inch (0.121-inch minor diameter), pan-head, zinc-coated, self-drilling screws	6
	Bracket	to Rail	#10-16 by 1 inch (0.141-inch minor diameter), pan-head, zinc-coated, self-drilling screws	4
200 Series	Top / Bottom Rail	to Post	#10-10 by 1-1/2 inch (0.121-inch minor diameter), pan-head, zinc-coated, self-drilling screws	6
200 361163	Bracket	to Rail	#10-16 by 1 inch (0.141-inch minor diameter), pan-head, zinc-coated, self-drilling screws	4
300 Series 600 Series	Top Rail Bracket	to Wood #10-10 by 1-1/2 inch (0.118-inch minor diameter), pan-head, post zinc-coated, self-drilling screws		3
		to LMT Post	#10-16 by 1 inch (0.140-inch minor diameter), pan-head, zinc-coated, self-starting screws	3
	Warrior Rail: 2" x 2-1/4" Bottom Rail Bracket	to Wood Post	#10-10 by 1-1/2 inch (0.118-inch minor diameter), pan-head, zinc-coated, self-drilling screws	3
		to LMT Post	#10-16 by 1 inch (0.140-inch minor diameter), pan-head, zinc-coated, self-starting screws	3
		to Rail	#10-16 by 1 inch (0.140-inch minor diameter), pan-head, zinc-coated, self-starting screws	2
	Builders Mark Rail:	to Post	#10-10 by 1-1/2 inch (0.121-inch minor diameter), pan-head, zinc-coated, self-drilling screws	6
	2" x 3-1/2" Bottom Rail Bracket	to Rail	#10-16 by 1 inch (0.141-inch minor diameter), pan-head, zinc-coated, self-drilling screws	4
	Baluster to Top/Bottom Rail		Slip fit into routing - No mechanical connection	-
100 Series 200 Series 300 Series 600 Series	Support Block to Bottom Rail		Slip fit into routing - No mechanical connection	-
	Post Mount to Top Stabilizer (internal component)		#10-16 by 1 inch (0.140-inch minor diameter), pan-head, zinc-coated, self-starting screw	1
	Top Stabilizer (internal component) to Top Stabilizer		1/4-20 by 1-1/4-inch hex head stainless steel bolt with nut, plate washer and lock washer	1
	Bottom PVC Post Stabilizer to Post Mount		#10-16 by 1 inch (0.140-inch minor diameter), pan-head, zinc-coated, self-starting screws	1





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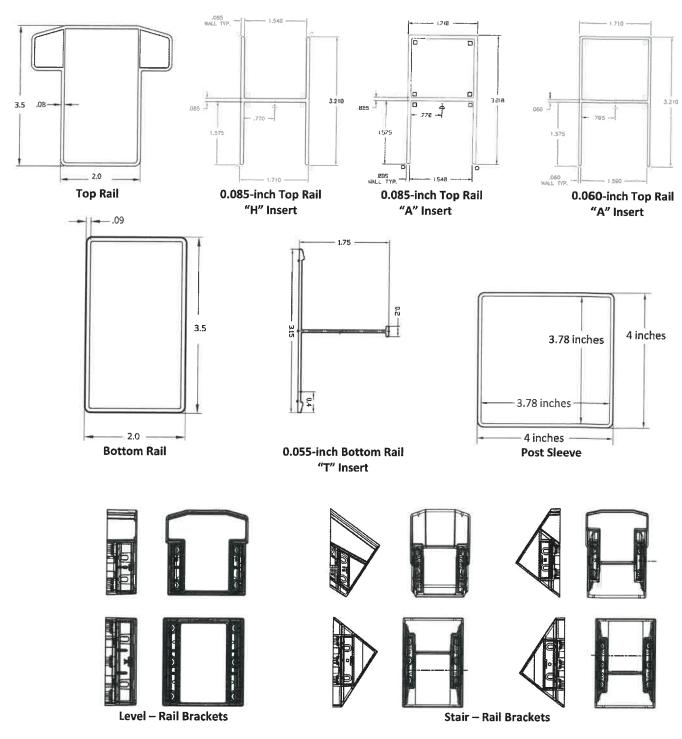


FIGURE 1 – 100 SERIES PVC RAILNG PROFILES AND BRACKETS





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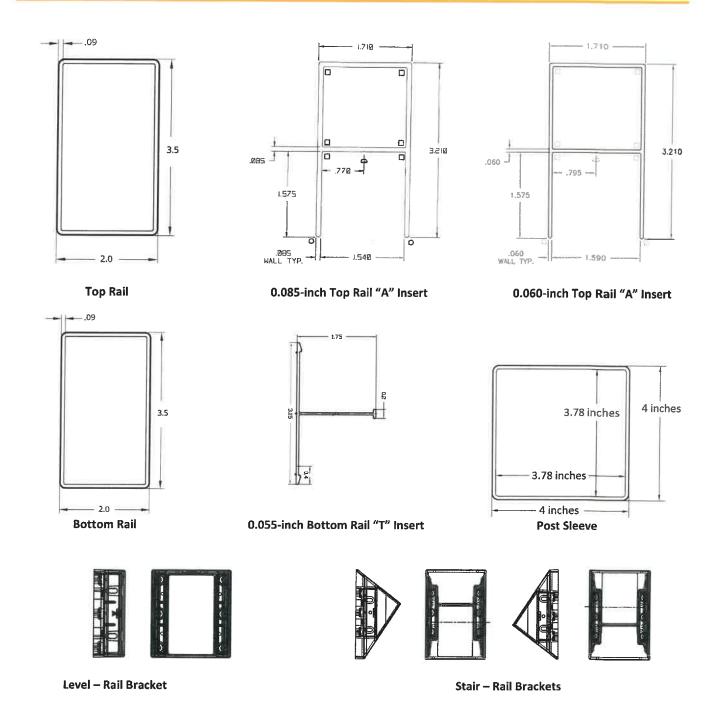


FIGURE 2 – 200 SERIES PVC RAILING PROFILES AND BRACKETS







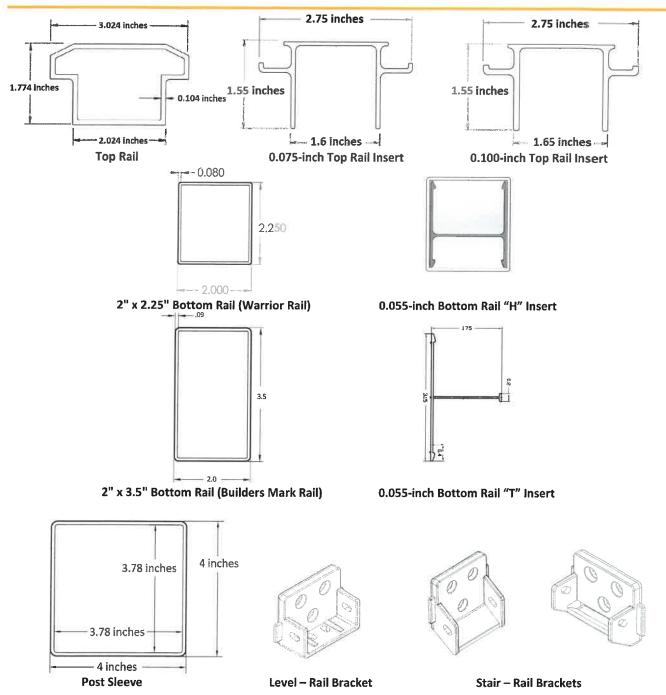


FIGURE 3 – 300 SERIES PVC RAILING PROFILES AND BRACKETS





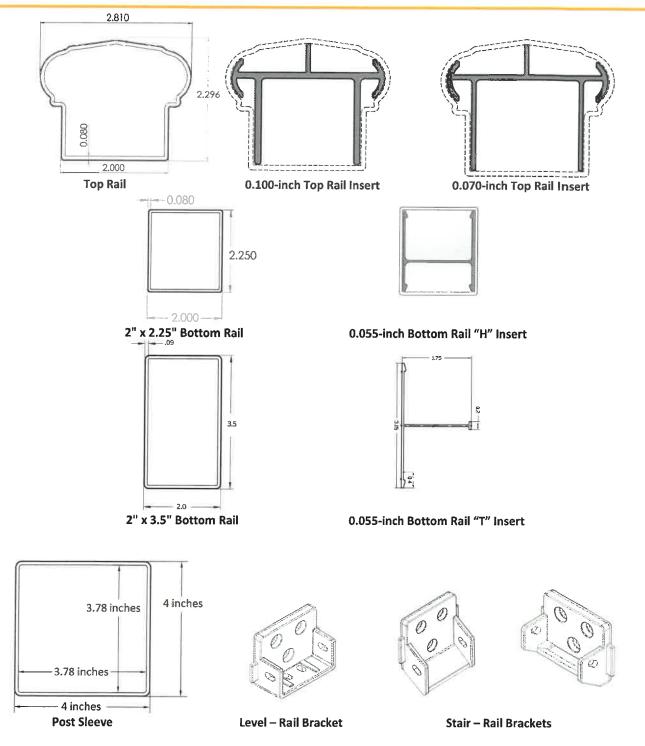


FIGURE 4 - 600 SERIES PVC RAILING PROFILES AND BRACKETS





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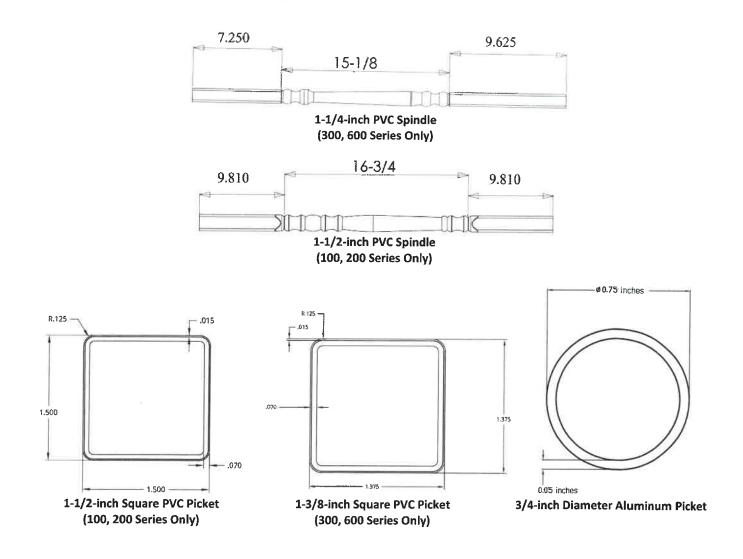


FIGURE 5 - INFILL







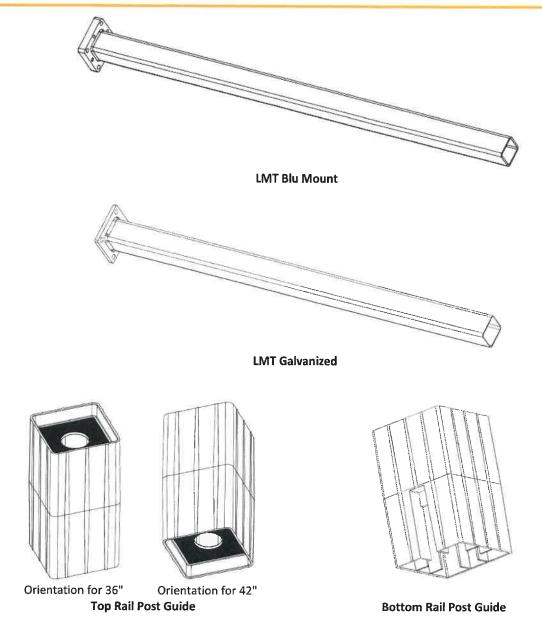


FIGURE 6 – POST MOUNTS







# Code Compliance Research Report CCRR-0301

Issue Date: 03-20-2019 Revision Date: 03-20-2019 Renewal Date: 03-20-2020

DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES Section: 06 53 00 - Plastic Decking

### REPORT HOLDER:

TREX COMPANY, INC. 160 Exeter Drive Winchester, VA 22603 www.trex.com

### REPORT SUBJECT:

TREX Enhance® Basics and Naturals composite deck boards

# 1.0 SCOPE OF EVALUATION

- **1.1** This Research Report addresses compliance with the following Codes:
- 2018 and 2015 International Building Code® (IBC)
- 2018 and 2015 International Residential Code® (IRC)

NOTE: This report references 2018 Code sections with [2015] Code sections shown in brackets where they differ.

- **1.2** TREX Enhance® Basics and Naturals deck boards have been evaluated for the following properties:
- Structural performance
- Durability
- Surface Burning
- Decay Resistance
- Termite Resistance
- Wind Uplift
- **1.3** TREX Enhance® Basics and Naturals deck boards have been evaluated for the following uses:
- Exterior walking surface on exterior decks, balconies, porches walkways and stair tread.
- The deck boards identified in this report may be used in One- and Two-Family Dwellings regulated by the IRC and other construction types regulated by the IBC in accordance with IBC Section §705.2.3.1 [§1406.3] as follows:

Construction Type IIB, IIIB & VB per IBC §705.2.3.1 [§1406.3] and Table 601 (No fire resistance rating required for floors)

Construction Type IIIA, IV & VA per IBC §705.2.3.1 [§1406.3], Exception 3 (Sprinkler protection required)

### 2.0 STATEMENT OF COMPLIANCE

TREX Enhance® Basics and Naturals deck boards comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

### 3.0 DESCRIPTION

- **3.1** TREX Enhance® Basics and Naturals deck boards are co-extruded and semi-capped composite material composed of polyethylene and wood fiber.
- **3.2** Solid and Grooved Edged boards measure a nominal 1 in. thick and 5-1/2 in. wide and have five 9/16 in. high flutes running the entire length along the bottom of the deck board. Grooved edge deck boards additionally include 5/16 in. deep by 1/8 in. high grooves on each of the long edges. See Figures 1 and 2.
- **3.3** The top surface has an embossed simulated woodgrain pattern. *TREX Enhance* Basics and Naturals are available in nine colors:
  - **3.3.1** Basics are solid colors available as Saddle, Clam Shell and Beach Dune.
  - 3.3.2 Naturals are a solid base color with streaks to available as Sunset Cove, Rocky Harbor, Foggy Wharf, Toasted Sand, Coastal Bluff, and Calm Water.







### 4.0 PERFORMANCE CHARACTERISTICS

- **4.1** TREX Enhance® Basics and Naturals deck boards are rated for a Span/Load Rating of 16/100 (16.0 in. Span and 100 psf Live Load) installed on support framing spaced 16 in on center.
- **4.2** Deck Boards used as stair treads are rated for the code-prescribed concentrated load equal to 300 lbs. when installed with a maximum 9" support spacing. Deck boards used as stair treads shall be installed in a minimum two-span condition.
- **4.3** TREX Enhance® Basics and Naturals solid edge deck boards have a wind uplift resistance rating of 150 lb/f<sup>12</sup> when face-fastened to support framing spaced 16 in. on center.
- **4.4** TREX Enhance® Basics and Naturals grooved edge deck boards have a minimum wind uplift resistance rating of 139 lb/ft² when installed using the Trex Hideaway Hidden Fastener system on support framing spaced 16 in. on center.
- **4.5** TREX Enhance® Basics and Naturals deck boards have a flame spread index of less than 200 when tested in accordance with ASTM E84.
- **4.6** Materials are deemed equivalent to preservative treated or naturally durable wood for resistance to weathering effect, attack from termites, and fungus decay.
- **4.7** Structural performance has been demonstrated for a temperature range from -20 °F to 125 °F.

# 5.0 INSTALLATION

- **5.1** TREX Enhance® Basics and Naturals deck boards must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.
- **5.2** Decking can be installed on full runs or uniformly staggered on the deck support structure. For all but stairs, install deck boards on substructures built on 16" center maximum support spacing.

- **5.3** Face fastening of the *TREX Enhance*® *Basics and Naturals* solid edge deck board shall be two #8 x 2-1/2 in. stainless steel screws.
- **5.4** The grooved edge decking shall be attached at each joist, regardless of joist spacing with the Trex® Hideaway® Universal Hidden Fastener system using one #8 x 1-5/8 in. trim head stainless screw as supplied with the clips. See Figure 3.
- **5.5** The stainless steel Trex® Hideaway® Start Clips are attached to the ledger board at each joist location with one #8-10 x 1-5/8" square drive stainless screw. See Figure 3.

### 6.0 CONDITIONS OF USE

- **6.1** Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.
- **6.2** Deck board placed at an angle other than 90 degrees to the supporting joist will require support framing at a reduced spacing such that the span of the deck board does not exceed 16 in.
- **6.3** The wind uplift resistance rating recognized in this report is based on attachment to treated Southern Pine framing (specific gravity, G=0.55). Installation on wood framing with a lesser specific gravity may result in a lower wind uplift rating
- **6.4** Where required by the building official, engineering calculations and details shall be provided. The calculation shall verify that the anchorage complies with the building code for the type of framing and condition of the supporting construction.
- **6.5** Compatibility of the supporting construction materials with all metal fasteners are subject to approval by the code official.
- **6.6** The deck board has not been evaluated for use in areas subject to Formosan termite attack.





# Topographic Map - Parcel outline is ref only Shaer Rd Swan Cove 803 Legend Foundation Addressing **Parcels** Structure County Structure Elevation Topo 2023 --- Index Intermediate This map is a user generated static output from an Internet mapping site and is for reference only. Esri Community Maps Contributors, Notes 1" = 100 ft - Parcel outline is ref only Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. County of Anne Arundel, VGIN, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, THIS MAP IS NOT TO BE 100 200 USED FOR NAVIGATION



# A request letter for Variance approval Part 2

Sara Anzelmo <pzanze99@aacounty.org>
To: Judy Kee <jkee301@gmail.com>

Wed, Oct 22, 2025 at 12:20 PM

Good morning. I spoke with the Critical Area Team's Planning Administrator about your application this morning. Because it is crystal clear that the decks are being reconstructed entirely within the buffer and within steep slopes of 15% or greater, she is willing to accept the site plan without the required buffer line and the steep slope areas shown. You do not need to make any revisions to the site plan.

Therefore, the only outstanding item is the Critical Area Project Notification form, which was incomplete with the initial application. You should be able to transfer the coverage numbers that you listed in your Critical Area Narrative into the Site Inventory on that form. If you have any questions, please let me know. Once received, we can accept the application and route it to the Administrative Hearing Office for scheduling. Thank you.

[Quoted text hidden]



# OFFICE OF PLANNING AND ZONING

# **CONFIRMATION OF PRE-FILE (2025-0033-P)**

	DATE OF MEETING: <u>05/12/2025</u>		
	P&Z STAFF: <u>Sara Anzelmo, Kelly Krinetz</u>		
APPLICANT/REPRESENTATIVE: _Hae Young Han / Francis	Ramos EMAIL: ramos.ser	rvices@yahoo.com	
SITE LOCATION: _ 348 Hunner Road	LOT SIZE: 1 acre		
		Critical Area Variance	
CA DESIGNATION: <u>LDA</u> BMA: <u>Partial</u> or BUFF	R: Partial APPLICATION THE.	Citical Alea Valiance	

The applicant proposes to demolish the existing two-story deck and to construct a new two-story deck in generally the same general location on the waterfront side of the existing dwelling. The proposed upper level deck would measure 13' by 65'-9". The proposed lower level deck would measure 12'-2" by 34'-3".

The proposal would necessitate a variance to allow construction of the deck with disturbance within steep slopes of 15% or greater and with disturbance within the 100-foot buffer.

### COMMENTS

The **Critical Area Team** reviewed the proposal and commented that they would have no objection to the in-kind replacement of the existing deck.

The **Zoning Administration Section** notes that the current proposal appears to exceed the area of the existing deck being removed. In order to allow for proper review, the applicant should submit an existing conditions site plan and a proposed conditions site plan, and both levels of deck should be shown on the site plan with dimensions for each level. The site plan should also be updated to show the slopes of 15% or greater, the buffer, and the limit of disturbance (LOD) required for access during construction. The property already has the luxury of extensive decking that far exceeds that which is typical of most waterfront lots in sloped areas. Any expansion of the existing deck would not be supported. In fact, redevelopment allows the opportunity for minimization and to improve upon the existing conditions. The applicant is advised that, in order for the proposed Critical Area variances to be approved, the applicant must demonstrate and the Hearing Officer must find that the proposal complies with each and every one of the Critical Area variance standards provided under Section 18-16-305(b) and (c), including demonstrating that the variances are the minimum necessary to afford relief. Therefore, the variance letter of explanation should be revised to specifically address each standard.

### INFORMATION FOR THE APPLICANT

Section 18-16-201 (b) Pre-filing meeting required. Before filing an application for a variance, special exception, or to change a zoning district, to change or remove a critical area classification, or for a variance in the critical area or bog protection area, an applicant shall meet with the Office of Planning and Zoning to review a pre-file concept plan or an administrative site plan. For single lot properties, the owner shall prepare a simple site plan as a basis for determining what can be done under the provisions of this Code to avoid the need for a variance.

\*\*\* A preliminary plan checklist is required for development impacting environmentally sensitive areas and for all new single-family dwellings. A stormwater management plan that satisfies the requirements of the County Procedures Manual is required for development impacting environmentally sensitive areas OR disturbing 5,000 square feet or more. State mandates require a developer of land provide SWM to control new development runoff from the start of the development process.

Section 18-16-301 (c) Burden of Proof. The applicant has the burden of proof, including the burden of going forward with the production of evidence and the burden of persuasion, on all questions of fact. The burden of persuasion is by a preponderance of the evidence.

A variance to the requirements of the County's Critical Area Program may only be granted if the Administrative Hearing Officer makes affirmative findings that the applicant has addressed all the requirements outlined in Article 18-16-305. Comments made on this form are intended to provide guidance and are not intended to represent support or approval of the variance request.