



AGENDA

Historic District Commission Meeting

7:00 PM - Tuesday, May 10, 2022
Ypsilanti Freighthouse

Page

1. CALL TO ORDER
2. ROLL CALL

Alex Pettit, Chair
James Ratzlaff
James Chesnut
Stefan Szumko
Jeff Muir
Jimmy Huffman
Ellen Thackery, Staff
3. APPROVAL OF AGENDA
4. PUBLIC COMMENT ON AGENDA ITEMS
5. PUBLIC HEARINGS
6. BUSINESS SESSION
 - 6.1. OLD BUSINESS
 - 6.2. NEW BUSINESS
 - 6.3. [1 202 E Forest Complete agenda item Redacted](#) 3 - 143
[2 330 E Forest Agenda Item Redacted](#)
[3 202 N Washington Complete Agenda item Redacted](#)
[4 302 S Huron agenda item Redacted](#)
[5 229 W MI Ave complete agenda item Redacted](#)
[6 109 Maple agenda item Redacted](#)
 - 6.4. STUDY ITEMS 145 - 163
[305 E Forest Ave study item](#)
[109 Maple Study Item](#)
 - 6.5. ADMINISTRATIVE APPROVALS
 - 6.6. OTHER BUSINESS
 1. Property Monitoring
 2. Updates from Staff
 3. Commissioner Comments
7. AUDIENCE PARTICIPATION ON NON-AGENDA ITEMS
8. HOUSEKEEPING BUSINESS
 - 8.1. Approval of meeting minutes MM/DD/20XX 165 - 173
[Historic District 4-26-2022 Full Minutes DRAFT](#)

9. ADJOURNMENT



HDC Work Permit Staff Review

Property address: 202 E Forest

Property History: This Dutch Colonial Revival house contributes to both the National Register and local historic districts. The house was built c. 1920 and the 1927 Sanborn map shows both the front and back porches. Both sets of porch columns appear to be original.

Date of Application: April 21, 2022

Date of Review: May 5, 2022

Date of Meeting: May 10, 2022

Proposed work: Demolish first-floor rear porch, build an addition in its place, and build a handicapped-accessible ramp to front and back doors.

Materials: 172 sf addition: smooth, 6"-reveal James Hardie siding, aluminum-clad wood windows, new EPDM roofing.

Ramp: Pressure-treated wood that will be painted once wood has cured. Deck, columns, and bottom, mid-, and top rails all pressure-treated lumber to be painted, plus metal U-shaped handrails/pulls at bottom of ramp.

Staff review:

1. Handicapped-accessible ramp to be added to the house's front porch meets the Secretary of the Interior's Standards, staff believes, since it leaves the historic porch intact, does not diminish its historic character, and if it were removed, the historic house would be unaffected. (Standards 2, 5, 9, and 10)
2. Rear porch is likely original to the house. Its lower portion was re-sided when the house was re-sided, but its simple frieze and columns appear to be historic and match those of the front porch. Demolishing it likely does not meet the Secretary of the Interior's Standards for Rehabilitation. (Not meeting Standards 2, 5, 6)
3. The proposed addition, in staff's opinion, meets the Secretary of the Interior's Standards because it is

1. Use property for original purpose or provide compatible use with minimal alteration.

2. Do not destroy original character. Do not remove or alter historic material or features.

3. Do not imitate earlier styles.

4. Preserve significant changes acquired over time.

5. Preserve distinctive features.

6. Repair, don't replace. Replacements shall match original.

7. Clean building gently—no sandblasting.

8. Preserve archaeological resources.

9. Contemporary designs shall be compatible and shall not destroy significant original material.

10. New work shall be removable.

behind the house, secondary to the house in size and scale, compatible with the house in that it is sided and of a simple design, but it is also differentiated with fiber cement siding and simple but clearly new, aluminum-clad wood windows. (Standard 9) Strictly speaking, it likely couldn't be removed without affecting the historic house, so it likely doesn't meet Standard 10.

4. The ramp to be built onto the new addition also meets the Secretary of the Interior's Standards, staff believes, because it is compatible with the house's historic materials, size, and scale, and if it were to be removed, the historic house would be unaffected. (Standards 9 and 10)
5. Before proceeding with work, applicant must seek the appropriate building department permits.

Relevant Secretary of the Interior's Standards:
2, 5, 6, 9, and 10

Recommended Motions:

Move to issue a notice to proceed for the demolition of the rear porch at 202 E Forest, proposed April 21, 2022. The porch is a historic feature of the house, but it is on the rear of the house, and its demolition would allow for an addition that would make possible childcare in this location, which is of substantial benefit to the community.

In addition, I move to issue a certificate of appropriateness for the handicapped-accessible ramps as proposed April 21 for 202 E Forest because they meet the Secretary of the Interior's Standards for Rehabilitation, specifically Standards 2, 5, 9, and 10.

Finally, I move to issue a certificate of appropriateness for the new addition proposed April 21 for 202 E Forest because it meets the Secretary of the Interior's Standard for Rehabilitation #9.

[Any conditions could be inserted into any of the above.]

Prepared by:
Ellen Thackery, Preservation Planner



APR 21 2022

RECEIVED

**City of Ypsilanti
Historic District Commission
Work Permit Application**
One South Huron • Ypsilanti, MI 48197
Phone: (734) 483-9646 • Fax: (734) 483-7260
www.cityofypsilanti.com

PHDC-22-0029 29703
1692

OFFICE USE ONLY

Date Filed:

Meeting Date:

Action Item/Study Item

To complete this application:

1. Complete this form.
2. Attach the following documents:
 - a. Photo(s) showing all locations where work is proposed (can be emailed).
 - b. Catalog cut sheets or similar details for windows, doors, light fixtures, and any other manufactured or preassembled components—this includes information from catalogues, professional quotes, or websites (can be emailed).
 - c. Dimensioned drawings of any new construction or modifications to existing structures, including awnings and signs.
 - d. A sketch plan, if proposal is for work on the grounds and not just the main structure (e.g., installing a new driveway, fence, or shed). This can be drawn on a scaled copy of a mortgage survey.
3. Applications and materials must be received by the Building Department **no later** than 4pm on the Tuesday one week prior to the meeting.

INCOMPLETE APPLICATIONS WILL NOT BE PLACED ON THE AGENDA

Property

Address

202 E Forest Ypsilanti, MI 48198

Applicant

**If applicant is not owner of property, a written statement from the owner authorizing this application must be included.*

Name

Ric Foley (Dexter Builders)

Address

13600 Luick Dr

City

Chelsea

State

MI

Zip

48118

Phone / Fax

734-834-7758

E-Mail

Contractor

Contractor Name & Contact Info

Dexter Builders

Type of work

☐ Roofing

☐ Window/Door
Replacement

☐ Porches

☐ Sign

☐ Fence (or other sitework)

☐ Painting

☒ Other

☐ Application Amendment

Complete Description of Proposed Work:

The project consists of a 172sqft addition to the rear of the home along with a handicap ramp for ingress/egress. The addition will be sided with smooth six-inch reveal James Hardie siding and have Anderson 400 wood windows with aluminum clad exteriors. The ramp will be constructed out of pressure treated wood with skirting to grade. All wood products will be painted with an opaque paint once the wood has had the chance to cure.

Materials (for paint include color chips or samples with application):

Pressure treated wood products will be painted with a medium gray opaque paint.

Permit Application Fee (action items only)

The fee is \$45 for the first \$3,000 in construction cost plus \$5 for every additional \$3,000 of construction cost. There is a flat fee of \$10 for painting only. *An additional fee of \$50 applies to HDC work started without the applicable permit.*

Construction Cost:

170,000.00

Permit fee:

\$45 + _____ =

Signature

I hereby attest that the above information is accurate. I am authorized to and grant permission to the City of Ypsilanti staff to be on the subject property for the purposes of preparing staff reports and/or evaluating this application.

I further affirm that this property has, or will have before the proposed work is completed, a fire alarm system or smoke alarm complying with the Stille-DeRossett-Hale single-state construction code, PA 230 of 1972, as amended.

Signature:

Date:

04/21/2022

Print Name:

Ric Foley

If you have questions about what the HDC generally permits or does not permit, or what they need to see in an application to render a decision, please call the office at 734-483-9646 or view our factsheets online at cityofypsilanti.com/hd.

All other necessary approvals and permits must be acquired before beginning work.

PROPERTY OWNER AUTHORIZATION LETTER

I (we): Alejandra Barraza (President of High Scope)
(Print Property Owners Name)

Hereby Authorize: Ric Foley (Dexter Builders)
(Applicant / Company)

To apply for, and pickup permits for planning / zoning, historical, along with building permits for the proposed renovation project.

Job Location: 202 E Forest Ypsilanti, MI 48198

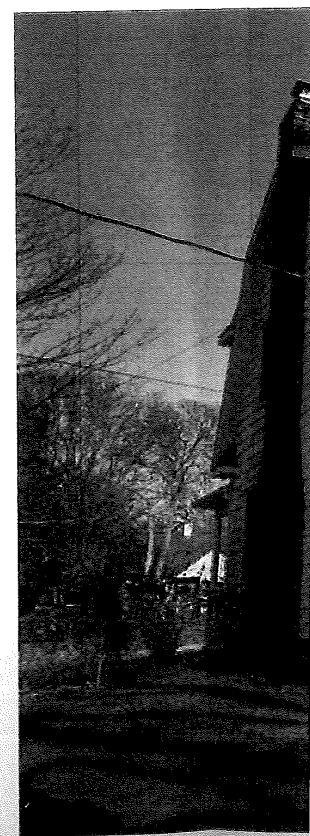
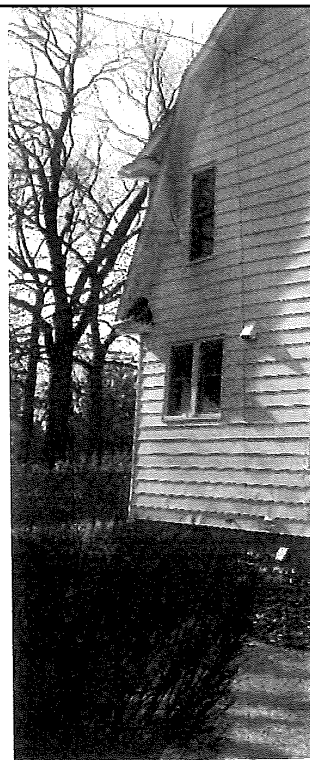
Nature of Project: The project consists of a 172sqft addition to the rear of the home along with a handicap ramp for ingress/egress. The addition will be sided with smooth six-inch reveal James Hardie siding and have Anderson 400 wood windows with aluminum clad exteriors. The ramp will be constructed out of pressure treated wood with skirting to grade. All wood products will be painted with an opaque paint once the wood has had the chance to cure.

As property owner(s), I (we) hereby grant permission to the applicant referenced above to apply for and pick-up permits as indicated above.

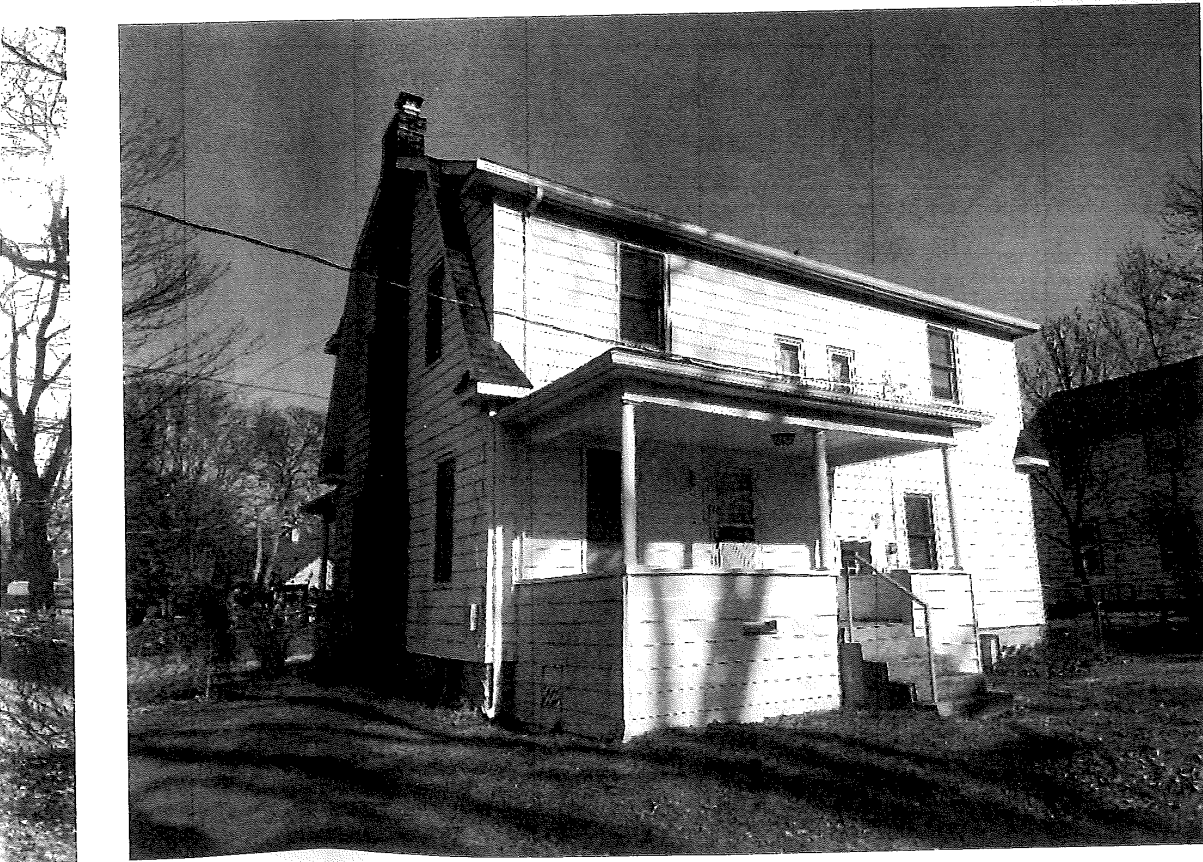
L. Alejandra Barraza
(Print Property Owners Name)


(Sign Property Owners Name)

April 21, 2022
(Date)



HOUSE PHOTOS



SCALE 1" = 1'-0"



1/2" ROOF
RAFTERS- PROVIDE
ST INTERIOR FACE
TIGHT TO ROOF

TOP RAIL TO BE PRESSURE TREATED 2X6
WITH EASED EDGE TO BE PAINTED WHITE 12
MONTHS AFTER INSTALLATION TO ENSURE
PROPER CURING OF WOOD PRODUCT

MID RAIL TO BE PRESSURE TREATED 2X6 PAINTED
WHITE 12 MONTHS AFTER INSTALLATION TO ENSURE
PROPER CURING OF WOOD PRODUCT

DECKING TO BE PRESSURE
TREATED 5/4X6 PAINTED WHITE
12 MONTHS AFTER
INSTALLATION TO ENSURE
PROPER CURING OF WOOD

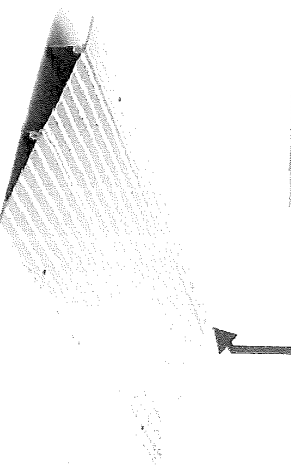


BOTTOM RAIL TO BE PRESSURE TREATED 1X10 PAINTED
WHITE 12 MONTHS AFTER INSTALLATION TO ENSURE PROPER
CURING OF WOOD PRODUCT

COLUMNS TO BE PRESSURE TREATED 4X4 PAINTED
WHITE 12 MONTHS AFTER INSTALLATION TO
ENSURE PROPER CURING OF WOOD PRODUCT

METAL
HANDRAIL
EXTENSION TO
BE PAINTED
WHITE

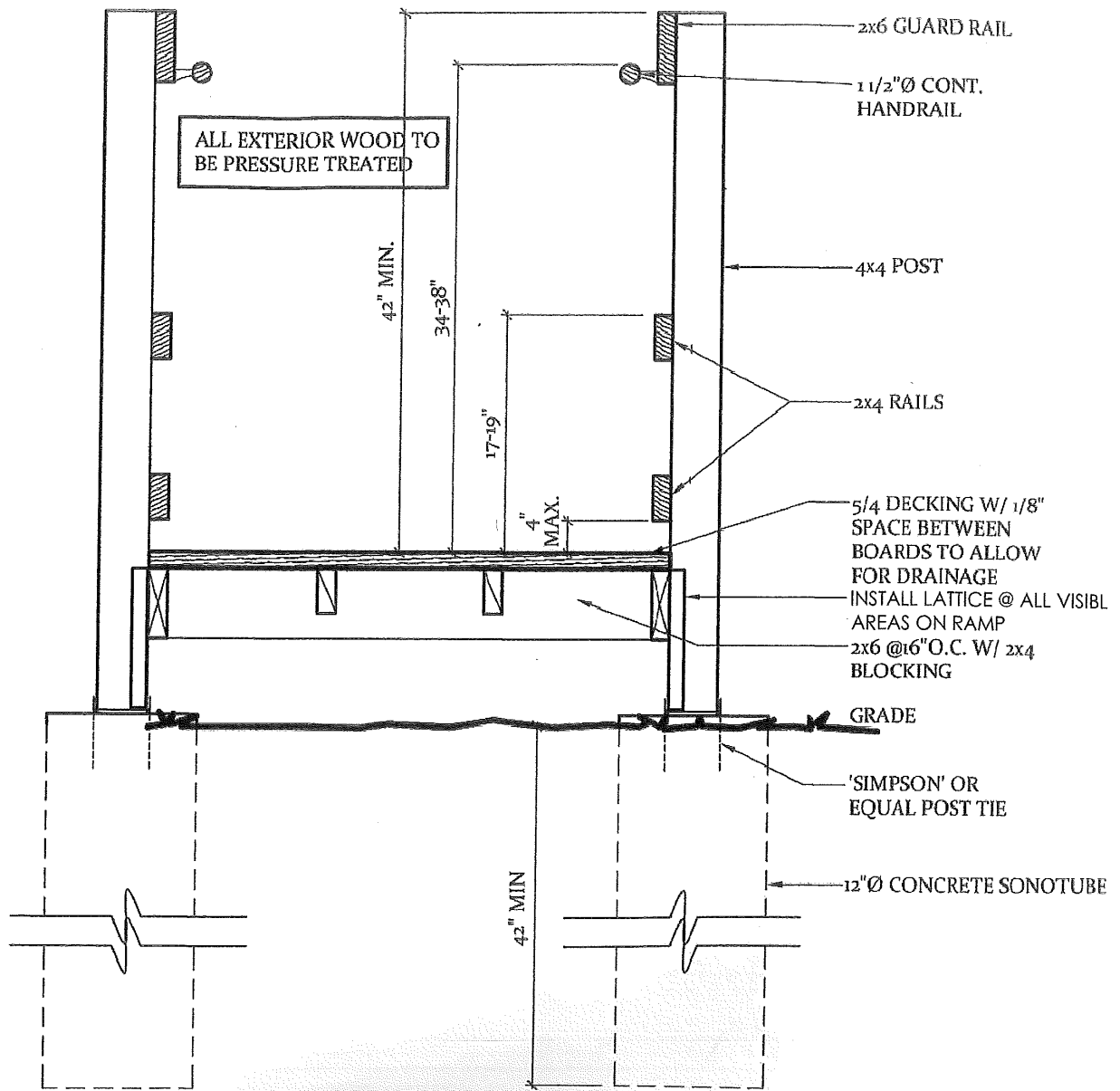
EZ-ACCESS TRANSI
MODULAR ALUMIN
ENTRY RAMP
TO BE REMAIN SILV



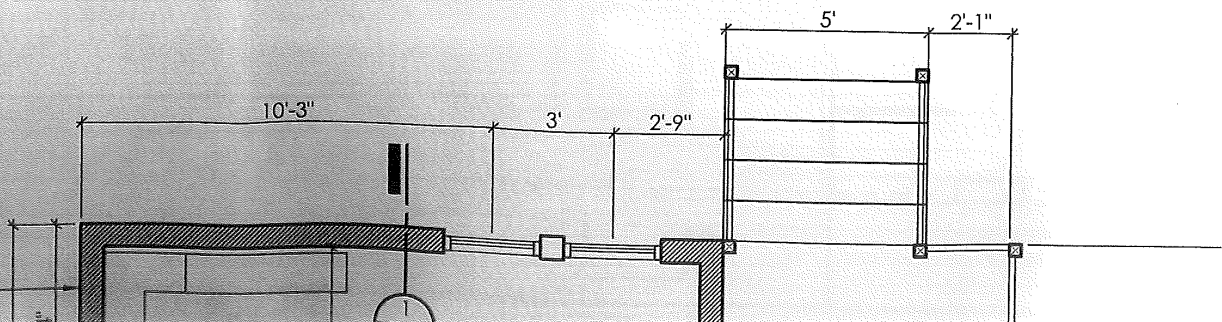
3

RAMP NOTES

NOT TO SCALE



2 TYP. RAMP SECTION
SCALE 1" = 1'-0"

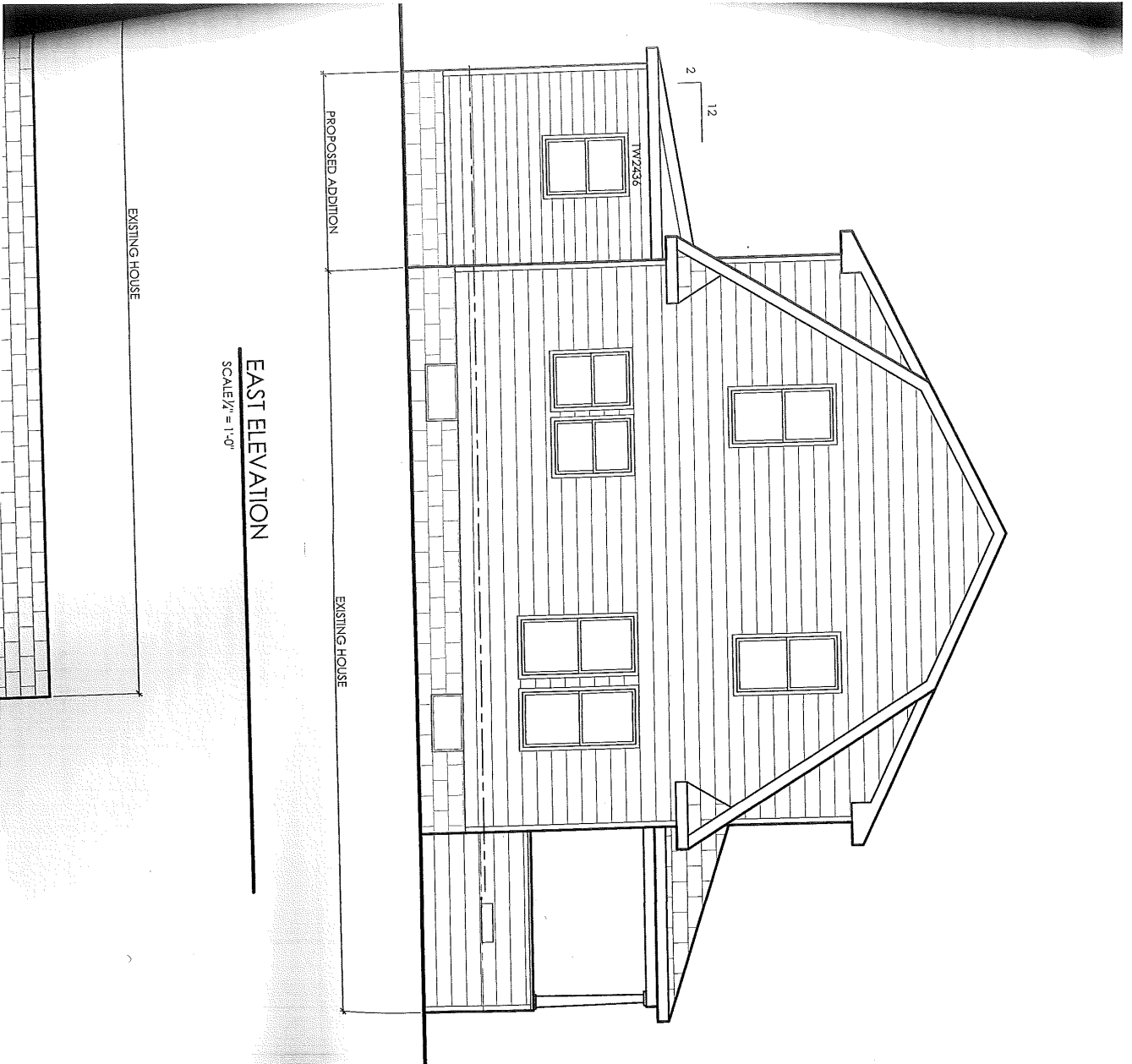




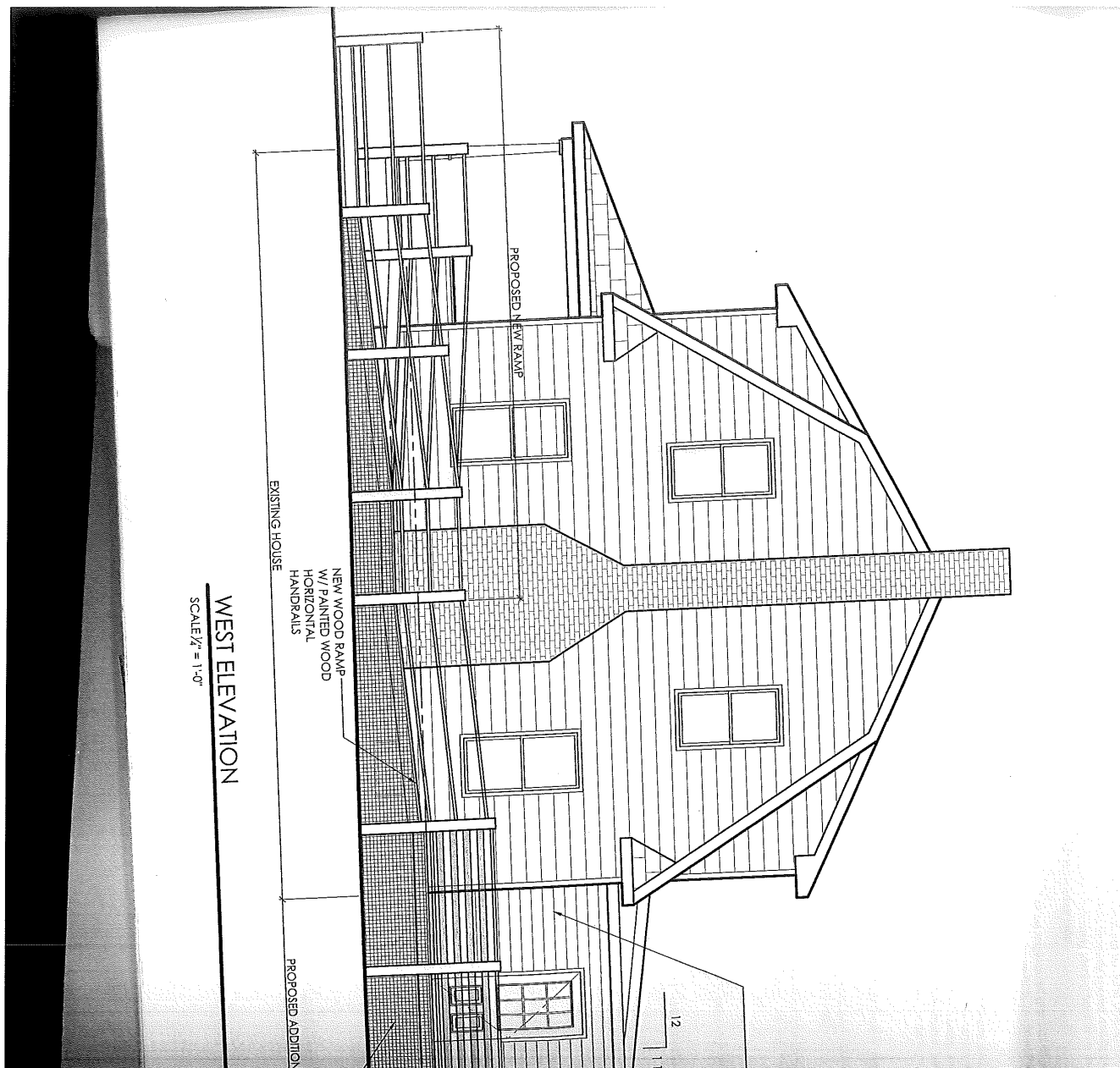
NORTH ELEVATION

SCALE 1/2" = 1'-0"

NEW WIND
ANDERSON



10/10/2018 1:28 PM



VATION



TION



HDC Work Permit Staff Review

Property address: 330 E Forest Ave

Property History: This house contributes to both the National Register and the local historic districts. In the National Register nomination, the house is described as "two-story, L-shaped, gable-roof 19th-century with raking cornices without returns."

Date of Application: April 22, 2022

Date of Review: May 5, 2022

Date of Meeting: May 10, 2022

Proposed work: Tear down old fence, install new fence

Materials: 6' high composite fence panels in Woodland Brown. Trex brand fencing is made of wood, polyethylene plastic, pigments, and additives.

Staff review:

1. The proposed fence is the same height as the existing fence.
2. The existing fence is wood in brown; the proposed fence is a wood composite in brown.
3. The existing fence is either a stockade-style or dogear-style fence. The proposed fence is made up of panels, so the top of the fence is straight across.
4. Before proceeding with work, applicant must seek the appropriate building department permits.

Relevant Secretary of the Interior's Standards:
#9, #10

Recommended Motions:

Move to issue a certificate of appropriateness for the work at 330 E Forest proposed April 22, 2022 for the removal and disposal of the existing fence and installation of 6' composite

1. Use property for original purpose or provide compatible use with minimal alteration.

2. Do not destroy original character. Do not remove or alter historic material or features.

3. Do not imitate earlier styles.

4. Preserve significant changes acquired over time.

5. Preserve distinctive features.

6. Repair, don't replace. Replacements shall match original.

7. Clean building gently—no sandblasting.

8. Preserve archaeological resources.

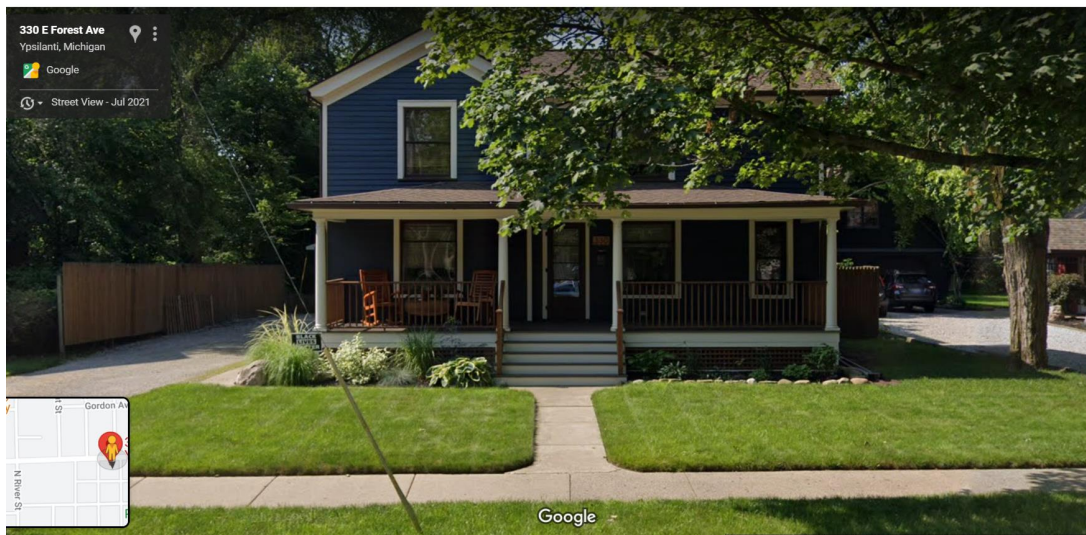
9. Contemporary designs shall be compatible and shall not destroy significant original material.

10. New work shall be removable.

fencing around the backyard and down a portion of the driveway. The proposed work is appropriate because it meets Standards 9 and 10; the new proposed fence will not affect any historic materials and if it were to be removed, the historic building would be unaffected.

Prepared by:

Ellen Thackery, Preservation Planner



330 E Forest Ave from Google Streetview, July 2021.



APR 22 2022

**City of Ypsilanti
Historic District Commission
Work Permit Application**

One South Huron • Ypsilanti, MI 48197
Phone: (734) 483-9646 • Fax: (734) 483-7260
www.cityofypsilanti.com

29712
Discover

OFFICE USE ONLY

Date Filed:

Meeting Date:

Action Item/Study Item

To complete this application:

1. Complete this form.
2. Attach the following documents:
 - a. Photo(s) showing all locations where work is proposed (can be emailed).
 - b. Catalog cut sheets or similar details for windows, doors, light fixtures, and any other manufactured or preassembled components—this includes information from catalogues, professional quotes, or websites (can be emailed).
 - c. Dimensioned drawings of any new construction or modifications to existing structures, including awnings and signs.
 - d. A sketch plan, if proposal is for work on the grounds and not just the main structure (e.g., installing a new driveway, fence, or shed). This can be drawn on a scaled copy of a mortgage survey.
3. Applications and materials must be received by the Building Department **no later** than 4pm on the Tuesday one week prior to the meeting.

INCOMPLETE APPLICATIONS WILL NOT BE PLACED ON THE AGENDA

Property

Address

330 E. Forest Ave. Ypsilanti, MI 48198

Applicant

**If applicant is not owner of property, a written statement from the owner authorizing this application must be included.*

Name

Wendee Wegenek and Elizabeth Perry

Address

330 E. Forest Ave.

City

Ypsilanti,

State

Michigan

Zip

48198

Phone / Fax

E-Mail

Contractor

Contractor Name & Contact Info

Ken Bartoluzzi (248) 520-8602

Type of work

- ☐ Roofing
☐ Window/Door
Replacement

- ☐ Porches
☐ Sign
☒ Fence (or other sitework)

- ☐ Painting
☐ Other
☐ Application Amendment

Complete Description of Proposed Work:

To remove and dispose of 201 LF of existing 6' privacy wood fence.

Furnish and Install 201 LF of Trex Seclusions Composite Fence.

Fence panels shall be 6' h x 8' w. Color shall be Woodland Brown.

1 4' walk gate is included.

All materials per Trex seclusions installation system included.

All installation labor included

Materials (for paint include color chips or samples with application):

All materials per Trex seclusions installation system included.

Color shall be Woodland Brown.

See attached documents for specifications and color photos.

Permit Application Fee (action items only)

The fee is \$45 for the first \$3,000 in construction cost plus \$5 for every additional \$3,000 of construction cost. There is a flat fee of \$10 for painting only. *An additional fee of \$50 applies to HDC work started without the applicable permit.*

Construction Cost:

\$23,096

Permit fee:

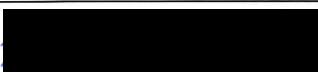
\$45 + 35 = \$80.00

Signature

I hereby attest that the above information is accurate. I am authorized to and grant permission to the City of Ypsilanti staff to be on the subject property for the purposes of preparing staff reports and/or evaluating this application.

I further affirm that this property has, or will have before the proposed work is completed, a fire alarm system or smoke alarm complying with the Stille-DeRossett-Hale single-state construction code, PA 230 of 1972, as amended.

Signature:



Date:

22Apr2022

Print Name:

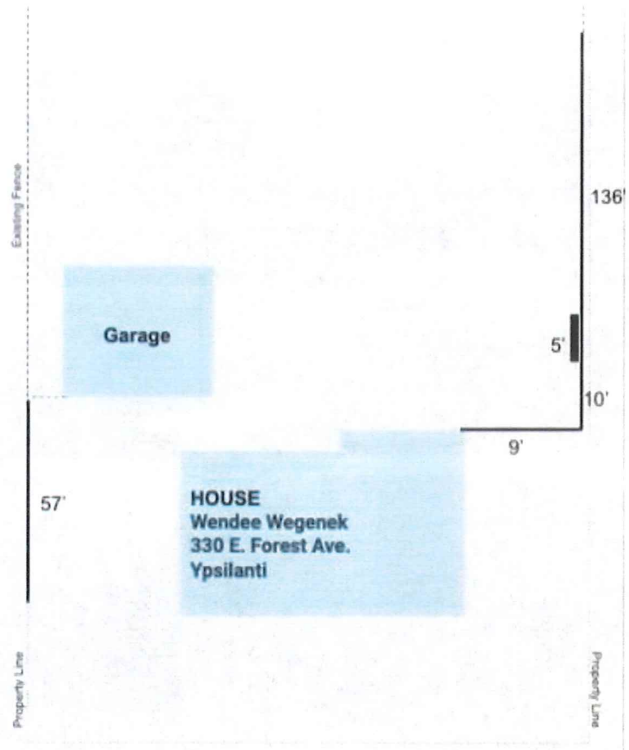
Wendee Wegenek

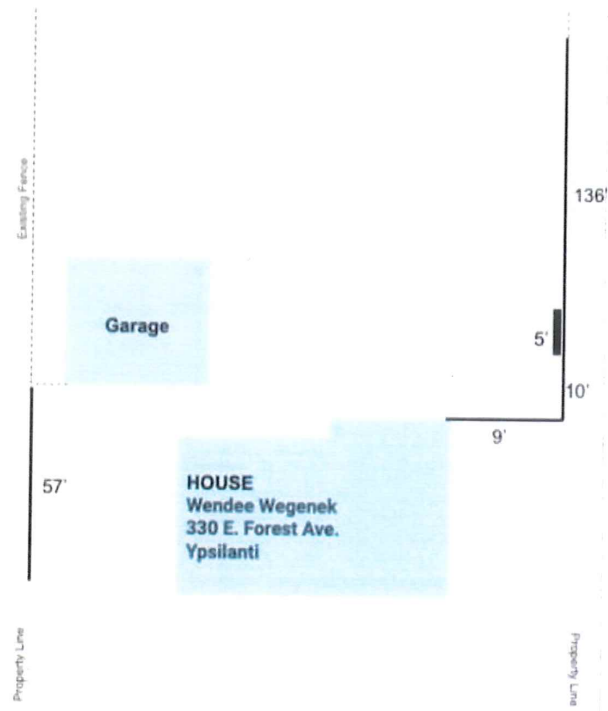
If you have questions about what the HDC generally permits or does not permit, or what they need to see in an application to render a decision, please call the office at 734-483-9646 or view our factsheets online at cityofypsilanti.com/hd.

All other necessary approvals and permits must be acquired before beginning work.

330 E. Forest Ave.-Current Fence to be replaced

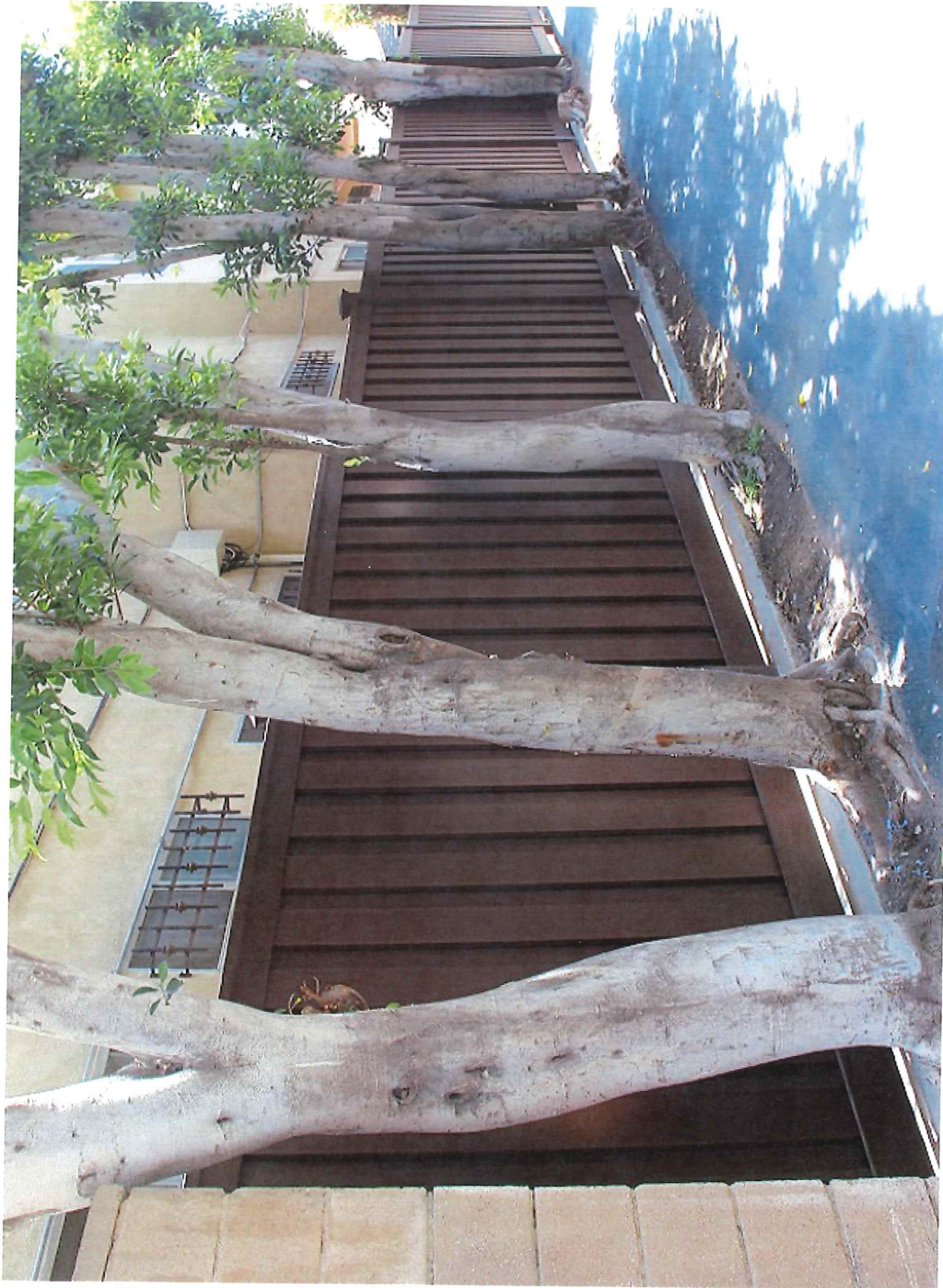










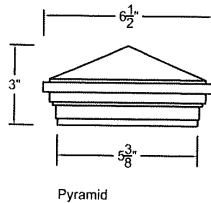




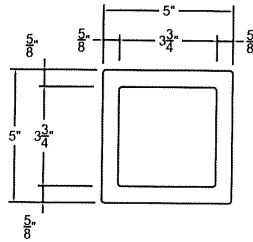
Trex® Seclusions®

COMPOSITE FENCING SYSTEM

ARCHITECTURAL DRAWING:
TREX SECLUSIONS FENCING
COMPONENTS

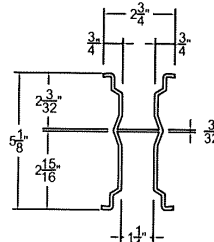


Pyramid



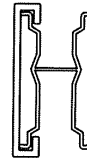
Post Profile

LENGTH: 96"/108"/144"
INNER DIMENSIONS: 3.75"/VARIES
OUTER DIMENSIONS: 4.875 TO 5"

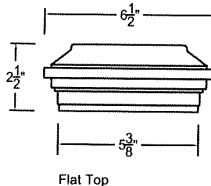


Aluminum Bottom Rail Profile

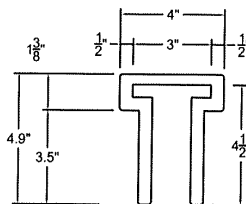
GAUGE: 11GA
LENGTH 62 1/2" / 90.5"
HEIGHT 5 1/8"
DEPTH (TOP OF CHANNEL: 2 2/32"
DEPTH (BOTTOM OF CHANNEL) 2 15/32"



Bottom Rail Assembly

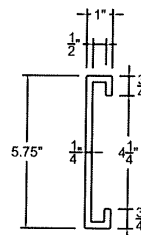


Flat Top



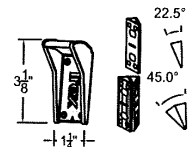
Top Rail Profile

LENGTH: 63"/91"
THICKNESS: 1/2"
INNER DEPTH 4 1/2"
TOP WIDTH 4"



Bottom Rail Cover/Picket Profile

LENGTH: 91" / 67" ± 1/4"
HEIGHT/WIDTH: 5 3/4"
INTERLOCK: 1/2"



Fence Bracket and
Angle Adaptor Profile

Post Cap Profile

NOTES:

1. INSTALLATION TO BE COMPLETED PER MANUFACTURER'S SPECIFICATION.
2. THIS DRAWING IS PROVIDED FOR PLANNING PURPOSES. REFER TO MANUFACTURER'S INSTALLATIONS FOR CONSTRUCTION DETAILS.
3. REFER TO MANUFACTURER'S WEBSITE FOR PRODUCT INFORMATION.
4. DRAWING NOT TO SCALE.

TREX SECLUSIONS FENCING COMPONENTS

160 EXETER DR., WINCHESTER VA, 22603

WWW.TREXFENCING.COM

Trex®, the Trex® logo, and Trex Seclusions® are either federally registered trademarks, trademarks or trade dress of Trex Company, Inc., Winchester Virginia or its licensees. Copyright © 2019 RLA Designs. All rights reserved.

Publication date Jan 29, 2019

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS:

<u>Component</u>	<u>Appx. Wt %</u>	<u>OSHA PEL</u>	<u>CAS Registry</u>
Polyethylene	N/A	N/A	9002-88-4
Carbon Black	N/A	3.5 mg/m ³	1333-86-4
Wood Fiber Dust	N/A	5.0 mg/m ³	N/A

NOTE: INGREDIENTS ARE CONTAINED IN A POLYETHYLENE MATRIX. Contains used thermoplastics and waste wood. Plastic obtained primarily from reclaimed/recycled grocery bags and stretch film; wood fiber is typically obtained from furniture makers and/or waste pallets. Standard product is approximately 40% - 50% thermoplastic and 50% - 60% wood fiber.

<u>Chemical Name</u>	<u>CAS Number</u>
Wood Fiber Dust	
Carbon Black	1333-86-4
Polyethylene	9002-88-4

SECTION 4 – FIRST AID MEASURES:

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.

SKIN CONTACT: Wash contact areas with soap and water. Launder contaminated clothing before reuse.

INHALATION: If respiratory irritation, cough, shortness of breath, wheezing or chest tightness occurs after exposure to dust, remove from further exposure, seek immediate medical assistance and call for a physician.

INGESTION: Not expected to be a problem when ingested. If uncomfortable, seek medical assistance.

SECTION 5 – FIRE-FIGHTING MEASURES:

EXTINGUISHING MEDIA: Water

SPECIAL FIRE FIGHTING PROCEDURES: Use water to keep fire exposed product cool. For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Exposure to fire can generate toxic fumes. High dust levels may create potential for explosion. Flash Point C (F): > 370 (698) (Flame Spread Index =75). Flammable limits - LEL: NA, UEL: N/A.

HAZARDOUS DECOMPOSITION PRODUCTS: Smoke, Carbon Monoxide, Acetaldehyde, Formaldehyde, Formic Acid, Acetic Acid.

SECTION 6 – ACCIDENTAL RELEASE MEASURES:

NOTIFICATION PROCEDURES: None

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Where dusty conditions are created as a result of cutting or sawing, wet dust down then sweep or vacuum for disposal. Personnel performing cleanup must use protective equipment.

ENVIRONMENTAL PRECAUTIONS: Not expected to be a problem.

PERSONAL PRECAUTIONS: See Section 8

SECTION 7 – HANDLING AND STORAGE:

HANDLING: TREX® FENCING is not intended for load bearing or heavy structural applications. Please consult Trex® FENCING's test reports and company literature for proper usage. Trex® FENCING is heavier than most traditional lumber products and proper handling is required to prevent damage or injury. Do not burn in fireplace or use as firewood.

STORAGE: Do not store in open or unlabeled containers. Store away from strong oxidizing agents or combustible material.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION:

VENTILATION: Use in well-ventilated area.

RESPIRATORY PROTECTION: Approved dust respirators must be used for dusty conditions or if breathing of dusts is likely.

EYE PROTECTION: Safety glasses with side shields, or goggles, should be worn to protect against dust particles.

SKIN PROTECTION: No special equipment required. Good personal hygiene practices should always be followed.

Substance Name (CAS-No.)	Source	TWA ppm mg/m3	STEL ppm mg/m3
Wood Fiber Dust – Softwood	OSHA	5	
Wood Fiber Dust – Western Red Cedar	OSHA	2.5	
Wood Fiber Dust – Softwood	ACGIH	5	10
Wood Fiber Dust – Hardwoods (Including Almond Wood)	OSHA	5	
Carbon Black (1333-86-4)	OSHA & ACGIH	3.5	

Note: Limits shown for guidance only. Follow application regulations.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES:

Typical physical properties are given below. Consult Product Data Sheet for specific details.

Appearance: Solid
Color: Gray, Red, Brown
Odor: None
Odor Threshold - ppm: NE
pH: N/A
Boiling Point C(F): N/A
Melting Point C(F): > 110 (230)
Flash Point C(F): > 370 (698)
Flammability: NE (Flame Spread Index = 60)
Auto Flammability: 395 (743)
Explosive Properties: N/A
Oxidizing Properties: N/A
Vapor Pressure-mmHg 20C: N/A
Vapor Density: NE
Evaporation Rate: NE
Relative Density, 15/4 C: 0.96
Solubility in Water: Negligible
Partition Coefficient: NE
Viscosity at 40C, cSt: N/A
Viscosity at 100C, cSt: N/A
Pour Point C (F): N/A
Freezing Point C(F): NE
Volatile Organic Compound: NE

N/A = Not Applicable NE = Not Established D = Decomposes

SECTION 10 – STABILITY AND REACTIVITY:

STABILITY (THERMAL, LIGHT, ETC.): Stable.

CONDITIONS TO AVOID: Heat and flame. Build-up of dusts.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Smoke, Carbon Monoxide, Acetaldehyde, Formaldehyde, Formic Acid, Acetic Acid.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION:

ACUTE TOXICOLOGY:

Oral Toxicity (Rats): Not established.

Dermal Toxicity (Rabbits): Not established.

Inhalation Toxicity (Rats): Not established.

Eye Irritation (Rabbits): Not established.

Skin Irritation (Rabbits): Not established.

CHRONIC TOXICOLOGY (SUMMARY):

IARC has determined that there is sufficient evidence to classify wood fiber as a human carcinogen. IARC has classified carbon black as a possible human carcinogen based on animal data. When wood fiber and carbon black are incorporated into a polymer matrix exposure is virtually eliminated.

SECTION 12 – ECOLOGICAL INFORMATION:

ENVIRONMENTAL FATE AND EFFECTS: Not established.

SECTION 13 – DISPOSAL CONSIDERATIONS:

WASTE DISPOSAL: Dispose of waste as normal refuse.

SECTION 14 – TRANSPORT INFORMATION:

HS NUMBER: 3925.90.0000

USA DOT: Not regulated by USA DOT.

IMO: Not regulated by IMO.

IATA: Not regulated by IATA.

SECTION 15 - REGULATORY INFORMATION:

GOVERNMENTAL INVENTORY STATUS: All components comply with TSCA.

U.S. SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III: This product contains no "EXTREMELY HAZARDOUS SUBSTANCES."

SARA (311/312) REPORTABLE HAZARD CATEGORIES: CHRONIC

This product contains no chemicals reportable under SARA (313) toxic release program.

The following product ingredients are cited on the lists below:

<u>Chemical Name</u>	<u>List Citations</u>
Wood Fiber Dust	1, 2, 6
Carbon Black	8

----REGULATORY LISTS SEARCHED----

1 - ACGIH ALL	6 – IARC 1	11 – TSCA 4	17 – CA P65	22 – MI 293
2 - ACGIH AL	7 - IARC 2A	12 - TSCA 5A2	18 - CA RTK	23 - MN RTK
3 - ACGIH A2	8 - IARC 2B	13 - TSCA 5E	19 - FL RTK	24 - NJ RTK
4 - NTP CARC	9 - OSHA CARC	14 - TSCA 6	20 - IL RTK	25 - PA RTK
5 - NTP SUS	10 - OSHA Z	15 - TSCA 12B	21 - LA RTK	26 - RI RTK

CODE KEY: CARC = CARCINOGEN SUS = SUSPECTED CARCINOGEN

USE: COMPOSITE LUMBER PRODUCTS

INGREDIENT	PCT
Wood Fiber	50-60
Polyethylene	40-50
Carbon Black	< 1

SECTION 16 – OTHER INFORMATION:

Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of use of the product are therefore assumed by the user and we expressly disclaim all warranties of every kind and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the product. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, republication or retransmission of this document, in whole or in part, is not permitted. Trex® assumes no responsibility for accuracy of information unless the document is the most current available from an official Trex® distribution system. Trex® neither represents nor warrants that the format, content or product formulas contained in this document comply with the laws of any other country except the United States of America.

Trex and Trex (stylized) are federally registered trademarks of Trex Company, Inc., Winchester, VA.



SDSTWP-01
6-10-21

SECTION 1 - IDENTIFICATION:

TREX® WOOD-POLYMER LUMBER PRODUCTS, TO INCLUDE THE FOLLOWING:

PRODUCT NAME: **TREX TRANSCEND® EARTH TONES AND TROPICALS DECKING**

COLORS:	Vintage Lantern	Gravel Path
	Lava Rock	Spiced Rum
	Rope Swing	Tiki Torch
	Island Mist	Havana Gold

TREX SELECT® DECKING

COLORS:	Woodland Brown
	Madeira
	Winchester Grey
	Saddle
	Pebble Grey

TREX ENHANCE® NATURALS AND BASICS DECKING

COLORS:	Beach Dune	Rocky Harbor
	Clam Shell	Toasted Sand
	Saddle	Coastal Bluff
	Foggy Wharf	

SUPPLIER: TREX COMPANY, INC
160 EXETER DRIVE
WINCHESTER, VA 22603

PRODUCT AND MSDS INFORMATION: 800-289-8739
EMERGENCY CONTACT: 800-289-8739

REVISION: 6-10-21

SECTION 2 - HAZARD IDENTIFICATION:

HEALTH HAZARD:

This product may be used in applications that produce wood dust fibers. According to OSHA 29 CFR 1910.1200, certain wood fibers and carbon black are considered hazardous if the workplace airborne concentration exceeds the OSHA or ACGIH exposure limits.

EFFECTS OF OVEREXPOSURE:

Dust can irritate nose, throat and respiratory tract and may cause mechanical irritation in the eyes. Repeated exposures to certain wood dusts can produce allergic skin and respiratory reactions including asthma and rhinitis. Inhalation of certain wood fibers can cause nasal cancer. Carbon black is a possible carcinogen.

PHYSICAL / CHEMICAL HAZARDS:

No significant hazards.

ENVIRONMENTAL HAZARDS:
No significant hazards.

NFPA HAZARD ID: Health: 0 Flammability: 1 Reactivity: 0

EMERGENCY RESPONSE DATA: Brown solid. Exposure to fire can generate toxic fumes. High dust levels may create potential for explosion. DOT ERG No. – NA

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS:

<u>Component</u>	<u>Appx. Wt %</u>	<u>OSHA PEL</u>	<u>CAS Registry</u>
Polyethylene	N/A	N/A	9002-88-4
Zinc Oxide	N/A	5.0 mg/m ³	1314-13-2
TiO ₂	N/A	15.0 mg/m ³	13463-67-7
UV Additive	N/A	N/A	192268-64-7
UV Additive	N/A	N/A	25973-55-1
Carbon Black	N/A	3.5 mg/m ³	1333-86-4
Wood Fiber Dust	N/A	5.0 mg/m ³	N/A

NOTE: INGREDIENTS ARE CONTAINED IN A POLYETHYLENE MATRIX. Contains used thermoplastics and waste wood. Plastic obtained primarily from reclaimed/recycled grocery bags and stretch film; wood fiber is typically obtained from furniture makers and/or waste pallets. Standard product is approximately 40% - 50% thermoplastic and 50% - 60% wood fiber.

<u>Chemical Name</u>	<u>CAS Number</u>
Wood Fiber Dust	
Carbon Black	1333-86-4
Polyethylene	9002-88-4

SECTION 4 – FIRST AID MEASURES:

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.

SKIN CONTACT: Wash contact areas with soap and water. Launder contaminated clothing before reuse.

INHALATION: If respiratory irritation, cough, shortness of breath, wheezing or chest tightness occurs after exposure to dust, remove from further exposure, seek immediate medical assistance and call for a physician.

INGESTION: Not expected to be a problem when ingested. If uncomfortable, seek medical assistance.

SECTION 5 – FIRE-FIGHTING MEASURES:

EXTINGUISHING MEDIA: Water

SPECIAL FIRE FIGHTING PROCEDURES: Use water to keep fire exposed product cool. For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Exposure to fire can generate toxic fumes. High dust levels may create potential for explosion. Flash Point C (F): > 370 (698) (Flame Spread Index = 60). Flammable limits - LEL: NA, UEL: N/A.

HAZARDOUS DECOMPOSITION PRODUCTS: Smoke, Carbon Monoxide, Acetaldehyde, Formaldehyde, Formic Acid, Acetic Acid.

SECTION 6 – ACCIDENTAL RELEASE MEASURES:

NOTIFICATION PROCEDURES: None

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Where dusty conditions are created as a result of cutting or sawing, wet dust down then sweep or vacuum for disposal. Personnel performing cleanup must use protective equipment.

ENVIRONMENTAL PRECAUTIONS: Not expected to be a problem.

PERSONAL PRECAUTIONS: See Section 8

SECTION 7 – HANDLING AND STORAGE:

HANDLING: TREX® WOOD-POLYMER LUMBER is not intended for load bearing or heavy structural applications. Please consult Trex® Wood-Polymer Lumber's code listing and company literature for proper usage. Trex® Wood-Polymer Lumber is heavier than most traditional lumber products and proper handling is required to prevent damage or injury. Do not burn in fireplace or use as firewood.

STORAGE: Do not store in open or unlabeled containers. Store away from strong oxidizing agents or combustible material.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION:

VENTILATION: Use in well-ventilated area.

RESPIRATORY PROTECTION: Approved dust respirators must be used for dusty conditions or if breathing of dusts is likely.

EYE PROTECTION: Safety glasses with side shields, or goggles, should be worn to protect against dust particles.

SKIN PROTECTION: No special equipment required. Good personal hygiene practices should always be followed.

Substance Name (CAS-No.)	Source	TWA ppm mg/m3	STEL ppm mg/m3
Wood Fiber Dust – Certified Hardwood	OSHA	5	
Wood Fiber Dust – Softwood	OSHA	5	
Wood Fiber Dust – Western Red Cedar	OSHA	2.5	
Wood Fiber Dust – Softwood	ACGIH	5	10
Wood Fiber Dust – beech/Oak Cert. Hardwood	ACGIH	1	
Carbon Black (1333-86-4)	OSHA and ACGIH	3.5	

Note: Limits shown for guidance only. Follow application regulations.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES:

Typical physical properties are given below. Consult Product Data Sheet for specific details.

Appearance: Solid
Color: Gray, Red, Brown
Odor: None
Odor Threshold - ppm: NE
pH: N/A
Boiling Point C(F): N/A
Melting Point C(F): > 110 (230)
Flash Point C(F): > 370 (698)
Flammability: NE (Flame Spread Index = 60)
Auto Flammability: 395 (743)
Explosive Properties: N/A
Oxidizing Properties: N/A
Vapor Pressure-mmHg 20C: N/A
Vapor Density: NE
Evaporation Rate: NE
Relative Density, 15/4 C: 0.96
Solubility in Water: Negligible
Partition Coefficient: NE
Viscosity at 40C, cSt: N/A
Viscosity at 100C, cSt: N/A
Pour Point C (F): N/A
Freezing Point C(F): NE
Volatile Organic Compound: NE

N/A = Not Applicable NE = Not Established D = Decomposes

SECTION 10 – STABILITY AND REACTIVITY:

STABILITY (THERMAL, LIGHT, ETC.): Stable.

CONDITIONS TO AVOID: Heat and flame. Build up of dusts.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Smoke, Carbon Monoxide, Acetaldehyde, Formaldehyde, Formic Acid, Acetic Acid.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION:

ACUTE TOXICOLOGY:

Oral Toxicity (Rats): Not established.
Dermal Toxicity (Rabbits): Not established.
Inhalation Toxicity (Rats): Not established.
Eye Irritation (Rabbits): Not established.
Skin Irritation (Rabbits): Not established.

CHRONIC TOXICOLOGY (SUMMARY):

IARC has determined that there is sufficient evidence to classify wood fiber as a human carcinogen. IARC has classified carbon black as a possible human carcinogen based on animal data. When wood fiber and carbon black are incorporated into a polymer matrix exposure is virtually eliminated.

SECTION 12 – ECOLOGICAL INFORMATION:

ENVIRONMENTAL FATE AND EFFECTS: Not established.

SECTION 13 – DISPOSAL CONSIDERATIONS:

WASTE DISPOSAL: Dispose of waste as normal refuse.

SECTION 14 – TRANSPORT INFORMATION:

HS NUMBER: 3925.90.0000

USA DOT: Not regulated by USA DOT.

IMO: Not regulated by IMO.

IATA: Not regulated by IATA.

SECTION 15 - REGULATORY INFORMATION:

GOVERNMENTAL INVENTORY STATUS: All components comply with TSCA.

U.S. SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III: This product contains no "EXTREMELY HAZARDOUS SUBSTANCES."

SARA (311/312) REPORTABLE HAZARD CATEGORIES: CHRONIC

This product contains no chemicals reportable under SARA (313) toxic release program.

The following product ingredients are cited on the lists below:

<u>Chemical Name</u>	<u>List Citations</u>
Wood Fiber Dust	1, 2, 6
Carbon Black	8

----REGULATORY LISTS SEARCHED----

1 - ACGIH ALL	6 - IARC 1	11 - TSCA 4	17 - CA P65	22 - MI 293
2 - ACGIH AL	7 - IARC 2A	12 - TSCA 5A2	18 - CA RTK	23 - MN RTK
3 - ACGIH A2	8 - IARC 2B	13 - TSCA 5E	19 - FL RTK	24 - NJ RTK
4 - NTP CARC	9 - OSHA CARC	14 - TSCA 6	20 - IL RTK	25 - PA RTK
5 - NTP SUS	10 - OSHA Z	15 - TSCA 12B	21 - LA RTK	26 - RI RTK

CODE KEY: CARC = CARCINOGEN SUS = SUSPECTED CARCINOGEN

USE: COMPOSITE LUMBER PRODUCTS

INGREDIENT	PCT
Wood Fiber	50-60
Polyethylene	40-50
Carbon Black	< 1

SECTION 16 – OTHER INFORMATION:

Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of use of the product are therefore assumed by the user and we expressly disclaim all warranties of every kind and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the product. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, republication or retransmission of this document, in whole or in part, is not permitted. Trex® assumes no responsibility for accuracy of information unless the document is the most current available from an official Trex® distribution system. Trex® neither represents nor warrants that the format, content or product formulas contained in this document comply with the laws of any other country except the United States of America.

Trex and Trex (stylized) are federally registered trademarks of Trex Company, Inc., Winchester, VA.

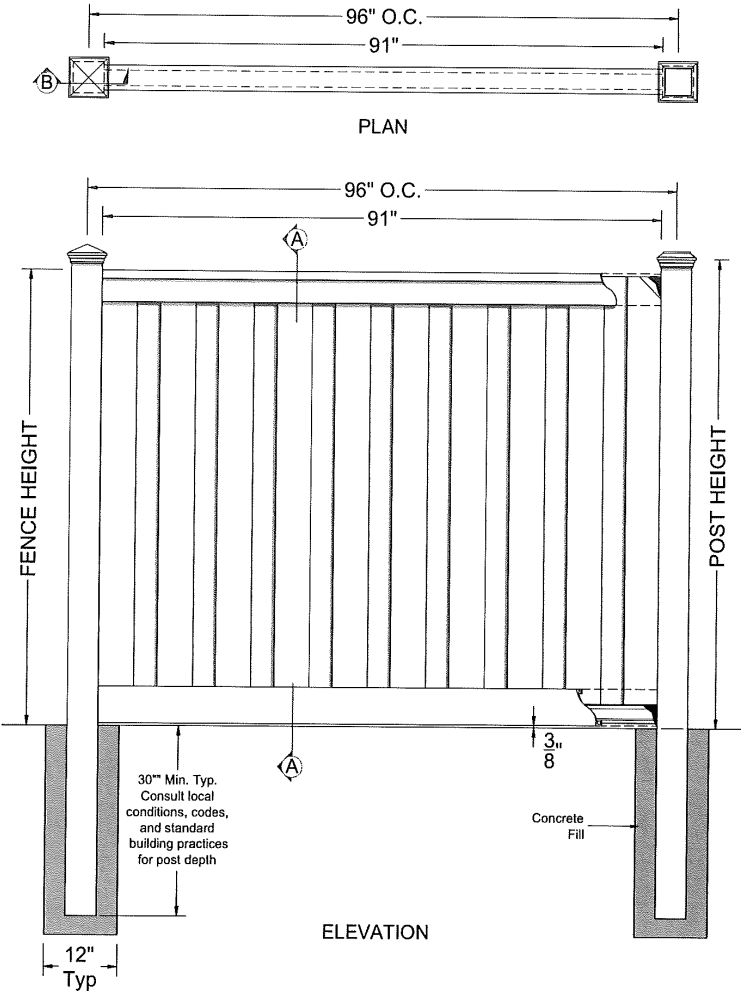
Trex® Seclusions® Composite Fencing

SRF Fence & Supply Co.

Trex®
Fence Distribution

Trex Company National Distribution Partner

ARCHITECTURAL DRAWING:
TREX SECLUSIONS FENCING
PROFILE VIEW



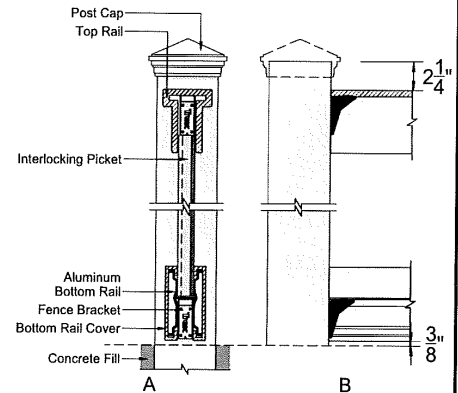
NOTES:

1. INSTALLATION TO BE COMPLETED PER MANUFACTURER'S SPECIFICATION.
2. THIS DRAWING IS PROVIDED FOR PLANNING PURPOSES. REFER TO MANUFACTURER'S INSTALLATIONS FOR CONSTRUCTION DETAILS.
3. REFER TO MANUFACTURER'S WEBSITE FOR PRODUCT INFORMATION.
4. DRAWING NOT TO SCALE.

BILL OF MATERIAL FOR A 6'H x 8'W SECTION OF SECLUSIONS FENCINGS

C	NTS	QUANTITY	LENGTH
	Post Cap: Pyramid, Flat	1	
	5" x 5" Post	1	106" *
	4" x 4.9" Top Rail	1	91" *
	1"x5.75" Interlocking Picket	19	67" *
	1" x 5.75" Bottom Rail Cover	2	91" *
	Aluminum Bottom Rail	1	90 1/2"
	Fence Bracket	4	
	1 5/8" (Typ) Exterior Wood Screws	24	

* Length may vary



SECTIONS

TREX SECLUSIONS FENCING PROFILE VIEW

Trex®, the Trex® logo, and Trex Seclusions® are either federally registered trademarks, trademarks or trade dress of Trex Company, Inc., Winchester, Virginia or its licensees.

SRF Fence & Supply Co.

Trex®
Fence Distribution

www.trexfencingsrf.com

855.620.TREX (8379)

SRF Fence & Supply Co.

1745 Shea Center Dr., Ste. 370

Highlands Ranch, CO 80129

Trex® Seclusions®

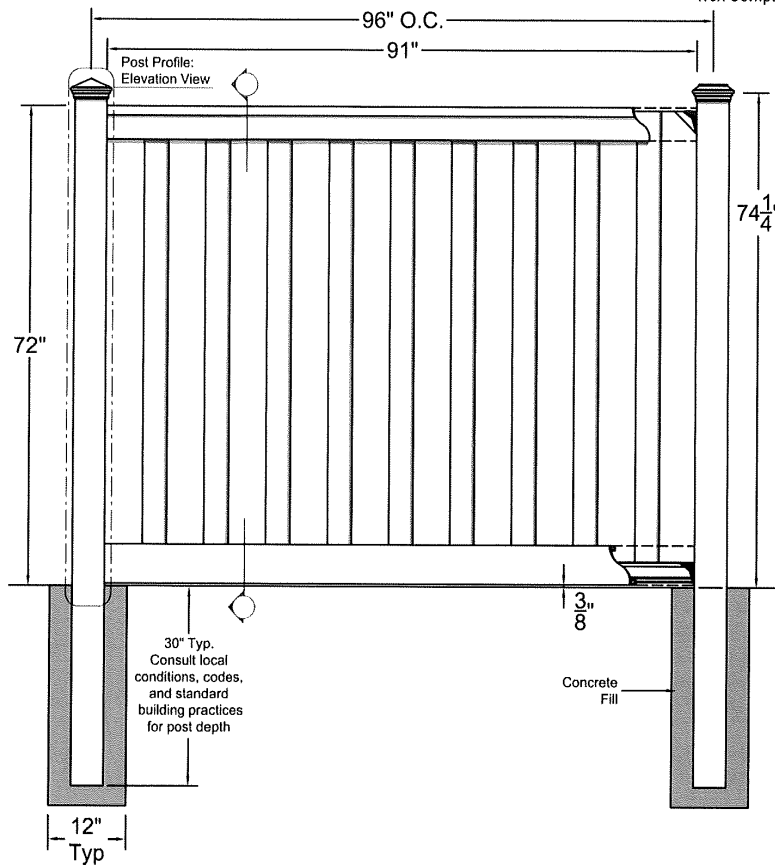
COMPOSITE FENCING SYSTEM

SRF Fence & Supply Co.

Trex®
Fence Distribution

Trex Company National Distribution Partner

ARCHITECTURAL DRAWING:
TREX SECLUSIONS FENCING
6' TALL x 8' WIDE



COMPONENTS	QUANTITY	LENGTH
Post Cap: Pyramid, Flat,	1	
5" x 5" Post	1	108" *
4" x 4.9" Top Rail	1	91" *
1" x 5.75" Interlocking Picket	19	67" *
1" x 5.75" Bottom Rail Cover	2	91" *
Aluminum Bottom Rail	1	90 1/2"
Fence Bracket	4	
1 5/8" (Typ) Exterior Wood Screws	24	

* Length may vary

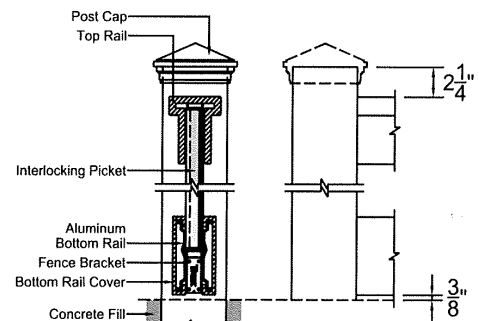
NOTES:

1. INSTALLATION TO BE COMPLETED PER MANUFACTURER'S SPECIFICATION.
2. THIS DRAWING IS PROVIDED FOR PLANNING PURPOSES. REFER TO MANUFACTURER'S INSTALLATIONS FOR CONSTRUCTION DETAILS.
3. REFER TO MANUFACTURER'S WEBSITE FOR PRODUCT INFORMATION.
4. DRAWING NOT TO SCALE.

SRF Fence & Supply Co.

Trex®
Fence Distribution

Trex®, the Trex® logo, and Trex Seclusions® are either federally registered trademarks, trademarks or trade dress of Trex Company, Inc., Winchester, Virginia or its licensees.



Post Profile: Cut View / Elevation View

www.trexfencingsrf.com

855.620.TREX (8379)

SRF Fence & Supply Co.

1745 Shea Center Dr., Ste. 370

Highlands Ranch, CO 80129

Trex® Seclusions®

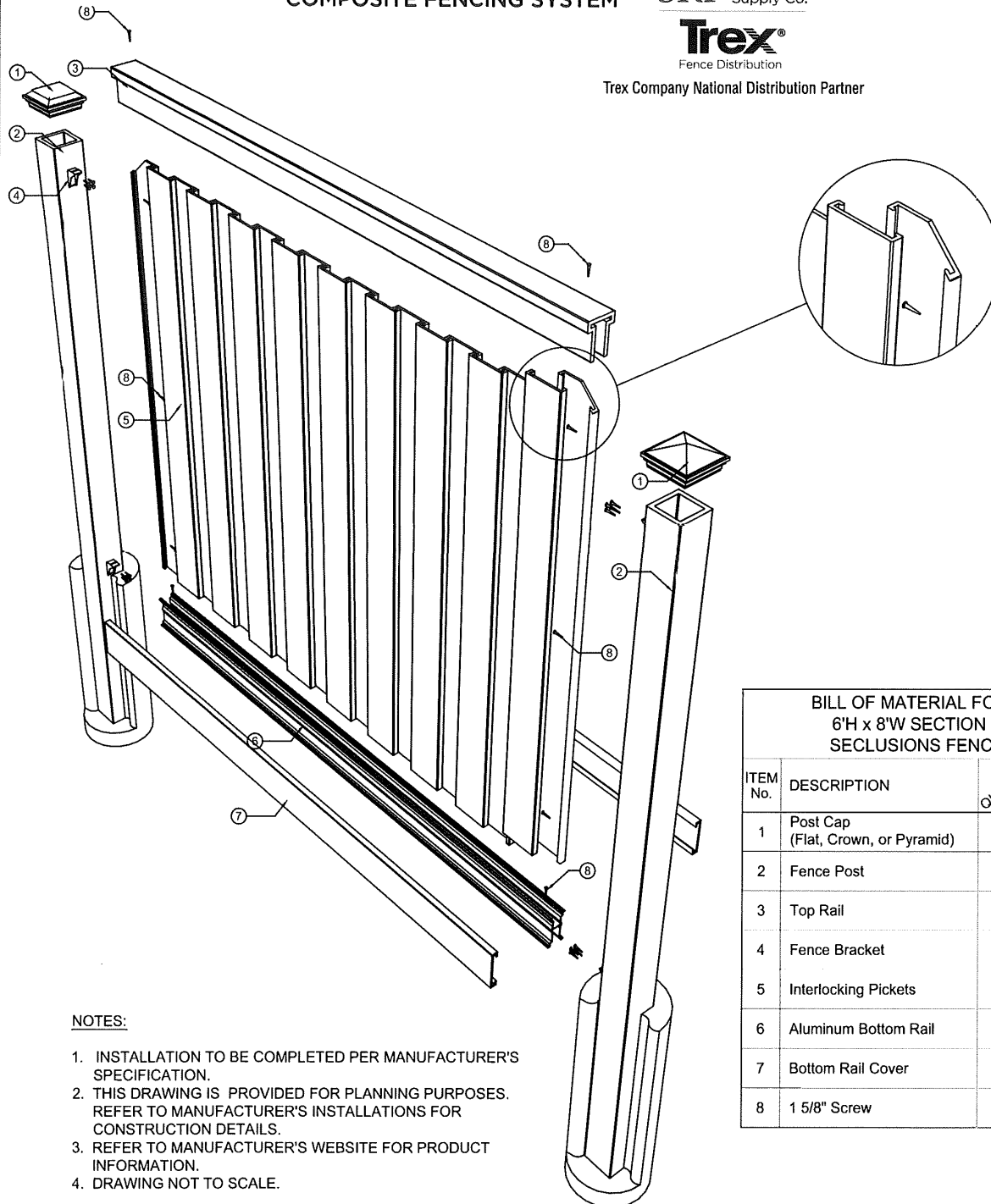
COMPOSITE FENCING SYSTEM

SRF Fence & Supply Co.

Trex®
Fence Distribution

Trex Company National Distribution Partner

ARCHITECTURAL DRAWING:
TREX SECLUSIONS FENCING
EXPLODED VIEW



NOTES:

1. INSTALLATION TO BE COMPLETED PER MANUFACTURER'S SPECIFICATION.
2. THIS DRAWING IS PROVIDED FOR PLANNING PURPOSES. REFER TO MANUFACTURER'S INSTALLATIONS FOR CONSTRUCTION DETAILS.
3. REFER TO MANUFACTURER'S WEBSITE FOR PRODUCT INFORMATION.
4. DRAWING NOT TO SCALE.

BILL OF MATERIAL FOR AN 6'H x 8'W SECTION OF SECLUSIONS FENCING			
ITEM No.	DESCRIPTION	QUANTITY	LENGTH
1	Post Cap (Flat, Crown, or Pyramid)	1	
2	Fence Post	1	108"
3	Top Rail	1	91"
4	Fence Bracket	4	
5	Interlocking Pickets	19	67"
6	Aluminum Bottom Rail	1	90.5"
7	Bottom Rail Cover	2	91"
8	1 5/8" Screw	24	

TREX SECLUSIONS FENCING EXPLODED VIEW

Trex®, the Trex® logo, and Trex Seclusions® are either federally registered trademarks, trademarks or trade dress of Trex Company, Inc., Winchester, Virginia or its licensees.

SRF Fence & Supply Co.

Trex®
Fence Distribution

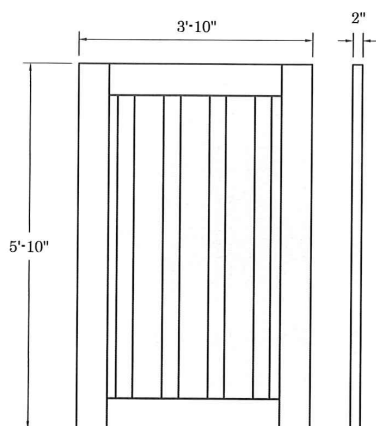
www.trexfencingsrf.com

855.620.TREX (8739)

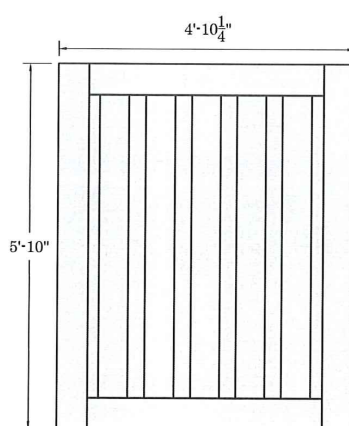
SRF Fence & Supply Co.

1745 Shea Center Dr., Ste. 370
Highlands Ranch, CO 80129

TREX SUPER DUTY GATES



STANDARD 4' X 6'
WALK GATE PANEL



STANDARD 10' X 6' DOUBLE GATE PANEL

EXPOSED ALUMINUM
SUPPORT BAR/LATCH
ATTACHMENT RAIL

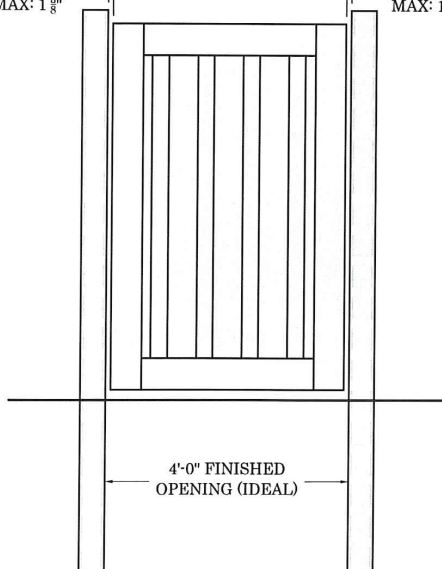
HINGE GAP:
IDEAL: 1"
MIN: $\frac{5}{8}$ "
MAX: $1\frac{3}{8}$ "

LATCH GAP
IDEAL: 1"
MIN: $\frac{5}{8}$ "
MAX: $1\frac{1}{2}$ "

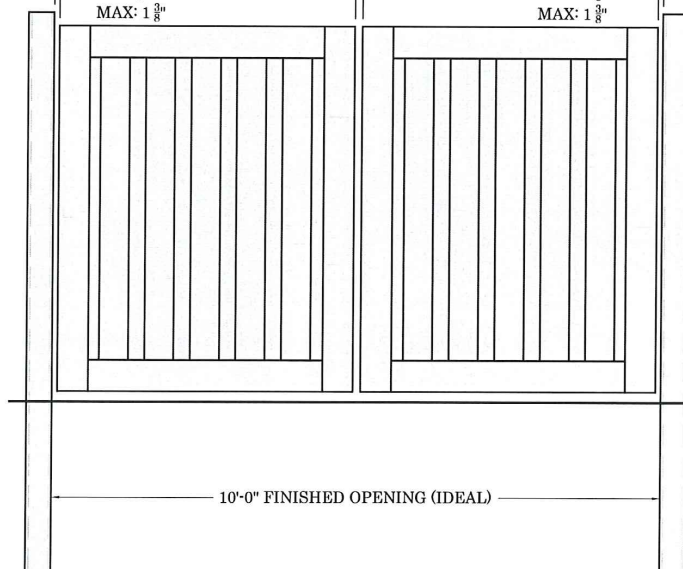
HINGE GAP
IDEAL: $1\frac{1}{8}$ "
MIN: $\frac{5}{8}$ "
MAX: $1\frac{3}{8}$ "

LATCH GAP
IDEAL: $1\frac{1}{4}$ "
MIN: $\frac{5}{8}$ "
MAX: $1\frac{1}{2}$ "

HINGE GAP
IDEAL: $1\frac{1}{8}$ "
MIN: $\frac{5}{8}$ "
MAX: $1\frac{3}{8}$ "



4'-0" FINISHED
OPENING (IDEAL)



10'-0" FINISHED OPENING (IDEAL)

NOTE:

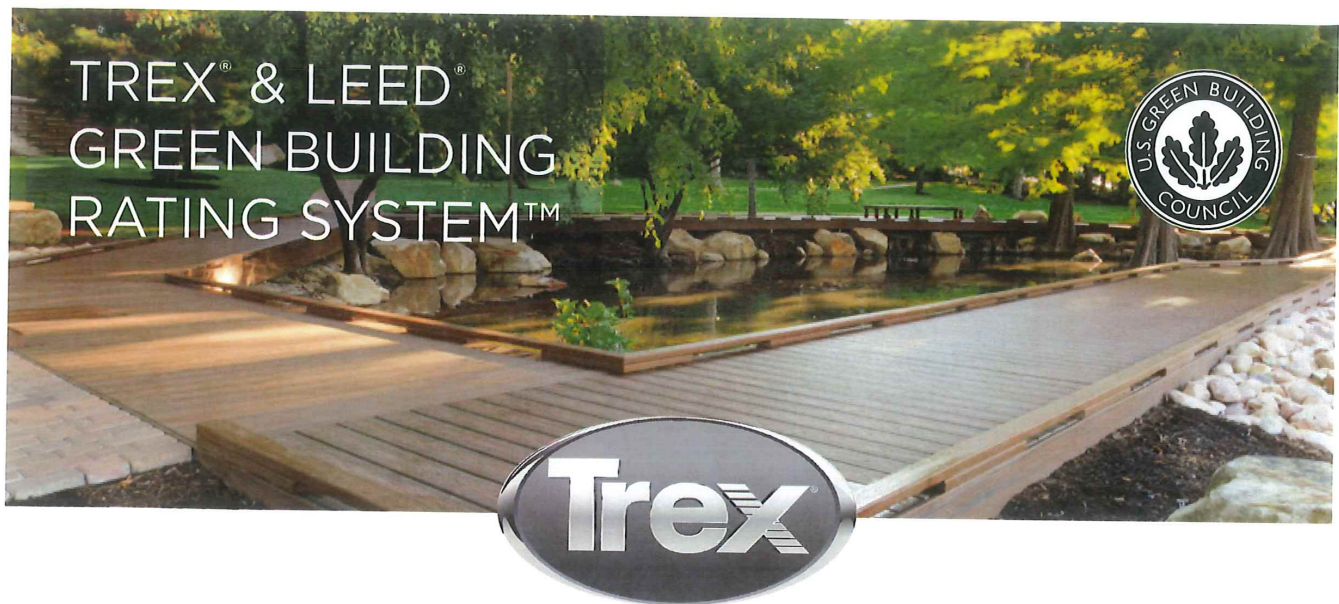
1. HARDWARE MEASUREMENTS BASED ON NATIONWIDE INDUSTRIES STAINLESS STEEL CONTEMPORARY GATE LATCH. NATIONWIDE INDUSTRIES STAINLESS STEEL HINGE STANDARD TO NARROW WITH ADJUSTABLE TENSION..
2. DRAWING NOT TO SCALE

PUBLICATION DATE MAY 26, 2021

WWW.TREXFENCINGSRF.COM

1-855-620-TREX(8739)

THIS DRAWING AND DESIGN ARE THE EXCLUSIVE PROPERTY OF SRF FENCE, ARE PROTECTED UNDER U.S. COPYRIGHT LAWS AND ANY USE, MODIFICATION, OR COPYING IS EXPRESSLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF SRF FENCE. FAILURE TO OBTAIN PERMISSION SHALL CONSTITUTE COPYRIGHT INFRINGEMENT AND SHALL BE SUBJECT TO LEGAL ACTION



Trex decking and railing products contribute to LEED certifications on your commercial and residential projects.



LEED is a point-based system created in part by the U.S. Green Building Council (USGBC) to reward points to building projects that incorporate efficient and safe, eco-friendly products.

Trex decking products can add up to five points to a project – four points in the Materials and Resources category for being composed of up to 95% recycled materials, and one point in the Innovation and Design category.

Trex residential and commercial railing products also typically contribute to LEED certification points in the Materials and Resources category based on recycled aluminum, steel, stainless steel and glass content.

LEED-designated buildings (Silver, Gold or Platinum) tend to attract higher demand, premium rates and longer occupancy leases, thereby supporting continued and growing demand for products that can facilitate LEED designations.

MATERIALS & RESOURCES:

Credit 4.1	Recycled Content: 10%	1 point
Credit 4.2	Recycled Content: 20%	1 point
Credit 5.1	Regional Materials: 10%	1 point
Credit 5.2	Regional Materials: 20%	1 point

INNOVATION IN DESIGN:

Credit 1	LEED Innovation Credit	1 point
----------	------------------------	---------

*Trex products contain 95% recycled-content
Trex products contribute up to five LEED points to any structure*



No trees
have ever been
cut down to make
Trex products



One 500-square-foot
Trex deck contains over
**140,000 recycled
plastic bags**



400 million lbs.
of plastic film and
wood are saved from
landfills each year



Almost **100%** of
factory waste is
reclaimed



No harmful chemicals
are used in Trex's eco-
friendly manufacturing
processes

To learn more, visit usgbc.org and trex.com



TREX[®] LIMITED WARRANTY

Trex Company, Inc. (hereinafter "Trex") warrants to the original purchaser ("Purchaser") that, for the period of time set forth in the following sentence, under normal use and service conditions, Trex[®] products shall be free from material defects in workmanship and materials, and shall not split, splinter, rot or suffer structural damage from termites or fungal decay. The term of such warranty shall be twenty-five (25) years from the date of original purchase for a residential application, and ten (10) years from the date of original purchase for a commercial application. If a defect occurs within the warranty period, Purchaser shall notify Trex in writing and, upon confirmation by an authorized Trex representative of the defect, Trex's sole responsibility shall be, at its option, to either replace the defective item or refund the portion of the purchase price paid by Purchaser for such defective item (not including the cost of its initial installation).

Notwithstanding the foregoing, (a), the term of the warranty for the LED lights and housing for Trex[®] DeckLighting[™] shall be seven (7) years, the term of the warranty for the LED lights and housing for Trex[®] LandscapeLighting[™] shall be five (5) years, and the term of the warranty for the dimmer, timer and transformer for both shall be three (3) years, in each case provided that a Trex transformer is used (with no warranty on any components if a Trex transformer is not used), and any other parts or accessories shall not be warranted; (b) with respect to hardware for the Trex Surroundings[®] gate (gate frame, hinges and screws), the term of the warranty shall be five (5) years, (c) with respect to Trex Decorative Balusters, the term of the warranty covering the paint coating shall be ten (10) years, and shall be prorated in the following manner: 100% replacement for the first five (5) years; and 50% replacement for the next five (5) years, and (d) this warranty shall not apply to Trex Elevations[®] steel deck framing, Trex[®] Signature[™]/Reveal[®] aluminum railing and TrexTrim[™] (which each have separate warranties).

For purposes of this warranty, a "residential application" shall refer to an installation of the Product on an individual residence, and a "commercial application" shall refer to any installation of the Product other than on an individual residence.

TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, THIS WARRANTY SHALL NOT COVER AND TREX SHALL NOT BE RESPONSIBLE FOR COSTS AND EXPENSES INCURRED WITH RESPECT TO THE REMOVAL OF DEFECTIVE TREX PRODUCTS OR THE INSTALLATION OF REPLACEMENT MATERIALS, INCLUDING BUT NOT LIMITED TO LABOR AND FREIGHT.

With respect to a residential application, this warranty may be transferred one (1) time, within the five (5) year period beginning from the date of original purchase by the Purchaser, to a subsequent buyer of the property upon which the Trex products were originally installed. With respect to a commercial application, this warranty is freely transferable to subsequent buyers of the property upon which the Trex products were originally installed.

To make a claim under this limited warranty, Purchaser, or the transferee, shall send to Trex, within the warranty period referred to above, a description of the claimed defect and proof of purchase, to the following address:

Trex Company, Inc.
Customer Relations
160 Exeter Drive
Winchester, VA 22603-8605

Trex does not warrant against and is not responsible for any condition attributable to: (1) improper installation of Trex products and/or failure to abide by Trex's installation guidelines, including but not limited to improper gapping; (2) use of Trex products beyond normal use and service conditions, or in an application not recommended by Trex's guidelines and local building codes; (3) movement, distortion, collapse or settling of the ground or the supporting structure on which Trex products are installed; (4) any act of God (such as flooding, hurricane, earthquake, lightning, etc.), environmental condition (such as air pollution, mold, mildew, etc.), staining from foreign substances (such as dirt, grease, oil, etc.), or normal weathering (defined as exposure to sunlight, weather and atmosphere which will cause any colored surface to gradually fade, chalk, or accumulate dirt or stains); (5) variations or changes in color of Trex products; (6) improper handling, storage, abuse or neglect of Trex products by Purchaser, the transferee or third parties; or (7) ordinary wear and tear.

No person or entity is authorized by Trex to make and Trex shall not be bound by any statement or representation as to the quality or performance of Trex products other than as contained in this warranty. This warranty may not be altered or amended except in a written instrument signed by Trex and Purchaser.

TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, UNDER NO CIRCUMSTANCES WILL TREX BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER SUCH DAMAGES ARE SOUGHT IN CONTRACT, IN TORT (INCLUDING BUT NOT LIMITED TO NEGLIGENCE AND STRICT LIABILITY) OR OTHERWISE, AND TREX'S LIABILITY FOR NON-PERSONAL INJURY CLAIMS WITH RESPECT TO DEFECTIVE PRODUCTS SHALL IN NO EVENT EXCEED THE REPLACEMENT OF SUCH PRODUCTS OR REFUND OF THE PURCHASE PRICE, AS DESCRIBED ABOVE.

Some States or Provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from State to State or Province to Province.

Copyright © 2018 Trex Company, Inc.



WWW.TREX.COM
1-800-BUY-TREX

6-25-20

Made in the USA and Recycling Content Letter:

All Trex® Decking, Railing, and Fencing products are manufactured in the USA (with the exception of some powder coated railing components).

Trex decking and fencing materials (excluding Trex Escapes®) are manufactured utilizing a mixture of wood, polyethylene plastic, pigments, and additives. All Trex decking (excluding Trex Escapes®) is ICC-ES SAVE certified to be a minimum of 95.4 % recycled content. Trex fencing is also 95% recycled content. Pigments and additives make up a maximum of 5% of the polyethylene stream. The polyethylene stream is 100% recycled and is classified as 35% "Pre-Consumer" and 65% "Post Consumer". 100% of the wood is classified as "Pre-Consumer" as it's either recycled or reclaimed from woodworking and furniture manufacturers.

Trex Transcend®, Trex Select®, and Trex Enhance® Railing are manufactured using a mixture of wood, PVC, Acrylic, pigments and additives. All Trex Transcend, Select, and Enhance Railing is composed of 40% wood fiber by weight reclaimed from "Pre-Consumer" manufacturing processes.

Trex Signature® aluminum railing is made from a minimum of 50 percent recycled aluminum content.

Trex Hideaway® Hidden Fastening System, which includes the Trex Hideaway Universal Fastener, Start Clip, and Connector Clip, are all manufactured in the USA.

No trees are cut down to manufacture Trex. There is no added formaldehyde or formaldehyde resins (urea-formaldehyde) detected in our products. In other words Trex decking does not have any added urea-formaldehyde.

Regards,
Trex Technical Services

TREX COMPANY



ICC-ES VAR Environmental Report

VAR-1011

Reissued June 2021

This report is subject to renewal June 2023.

www.icc-es.org/ep | 1-800-423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES

Section: 06 53 00—Plastic Decking

Section: 06 63 00—Plastic Railings

REPORT HOLDER:

TREX COMPANY, INC.

EVALUATION SUBJECT:

TREX® TRANSCEND®, TREX ENHANCE®, TREX SELECT® DECKING AND FASCIA BOARDS

1.0 EVALUATION SCOPE

Compliance with the following evaluation guidelines:

- ICC-ES Environmental Criteria for Determination of Recycled Content of Materials (EC101), dated March 1, 2012.
- ICC-ES Environmental Criteria for Determination of Bio-based Material Content (EC102), dated March 1, 2012.

Compliance eligibility with the applicable sections of the following green building rating systems, standards and codes:

- National Green Building Standard (ICC 700-2008) (see Table 4 for details)
- LEED for Homes 2008 (see Table 5 for details)
- LEED 2009 for New Construction and Major Renovations (see Table 6 for details)
- 2019 California Green Building Standards Code (CALGreen), Title 24, Part 11 (see Table 7 for details)

2.0 USES

Trex® Transcend®, Trex Enhance® and Trex Select® are used for a variety of exterior applications, including nonstructural trim and deck boards and guardrail assemblies for balconies, porches and exterior walking surfaces.

3.0 DESCRIPTION

Trex® products are wood thermoplastic composite lumber (WTCL) made from a blend of wood and polyethylene. The products are manufactured in a variety of sizes, profiles, textures and colors.

4.0 CONDITIONS

4.1 Code Compliance:

The Trex® Transcend®, Trex® Enhance® and Trex® Select® Decking and Fascia Boards have been evaluated for compliance with the requirements of the International Codes as listed in Table 3 of this report.

4.2 Green Rating Systems, Standards and Code Eligibility:

The information presented in Tables 4 through 7 of this report provides a matrix of areas of evaluation and corresponding limitations and/or additional project-specific requirements, and offers benefits to individuals who are assessing eligibility for credits or points.

The final interpretation of the specific requirements of the respective green building rating system and/or standard rests with the developer of that specific rating system or standard or the AHJ, as applicable.

Compliance for items noted as "Verified Attribute" is subject to any conditions noted in the tables. Decisions on compliance for those items noted as "Eligible for Points" in Tables 4 through 7 rest with the user of this report, and those items are subject to the conditions noted. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. Rating systems or standards often provide supplemental information as guidance.

5.0 BASIS OF EVALUATION

The information in this report, including the "Verified Attribute," is based upon the following supporting documentation:

- 5.1 ICC-ES EC101. [Evaluation applies to ICC 700 Section 604.1; LEED Homes MR Credit 2.2; LEED NC MR Credit 4; CALGreen Section A4.405.3 & A5.504.4].
- 5.2 ICC-ES EC102. [Evaluation applies to ICC 700 Section 606.1(2)].
- 5.3 Evidence of compliance with termite resistance in accordance with Section 4.4 of the ICC-ES Acceptance Criteria for Thermoplastic Composite Wood Products (AC109) or Section 3.9 of the ICC-ES Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails) (AC174). [Evaluation applies to ICC 700 Section 602.8.]

ICC-ES Verification of Attributes Reports are issued under the ICC-ES VAR Environmental Program. These reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.

Copyright © 2021 ICC Evaluation Service, LLC. All rights reserved.



Page 1 of 3

6.0 IDENTIFICATION

6.1 Trex products are identified with a stamp noting the manufacturer's name (Trex®) and address, the product name, the manufacturing location, the ICC-ES evaluation report number (if applicable), and the name or logo of the inspection or grading agency. The report subjects are also identified on the product and/or packaging with the VAR Environmental Report number (VAR-1011) and the ICC-ES SAVE Mark, as applicable.

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

TREX COMPANY, INC.
160 EXETER DRIVE
WINCHESTER, VIRGINIA 22603
(800) 289-8739
www.Trex.com

TABLE 1—RECYCLED CONTENT BY WEIGHT SUMMARY

PRODUCT NAME	RECYCLED MATERIALS	% PRE-CONSUMER RECYCLED CONTENT	% POST-CONSUMER RECYCLED CONTENT	% TOTAL RECYCLED CONTENT
Trex® Transcend® Trex® Enhance® Trex® Select®	Wood	47.70	0	95.40
	Polyethylene	16.70	31.00	

TABLE 2—BIOBASED MATERIAL CONTENT SUMMARY

PRODUCT NAME	MINIMUM % BIOBASED CONTENT	METHOD OF DETERMINATION
Trex® Transcend® Trex® Enhance® Trex® Select®	40%	Calculation

TABLE 3—ICC-ES EVALUATION REPORT NUMBER FOR TREX® PRODUCTS

PRODUCT NAME	REPORT NUMBER
Trex® Transcend® Trex® Enhance® Trex® Select®	ESR-3168

TABLES 4 THROUGH 7

Section Number	Section Intent	Possible Points	Conditions of Use to Qualify for Points	Trex® Transcend® Trex® Enhance® Trex® Select®
TABLE 4—SUMMARY OF AREAS OF ELIGIBILITY WITH THE NATIONAL GREEN BUILDING STANDARD (ICC 700-2008)				
602.8	Termite-resistant materials are used.	6 max	To earn 6 points all structural elements must be termite resistant in areas of heavy termite infestation. 2 or 4 points are available for areas with lower infestation probability.	●
604.1	Use two or more major and/or minor building materials containing recycled content.	2 6 max	2, 4 or 6 points may be earned when products are used with another major building component with recycled content of 25% < 50%; 50% < 75%; ≥ 75%, respectively.	●
606.1(2)	Two types of biobased materials are used, each for more than 1 percent of the project's projected building material cost.	6	To earn 6 points two types of bio-based products must be used and the cost of each must be more than 1% of the projects projected building material cost.	●
903.4.1(3)	The moisture content of lumber is sampled to ensure it does not exceed 19 percent prior to the surface and/or wall cavity exposure.	4	To earn 4 points the moisture content of lumber must be determined to not exceed 19%, such as measuring with a moisture meter, prior to enclosure.	○
TABLE 5—SUMMARY OF AREAS OF ELIGIBILITY WITH USGBC'S LEED FOR HOMES 2008				
MR 2.2	Recycled content.	0.5	To earn 0.5 point use materials with recycled content such that the sum of postconsumer recycled content plus 1/2 the post industrial (preconsumer) content constitutes a minimum total recycled content of 25%.	●
TABLE 6—SUMMARY OF AREAS OF ELIGIBILITY WITH USGBC'S LEED 2009 FOR NEW CONSTRUCTION AND MAJOR RENOVATIONS				
MR4	Recycled content.	1 2 max	To earn 1 point use materials with recycled content such that the sum of postconsumer recycled content plus 1/2 of the preconsumer content constitutes at least 10%, based on the cost, of the total value of the materials in the project. To earn 2 points use 20% or more.	●
TABLE 7—SUMMARY OF AREAS OF ELIGIBILITY WITH 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE				
A4.405.3 A5.405.4	Recycled content.	N/A	Use materials with postconsumer or preconsumer recycled content value for a minimum of 10% of the total value, based on estimated cost of materials on the project.	●
4.505.3	Moisture content of building materials.	N/A	Moisture content of lumber may be measured with an appropriate handheld moisture meter.	○
○	= Eligible for points			
●	= Verified attribute			

N/A = Not applicable (i.e. this is a minimum requirement that is met and points/credits are not applicable).

Trex Fencing

SECTION 32 31 32

WOOD COMPOSITE FENCES AND GATES

Display hidden notes to specifier. (Don't know how? [Click Here](#))
Copyright 2016 - 2016 ARCAT, Inc. - All rights reserved

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Wood composite fences.
- B. Wood composite gates.
- C. Excavation for posts.

1.2 RELATED SECTIONS

- A. Section 03 30 00 - Cast-in-Place Concrete.
- B. Section 06 73 00 - Composite Decking.

1.3 REFERENCES

- A. ASTM C 94 - Standard Specification for Ready-Mixed Concrete.
- B. ASTM C 177 - Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
- C. ASTM D 143 - Standard Test Methods for Small Clear Specimens of Timber.
- D. ASTM D 198 - Standard Test Methods of Static Tests of Lumber in Structural Sizes.
- E. ASTM D 1037 - Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials.
- F. ASTM D 1413 - Standard Test Method for Wood Preservatives by Laboratory Soil-Block Cultures.
- G. ASTM D 1761 - Standard Test Methods for Mechanical Fasteners in Wood.
- H. ASTM D1929 - Standard Test Method for Determining Ignition Temperature of Plastics.
- I. ASTM D 2047 - Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring Surfaces as Measured by the James Machine.
- J. ASTM D 2394 - Standard Methods for Simulated Service Testing of Wood and

32 31 32-1

Wood-Base Finish Flooring.

- K. ASTM D 2395 - Standard Test Methods for Specific Gravity of Wood and Wood-Based Materials.
- L. ASTM D 4761 - Standard Test Methods for Mechanical Properties of Lumber and Wood-Base Structural Material.
- M. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- N. ASTM F 1679 - Standard Test Method for Using a Variable Incidence Tribometer (VIT).
- O. American Wood Preservers Association (AWPA) E1-06 - Standard Method for Laboratory Evaluation to Determine Resistance to Subterranean Termites.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Design Requirements: Design fence system to withstand Miami/Dade County 110 MPH steady wind and 130 MPH gusting wind tests.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. Product Data: Manufacturer's data sheets on each product to be used indicating sizes, profiles, surface finishes, and performance characteristics, and including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
 - 4. Instructions on care and cleaning of composite wood products.
- C. Verification Samples: For each finish product specified, two samples, minimum size 9 inches (229 mm) square, representing actual product, color, and patterns.
- D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- E. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for cleaning and maintenance.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store and handle products in accordance with the manufacturer's instructions.
- B. Store level and flat, off ground or floor, with supports at each end and maximum 24 inches on center.
- C. Do not stack wood composite over 8 feet (203 mm) high.
- D. Cover wood composite with waterproof covering, vented to prevent moisture buildup.

1.7 WARRANTY

- A. Provide manufacturer's 25 year residential warranty / 10 year commercial warranty providing coverage against checking, splitting, splintering, rotting, structural damage

from termites, and fungal decay of wood composite.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Trex Fencing, which is located at: 160 Exeter Dr.; Winchester, VA 22603; Distributors and Technical Contacts: www.trexfencing.com.
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 MATERIALS

- A. Wood composite: Reclaimed wood and plastic with integral coloring; free from toxic chemicals and preservatives:
 - 1. Characteristics:
 - a. Abrasion resistance: 0.01 inch wear per 1000 revolutions, tested to ASTM D 2394.
 - b. Hardness: 1124 pounds, tested to ASTM D 143.
 - c. Self ignition temperature: 743 degrees F, tested to ASTM D 1929.
 - d. Flash ignition temperature: 698 degrees F, tested to ASTM D 1929.
 - e. Flame spread rating: 80, tested to ASTM E 84.
 - f. Water absorption, 24 hour immersion, tested to ASTM D 1037:
 - 1) Sanded surface: 4.3 percent.
 - 2) Unsanded surface: 1.7 percent.
 - g. Thermal expansion coefficient, 36 inch long samples:
 - 1) Width: 35.2 x 10⁻⁶ to 42.7 x 10⁻⁶.
 - 2) Length: 16.1 x 10⁻⁶ to 19.2 x 10⁻⁶.
 - h. Fastener withdrawal, tested to ASTM D 1761:
 - 1) Nail: 163 pounds per inch.
 - 2) Screw: 558 pounds per inch.
 - i. Static coefficient of friction:
 - 1) Dry: 0.53 to 0.55, tested to ASTM D 2047.
 - 2) Dry: 0.59 to 0.70, tested to ASTM F 1679.
 - 3) Wet: 0.70 to 0.75, tested to ASTM F 1679.
 - j. Fungus resistance, white and brown rot: No decay, tested to ASTM D 1413.
 - k. Termite resistance: 9.6 rating, tested to AWPA E-1.
 - l. Specific gravity: 0.91 to 0.95, tested to ASTM D 2395.
 - m. Compression:
 - 1) Parallel: 1806 PSI ultimate, 550 PSI design, tested to ASTM D 198.
 - 2) Perpendicular: 1944 PSI ultimate, 625 PSI design, tested to ASTM D 143.
 - n. Tensile strength: 854 PSI ultimate, 250 PSI design, tested to ASTM D 198.
 - o. Shear strength: 561 PSI ultimate, 200 PSI design, tested to ASTM D 143.
 - p. Modulus of rupture: 1423 PSI ultimate, 250 PSI design, tested to ASTM D 4761.
 - q. Modulus of elasticity: 175,000 PSI ultimate, 100,000 PSI design, tested to ASTM D 4761.
 - r. Thermal conductivity: 1.57 BTU per inch per hour per square foot at 85 degrees F, tested to ASTM C 177.

2.3 COMPONENTS

- A. Fence System: Seclusions Privacy Fence System.
 - 1. Fence height:
 - a. 4 feet.
 - b. 6 feet.
 - c. 8 feet.
 - d. 10 feet.
 - e. 12 feet.
 - f. Custom height as indicated on the Drawings.
 - 2. Components:
 - a. Fence posts.
 - b. Post caps:
 - 1) Pyramid.
 - 2) Flat.
 - 3) Crown.
 - c. Top rail
 - d. Aluminum bottom rail inserts.
 - e. Bottom rail covers/Pickets, 67 inch.
 - f. Bottom rail covers/Pickets, 91 inch.
 - g. Fence brackets.
 - 3. Surface texture: Smooth.
 - 4. Color:
 - a. Saddle.
 - b. Winchester Grey.
 - c. Woodland Brown.

2.4 ACCESSORIES

- A. Fasteners: 1-5/8 inch galvanized or corrosion-resistant coated steel. Provide finish nails where applicable.
- B. Concrete: Provide as Specified in Section 03 30 00 - Cast-in-Place Concrete; minimum 2500 PSI compressive strength at 28 days, with a 3 to 5 inch slump.
- C. Concrete: Provide concrete conforming to ASTM C 94; minimum 2500 PSI compressive strength at 28 days, with a 3 to 5 inch slump.
- D. Gate Hardware:
 - 1. Provide two Trex hinges per gate leaf minimum, and size to gate weight and conditions.
 - 2. Provide center gate stop and drop rod for double gates.
 - 3. Provide with latching mechanism.
 - 4. Provide with padlock provisions.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.

- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Cut and drill wood composite using carbide tipped blades.
- C. Space posts maximum 8 feet on center.
- D. Drill post holes into undisturbed or compacted soil; excavate deeper in soft or loose soils and for posts with heavy lateral loads.
- E. Drill posts to 12 inch diameter. Locate bottom of post 30 inches below grade or below frost line whichever is greater.
- F. Place top of concrete 2 inches below finished grade.
- G. Place top of concrete flush with finished grade.
- H. Place top of concrete 2 inches above finished grade.
- I. Screw fence brackets to posts with four 1-5/8 inch long exterior screws.
- J. Cut top rails, pickets, bottom rail covers and aluminum bottom rails to lengths required.
- K. Slide bottom rail covers over aluminum bottom rail pieces.
- L. Position aluminum bottom rail on fence brackets with deeper side of rail channel facing downward.
- M. Cut end pickets to height to provide clearance under brackets and screw to posts.
- N. Insert pickets into bottom rail, interlocking adjacent pieces.
- O. Position top rail and screw attach to top brackets with 1-5/8 inch long exterior screws.
- P. Use finish nails to secure pickets to rails if the pickets are not tightly interlocked.
- Q. Place post caps over post tops and secure with construction adhesive or four finish nails.

3.4 CLEANING

- A. Clean wood composite to remove stains:
 - 1. Mold, mildew, and berry and leaf stains: Clean surfaces with conventional deck wash containing detergent or sodium hypochlorite.
 - 2. Rust and ground-in dirt: Clean surfaces with cleaner containing oxalic or phosphoric acid.
 - 3. Oil and grease: Clean surfaces with detergent containing degreasing agent.

3.5 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.



HDC Work Permit Staff Review

Property address: 202 N Washington

Property History: 202 N Washington is not listed as a contributing building in the National Register nomination. Staff was unable to find original building permits. The building was a gas station, then an auto repair shop, and is now being rehabilitated for use as a coffee shop. The brick veneer is not historic—the building's brick veneer was removed and replaced in October 2021 with historic district commission approval.

Date of Application: May 2, 2022

Date of Review: May 4, 2022

Date of Meeting: May 10, 2022

Proposed work: Paint all exterior brick walls and wood trim white and the overhanging mansard roof a dark green-blue-almost black. The existing metal trim and little gable front will remain white.

Materials: Paint. The type of paint was not specified. Sherwin Williams is the brand specified.

Staff review:

1. A non-contributing building has no (or little) historic material to preserve. As a result, typically when a historic district commission reviews proposed work for a non-contributing resource, the commission is considering issues like compatibility with adjacent historic materials, features, size, scale and proportion, massing, and the effect that the proposed work will have on the larger district.
2. In this case, no site work or building construction is being proposed—painting alone is the proposed work.
3. The Secretary of the Interior's Guidelines for Rehabilitating Historic Buildings call for unpainted brick or masonry to remain unpainted. The Guidelines state,

1. Use property for original purpose or provide compatible use with minimal alteration.

2. Do not destroy original character. Do not remove or alter historic material or features.

3. Do not imitate earlier styles.

4. Preserve significant changes acquired over time.

5. Preserve distinctive features.

6. Repair, don't replace. Replacements shall match original.

7. Clean building gently—no sandblasting.

8. Preserve archaeological resources.

9. Contemporary designs shall be compatible and shall not destroy significant original material.

10. New work shall be removable.

"Not Recommended: Applying paint or other coatings...to masonry that has historically been unpainted or uncoated to create a new appearance."

4. The reason unpainted brick is recommended to remain unpainted is that bricks need to breathe to eliminate excess moisture. If bricks have moisture in them when they're painted, or if water gains access to the bricks even through a very small access point after they're painted, the brick can be damaged and even destroyed. Further, once paint is on masonry, it is almost impossible to remove without damage, in conflict with Secretary of the Interior's Standard 10.
5. These bricks are not historic, but the building is in the center of the part of the historic district west of the River.
6. Standard 9 states, "...exterior alterations...will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be...compatible with the historic materials, features...to protect the integrity of the property and its environment." The proposed work would not destroy historic materials, features, or spatial relationships, so it seems the question is, are painted bricks incompatible with the immediate area and the larger district?

Relevant Secretary of the Interior's Standards:
#9, #10

Recommended Motions:

Move to issue a certificate of appropriateness for the painting of existing wood trim and new brick as proposed May 2, 2022 at 202 N Washington because the work meets Secretary of the Interior's Standards for Rehabilitation Standard 9. The painting of the new, non-historic brick does not destroy historic materials, features, or spatial relationships and is not incompatible with the adjacent properties in the district.

Move to deny the application for the painting of new brick as proposed May 2, 2022 at 202 N Washington because the work does not meet the Secretary of the Interior's Standards for Rehabilitation, specifically Standard 9, or the Secretary's Guidelines for Rehabilitating Historic Buildings. The Guidelines state that unpainted masonry should remain unpainted, and painting the bricks would be incompatible with the building's environment and the larger district.

Prepared by:
Ellen Thackery, Preservation Planner



PHDC-22-0033 R 29750
1502

**City of Ypsilanti
Historic District Commission
Work Permit Application**

One South Huron • Ypsilanti, MI 48197
Phone: (734) 483-9646 • Fax: (734) 483-7260
www.cityofypsilanti.com

OFFICE USE ONLY

Date Filed:

Meeting Date:

Action Item/Study Item

To complete this application:

1. Complete this form.
2. Attach the following documents:
 - a. Photo(s) showing all locations where work is proposed (can be emailed).
 - b. Catalog cut sheets or similar details for windows, doors, light fixtures, and any other manufactured or preassembled components—this includes information from catalogues, professional quotes, or websites (can be emailed).
 - c. Dimensioned drawings of any new construction or modifications to existing structures, including awnings and signs.
 - d. A sketch plan, if proposal is for work on the grounds and not just the main structure (e.g., installing a new driveway, fence, or shed). This can be drawn on a scaled copy of a mortgage survey.
3. Applications and materials must be received by the Building Department **no later** than 4pm on the Tuesday one week prior to the meeting.

INCOMPLETE APPLICATIONS WILL NOT BE PLACED ON THE AGENDA

Property

Address

202 N Washington St

Applicant

**If applicant is not owner of property, a written statement from the owner authorizing this application must be included.*

Name

Urban Core Properties LLC

Address

202 N Washington

City

Ypsilanti

State

MI

Zip

48197

Phone / Fax

[REDACTED]

E-Mail

[REDACTED]

Contractor

Contractor Name & Contact Info

Painting with Nate

Type of work

- ☐ Roofing
☐ Window/Door
Replacement

- ☐ Porches
☐ Sign
☐ Fence (or other sitework)

- ☒ Painting
☐ Other
☐ Application Amendment

Complete Description of Proposed Work:

Paint all exterior brick veneer walls and wood trim Extra White from Sherwin Williams (SW7006)
Paint the overhanging Mansard roof Mt. Etna from Sherwin Williams (SW7625)

Existing metal window and exterior door trim will remain original and will not be painted.

Materials (for paint include color chips or samples with application):

Mockup of paint colors is included.

Permit Application Fee (action items only)

The fee is \$45 for the first \$3,000 in construction cost plus \$5 for every additional \$3,000 of construction cost. There is a flat fee of \$10 for painting only. *An additional fee of \$50 applies to HDC work started without the applicable permit.*

Construction Cost:

Permit fee:

\$45 + _____ =

Signature

I hereby attest that the above information is accurate. I am authorized to and grant permission to the City of Ypsilanti staff to be on the subject property for the purposes of preparing staff reports and/or evaluating this application.

I further affirm that this property has, or will have before the proposed work is completed, a fire alarm system or smoke alarm complying with the Stille-DeRossett-Hale single-state construction code, PA 230 of 1972, as amended.

Signature:

William Sloan

Date:

4/30/22

Print Name:

William Sloan

If you have questions about what the HDC generally permits or does not permit, or what they need to see in an application to render a decision, please call the office at 734-483-9646 or view our factsheets online at cityofypsilanti.com/hd.

All other necessary approvals and permits must be acquired before beginning work.



Pre-Construction

✓ FEATURED IN SCENE

SW 7006
Extra White
 Locator Number: 257-C1

✓ FEATURED IN SCENE

SW 7625
Mount Etna
 Locator Number: 279-C2



Actual results may vary. Colors shown are approximate. The colors shown are approximate and may vary due to lighting, weather, and other factors. Sherwin-Williams is not responsible for the results of painting projects. © 2014 Sherwin-Williams.



HDC Work Permit Staff Review

Property address: 302 S Huron

Property History: This house contributes to both the National Register and the local historic districts. The house is at the corner of Catherine and Huron and is a wood-framed Italianate house with wood siding and original brackets. In the National Register nomination, the house is described as, "a two-story cubical Italianate." The chimney is brick and only a few feet of it protrude through the roof. Some portions of the house's foundation are field stone and others are brick.

Date of Application: May 3, 2022

Date of Review: May 5, 2022

Date of Meeting: May 10, 2022

Proposed work: Repoint small, scattered areas of chimney

Materials: Mortar that is comprised of 10 parts sharp sand, 4 parts hydrated lime, 1 part white Portland cement type ASTM c 150.

Staff review:

1. This house was built about 1870.
2. According to the National Park Service's Preservation Brief 2, *Repointing Mortar Joints in Historic Masonry Buildings*:

Portland cement was first manufactured in the United States in 1871, although it was imported before this date. But it was not in common use throughout the country until the early 20th century. Up until the turn of the [20th] century portland cement was considered primarily an additive, or "minor ingredient" to help accelerate mortar set time. By the 1930s, however, most masons used a mix of equal parts portland cement and lime putty. Thus, the mortar found in masonry structures built between 1871 and 1930 can range from pure lime and sand mixes to a wide variety of lime, portland cement, and sand combinations.

1. Use property for original purpose or provide compatible use with minimal alteration.

2. Do not destroy original character. Do not remove or alter historic material or features.

3. Do not imitate earlier styles.

4. Preserve significant changes acquired over time.

5. Preserve distinctive features.

6. Repair, don't replace. Replacements shall match original.

7. Clean building gently—no sandblasting.

8. Preserve archaeological resources.

9. Contemporary designs shall be compatible and shall not destroy significant original material.

10. New work shall be removable.

3. Because of this home's age, a mortar with no Portland cement or only a small amount would be best.

4. Again, according to Preservation Brief 2:

Unless specified otherwise, measurements or proportions for mortar mixes are always given in the following order: cement-lime-sand. Thus, a Type K mix, for example, would be referred to as 1-3-10, or 1 part cement to 3 parts lime to 10 parts sand. Other requirements to create the desired visual qualities should be included in the specifications.

So this mortar as proposed has slightly more hydrated lime than Type K.

5. Preservation Brief 2 mentions that, "For repointing mortar, rounded or natural sand is preferred for two reasons. It is usually similar to the sand in the historic mortar and provides a better visual match. It also has better working qualities or plasticity and can thus be forced into the joint more easily, forming a good contact with the remaining historic mortar and the surface of the adjacent masonry units. Although manufactured sand is frequently more readily available, it is usually possible to locate a supply of rounded sand." The proposed specs call for sharp sand, but rounded might be better if it is available.

Relevant Secretary of the Interior's Standards:

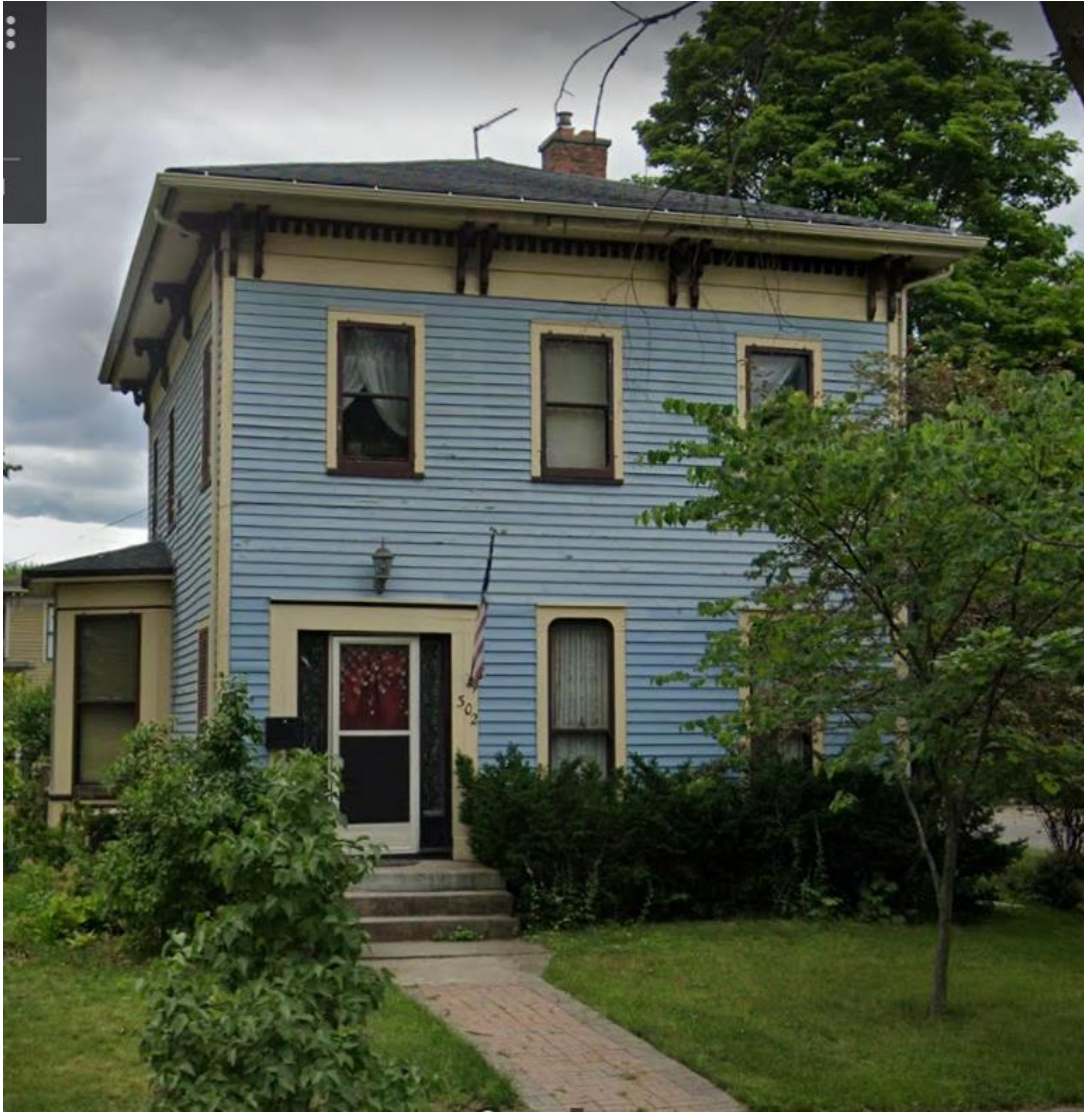
#2, #5, #6

Recommended Motion:

Move to issue a certificate of appropriateness for the work at 302 S Huron as proposed May 3, 2022 for the repointing of several scattered, small areas of the brick chimney. Proposed mortar mix should be soft enough to avoid damaging historic bricks. As long as deteriorated mortar is removed carefully by hand when necessary with a hammer and chisel, or carefully using a small pneumatic chisel, the proposed work meets the Secretary of the Interior's Standards for Rehabilitation #2, #5, and #6.

Prepared by:

Ellen Thackery, Preservation Planner



302 S Huron from Google Streetview, June 2021.

PHDC-22-0037

29766

2305



City of Ypsilanti Historic District Commission Work Permit Application

One South Huron • Ypsilanti, MI 48197
Phone: (734) 483-9646 • Fax: (734) 483-7260
www.cityofypsilanti.com

OFFICE USE ONLY

Date Filed:

Meeting Date:

Action Item/Study Item

To complete this application:

1. Complete this form.
2. Attach the following documents:
 - a. Photo(s) showing all locations where work is proposed (can be emailed).
 - b. Catalog cut sheets or similar details for windows, doors, light fixtures, and any other manufactured or preassembled components—this includes information from catalogues, professional quotes, or websites (can be emailed).
 - c. Dimensioned drawings of any new construction or modifications to existing structures, including awnings and signs.
 - d. A sketch plan, if proposal is for work on the grounds and not just the main structure (e.g., installing a new driveway, fence, or shed). This can be drawn on a scaled copy of a mortgage survey.
3. Applications and materials must be received by the Building Department **no later** than 4pm on the Tuesday one week prior to the meeting.

INCOMPLETE APPLICATIONS WILL NOT BE PLACED ON THE AGENDA

Property

Address

302 S Huron Ypsilanti Mi 48197

Applicant

**If applicant is not owner of property, a written statement from the owner authorizing this application must be included.*

Name

William D Martindale - All Point Builders

Address

PO 36163 box

City

Grosse Pointe Farms

State

MI

Zip

48236

Phone / Fax

E-Mail

Contractor

Contractor Name & Contact Info

All Point Builders

Type of work

- ☐ Roofing
☐ Window/Door
Replacement

- ☐ Porches
☐ Sign
☐ Fence (or other sitework)

- ☐ Painting
☒ Other
☐ Application Amendment

Complete Description of Proposed Work:

Tuck point chimney in misc areas aprox 3 ft x 3 ft

Will use historical mix ratios for historic mortar :

Historical mortar 7/8/21 ypsi bld dept

10 parts Sharps sand

4 parts hydrated lime

1 part white Portland cement Type 1 ASTM c150

Will check with customer about Smoke detector

Materials (for paint include color chips or samples with application):

Historical mortar 7/8/21 ypsi bld dept 10 parts Sharps sand

4 parts hydrated lime

1 part white Portland cement Type 1 ASTM c150

Permit Application Fee (action items only)

The fee is \$45 for the first \$3,000 in construction cost plus \$5 for every additional \$3,000 of construction cost. There is a flat fee of \$10 for painting only. *An additional fee of \$50 applies to HDC work started without the applicable permit.*

Construction Cost:

1900

Permit fee:

\$45 + 45

= 1945

Signature

I hereby attest that the above information is accurate. I am authorized to and grant permission to the City of Ypsilanti staff to be on the subject property for the purposes of preparing staff reports and/or evaluating this application.

I further affirm that this property has, or will have before the proposed work is completed, a fire alarm system or smoke alarm complying with the Stille-DeRossett-Hale single-state construction code, PA 230 of 1972, as amended.

Sign

Date:

5/3/2022

Print Name:

William D Martindale

If you have questions about what the HDC generally permits or does not permit, or what they need to see in an application to render a decision, please call the office at 734-483-9646 or view our factsheets online at cityofypsilanti.com/hd.

All other necessary approvals and permits must be acquired before beginning work.



HDC Work Permit Staff Review

Property address: 229 W Michigan Ave

Property History: This building contributes to the local historic district. It was built in 1915 as a Carnegie Post Office and was adapted for use as the Ypsilanti Public Library in 1963.

Date of Application: May 3, 2022

Date of Review: May 6, 2022

Date of Meeting: May 10, 2022

Proposed work: New lighting around the parking lot and plaza. The proposal is to add 4 new 12' black pole-top lights, replace 2 lights in the parking lot (silver), and replace the in-ground landscape lights (black/brown). None of these proposed lights will be mounted to the historic building.

Materials: Steel, aluminum, LED lights.

Staff review:

1. Applicant proposes first and second choices for the lights on poles. Both are black. Option 1 is a little more traditional than Option 2 but staff believes both meet the Secretary of the Interior's Standards.

Staff notes that the lighting plan will be reviewed by the City Planner for compliance with the zoning ordinance, and the zoning ordinance requires full cutoff to protect the night sky. (A variance from the Zoning Board of Appeals would be required to install lights that have less than 100% cutoff.)

2. The proposed parking lot lights are sleek and have a low, modern profile and would be silver. Staff believes that these, too, could be considered to meet the Standards. Staff believes they are neutral enough to be compatible. A darker color might blend in more with the building to be even more neutral, but even with the

1. Use property for original purpose or provide compatible use with minimal alteration.

2. Do not destroy original character. Do not remove or alter historic material or features.

3. Do not imitate earlier styles.

4. Preserve significant changes acquired over time.

5. Preserve distinctive features.

6. Repair, don't replace. Replacements shall match original.

7. Clean building gently—no sandblasting.

8. Preserve archaeological resources.

9. Contemporary designs shall be compatible and shall not destroy significant original material.

10. New work shall be removable.

Silver color, staff believes these could be said to meet the Standards.

Again, the City Planner will review for technical compliance with the zoning ordinance.

3. The short, low-voltage landscape lights are small uplights that get buried a bit into the ground and then protrude up from it. These lights are small and blend in with their surroundings, so staff believes they meet the Standards for compatibility. Staff doesn't know how bright these lights will be, but thinks they cannot be anywhere near the 3,000 K/400 lumens City limit on uplighting.
4. Before proceeding with work, applicant must submit a lighting plan for administrative approval by the City Planner.

Relevant Secretary of the Interior's Standards:
#9, #10

Recommended Motions:

Move to issue a certificate of appropriateness for the new lighting proposed May 3, 2022 for 229 West Michigan Avenue to include the installation of: four new lights on poles in black, either Option 1 or Option 2; two new parking lights as proposed in silver; and the replacement of existing in-ground landscape lights with new black and brass ones, with the conditions that all light must be fully shielded and will use maximum 3,000 K LED bulbs and that the lighting plan will be reviewed and approved by the City Planner. The proposed work meets the Secretary of the Interior's Standards for Rehabilitation 9 and 10.

Prepared by:
Ellen Thackery, Preservation Planner



PHDC-22-0035 29764
1016

**City of Ypsilanti
Historic District Commission
Work Permit Application**

One South Huron • Ypsilanti, MI 48197
Phone: (734) 483-9646 • Fax: (734) 483-7260
www.cityofypsilanti.com

OFFICE USE ONLY

Date Filed:

Meeting Date:

Action Item/Study Item

To complete this application:

1. Complete this form.
2. Attach the following documents:
 - a. Photo(s) showing all locations where work is proposed (can be emailed).
 - b. Catalog cut sheets or similar details for windows, doors, light fixtures, and any other manufactured or preassembled components—this includes information from catalogues, professional quotes, or websites (can be emailed).
 - c. Dimensioned drawings of any new construction or modifications to existing structures, including awnings and signs.
 - d. A sketch plan, if proposal is for work on the grounds and not just the main structure (e.g., installing a new driveway, fence, or shed). This can be drawn on a scaled copy of a mortgage survey.
3. Applications and materials must be received by the Building Department **no later** than 4pm on the Tuesday one week prior to the meeting.

INCOMPLETE APPLICATIONS WILL NOT BE PLACED ON THE AGENDA

Property

Address

229 W Michigan Avenue, Ypsilanti, MI 48197

Applicant

**If applicant is not owner of property, a written statement from the owner authorizing this application must be included.*

Name

Kyle Keaffaber - Faber Design Co. for Ypsilanti District Library

Address

46985 N Territorial Road

City

Plymouth

State

MI

Zip

48170

Phone / Fax

E-Mail

Contractor

Contractor Name & Contact Info

Brennan Booms - Enlighten

Type of work

- ☐ Roofing
- ☐ Window/Door Replacement

- ☐ Porches
- ☐ Sign
- ☐ Fence (or other sitework)

- ☐ Painting
- ☒ Other
- ☐ Application Amendment

Complete Description of Proposed Work:

The Michigan Avenue location of Ypsilanti District Library is proposing to add / replace lighting to their plaza space on the East side of the building and add an additional light to their parking lot. The goal of this proposed work is to reactivate a community space into a vibrant gathering space for events, groups of people, or a place of relaxation and respite. By creating an inviting space that is accessible from the streetfront, parking lot, and the library it will make this space an extension of the public realm and help promote positive activity at the street level. Additionally, the lighting will help accentuate the architecture of the historic Carnegie Post Office as a point of pride in the community. The last several years the lights have not been working and there have been safety concerns in the plaza and the space hasn't been as active or working the way it was originally designed.

Our proposal is to add (4) new 12' pole top lights w/ cutoff shielding, replace the (2) lights in the parking lot, and replace the existing in-ground landscape lights that are mostly non-functional. Based on the night sky guidelines and city ordinances, we have provided two options for the pole top lights. Our option 1, is a light fixture that is ~95% shielded and while it is not technically a fully shielded fixture, the light provides an inviting glow from the lens that we feel is necessary in the courtyard space to promote activity and works with the character of the building. The style of option 1 is meant to complement the style of the building yet not be a total departure from it, or the style of the street lighting right near the plaza entrance.

Our option 2 for the plaza lighting is a more contemporary, non-descript, fully shielded fixture that probably matches the intent of the lighting guidelines, but we are asking for your consideration of Option 1, before we resign to Option 2. From a lighting calculation perspective all of the lighting is reduced to required levels at the

Materials (for paint include color chips or samples with application):

See submission package for color samples.

- Pole & Pole top lights: Black Finish
- Landscape Lights / In-Ground Fixture: Black Finish
- Parking Lot lights: Silver Finish

Permit Application Fee (action items only)

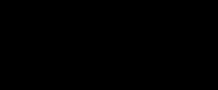
The fee is \$45 for the first \$3,000 in construction cost plus \$5 for every additional \$3,000 of construction cost. There is a flat fee of \$10 for painting only. *An additional fee of \$50 applies to HDC work started without the applicable permit.*

Construction Cost:	Permit fee:
\$33,600	\$45 + $(11 \times 5) = \$55$ = \$100

Signature

I hereby attest that the above information is accurate. I am authorized to and grant permission to the City of Ypsilanti staff to be on the subject property for the purposes of preparing staff reports and/or evaluating this application.

I further affirm that this property has, or will have before the proposed work is completed, a fire alarm system or smoke alarm complying with the Stille-DeRossett-Hale single-state construction code, PA 230 of 1972, as amended.

Signature: 	Date: 05/02/2022
--	------------------

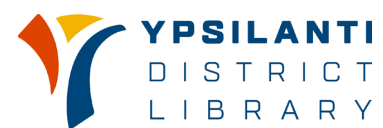
Print Name: Kyle Keaffaber

If you have questions about what the HDC generally permits or does not permit, or what they need to see in an application to render a decision, please call the office at 734-483-9646 or view our factsheets online at cityofypsilanti.com/hd.

All other necessary approvals and permits must be acquired before beginning work.

Full text of description of proposed work:

The Michigan Avenue location of Ypsilanti District Library is proposing to add / replace lighting to their plaza space on the East side of the building and add an additional light to their parking lot. The goal of this proposed work is to reactivate a community space into a vibrant gathering space for events, groups of people, or a place of relaxation and respite. By creating an inviting space that is accessible from the streetfront, parking lot, and the library it will make this space an extension of the public realm and help promote positive activity at the street level. Additionally, the lighting will help accentuate the architecture of the historic Carnegie Post Office as a point of pride in the community. The last several years the lights have not been working and there have been safety concerns in the plaza and the space hasn't been as active or working the way it was originally designed. Our proposal is to add (4) new 12' pole top lights w/ cutoff shielding, replace the (2) lights in the parking lot, and replace the existing in-ground landscape lights that are mostly non-functional. Based on the night sky guidelines and city ordinances, we have provided two options for the pole top lights. Our option 1, is a light fixture that is ~95% shielded and while it is not technically a fully shielded fixture, the light provides an inviting glow from the lens that we feel is necessary in the courtyard space to promote activity and works with the character of the building. The style of option 1 is meant to complement the style of the building yet not be a total departure from it, or the style of the street lighting right near the plaza entrance. Our option 2 for the plaza lighting is a more contemporary, non-descript, fully shielded fixture that probably matches the intent of the lighting guidelines, but we are asking for your consideration of Option 1, before we resign to Option 2. From a lighting calculation perspective all of the lighting is reduced to required levels at the property edges for both options. In testing the surrounding existing lighting, the street lights have a color temperature of 4000k and while the night sky ordinance specifies 3000k or less we are asking if you would consider letting us match the color temperature of the street lighting for purposes of creating a more cohesive transition into the plaza and aesthetically pleasing street front. The landscape lighting color temperature will match the post lights. For the parking lights we are replacing the two existing parking lot lights. *Note, the 3rd light shown (purple color) at the south edge of the parking lot is not owned by the library.



Plaza Lighting - YDHC Submission

Ypsilanti District Library / Enlighten Solutions / Faber Design Co - 05.02.2022

Ypsilanti District Library - Michigan Avenue

Plaza Lighting - Illumination Analysis - 05.02.2022

Images of Illumination Analysis

YDL Mich Ave Courtyard Project

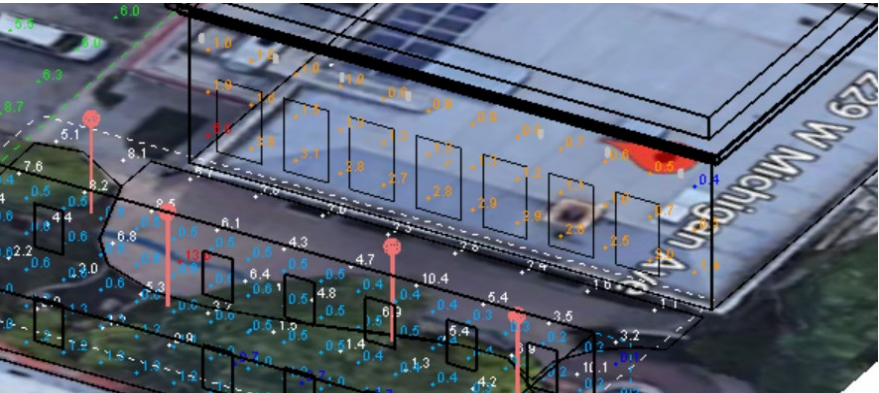
Foot Candle Estimates

Areal Courtyard + Rear Lot Horizontal Foot Candles Estimate (3.5' Above Ground)



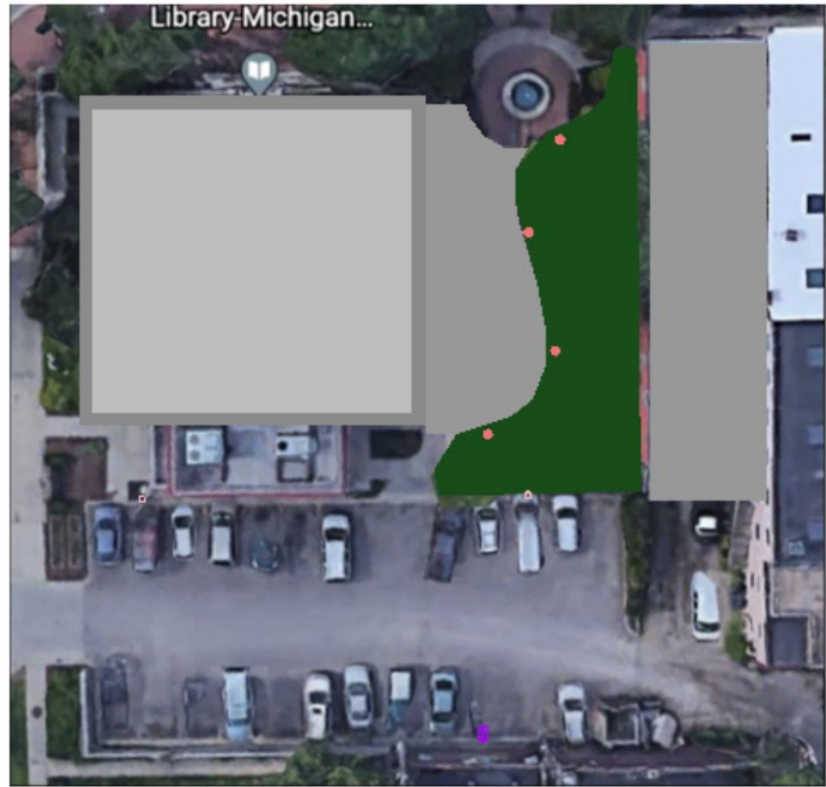
● - POLE TOP LIGHTS

Elevation Library East Façade Foot Candles Estimate

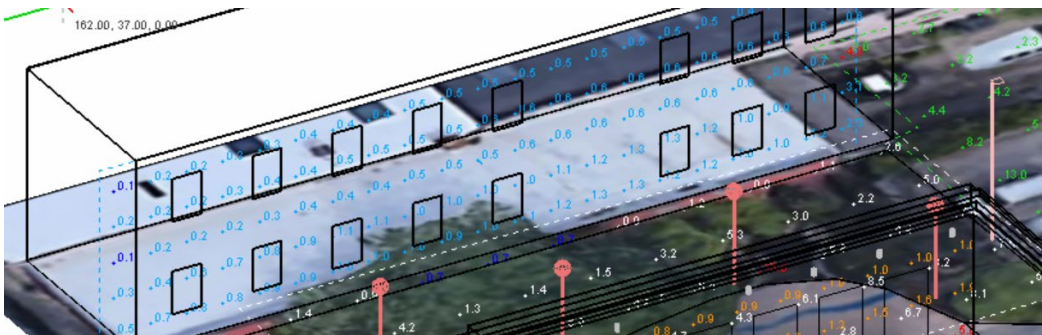


LAYOUTS

Aerial with building and courtyard finishes shown



Elevation Neighboring Building West Façade Foot Candles Estimate



Images of Illumination Analysis

YDL Mich Ave Courtyard Project

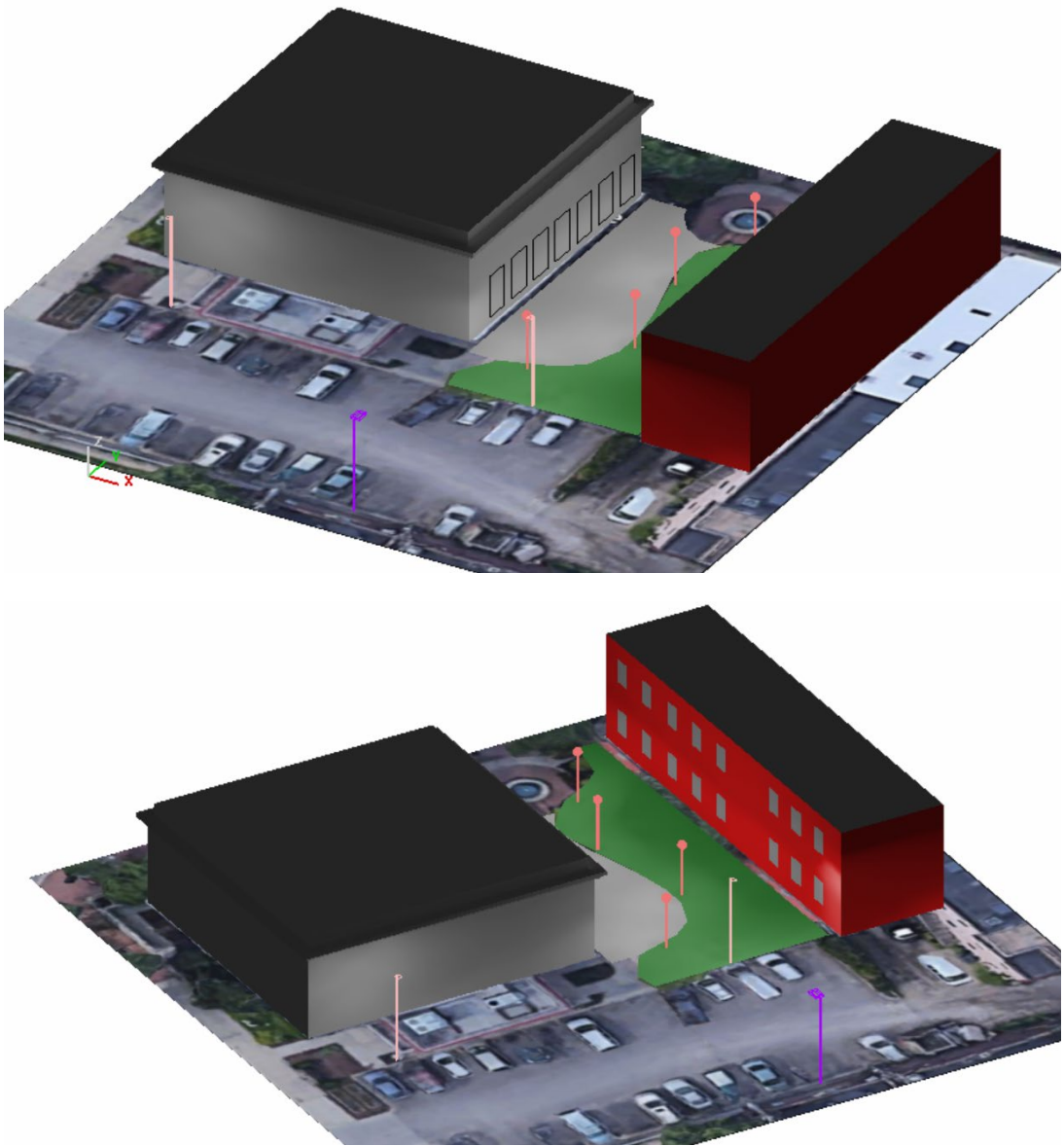
Aerial



Note: Exact locations to be determined upon installation based on what in-ground wire, tree roots, etc allow. Locations in images indicative of final intended locations.
Note: Landscape Lights not pictured. Will add minimal lighting

● - POLE TOP LIGHTS

RENDERINGS



Lighting Cutsheets

YDL Michigan - 05.02.2022

Printer Friendly Version

[Pole Shaft]

FINISH

P - Primer
BK - Black Finish Color
BZ - Bronze Finish Color
GN - Green Finish Color
GY - Gray Finish Color
LA - Dark Natural Aluminum
LM - Natural Aluminum
G - Hot Dipped Galvanized
WH - White Finish Color
CT - Custom Color
G/BK - Black over Galvanized
G/BZ - Bronze over Galvanized
G/GN - Green over Galvanized
G/GY - Gray over Galvanized
G/LM - Natural Aluminum over galvanized
G/WH - White over Galvanized
G/CT - Custom over Galvanized

MOUNTING DESIGNATIONS

OT - Open Top
PC - Pole Cap
2 - 2 3/8" OD Tenon
3 - 2 7/8" OD Tenon
3.5 - 3 1/2" OD Tenon
4 - 4" OD x 6" Tenon
DM - Drilled Mount
DM10 - Drilled for 1 Luminaire
DM29 - Drilled for 2 Luminaires at 90°
DM28 - Drilled for 2 Luminaires at 180°
DM39 - Drilled for 3 Luminaires at 90°
DM49 - Drilled for 4 Luminaires at 90°
WP - Wood Pole

* Standard location for DM10 is 90° to the right of the handhole.

OPTIONS

XHH - Extra Handhole

WPRP - Festoon Opening
CPL - Threaded Coupling
NPL - Threaded Nipple
VDI - Vibration Damper Internal
BC - Base Cover
NC - Nut Covers
LAB - Less Anchor Bolt
EMB - Embedded Pole

Part #: RS400112-BK-35-BC

SORT THE LIST BELOW BASED ON YOUR PREFERENCE BY CLICKING THE COLUMN TITLE

Height (ft.)	Catalog Number	Pole Shaft (in.) x (ft.)	Shaft Gauge	Bolt Circle (in.)	Anchor Bolt (in.) x (in.) x (in.)	Handhole Size (in.)	80 MPH (ft.)	90 MPH (ft.)	100 MPH (ft.)	Ship Wt. (lbs)	Select
10	RS4001110	4.00 x 10.0	11	8	0.75 x 17 x 3	2 x 4	31	24	19	78	Configure
10	RS4501110	4.50 x 10.0	11	8	0.75 x 17 x 3	3 x 5	40	31	25	84	Configure
10	RS5001110	5.0 x 10.0	11	11	1.00 x 36 x 4	3 x 5	51	40	32	139	Configure
12	RS4001112	4.00 x 12.0	11	8	0.75 x 17 x 3	2 x 4	28	23	19	73	Configure
12	RS4501112	4.50 x 12.0	11	8	0.75 x 17 x 3	3 x 5	34	27	21	96	Configure
12	RS5001112	5.0 x 12.0	11	11	1.00 x 36 x 4	3 x 5	43	33	27	153	Configure
14	RS4001114	4.00 x 14.0	11	8	0.75 x 17 x 3	2 x 4	23	19	15	99	Configure
14	RS4501114	4.50 x 14.0	11	8	0.75 x 17 x 3	3 x 5	28	22	17	108	Configure
14	RS5001114	5.0 x 14.0	11	11	1.00 x 36 x 4	3 x 5	36	28	22	166	Configure
15	RS4001115	4.00 x 15.0	11	8	0.75 x 17 x 3	2 x 4	18	14	11	88	Configure
15	RS4501115	4.50 x 15.0	11	8	0.75 x 17 x 3	3 x 5	26	20	16	98	Configure
15	RS5001115	5.0 x 15.0	11	11	1.00 x 36 x 4	3 x 5	33	26	20	173	Configure
15	RS5000715	5.0 x 15.0	7	11	1.00 x 36 x 4	3 x 5	50	39	31	222	Configure
16	RS4001116	4.00 x 16.0	11	8	0.75 x 17 x 3	2 x 4	16	13	10	93	Configure
16	RS4501116	4.50 x 16.0	11	8	0.75 x 17 x 3	3 x 5	24	18	14	120	Configure
16	RS5001116	5.0 x 16.0	11	11	1.00 x 36 x 4	3 x 5	31	24	19	179	Configure
16	RS5000716	5.0 x 16.0	7	11	1.00 x 36 x 4	3 x 5	47	37	29	232	Configure
18	RS4001118	4.00 x 18.0	11	8	0.75 x 17 x 3	2 x 4	13	10	8	103	Configure
18	RS4501118	4.50 x 18.0	11	8	0.75 x 17 x 3	3 x 5	21	16	12	132	Configure
18	RS5001118	5.0 x 18.0	11	11	1.00 x 36 x 4	3 x 5	27	21	16	192	Configure
18	RS5000718	5.0 x 18.0	7	11	1.00 x 36 x 4	3 x 5	40	31	25	252	Configure
20	RS4001120	4.00 x 20.0	11	8	0.75 x 17 x 3	2 x 4	11	8	6	123	Configure
20	RS4501120	4.50 x 20.0	11	8	0.75 x 30 x 3	3 x 5	15	12	9	135	Configure
20	RS5001120	5.00 x 20.0	11	11	1.00 x 36 x 4	3 x 5	20	16	12	189	Configure
20	RS5000720	5.00 x 20.0	7	11	1.00 x 36 x 4	3 x 5	28	22	18	253	Configure
22	RS4001122	4.00 x 22.0	11	8	0.75 x 17 x 3	2 x 4	7	5	3	148	Configure
22	RS4501122	4.50 x 22.0	11	8	0.75 x 30 x 3	3 x 5	13	10	7	147	Configure
22	RS5001122	5.00 x 22.0	11	11	1.00 x 36 x 4	3 x 5	17	13	10	202	Configure
22	RS5000722	5.00 x 22.0	7	11	1.00 x 36 x 4	3 x 5	24	19	15	272	Configure
24	RS4001124	4.00 x 24.0	11	8	0.75 x 17 x 3	2 x 4	7	5	3	148	Configure
24	RS4501124	4.50 x 24.0	11	8	0.75 x 30 x 3	3 x 5	10	8	6	158	Configure
24	RS5001124	5.00 x 24.0	11	11	1.00 x 36 x 4	3 x 5	14	11	8	215	Configure
24	RS5000724	5.00 x 24.0	7	11	1.00 x 36 x 4	3 x 5	20	16	12	292	Configure
25	RS4001125	4.00 x 25.0	11	8	0.75 x 17 x 3	2 x 4	7	5	3	148	<

WJM Poles

<https://submittal.info/wjm/WJMLightingStandards.asp?Serie=RS>

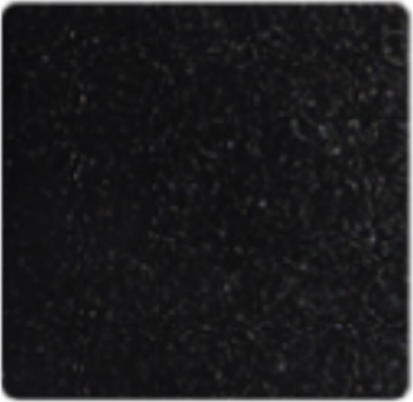
28	RS5000728	5.00 x 28.0	7	11	1.00 x 36 x 4	3 x 5	15	11	8	330	Configure
30	RS4501130	4.50 x 30.0	11	8	0.75 x 30 x 3	3 x 5	5	3	2	193	Configure
30	RS5001130	5.00 x 30.0	11	11	1.00 x 36 x 4	3 x 5	7	5	3	253	Configure
30	RS5000730	5.00 x 30.0	7	11	1.00 x 36 x 4	3 x 5	11	8	6	349	Configure
35	RS5000735	5.00 x 35.0	7	11	1.00 x 36 x 4	3 x 5	7	4	2	397	Configure

WJM, Inc. reserves the right to change any feature of its published specifications without notice to promote product improvement and/or allow for material availability.

Copyright © 2022 WJM, Inc. ALL RIGHTS RESERVED.

3 of 3

4/6/2022, 10:24 AM

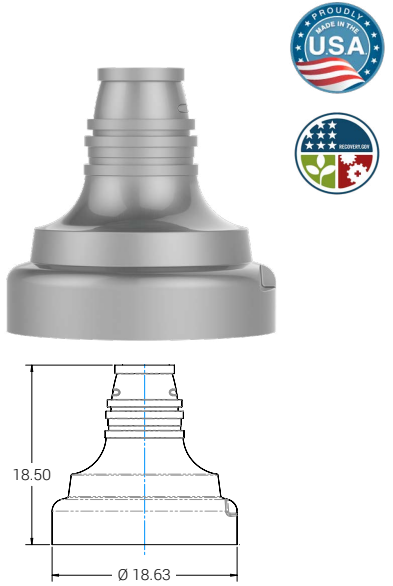


BLACK

DPB-500

DPB Category: Roadway, Residential, or Commercial projects.
Base Material: Two-piece decorative cast aluminum base. Marine grade copper free aluminum base. Base plate in 9" or 12" SQ. Measures 18.5" tall x 18.63" OD wide.
Finish: 5 mils rich textured powder coat finish. Custom color match, including Patina Verde and Weathered Brown.
Compatible Poles: Round Straight Steel (RSSP) or Round Straight Aluminum (RSAP) poles in 4", or 5" OD in 7 or 11 gauge. Consult factory for fluted options.

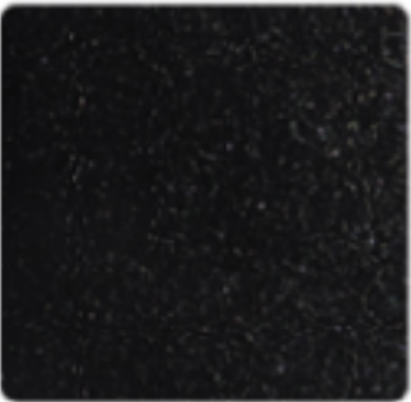
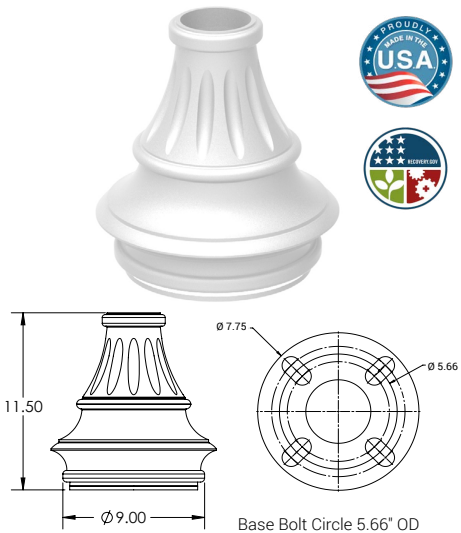
Project Name:		Type:
YDL Mich Ave Ctyd		
DPB-500	4R	BLK
Cat #	Pole Dim.	Color
Decorative Pole Base 500 (DPB-500)	4" Round (4R)	Bronze (BRZ) White (WHT) Silver (SVR) Black (BLK)
	5" Round (5R)	Hunter Green (HGN) Graphite (GPH) Grey (GRY) Custom (CS)



DPB-600

DPB Category: Pathway, or Residential projects.
Base Material: One-piece decorative cast aluminum base. Marine grade copper free aluminum base. Internal Removable Base Plate. Base bolt circle 5.66" OD. Measures 11.5" tall x 9" OD wide. 5/8" x 24" Anchor Bolts.
Finish: 5 mils rich textured powder coat finish. Custom color match, including Patina Verde and Weathered Brown.
Compatible Poles: Round Straight Aluminum (RSAP) poles in 3" OD in 7 or 11 gauge. Max 10' mounting height. Consult factory for fluted options.

Project Name:		Type:	
Cat #	Pole Dim.	Pole Length	Color
Decorative Pole Base 600 (DPB-600)	3" Round (3R)	6' (6)	Bronze (BRZ) White (WHT)
		8' (8)	Silver (SVR) Black (BLK)
		10' (10)	Hunter Green (HGN) Graphite (GPH)
			Grey (GRY) Custom (CS)



BLACK

NLS
LIGHTING

CAMBRIA

ARCHITECTURAL LIGHTING

The **Cambria** adds a touch of class and elegance to any Municipal or Residential project. Architectural form by day and efficient by night. The **Cambria** is the perfect low glare solution for any Roadway, Street, Residential or Pathway project.

Utilizing the latest LED technology – The Patented **STAR POWER™ Optical System** keeps glare to a bare minimum.

Optical System: Patented **STAR POWER™ Optical System**, with an outer Injection molded refractor available in IES Distributions T3 and T5. Offered in 3000K, 4000K, and 5000K CCT and a CRI of 70 minimum.

Mounting: The **Cambria** Post Top fits 3-1/2" OD (**PT312**) tenon. Stainless Steel Set screws are provided by factory to secure the **Cambria** to the pole tenon.

Controls / Options: The **Cambria** is available with optional Photocell (**PC**), 10KV Surge Protector (**10K**), House Side Shield (**HSS**), NEMA -7 PIN recptacle (**PE7**) and Photo Receptacle and Shorting Cap (**PER**).

The **Cambria** has an easy, accessible door below the light engine that houses the Nema 7-Pin Receptacle (**PE7**).



* Receptacle + Shorting Cap (**PER**) shown with lens in capitol.

LISTINGS

- Certified to UL 1598
- UL 8750
- CSA C22.2 No. 250.0
- IP65 Rated
- 3G Vibration Rated per ANSI C136.31-2010



Part #: CAM-1-T3-48L-35-30K-UNV-PT312-BLK-10K

LED WATTAGE CHART								
	16L	32L	48L					
350 milliamps	17w	34w	53w					
530 milliamps	26w	54w	80w					
700 milliamps	33w	71w	104w					

Project Name: YDL Mich Ave Courtyard								Type:
CAM-1	T3	48L	35	30K	UNV	PT312	BLK	10K
Cat #	Light Dist	No. of LEDs	Milliamps	Kelvin	Volts	Mounting	Color	Options
Cambria (CAM-1)	Type 3 (T3)	16 (16L)	350 (35)	3000K (30K)	120-277 (UNV)	Post Top Over 3-1/2" OD (PT312)	Bronze (BRZ)	Photocell (PC)
	Type 5 (T5)	32 (32L)	530 (53)	4000K (40K)	347-480 (HV)		White (WHT)	*Universal Voltage 120-277
		48 (48L)	700 (7)	5000K (50K)	Silver (SVR)		Surge Protector (10K)	
					Hunter Green (HGN)		House Side Shield (HSS)	
					Black (BLK)		Nema 7-Pin Receptacle (PE7)	
			Grey (GRY)	Receptacle + Shorting Cap (PER)				
			Custom (CS)					

238

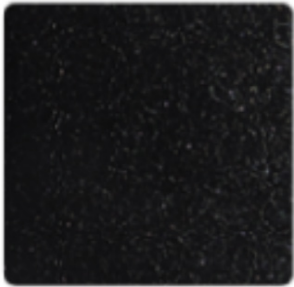
PRODUCT SPECIFICATIONS

Housing: Cast and spun Aluminum
LED: Lumileds Luxeon MX. CRI 70
Optics: Star Power T3 and T5
Watts: 17-104
L70: 483,000 Hours
Listing: Certified to UL 1598

Driver: 0-10V Dimming driver as standard by Philips Advance. THD @ Max Load < 15%. Power Factor @ Max Load < 0.95
Kelvin: 3000, 4000 or 5000
Finish: 5 mils Powder Coat
Warranty: Standard Warranty is 5 years for Driver and LEDs

PRODUCT DIMENSIONS / OPTIONS

PART NUMBER	T3 LUMENS	T3 LM/W	T5 LUMENS	T5 LM/W	Watts
CAM-1-16L-35-30K	1598	94	1632	96	17
CAM-1-16L-35-40K	1649	97	1700	100	17
CAM-1-16L-35-50K	1717	101	1768	104	17
CAM-1-16L-53-30K	2444	94	2496	96	26
CAM-1-16L-53-40K	2522	97	2600	100	26
CAM-1-16L-53-50K	2626	101	2704	104	26
CAM-1-16L-7-30K	3102	94	3168	96	33
CAM-1-16L-7-40K	3201	97	3300	100	33
CAM-1-16L-7-50K	3333	101	3432	104	33
CAM-1-32L-35-30K	3196	94	3264	96	34
CAM-1-32L-35-40K	3298	97	3400	100	34
CAM-1-32L-35-50K	3434	101	3536	104	34
CAM-1-32L-53-30K	5076	94	5184	96	54
CAM-1-32L-53-40K	5238	97	5400	100	54
CAM-1-32L-53-50K	5454	101	5616	104	54
CAM-1-32L-7-30K	6674	94	6816	96	71
CAM-1-32L-7-40K	6887	97	7100	100	71
CAM-1-32L-7-50K	7171	101	7384	104	71
CAM-1-48L-35-30K	4982	94	5088	96	53
CAM-1-48L-35-40K	5141	97	5300	100	53
CAM-1-48L-35-50K	5353	101	5512	104	53
CAM-1-48L-53-30K	7520	94	7680	96	80
CAM-1-48L-53-40K	7760	97	8000	100	80
CAM-1-48L-53-50K	8080	101	8320	104	80
CAM-1-48L-7-30K	9776	94	9984	96	104
CAM-1-48L-7-40K	10088	97	10400	100	104
CAM-1-48L-7-50K	10504	101	10816	104	104



BLACK



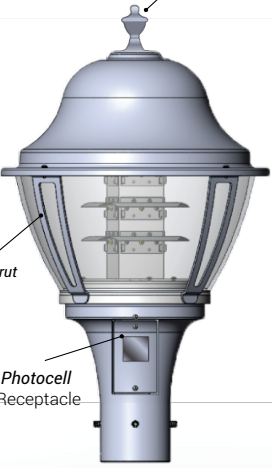
Diagram A

Diagram B

DIMENSION	CAMBRIA
A	27.22 in.
B	17.39 in.
WEIGHT	20 lbs.

EPA	
SINGLE	1.8

The Cambria includes 3" Cast Finial as standard, powder-coated finish to match fixture.



Decorative Strut

Window for Twistlock Photocell
Standard with 7-PIN Receptacle

NLS
LIGHTING

701 Kingshill Place, Carson, CA 90746
Call Us Today (310) 341-2037

nlsighting.com

239

 YPSILANTI
DISTRICT
LIBRARY

Option 1 - Pole Top Light Cutsheets

9

CAM-1-T3-48L-35-30Khttps://www.visual-3d.com/tools/photometricviewer/default.aspx?sessio...

OUTDOOR PHOTOMETRIC REPORT

CATALOG: CAM-1-T3-48L-35-30K

Manufacturer: NLS LIGHTING

Test #: L011701602

Test Lab: LIGHT LABORATORY, INC.

Catalog: CAM-1-T3-48L-35-30K

Description: SHADE DIMENSIONS 17.39" X 27.22"

Lamp Catalog: N/A

Lamp Output: Total luminaire Lumens: 4983, absolute photometry *

Ballast / Driver: PHILIPS ADVANCE LEDINTA0700C210DO

Input Wattage: 53

Luminous Opening: Circular (Dia: 14.52")

Max Cd: 2,237.4 at Horizontal: 10°, Vertical: 50°

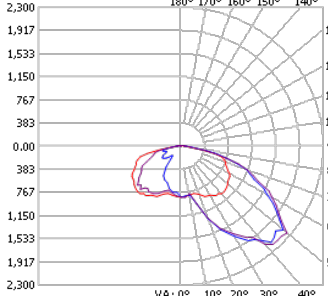
Roadway Class: VERY SHORT, TYPE IV

No

Photo

Available

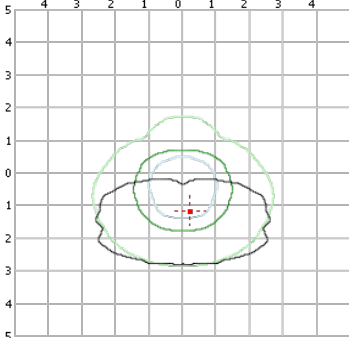
Polar Candela



VA: 0° 10° 20° 30° 40°

180° 170° 160° 150° 140° 130° 120° 110° 100° 90° 80° 70° 60° 50°

Isoilluminance



5 4 3 2 1 0 1 2 3 4

5 4 3 2 1 0 1 2 3 4

2,300

1,917

1,533

1,150

767

383

0.00

383

767

1,150

1,533

1,917

2,300

20 fc

10 fc

5 fc

1 fc

0.5 fc

0.1 fc

50% Max Cd

Max Cd

Distance in units of mount height (20ft)

*Test based on absolute photometry where lamp lumens=lumens total.

*Cutoff Classification and efficiency cannot be properly calculated for absolute photometry.

Visual Photometric Tool 1.2.46 copyright 2022, Acuity Brands Lighting.

This Photometric report has been generated using methods recommended by the IESNA. Calculations are based on Photometric data provided by the manufacturer, and the accuracy of this Photometric report is dependent on the accuracy of the data provided. End-user environment and application (including, but not limited to, voltage variation and dirt accumulation) can cause actual Photometric performance to differ from the performance calculated using the data provided by the manufacturer. This report is provided without warranty as to accuracy, completeness, reliability or otherwise. In no event will Acuity Brands Lighting be responsible for any loss resulting from any use of this report.

L011701602

VISUAL PHOTOMETRIC TOOL

PAGE 1 OF 4

1 of 4

4/6/2022, 12:51 PM

CAM-1-T3-48L-35-30Khttps://www.visual-3d.com/tools/photometricviewer/default.aspx?sessio...

OUTDOOR PHOTOMETRIC REPORT

CATALOG: CAM-1-T3-48L-35-30K

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	790.0	15.9%
0-40	1,452.0	29.1%
0-60	3,183.8	63.9%
60-90	1,618.3	32.5%
70-100	835.0	16.8%
90-120	128.3	2.6%
0-90	4,802.1	96.4%
90-180	180.9	3.6%
0-180	4,983.0	100%

UPLIGHT -->

Roadway Summary

Distribution: TYPE IV, VERY SHORT

Max Cd, 90 Deg Vert: 90.8

Max Cd, 80 to <90 Deg: 485.2

Lumens

% Lamp

Downward Street Side: 3,464.0

69.5%

Downward House Side: 1,338.3

26.9%

Downward Total: 4,802.3

96.4%

Upward Street Side: 95.6

1.9%

Upward House Side: 85.3

1.7%

Upward Total: 180.9

3.6%

Total Lumens: 4,983.1

100%

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	77.5	1.6%	90-100	59.8	1.2%
10-20	247.3	5.0%	100-110	39.3	0.8%
20-30	465.1	9.3%	110-120	29.1	0.6%
30-40	662.1	13.3%	120-130	21.4	0.4%
40-50	818.8	16.4%	130-140	14.7	0.3%
50-60	913.0	18.3%	140-150	8.9	0.2%
60-70	843.1	16.9%	150-160	5.2	0.1%
70-80	595.2	11.9%	160-170	2.4	0%
80-90	180.0	3.6%	170-180	0.000	0%

LCS Table

BUG Rating

B1 - U3 - G2

Forward Light

Lumens

Lumens %

Low(0-30): 484.5

9.7%

Medium(30-60): 1,787.9

35.9%

High(60-80): 1,087.0

21.8%

Very High(80-90): 104.6

2.1%

Back Light

Lumens

Lumens %

Low(0-30): 305.0

6.1%

Medium(30-60): 606.0

12.2%

High(60-80): 352.3

7.1%

Very High(80-90): 74.9

1.5%

Uplight

Lumens

Lumens %

Low(90-100): 59.8

1.2%

High(100-180): 121.0

2.4%

Trapped Light:

0.000

0%

L011701602

VISUAL PHOTOMETRIC TOOL

PAGE 2 OF 4

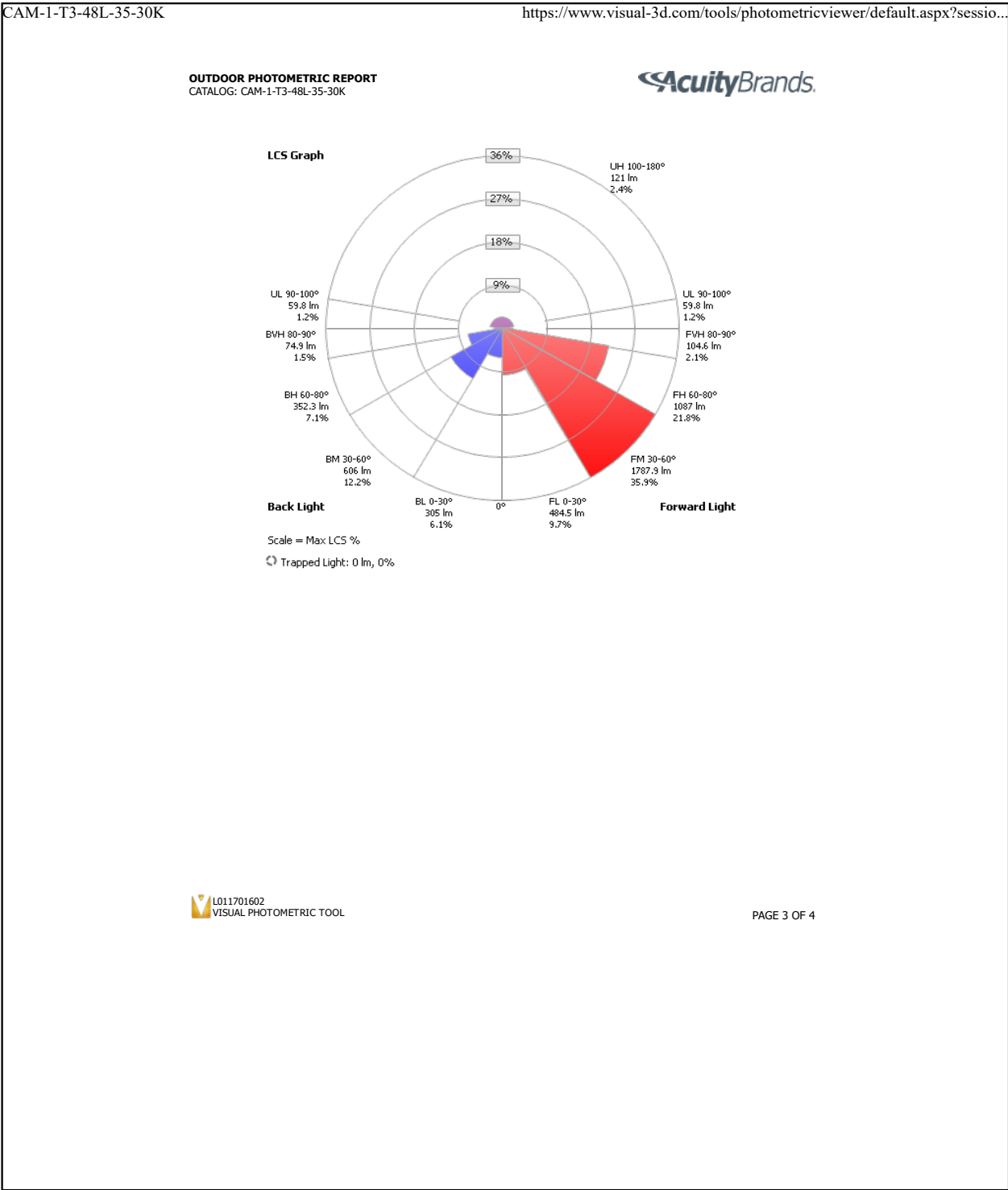
2 of 4

4/6/2022, 12:51 PM

 YPSILANTI
DISTRICT
LIBRARY

Lighting Photometrics - Option 1

10



CAM-1-T3-48L-35-30K <https://www.visual-3d.com/tools/photometricviewer/default.aspx?sessio...>

OUTDOOR PHOTOMETRIC REPORT
CATALOG: CAM-1-T3-48L-35-30K

AcuityBrands.

Candela Table - Type C

	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	843	843	843	843	843	843	843	843	843	843	843	843	843	843	843	843	843	843	843
5	828	849	853	837	837	872	867	854	843	835	826	810	777	771	764	759	758	763	765
10	820	796	799	855	849	841	863	870	853	821	787	761	748	768	777	764	757	766	769
15	987	989	984	1041	1058	994	942	919	886	809	753	754	741	739	745	728	726	712	723
20	1275	1270	1310	1313	1254	1234	1086	975	919	847	792	750	763	722	702	680	680	663	645
25	1527	1504	1422	1462	1427	1378	1249	1065	975	919	860	802	761	704	647	624	616	595	616
30	1721	1671	1665	1580	1530	1392	1300	1193	1060	939	904	833	736	656	595	621	573	569	565
35	1914	1845	1714	1596	1544	1436	1377	1252	1067	996	913	819	731	647	581	564	510	472	416
40	2041	2124	1969	1695	1493	1426	1329	1258	1096	1025	902	820	680	564	503	408	284	227	210
45	2134	2207	2084	1838	1576	1444	1335	1281	1109	1019	911	792	652	525	342	333	281	248	225
50	2158	2237	2191	1912	1661	1453	1400	1274	1111	986	895	722	571	366	274	293	331	325	302
55	1889	1928	1885	1900	1735	1561	1355	1282	1110	944	792	685	508	308	264	288	330	344	346
60	1614	1702	1727	1729	1604	1522	1363	1174	1116	907	735	586	385	285	273	294	319	333	339
65	1308	1378	1471	1475	1431	1363	1385	1231	1033	818	614	451	349	312	281	288	295	289	280
70	1131	1135	1200	1215	1238	1228	1181	1088	954	771	490	380	305	274	279	312	294	272	247
75	757	755	796	823	923	993	959	908	834	681	444	290	238	235	259	302	314	308	304
80	418	375	340	308	356	398	457	464	433	366	304	236	196	197	209	229	238	240	240
85	155	146	136	134	148	153	153	144	145	130	118	112	108	108	112	125	133	134	133
90	91	88	84	85	84	82	80	80	77	71	67	66	66	68	70	74	75	76	77
95	55	56	56	56	55	54	53	53	53	51	48	47	45	45	45	45	46	46	47
100	46	47	47	47	47	46	45	44	43	42	41	40	38	38	38	38	38	38	38
105	40	40	41	41	41	40	40	39	38	37	36	35	34	34	33	33	33	33	33
110	35	35	35	35	35	35	35	34	33	33	33	32	31	30	30	30	29	29	29
115	30	30	30	30	31	31	31	31	30	30	30	29	28	28	27	27	27	27	27
120	27	27	27	27	27	27	28	28	27	27	27	27	26	26	25	24	24	24	25
125	23	24	23	23	24	24	25	25	25	24	24	24	24	23	23	22	22	23	23
130	21	21	21	21	21	21	22	22	22	22	22	22	22	21	21	20	21	21	21
135	19	19	19	19	19	19	19	19	19	19	20	20	19	19	18	19	19	19	19
140	18	18	17	17	17	17	16	16	16	16	16	16	16	15	16	16	16	16	16
145	16	16	16	15	15	14	14	14	13	13	13	13	13	13	13	14	14	14	14
150	14	14	14	14	14	13	12	12	11	11	11	11	11	12	12	12	12	12	12
155	13	13	13	12	12	12	11	11	10	10	10	10	10	11	11	11	11	10	10
160	11	11	11	11	11	11	10	10	10	10	10	10	10	10	10	10	10	10	9
165	11	11	11	11	10	10	10	10	10	10	10	10	10	10	9	9	9	9	9
170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

L011701602
VISUAL PHOTOMETRIC TOOL

PAGE 4 OF 4

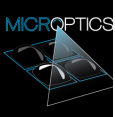
HORIZON PT

ARCHITECTURAL LIGHTING

Horizon Post Top luminaire is a blend of beautiful luminaire design which is a compliment to commercial or recreational pathways. It is named the Horizon because the luminaire is intended to be a vehicle of which the horizon can be viewed through the inside and around the luminaire without obstruction.

This Dark Sky Friendly Full Cutoff luminaire utilizes silicone Micro Optics to distribute light uniformly as its LEDs are recessed and hidden. Its performance exceeds IES minimum foot candle levels at lower wattage and extends maintenance cycles throughout its lifetime. Horizon PT is available in 2700, 3000K, 3500K, 4000K, 5000K Kelvin temperatures and a range of 18 to 205 watts.

Built to conform to the strictest Made in America standards. Designed, tooled, fabricated and assembled in the USA.



MICRO OPTIC SYSTEM

Our new cell-inclosed, micro optic silicone modules produce high clarity and outstanding performance.

Part #: HRZ-1-T3-48L-35-30K-UNV-PT3-BLK-10K

LED WATTAGE CHART

	16L	32L	48L	64L
350 milliamps	18w	-	-	-
530 milliamps	28w	54w	-	-
700 milliamps	36w	71w	104w	137w
1050 milliamps	56w	106w	156w	205w

Project Name: YDL Mich Ave Courtyard Type: Alternate

HRZ-1	T3	48L	35	30K	UNV	PT3	BLK	10K
Cat#	Light Dist.	# of LEDs	Milliamps	Kelvin	Volts	Mounting	Color	Options
Horizon 1 (HRZ-1)	Type 2 (T2)	16 (16L)	350 (35) ①	2700K, 80 CRI (27K8) ②	120-277 (UNV)	Post Top Over 2" OD (PT2)	Bronze Textured (BRZ)	Dome Top (DT)
	Type 3 (T3)	32 (32L)	530 (53) ③	3000K, 70 CRI (30K7)	347-480 (HV)	Post Top Over 3" OD (PT3) ④	White Textured (WHT)	Marine Grade Finish (MGF)
	Type 4 (T4)	48 (48L)	700 (7)	3000K, 80 CRI (30K8) ⑤		Post Top Over 3-1/2" OD (PT312)	Smooth White Gloss (SWT)	House Side Shield (HSS)
	Type 5 (T5)	64 (64L)	1050 (1)	3500K, 80 CRI (35K8) ⑥			Silver (SVR)	Photocell (PC) ⑦
				4000K, 70 CRI (40K7)			Black Textured (BLK)	Nema 7-Pin Receptacle (PE7)
				4000K, 80 CRI (40K8) ⑧			Smooth Black Gloss (SBK)	Photocell + Receptacle (PCR)
				5000K, 70 CRI (50K7)			Graphite Textured (GPH)	Receptacle + Shorting Cap (PER)
				5000K, 80 CRI (50K8) ⑨			Grey Textured (GRY)	FSP-211 with Motion Sensor (FSP-8) ⑩ 8'+ Below
							Custom (CS)	(FSP-20) ⑩ 9'-20' Heights
								(FSP-40) ⑩ 21'-40' Heights
								Bird Spikes (BS)

Notes:
① 16L Only
② 16L-32L Only
③ Consult Factory for Lead Time. Consult Factory for 90 CRI Requests.
④ Standard
⑤ Universal Voltage 120-277

PRODUCT SPECIFICATIONS

Housing: Low Profile Cast, Spun Aluminum Housing + Frame
LED: Lumileds Luxeon MX
Optics: Micro Optics; T2, T3, T4 and T5
Watts: 18-205
Listings: Conforms to UL 1598 Standards
Driver: 0-10V Dimming driver as standard by Philips Advance
THD @ Max Load < 15%
Power Factor @ Max Load < 0.95

Kelvin: 2700K, 3000K, 3500K, 4000K, or 5000K
CRI: 70, 80 or 90
Finish: 5 mils Powder Coat
Warranty: Standard Warranty is 5 years for Driver and LEDs
Surge Protection: 20KA supplied as standard

LUMEN DATA CHART

PART NUMBER	T2 LUMENS	T2 LM/W	T3 LUMENS	T3 LM/W	T3-HSS LUMENS	T3-HSS LM/W	T4 LUMENS	T4 LM/W	T4-HSS LUMENS	T4-HSS LM/W	T5 LUMENS	T5 LM/W	Watts
HRZ-1-16L-35-30K7	2142	119	2088	116	1044	58	2070	115	1026	57	2160	120	18
HRZ-1-16L-35-40K7	2305	128	2247	125	1116	62	2227	124	1098	61	2322	129	18
HRZ-1-16L-35-50K7	2356	131	2297	128	1188	66	2277	127	1170	65	2376	132	18
HRZ-1-16L-53-30K7	3275	117	3192	114	1624	58	3165	113	1596	57	3304	118	28
HRZ-1-16L-53-40K7	3524	126	3435	123	1736	62	3406	122	1708	61	3556	127	28
HRZ-1-16L-53-50K7	3603	129	3511	125	1848	66	3482	124	1820	65	3640	130	28
HRZ-1-16L-7-30K7	4100	114	4115	111	2088	58	4003	111	2052	57	4176	116	36
HRZ-1-16L-7-40K7	4411	123	4300	119	2232	62	4308	120	2196	61	4500	125	36
HRZ-1-16L-7-50K7	4510	125	4396	122	2376	66	4404	122	2340	65	4608	128	36
HRZ-1-16L-1-30K7	5858	105	5712	102	3248	58	5661	101	3192	57	5880	105	56
HRZ-1-16L-1-40K7	6303	113	6146	110	3472	62	6091	109	3416	61	6328	113	56
HRZ-1-16L-1-50K7	6443	115	6283	112	3696	66	6227	111	3640	65	6496	116	56
HRZ-1-32L-53-30K7	5858	105	5712	102	3248	58	5661	101	3192	57	5880	105	56
HRZ-1-32L-53-40K7	6303	113	6146	110	3472	62	6091	109	3416	61	6328	113	56
HRZ-1-32L-53-50K7	6443	115	6283	112	3696	66	6227	111	3640	65	6496	116	56
HRZ-1-32L-7-30K7	7427	105	7881	111	4118	58	7896	111	4047	57	8236	116	71
HRZ-1-32L-7-40K7	7991	113	8480	119	4402	62	8496	120	4331	61	8875	125	71
HRZ-1-32L-7-50K7	8169	115	8669	122	4686	66	8685	122	4615	65	9088	128	71
HRZ-1-32L-1-30K7	11088	105	10812	102	6148	58	10715	101	6042	57	11130	105	106
HRZ-1-32L-1-40K7	11930	113	11634	110	6572	62	11529	109	6466	61	11978	113	106
HRZ-1-32L-1-50K7	12196	115	11893	112	6996	66	11787	111	6890	65	12296	116	106
HRZ-1-48L-7-30K7	11844	114	11544	111	6032	58	11648	112	5928	57	12068	116	104
HRZ-1-48L-7-40K7	12744	123	12421	119	6448	62	12444	120	6344	61	12985	125	104
HRZ-1-48L-7-50K7	13028	125	12698	122	6864	66	12792	123	6760	65	13275	128	104
HRZ-1-48L-1-30K7	16318	105	15912	102	9048	58	15769	101	8892	57	16455	105	156
HRZ-1-48L-1-40K7	17558	113	17121	110	9672	62	16968	109	9516	61	17705	113	156
HRZ-1-48L-1-50K7	17950	115	17503	112	10296	66	17346	111	10140	65	18100	116	156
HRZ-1-64L-7-30K7	15488	114	15096	111	7888	58	15124	111	7752	57	15781	116	136
HRZ-1-64L-7-40K7	16665	123	16243	119	8432	62	16273	120	8296	61	16981	125	136
HRZ-1-64L-7-50K7	17037	125	16606	122	8976	66	16728	123	8840	65	17359	128	136
HRZ-1-64L-1-30K7	23346	114	22755	111	11890	58	20722	101	11685	57	23780	116	205
HRZ-1-64L-1-40K7	25120	123	24484	119	12710	62	22297	109	12505	61	25625	125	205
HRZ-1-64L-1-50K7	25681	125	25031	122	13530	66	22795	111	13325	65	26240	128	205

Lumen Maintenance Data

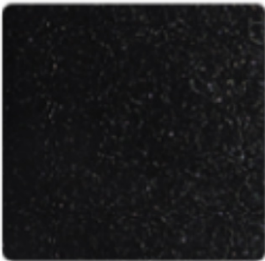
Ambient Temperature	Drive Current	L90 Hours*	L70 Hours**	30,000 Hours*	50,000 Hours*	60,00 Hours*	100,000 Hours**
25°C	Up to 700mA	58,000	173,000	95.7%	91.6%	89.6%	82.1%
	1050mA	38,000	96,000	93.0%	85.4%	81.8%	68.8%
*Reported extrapolations per IESNA TM-21				**Projected extrapolations per IESNA TM-21			



NLS
LIGHTING

701 Kingshill Place, Carson, CA 90746
Call Us Today (310) 341-2037

nslighting.com



BLACK

PRODUCT DIMENSIONS

Dome Top (DT)

DIMENSION	CAL-S
A	24.00 in
B	25.75 in

EPA	STD TOP	DOME TOP
HRZ-1	1.15	1.40

701 Kingshill Place, Carson, CA 90746
Call Us Today (310) 341-2037

nslighting.com

DMR-1-T4-48L-35-30K

https://www.visual-3d.com/tools/photometricviewer/default.aspx?sessio...

OUTDOOR PHOTOMETRIC REPORT

CATALOG: DMR-1-T4-48L-35-30K

Manufacturer: NLS LIGHTING

Test #: L011705402

Test Lab: LIGHT LABORATORY, INC.

Catalog: DMR-1-T4-48L-35-30K

Description: 17.5"DIA X 37.8"HT

Lamp Catalog: N/A

Lamp Output: Total luminaire Lumens: 4845.5, absolute photometry *

Ballast / Driver: PHILIPS ADVANCE XI300C150V300BSR1

Input Wattage: 51

Luminous Opening: Circular (Dia: 19.56")

Max Cd: 2,710.3 at Horizontal: 0°, Vertical: 62.5°

Roadway Class: VERY SHORT, TYPE IV

No

Photo

Available

Polar Candela

VA: 0°

10°

20°

30°

40°

Isoilluminance

20 fc

10 fc

5 fc

1 fc

0.5 fc

0.1 fc

50% Max Cd

Distance in units of mount height (20ft) --- Max Cd

*Test based on absolute photometry where lamp lumens=lumens total.

*Cutoff Classification and efficiency cannot be properly calculated for absolute photometry.

Visual Photometric Tool 1.2.46 copyright 2022, Acuity Brands Lighting.

This Photometric report has been generated using methods recommended by the IESNA. Calculations are based on Photometric data provided by the manufacturer, and the accuracy of this Photometric report is dependent on the accuracy of the data provided. End-user environment and application (including, but not limited to, voltage variation and dirt accumulation) can cause actual Photometric performance to differ from the performance calculated using the data provided by the manufacturer. This report is provided without warranty as to accuracy, completeness, reliability or otherwise. In no event will Acuity Brands Lighting be responsible for any loss resulting from any use of this report.

L011705402

VISUAL PHOTOMETRIC TOOL

PAGE 1 OF 4

1 of 4

4/6/2022, 12:55 PM

DMR-1-T4-48L-35-30K

https://www.visual-3d.com/tools/photometricviewer/default.aspx?sessio...

OUTDOOR PHOTOMETRIC REPORT

CATALOG: DMR-1-T4-48L-35-30K

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	559.5	11.5%
0-40	1,082.6	22.3%
0-60	2,890.0	59.6%
60-90	1,955.5	40.4%
70-100	835.7	17.2%
90-120	0.000	0%
0-90	4,845.5	100%
90-180	0.000	0%
0-180	4,845.5	100%

UPLIGHT -->

Roadway Summary

Distribution: TYPE IV, VERY SHORT

Max Cd, 90 Deg Vert:	0.000	
Max Cd, 80 to <90 Deg:	506.8	
	Lumens	% Lamp
Downward Street Side:	3,710.5	76.6%
Downward House Side:	1,135.2	23.4%
Downward Total:	4,845.7	100%
Upward Street Side:	0.000	0%
Upward House Side:	0.000	0%
Upward Total:	0.000	0%
Total Lumens:	4,845.7	100%

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	66.2	1.4%	90-100	0.000	0%
10-20	186.3	3.8%	100-110	0.000	0%
20-30	306.9	6.3%	110-120	0.000	0%
30-40	523.1	10.8%	120-130	0.000	0%
40-50	749.3	15.5%	130-140	0.000	0%
50-60	1,058.1	21.8%	140-150	0.000	0%
60-70	1,119.9	23.1%	150-160	0.000	0%
70-80	719.5	14.8%	160-170	0.000	0%
80-90	116.2	2.4%	170-180	0.000	0%

LCS Table

BUG Rating

B1 - U0 - G1

Forward Light	Lumens	Lumens %
Low(0-30):	355.5	7.3%
Medium(30-60):	1,806.2	37.3%
High(60-80):	1,472.7	30.4%
Very High(80-90):	76.2	1.6%

Back Light

Low(0-30):	203.9	4.2%
Medium(30-60):	523.9	10.8%
High(60-80):	367.7	7.6%
Very High(80-90):	39.7	0.8%

Uplight

Low(90-100):	0.000	0%
High(100-180):	0.000	0%

Trapped Light:

0.000	0%
-------	----

L011705402

VISUAL PHOTOMETRIC TOOL

PAGE 2 OF 4

2 of 4

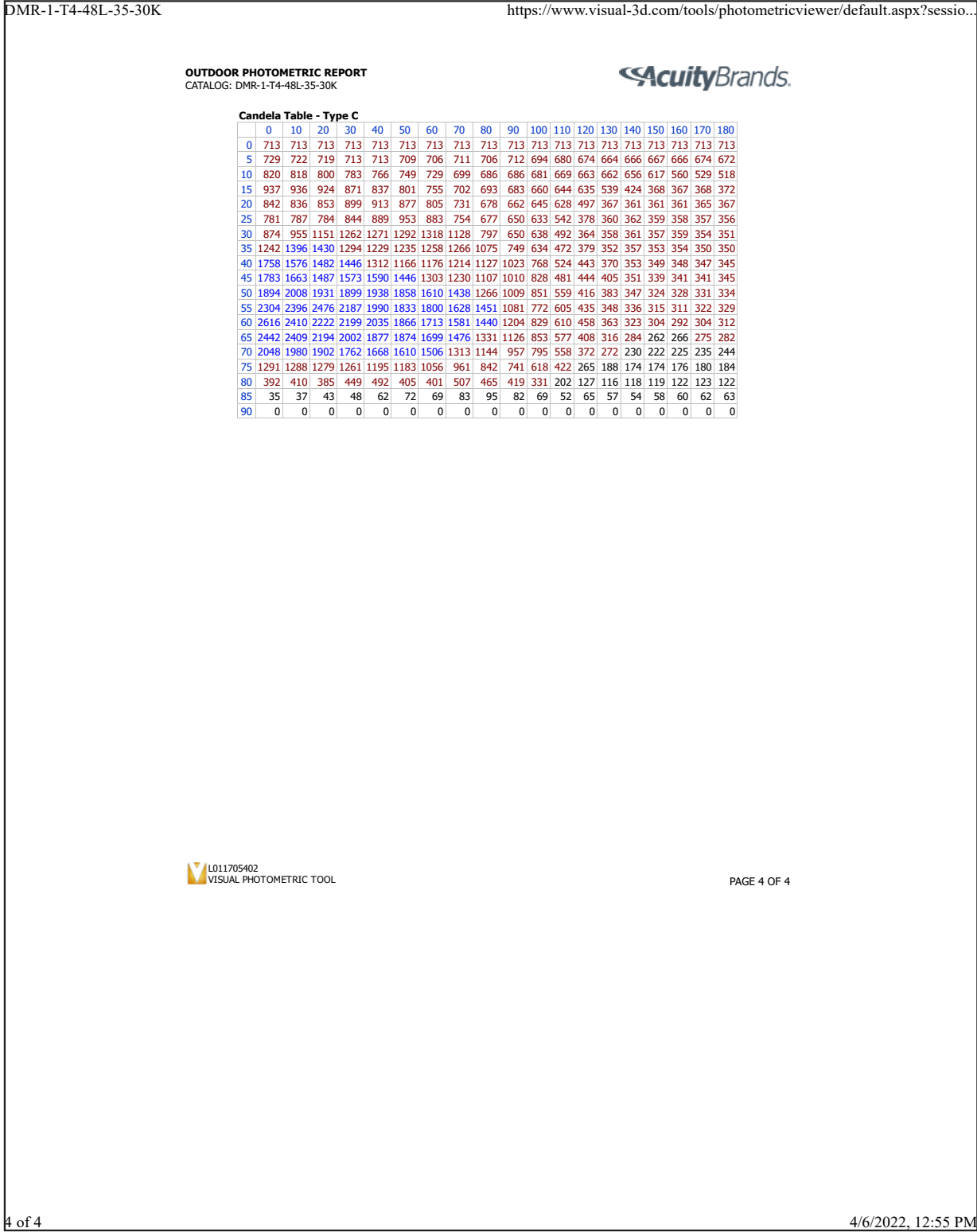
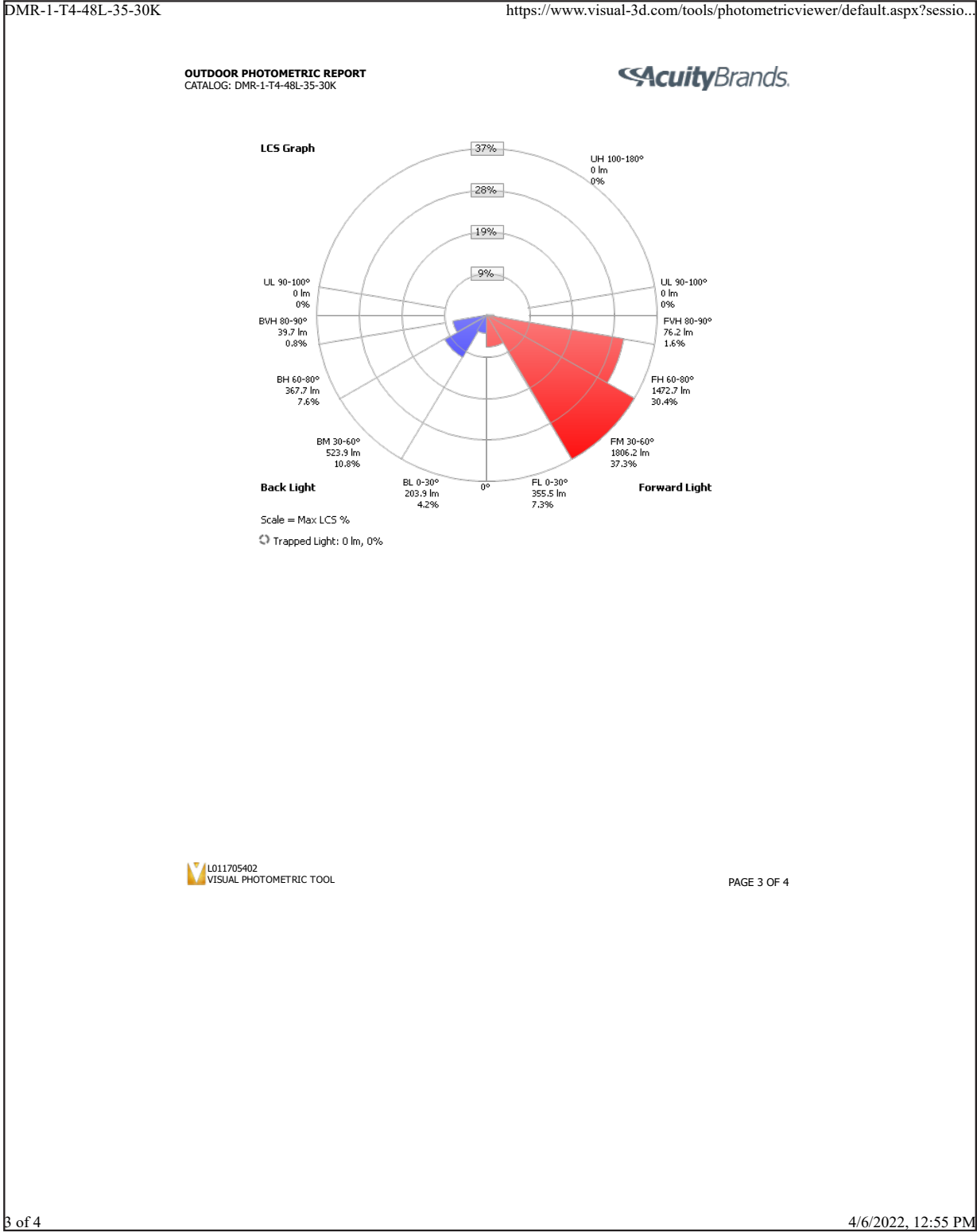
4/6/2022, 12:55 PM

YPSILANTI
DISTRICT
LIBRARY

Lighting Photometrics - Option 2

14

Page 89 of 173



NLS
LIGHTING

NV-1

AREA LIGHTING

FORM AND FUNCTION

- Sleek, low profile housing
- Spec grade performance
- Engineered for optimum thermal management
- Low depreciation rate
- Reduces energy consumption and costs up to 65%
- Exceeds IES foot candle levels utilizing the least number of poles and fixtures per project
- Optical system designed for:
 - Parking Lots
 - Auto Dealerships
 - General Area Lighting

CONSTRUCTION

- Die Cast Aluminum
- External cooling fins
- Corrosion resistant external hardware
- One-piece silicone gasket ensures IP-65 seal for electronics compartment
- One-piece Optics Plate™ mounting silicone Micro Optics
- Two-piece silicone Micro Optic system ensures IP-67 level seal around each PCB
- Grade 2 Clear Anodized Optics Plate™ standard

FINISH

- 3-5 mils electrostatic powder coat.
- NLS' standard high-quality finishes prevent corrosion protects against and extreme environmental conditions

WARRANTY

Five-year limited warranty for drivers and LEDs.

Part #: NV-1-64L-1-40K7-UNV-DPS7-SVR-RQMB-10K

LISTINGS

- Certified to UL 1598
- UL 8750
- CSA C22.2 No. 250.0
- DesignLights Consortium® (DLC)
- DesignLights Consortium Premium® (DLCP)
- IP65/ IP67 Rated
- 3G Vibration Rated per ANSI C136.31-2010

LED WATTAGE CHART

	16L	32L	48L	64L
350 milliamps	18w	-	-	-
530 milliamps	29w	-	-	-
700 milliamps	36w	71w	104w	136w
1050 milliamps	56w	106w	156w	205w

Project Name:

YDL Mich Ave Courtyard

Type:

NV-1	T4	64L	1	40K7	JNV	DPS7	SVR	RQMB-10K
Cat#	Light Dist.	# of LEDs	Milliamps	Kelvin	Volts	Mounting	Color	Options
NV-1 (NV-1)	Type 2 (T2)	16 (16L)	350 (35)	2700K, 80 CRI (27K8) Ⓢ	120-277 (UNV)	Direct Pole 3" Arm Single, D180 (DPS3) Ⓢ	Bronze Textured (BRZ)	Bird Spikes (BS) Marine Grade Finish (MGF) Optic Plate Painted to Match Fixture (OPP)
	Type 3 (T3)	32 (32L)	530 (53)	3000K, 70 CRI (30K7)	347-480 (HV)	Direct Pole 7" Arm D180, D90, T90, T120, Quad (DPS7) Ⓢ	White Textured (WHT)	Nema 7-Pin Receptacle (PET) Photocell + Receptacle (PCR) Receptacle + Shorting Cap (PER)
	Type 4 (T4)	48 (48L)	700 (7)	3000K, 80 CRI (30K8) Ⓢ		Knuckle Mount (KM)	Smooth White Gloss (SWT)	FSP-211 with Motion Sensor (FSP-20) Ⓢ 9'-20" Heights (FSP-40) Ⓢ 21'-40" Heights
	Type 5 (T5)	64 (64L)	1050 (1)	3500K, 80 CRI (35K8)		Wall Mount (WM)	Silver (SVR)	Quick Mount Bracket (QMB) Retrofit Mount Bracket (RQMB)
	Nema 2 24" Narrow Beam (N2)			4000K, 70 CRI (40K7)		Trunnion Mount (TM) Ⓢ	Black Textured (BLK)	Round Pole Adaptor 3"-4" Pole (RPA4) Round Pole Adaptor 5"-6" Pole (RPA5)
	Nema 3 30° Narrow Beam (N3)			4000K, 80 CRI (40K8) Ⓢ		Tennis Arm (TA)	Smooth Black Gloss (SBK)	Rotated Optic Left (ROL) Rotated Optic Right (ROR) Automotive House Side Shield (AHS)
				5000K, 70 CRI (50K7)		Mast Arm (MA)	Graphite Textured (GPH)	House Side Shield (HSS) Ⓢ
				5000K, 80 CRI (50K8) Ⓢ			Grey Textured (GRY)	
							Custom (CS)	

Notes:

- Ⓢ Consult Factory for Lead Time. Consult Factory for 90 CRI Requests.
- Ⓢ For Round Pole Specify RPA4 or RPA5
- Ⓢ Standard finish is stainless steel. Can be painted to match fixture
- Ⓢ Universal Voltage 120-277
- Ⓢ HSS not applicable with Nema 2 and Nema 3 Optics

ELECTRICAL

- 120-277 Volts (UNV) or 347-480 Volts (HV)
- 0-10V dimming driver by Philips Advance
- Driver power factor at maximum load is $\geq .95$, THD maximum load is 15%
- All internal wiring UL certified for 600 VAC and 105°C
- All drivers, controls, and sensors housed in enclosed IP-65 compartment
- Lumileds Luxeon MX LED's
- CRI 70, 80 or 90
- Color temperatures: 2700K, 3000K, 3500K, 4000K, 5000K
- Surge Protection: 20KVA supplies as standard.

OPTIONS

- **BIRD SPIKES (BS)**—Offers effective and humane deterrent for larger bird species and provides cost-effective long-term solution to nuisance bird infestations and protect your property.
- **MARINE GRADE FINISH (MGF)**—A multi-step process creating protective finishing coat against harsh environments.
 - Chemically washed in a 5 stage cleaning system.
 - Pre-baked
 - Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer.
 - 1-2 feet inside pole coverage top and bottom.
 - Oven Baked.
 - Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.
- **SHIELDS (HSS, AHS)**—House Side Shield (HSS) is designed for full property line cut-off. Automotive House Side Shield (AHS) is a single-sided shield allowing partial cut-off on either side or front of luminaire.
- **ROUND POLE ADAPTER (RPA)**—When using round poles, specify Round Pole Adapter (RPA). Specify RPA4 when installing on 3"-4" round poles, and RPA5 when installing on 5"-6" round poles.

CONTROLS

- **FSP-211 (FSP-X)**—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
 - All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
 - FSP-20 mounting heights 9-20 feet
 - FSP-40 mounting heights 21-40 feet.
 - Includes 5 dimming event cycles, 0-10V dimming with motion sensing, reprogrammable in the field.
- **NEMA 7-PIN RECEPTACLE (PE7)**—An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo control cell and luminaire. Dimming receptacle available two or four dimming contacts supports 0-10 VDC dimming methods or Digital Addressable Lighting Interface (DALI), providing reliable power interconnect.

OPTICS

Silicone optics high photothermal stability and light output provides higher powered LEDs with minimized lumen depreciation LED life. UV and thermal stability with scratch resistance increases exterior application durability.

- IES Types

TYPE II (T2) TYPE III (T3) TYPE IV (T4) TYPE V (T5) NEMA 3 (N3)

LUMENS																					
PART NUMBER	N3	LM/W	T2	LM/W	DLC	T3	LM/W	DLC	T3 HSS	LM/W	T4	LM/W	DLC	T4 AHS	LM/W	T4 HSS	LM/W	T5	LM/W	DLC	W
NV1-16L-35-30K	2016	112	2106	117	P	2106	117	P	1134	63	2187	116	P	1296	72	1116	62	2231	118	P	18
NV1-16L-35-40K	2088	116	2268	126	P	2286	127	P	1206	67	2250	125	P	1368	76	1188	66	2304	128	P	18
NV1-16L-35-50K	2160	120	2376	132	P	2394	133	P	1278	71	2358	131	P	1440	80	1260	70	2412	134	P	18
NV1-16L-53-30K	3136	112	3192	114	P	3220	115	P	1764	63	3119	113	P	2016	72	1736	62	3248	116	P	28
NV1-16L-53-40K	3248	116	3472	124	P	3472	124	P	1876	67	3444	123	P	2128	76	1848	66	3500	125	P	28
NV1-16L-53-50K	3360	120	3612	129	P	3640	130	P	1988	71	3584	128	P	2240	80	1960	70	3668	131	P	28
NV1-16L-7-30K	4032	112	3960	110	P	3960	110	P	2268	63	3973	109	P	2592	72	2232	62	3996	111	P	36
NV1-16L-7-40K	4176	116	4428	123	P	4284	119	P	2412	67	4212	117	P	2736	76	2376	66	4320	120	P	36
NV1-16L-7-50K	4320	120	4644	129	P	4500	125	P	2556	71	4428	123	P	2880	80	2520	70	4500	125	P	36
NV1-16L-1-30K	6272	112	6160	110	S	6384	114	P	3528	63	6232	112	P	4032	72	3472	62	6440	115	P	56
NV1-16L-1-40K	6496	116	6832	122	P	6888	123	P	3752	67	6776	121	P	4256	76	3696	66	6944	124	P	56
NV1-16L-1-50K	6720	120	7168	128	P	7224	129	P	3976	71	7112	127	P	4480	80	3920	70	7280	130	P	56
NV1-32L-7-30K	7952	112	7810	110	S	7810	110	S	4473	63	7739	109	S	5112	72	4402	62	7881	111	S	71
NV1-32L-7-40K	8236	116	9017	127	P	8449	119	P	4757	67	8307	117	P	5396	76	4686	66	8520	120	P	71
NV1-32L-7-50K	8520	120	9159	129	P	8875	125	P	5041	71	8733	123	P	5680	80	4970	70	8946	126	P	71
NV1-32L-1-30K	11872	112	11660	110	S	12084	114	S	6678	63	11820	112	S	7632	72	6572	62	12190	115	S	106
NV1-32L-1-40K	12296	116	12932	122	P	13038	123	P	7102	67	12826	121	P	8056	76	6996	66	13144	124	P	106
NV1-32L-1-50K	12720	120	13568	128	P	13674	129	P	7526	71	13462	127	P	8480	80	7420	70	13780	130	P	106
NV1-48L-7-30K	11648	112	11440	110	S	11440	110	S	6552	63	11336	109	S	7488	72	6448	62	11544	111	S	104
NV1-48L-7-40K	12064	116	13208	127	P	12376	119	P	6968	67	12168	117	P	7904	76	6864	66	12480	120	P	104
NV1-48L-7-50K	12480	120	13520	130	P	13000	125	P	7384	71	12792	123	P	8320	80	7280	70	13104	126	P	104
NV1-48L-1-30K	17472	112	17160	110	S	17784	114	S	9828	63	17472	112	S	11232	72	9672	62	17940	115	S	156
NV1-48L-1-40K	18096	116	19032	122	P	19188	123	P	10452	67	18876	121	P	11856	76	10296	66	19344	124	P	156
NV1-48L-1-50K	18720	120	19968	128	P	20124	129	P	11076	71	19812	127	P	12480	80	10920	70	20280	130	P	156
NV1-64L-7-30K	15232	112	14960	110	S	14960	110	S	8568	63	14824	109	S	9792	72	8432	62	15096	111	S	136
NV1-64L-7-40K	15776	116	17272	127	P	16184	119	P	9112	67	15912	117	P	10336	76	8976	66	16320	120	P	136
NV1-64L-7-50K	16320	120	17680	130	P	17000	125	P	9656	71	16728	123	P	10880	80	9520	70	17136	126	P	136
NV1-64L-1-30K	22960	112	22550	110	S	23370	114	S	12915	63	22960	112	S	14760	72	12710	62	23575	115	S	205
NV1-64L-1-40K	23780	116	25010	122	P	25215	123	P	13735	67	24805	121	P	15580	76	13530	66	25420	124	P	205
NV1-64L-1-50K	24600	120	26240	128	P	26445	129	P	14555	71	26035	127	P	16400	80	14350	70	26650	130	P	205

*DLC

S= Standard

P= Premium

BUG RATINGS						
PART NUMBER	T2	T3	T3 HSS	T4	T4 HSS	T5
NV1-16L-35-30K	B1-U0-G1	B1-U0-G1	B0-U0-G0	B1-U0-G1	B0-U0-G0	B2-U0-G0
NV1-16L-35-40K	B1-U0-G1	B1-U0-G1	B0-U0-G0	B1-U0-G1	B0-U0-G0	B2-U0-G0
NV1-16L-35-50K	B1-U0-G1	B1-U0-G1	B0-U0-G0	B1-U0-G1	B0-U0-G0	B2-U0-G2
NV1-16L-53-30K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B2-U0-G1
NV1-16L-53-40K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B2-U0-G1
NV1-16L-53-50K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B2-U0-G1
NV1-16L-7-30K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B3-U0-G1
NV1-16L-7-40K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B3-U0-G1
NV1-16L-7-50K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B3-U0-G1
NV1-16L-1-30K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B3-U0-G1
NV1-16L-1-40K	B1-U0-G1	B2-U0-G2	B0-U0-G1	B2-U0-G2	B0-U0-G1	B3-U0-G2
NV1-16L-1-50K	B1-U0-G2	B2-U0-G2	B0-U0-G1	B2-U0-G2	B0-U0-G1	B3-U0-G2
NV1-32L-7-30K	B1-U0-G2	B2-U0-G2	B0-U0-G1	B2-U0-G2	B0-U0-G1	B3-U0-G2
NV1-32L-7-40K	B1-U0-G2	B2-U0-G2	B0-U0-G1	B2-U0-G2	B0-U0-G2	B3-U0-G2
NV1-32L-7-50K	B2-U0-G2	B2-U0-G2	B0-U0-G2	B2-U0-G2	B0-U0-G2	B3-U0-G2
NV1-32L-1-30K	B2-U0-G2	B2-U0-G2	B0-U0-G2	B2-U0-G2	B0-U0-G2	B4-U0-G2
NV1-32L-1-40K	B2-U0-G2	B2-U0-G2	B0-U0-G2	B3-U0-G2	B0-U0-G2	B4-U0-G2
NV1-32L-1-50K	B2-U0-G2	B3-U0-G3	B0-U0-G2	B3-U0-G3	B0-U0-G2	B4-U0-G2
NV1-48L-7-30K	B2-U0-G2	B2-U0-G2	B0-U0-G2	B2-U0-G2	B0-U0-G2	B4-U0-G2
NV1-48L-7-40K	B2-U0-G2	B2-U0-G2	B0-U0-G2	B2-U0-G2	B0-U0-G2	B4-U0-G2
NV1-48L-7-50K	B2-U0-G2	B3-U0-G3	B0-U0-G2	B2-U0-G2	B0-U0-G2	B4-U0-G2
NV1-48L-1-30K	B3-U0-G3	B3-U0-G3	B1-U0-G2	B3-U0-G3	B1-U0-G2	B4-U0-G2
NV1-48L-1-40K	B3-U0-G3	B3-U0-G3	B1-U0-G2	B3-U0-G3	B1-U0-G2	B5-U0-G3
NV1-48L-1-50K	B3-U0-G3	B3-U0-G3	B1-U0-G2	B3-U0-G3	B1-U0-G2	B5-U0-G3
NV1-64L-7-30K	B2-U0-G2	B3-U0-G3	B0-U0-G2	B3-U0-G3	B1-U0-G2	B4-U0-G2
NV1-64L-7-40K	B3-U0-G3	B3-U0-G3	B0-U0-G2	B3-U0-G3	B1-U0-G2	B4-U0-G2
NV1-64L-7-50K	B3-U0-G3	B3-U0-G3	B1-U0-G2	B3-U0-G3	B1-U0-G2	B4-U0-G2
NV1-64L-1-30K	B3-U0-G3	B3-U0-G3	B1-U0-G2	B3-U0-G3	B1-U0-G3	B5-U0-G3
NV1-64L-1-40K	B3-U0-G3	B3-U0-G3	B1-U0-G3	B3-U0-G4	B1-U0-G3	B5-U0-G3
NV1-64L-1-50K	B3-U0-G3	B3-U0-G3	B1-U0-G3	B3-U0-G4	B1-U0-G3	B5-U0-G3

NLS

LIGHTING

701 Kingshill Place, Carson, CA 90746
Call Us Today (310) 341-2037

nlsighting

NLS

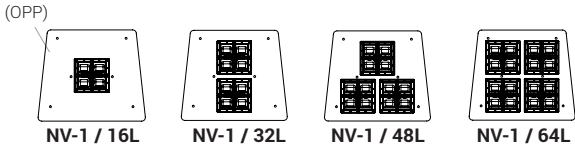
LIGHTING

701 Kingshill Place, Carson, CA 90746
Call Us Today (310) 341-2037

nslighting.com

OPTICAL CONFIGURATIONS

Rotatable Optics (ROR) Rotated Right, (ROL) Rotated Left options available. Optics field and factory rotatable.



* OPTIC PLATE PAINTED TO MATCH FIXTURE FINISH (OPP)– Optic Plate standard clear anodized, Grade 2. When (OPP) specified, Optic Plate finish will match fixture finish.

EPA

EPA	SGL	D90	D180	T90	T120	QD
NV-1-DP3	0.46		0.92			
NV-1-DP7		1.14	1.05	1.34	1.37	1.34
NV-1-KM	0.54	N/A	1.08	N/A	N/A	N/A
NV-1-ASA	0.75	1.29	1.50	1.99	2.05	1.99

Lumen Maintenance Data							
Ambient Temperature	Drive Current	L90 Hours*	L70 Hours**	30,000 Hours*	50,000 Hours*	60,00 Hours*	100,000 Hours**
25°C	Up to 700mA	58,000	173,000	95.7%	91.6%	89.6%	82.1%
	1050mA	48,000	143,000	94.3%	89.5%	87.2%	78.5%
*Reported extrapolations per IESNA TM-21				**Projected extrapolations per IESNA TM-21			

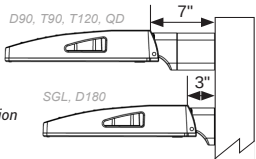
DPX ARM LENGTH

DPX ARM LENGTH	SGL	D90	D180	D180	T90	T120	QD
NV-1	3"	7"	3"	7"	7"	7"	7"

MOUNTING OPTIONS

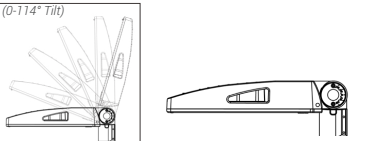
DIRECT POLE (DP)

Standard mounting arm is extruded aluminum in lengths of 3" and 7".
*Arm lengths may vary depending on configuration



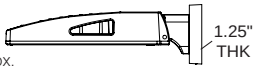
TENNIS ARM (TA)

Steel fitter slips over 3.5" x 1.5" rectangular arm.
*See Tennis Arm Spec Sheet for details



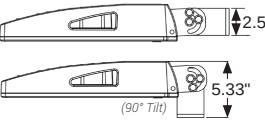
WALL MOUNT (WM)

Cast Aluminum Plate for direct wall mount. 3" extruded aluminum arm mounts directly to a cast wall mount box.



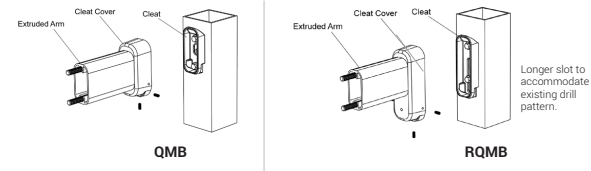
TRUNNION MOUNT (TM)

Steel, bolt-on-mounting for adjustable installation with a maximum uplift of 90 degrees.
*Unpainted stainless steel is standard



OPTIONAL

Optional Cast Aluminum Bracket, **Quick Mount Bracket (QMB)** and **Retrofit Quick Mount Bracket (RQMB)**, designed for quick mounting on Direct Square or Round Poles. Cleat mounts directly to pole for easily hung fixtures.



PRODUCT SPECIFICATIONS



Project Name _____ Date _____

Type or Model _____ Qty _____

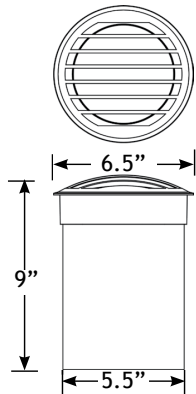
VOLT® Low Voltage Landscape Lighting
Commercial PAR36 Well Light- VWL-520-4-BBZ

Product Description

VOLT's Commercial Par36 well light is great for applications that strive for the utmost quality. This fixture has a thick cast brass grate with thick tempered convex glass sealed under the grate. The brass cap alone weighs more than a standard complete well light fixture that you might find elsewhere. Keep debris, mulch, and leaves out by using this top of the line luminaire. Water drains off its convex glass with ease as well. It comes standard with a complete lens kit with 4 different lenses (diffusion, linear diffusion, frosted and hex louver) so you can tune the lighting effect of your PAR36 lamp to fit your needs. This fixture includes a stainless steel lens clip to hold lenses off of the lamp face. It even has an adjustable stainless steel lamp holder that moves up and down, while also tilting. As with any well light, you should always install these with at least 2" of gravel/ drainage at the bottom of the hole that you've dug to avoid issues.



Product Dimensions



Features & Benefits

- Solid Brass Grate
- Pre-aged finish; a natural patina
- Stainless steel adjustable lamp holder and lens holder
- Convex Lens (water drains off to prevent puddling)

Specifications

- Construction: Brass
- Finish: Bronze
- Lead Wire: 16AWG
- Lens: Clear Tempered glass
- Light Source (Sold Separately): PAR 36 (LED or Halogen)
- Operating Voltage: 12V AC
- Powered by: VOLT's Low Voltage Transformer

Warranty

Lifetime Warranty

Certifications



FABER
design co.



HDC Work Permit Staff Review

Property address: 109 Maple

Property History: 109 Maple is a two-story, hipped roof house. The 1988 National Register district nomination for this area describes the house as "early 20th-century" and contributing to the National Register district. The house now has aluminum siding on it and in May 2020, the homeowner received approval to remove this siding to reveal the wood underneath. No historic photos have been located to date, but staff will try to find some. Homeowner would also like to discuss a porch as a study item; it is possible that the wood siding under the current siding will have evidence of a past porch and its location and outline.

Date of Application: May 3, 2022 via email; officially processed and stamped May 4, 2022

Date of Review: May 6, 2022

Date of Meeting: May 10, 2022

Proposed work: Applicant seeks to remove all aluminum storm windows, remove 11 windows, and install 11 new Pella Lifestyle series double-hung aluminum-clad wood windows. Applicant also plans to inspect aluminum siding and replace any that is damaged and repair or replace in kind. After this work is complete, homeowner would like to paint.

Materials: Replacement windows would be treated softwood clad in aluminum, and then new aluminum trim around the windows would be installed on the exterior.

Staff review:

1. **STORM WINDOWS:** Storm windows protect historic windows. Staff would suggest leaving the storm windows in place until a thorough conditions assessment of the historic windows can be completed. If the storms must be removed temporarily for a conditions assessment, they should be re-installed after

1. Use property for original purpose or provide compatible use with minimal alteration.

2. Do not destroy original character. Do not remove or alter historic material or features.

3. Do not imitate earlier styles.

4. Preserve significant changes acquired over time.

5. Preserve distinctive features.

6. Repair, don't replace. Replacements shall match original.

7. Clean building gently—no sandblasting.

8. Preserve archaeological resources.

9. Contemporary designs shall be compatible and shall not destroy significant original material.

10. New work shall be removable.

the assessment, at least until the determination has been made regarding the wood windows' repairability.

2. If wood windows will remain, storm windows (these or others approved by the commission) would be recommended to protect the windows.
3. VINYL WINDOWS: Of the 11 windows that are proposed to be replaced, two are vinyl. Staff believes the proposed one-over-one double-hung wood windows clad in aluminum would meet the Secretary of the Interior's Standards as a replacement for vinyl—a non-historic material. Staff believes the proposed windows to replace these two vinyl windows meets Standard #9.
4. WOOD WINDOWS: The applicant prepared a preliminary wood window conditions assessment and included it with the application, and staff found this helpful but still had further questions about conditions. Old-growth wood windows are extremely valuable and a very limited resource. The Secretary of the Interior's Guidelines for Rehabilitation state, "Not recommended: Replacing windows solely because of peeling paint, broken glass, stuck sash, and high air infiltration. These conditions, in themselves, are no indication that windows are beyond repair." Staff would recommend a conditions assessment completed by a window restoration professional to fully understand which windows are historic, which can be repaired and weatherstripped, and which are beyond repair and must be replaced. Historic windows that have been repaired, weatherstripped, and outfitted with a storm window, can be about as efficient as new windows and will likely last much longer than new wood windows.
5. For windows that are determined by a window restoration professional to be beyond repair, if the proposed windows match the original in design, color, texture, and materials, staff believes that those windows would meet the Secretary of the Interior's Standard for Rehabilitation #6. One consideration here would be the close matching of the proportions of the historic sashes and the size of visible glass.
6. SIDING: Like-for-like aluminum siding repair and replacement with pieces of aluminum of the same dimensions would be considered ordinary maintenance and would not need approval from the historic district commission.
7. PAINT: Proposed paint work can be approved administratively. Because aluminum siding is not a historic material, staff has all necessary information to issue a certificate of appropriateness for the proposed painting and will mail the certificate the week of May 9.
8. Before proceeding with work, applicant must obtain the appropriate building department permits.

Relevant Secretary of the Interior's Standards:
#2, #6, and #9

Recommended Motions:

Move to approve and issue a certificate of appropriateness for the removal of two double-hung vinyl windows at 109 Maple and the replacement of them with the Pella Lifestyle Series aluminum-clad wood windows as proposed May 4, 2022. The proposed work meets the Secretary of the Interior's Standards, including Standard 9.

In accordance with Secretary of the Interior's Standard for Rehabilitation #6, move to postpone the May 4, 2022 application for the proposed removal of 9 wood windows at 109 Maple until a wood window restoration professional can evaluate the condition and repairability of the wood windows. This application will need to be approved or denied at the June 28, 2022 historic district commission meeting (or before), or the decision deadline can be extended as agreed upon by both the commission and the applicant.

Prepared by:

Ellen Thackery, Preservation Planner

Pictures of 109 Maple Street from sidewalk, May, 2022:







MAY 04 2022

RECEIVED

PHDC-22-0038

29769
1151

**City of Ypsilanti
Historic District Commission
Work Permit Application**

One South Huron • Ypsilanti, MI 48197
Phone: (734) 483-9646 • Fax: (734) 483-7260
www.cityofypsilanti.com

OFFICE USE ONLY

Date Filed:

Meeting Date:

Action Item/Study Item

To complete this application:

1. Complete this form.
2. Attach the following documents:
 - a. Photo(s) showing all locations where work is proposed (can be emailed).
 - b. Catalog cut sheets or similar details for windows, doors, light fixtures, and any other manufactured or preassembled components—this includes information from catalogues, professional quotes, or websites (can be emailed).
 - c. Dimensioned drawings of any new construction or modifications to existing structures, including awnings and signs.
 - d. A sketch plan, if proposal is for work on the grounds and not just the main structure (e.g., installing a new driveway, fence, or shed). This can be drawn on a scaled copy of a mortgage survey.
3. Applications and materials must be received by the Building Department **no later** than 4pm on the Tuesday one week prior to the meeting.

INCOMPLETE APPLICATIONS WILL NOT BE PLACED ON THE AGENDA

Property

Address

109 Maple St

Applicant

**If applicant is not owner of property, a written statement from the owner authorizing this application must be included.*

Name

Matthew Peters

Address

109 Maple St

City

Ypsilanti

State

Mi

Zip

48198

Phone / Fax

E-Mail

Contractor

Contractor Name & Contact Info

Self

Type of work

☐ Roofing

☒ Window/Door
Replacement

☐ Porches

☐ Sign

☐ Fence (or other sitework)

☒ Painting

☐ Other

☐ Application Amendment

Complete Description of Proposed Work:

Remove remaining aluminum storm windows. Remove/replace 11 of the existing windows with new Pella Lifestyle series double hung windows. White aluminum clad exterior/wood interior.

Argument: 2 of the windows being replace are cheap vinyl replacement windows previously installed. One of the windows is a poorly installed replacemnt double wood window, previously installed. Another one of the windows is a poorly installed casement window, previously installed. The remaining 7 windows I belive to be original to the house.

The original wood windows are standard one over one windows with no architechtrual significance to the house. They are in poor condition and are very inefficient. I would like to update these windows with newer, nicer looking, HDC appropriate windows. All windows would be completely removed and new framing added to support the installation of the new windows. This is necessary in order to retain identical area sizing and area of glass to the original windows.

The new windows will be retrimmed with aluminum boxing similar, but better looking :) to the current construction. Replacing the windows will not effect the current look of the house from an architechtrual or historical appearance. Doing so will also keep all windows in the house uniform in construction and appearance.

Additionally, I will repair and replace any bad pieces of aluminum siding and fill in current missing spots. After all windows are install and siding is repaired I would also like to repaint the home.

Materials (for paint include color chips or samples with application):

Pella Lifestyle double hung new construction windows
Alco 8" smooth aluminum siding
Sherwin Williams

Permit Application Fee (action items only)

The fee is \$45 for the first \$3,000 in construction cost plus \$5 for every additional \$3,000 of construction cost. There is a flat fee of \$10 for painting only. *An additional fee of \$50 applies to HDC work started without the applicable permit.*

Construction Cost:	Permit fee:
7500.00	\$45 + 10 = 55

Signature

I hereby attest that the above information is accurate. I am authorized to and grant permission to the City of Ypsilanti staff to be on the subject property for the purposes of preparing staff reports and/or evaluating this application.

I further affirm that this property has, or will have before the proposed work is completed, a fire alarm system or smoke alarm complying with the Stille-DeRossett-Hale single-state construction code, PA 230 of 1972, as amended.

Signature:	Date:
	5/3/2022

Print Name:
Matthew Peters

If you have questions about what the HDC generally permits or does not permit, or what they need to see in an application to render a decision, please call the office at 734-483-9646 or view our factsheets online at cityofypsilanti.com/hd.

All other necessary approvals and permits must be acquired before beginning work.

109 Maple St
Ypsilanti, MI 48198





109 Maple St
Ypsilanti, MI 48198

Window 1 – 30 x 47.5 RO



Window 1



Window 2 – 30 x 47.5 RO



Window 2



Window 3 – 30 x 47.5 RO



Window 4 – 30 x 47.5 RO



Window 5 – 30 x 47.5 RO



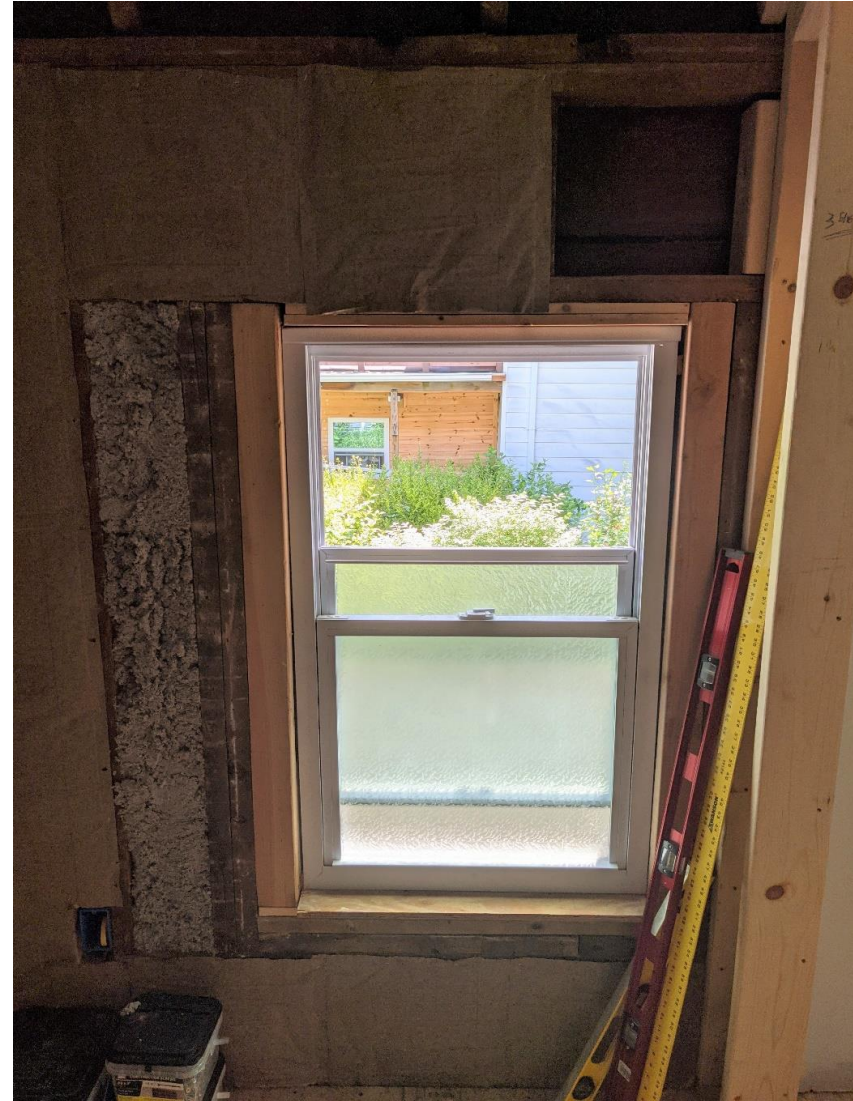
Window 6 – 30 x 47.5 RO - (previously replaces with non HDC compliant vinyl window)



Window 7 – 30 x 47.5 RO



Window 7 – Adjust frame to make identical with rest of upstairs windows. Vinyl installed by me 3 years ago due previous window being removed and boarded over. (temporary solution)



Window 8 – 30 x 56.5 RO



Window 9 – 30 x 56.5 RO



Window 9



Window 10 – 30 x 56.5 RO –

previously installed casement window, replace with matching double hung windows used on first floor



Window 11 – 52 x 61 RO – Replace with 52x57.5 double window unit to match the rest of the windows on the first floor. (poorly installed)



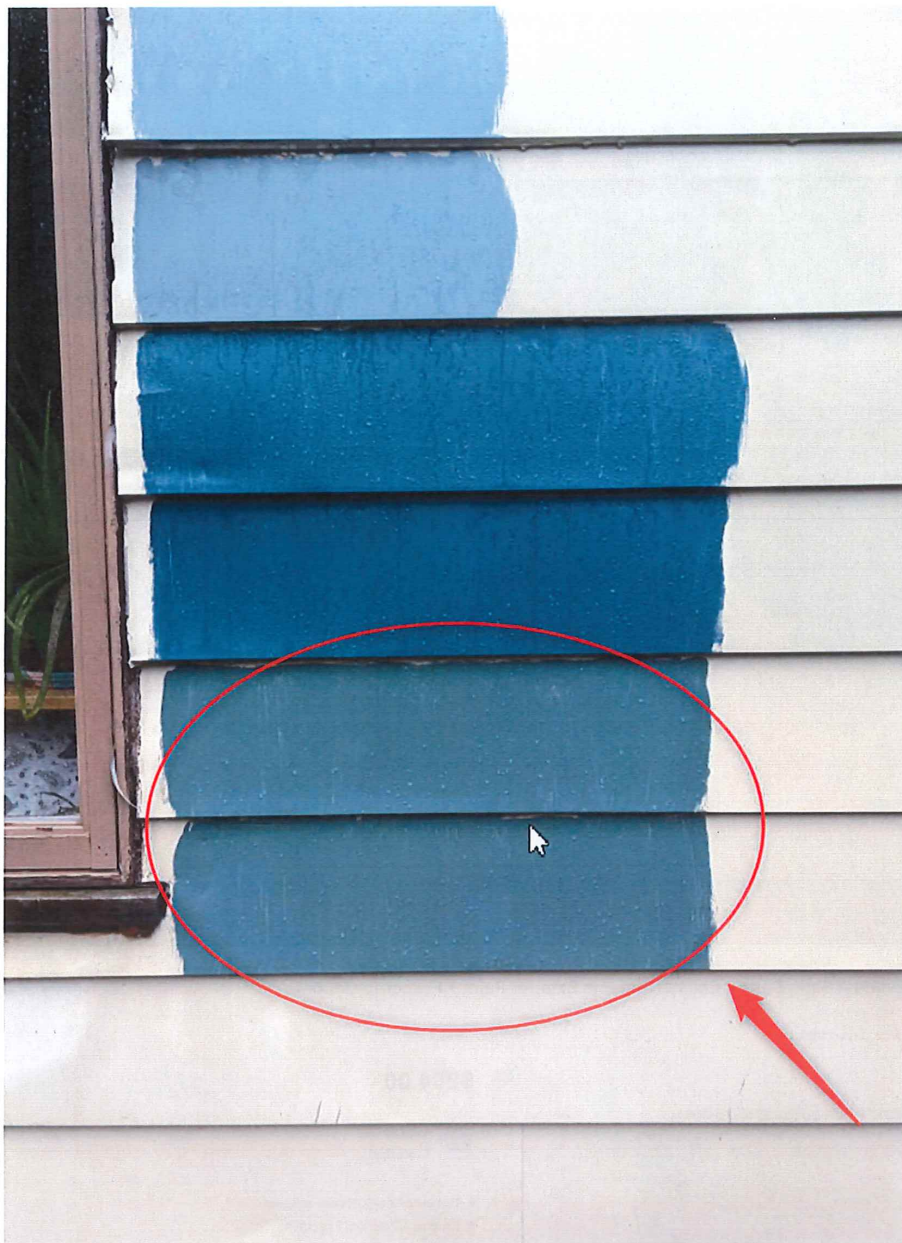
Window 11

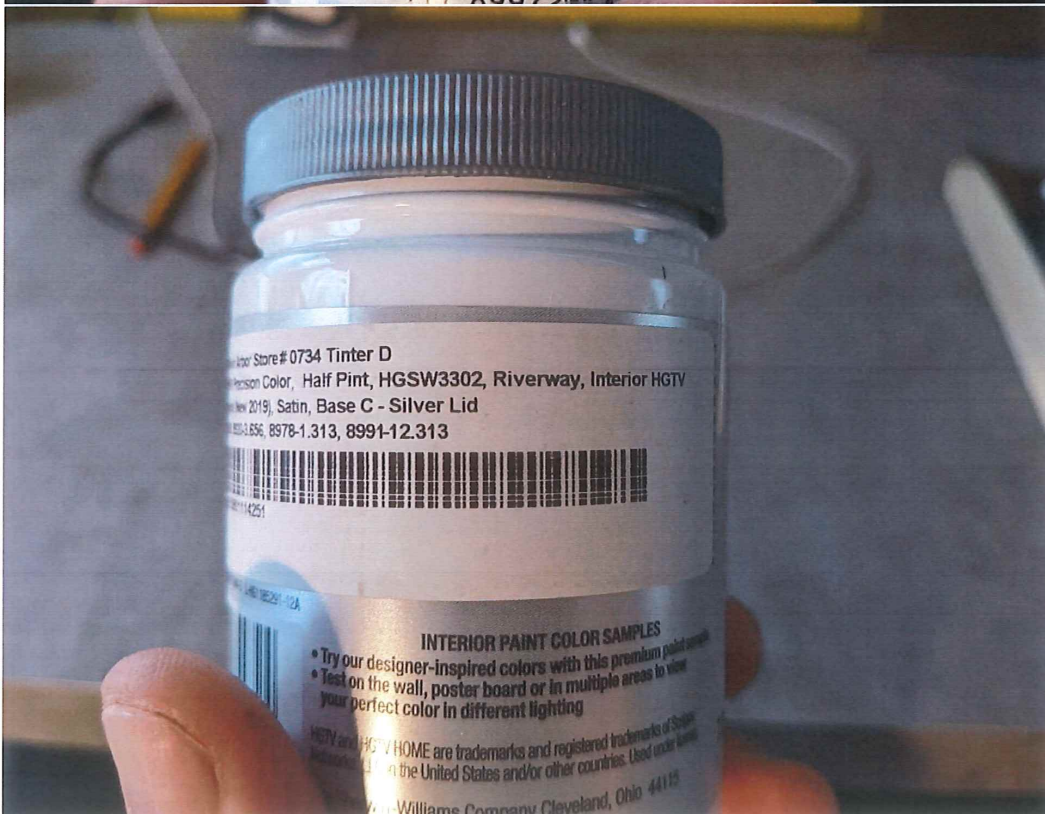
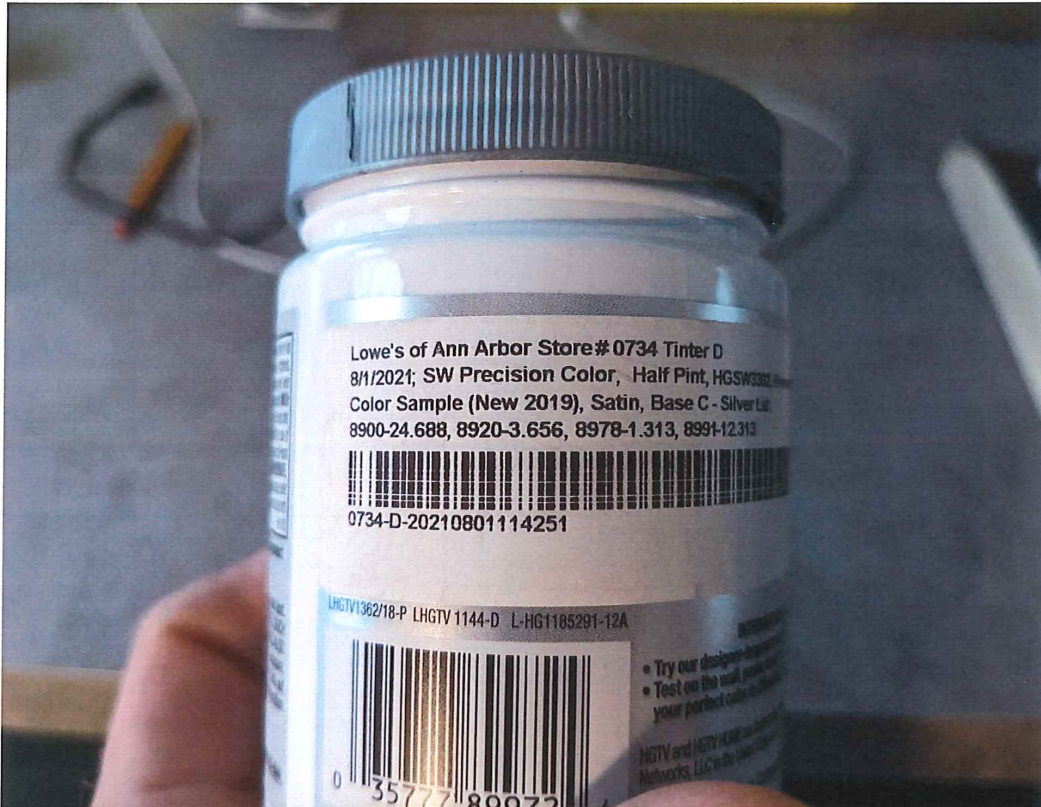


Window 11















Pella® Lifestyle Series Double-Hung**Aluminum EnduraClad® Exterior****Detailed Product Description****Frame**

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are clear pine.
- Exterior surfaces are clad with aluminum.
- Components are assembled with screws, staples and concealed corner locks.
- Overall frame depth is 5" (127 mm) for a wall depth of 3-11/16" (94 mm).
- Jamb liner shall be high-impact polyvinyl chloride backed by continuous hard-tempered aluminum springs.
- Optional factory applied jamb extensions are available.
- Optional factory installed fold-out installation fins with flexible fin corners.
- Optional factory-applied EnduraClad® exterior trim.

Sash

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are clear pine.
- Exterior surfaces are clad with aluminum, lap-jointed and sealed.
- Corners mortised and tenoned, glued and secured with metal fasteners.
- Sash thickness is 1-5/8" (41 mm).
- Sashes tilt for easy cleaning.

Weatherstripping

- Foam with 3 mm skin at head and bottom rail. Thermal-plastic elastomer bulb with slip-coating set into upper sash for tight contact at check rail.
- Secondary polyvinyl chloride leaf-type weatherstrip on bottom sash at sill.
- Jamb liner to seal against sides of sash.

Glazing System

- Quality float glass complying with ASTM C 1036.
- High altitude glazing available.
- Silicone groove-glazed 11/16" [obscure] dual-seal insulating glass [[annealed] [tempered]] [[Advanced Low-E] [SunDefense™ Low-E] [AdvancedComfort] [NaturalSun Low-E] with argon]].

Exterior

- Exterior aluminum surfaces are finished with EnduraClad® protective finish, in a multi-step, baked-on finish.
 - Color is [White] [Tan] [Putty] [Brown] [Poplar White] [Portobello] [Hartford Green] [Morning Sky Gray] [Brick Red] [Black].

Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [factory prefinished [White] [Linen] [Bright White] [stain,]].

Hardware

- Galvanized block-and-tackle balances are connected to sash with a polyester cord and concealed within the frame.
- Factory installed self-aligning surface-mounted sash lock. Two sash locks on units with frame width 33-1/4" and greater.
- Optional Sash lift furnished for field installation. Two lifts on units with frame width 33-1/4" and greater.
- Finish is [baked enamel [Champagne] [White] [Brown] [Matte Black]] [Satin Brass] [Satin Nickel].
- Champagne locks are standard on unfinished units; White locks are standard on factory prefinished white units.



Lifestyle Series Double-Hung

Product Selection Guide	
Size and Performance Data.....	LS-DH-2
Features and Options	LS-DH-3
Combination Assemblies.....	LS-DH-4
Glazing Performance	
Vent Units	LS-DH-6
Fixed Units.....	LS-DH-8
Grille Types.....	LS-DH-10
Size Tables	
Double-Hung with Removable Grilles.....	LS-DH-11
Fixed and Transoms with Removable Grilles.....	LS-DH-12
Double-Hung with GBG's and SDL's.....	LS-DH-13
Fixed and Transoms with GBG's and SDL's	LS-DH-14
Replacement Sizes with Removable Grilles.....	LS-DH-15
Replacement Double-Hung with Removable Grilles.....	LS-DH-16
Replacement Sizes with Grilles-Between-the-Glass.....	LS-DH-17
Replacement Fixed with Removable Grilles	LS-DH-19
Special Sizes and Dimensions	LS-DH-21
Design Data	
Vent Units	LS-DH-22
Fixed and Transoms	LS-DH-23
Replacement Double-Hung Venting	LS-DH-24
Replacement Fixed and Transoms	LS-DH-26
Detailed Product Description	LS-DH-27
Unit Sections	LS-DH-28

Supporting documents for this product:

Test Reports:

https://media.pella.com/professional/adm/CertificationReports/Test_Reports_LS-Dual.pdf

CSI Specs (readable using Microsoft Word or other text editing application):

https://media.pella.com/professional/adm/Wood-CSI_Specs/08552.rtf

Detailed Product Description (readable using Microsoft Word or other text editing application):

https://media.pella.com/professional/adm/Clad-Wood-LS/PellaLifestyleSrs-DH_DPD.rtf

Size Tables (requires appropriate CAD software to read and use):

https://media.pella.com/professional/adm/Clad-Wood-LS/LSCDHE_D.dwg

CAD cross sections (requires appropriate CAD software to read and use):

https://media.pella.com/professional/adm/Clad-Wood-LS/LS-DH_XSEC_D.dwg

3D & BIM (requires appropriate software to read and use):

https://media.pella.com/professional/adm/RevitFiles/LS-Revit/Window-Double-Hung-Pella-Lifestyle_Series.zip

Sketchup (requires appropriate software to read and use):

https://media.pella.com/professional/adm/Clad-Wood-LS/PellaSKP_LifestyleSeries_Double-Hung.zip

Combination Recommendations:

https://media.pella.com/professional/adm/Clad-Wood/D_Combinations.pdf

Installation Details:

https://media.pella.com/professional/adm/Clad-Wood/F_InstallationDetails.pdf

Bay/Bow Details:

https://media.pella.com/professional/adm/Clad-Wood/Pella-Wood_BayBowWindows.pdf

The information published in this document is believed to be accurate at the time of publication. However, because we are constantly working to improve our products, specifications are subject to change without notice. Consult your local Pella representative for up-to-date product information and availability.
Microsoft and Microsoft Word are registered trademarks of Microsoft Corp.



Lifestyle Series Double-Hung

Size and Performance Data

Dual-Pane	
Sizes	
Standard double-hung vent/fixed sizes	•
Transom sizes	•
Egress sizes	•
Special sizes available	•
Performance¹	
Meets or Exceeds AAMA/WDMA Ratings	H-LC30-LC50 Hallmark Certified
Air Infiltration (cfm/ft ² of frame @ 1.57 psf wind pressure) ²	0.11
Water Resistance	7.5 psf
Design Pressure	30-50 psf
Other Performance Criteria	
Forced Entry Resistance Level (Minimum Security Grade) ³	10
Operating Force (lb) Initiate Motion / Maintain Motion (of Hallmark tested size and glazing) ⁴	40/40

Sound Transmission Class / Outdoor-Indoor Transmission Class

Product	Frame Size Tested ⁵	Glazing System				STC Rating	OITC Rating
		Overall Glazing Thickness	Exterior Glass Thickness	Interior Glass Thickness	Third Pane Thickness (HGP)		
Pella Lifestyle Series	37" x 59"	1 1/16"	2.5mm	2.5mm	—	27	23
Double-Hung	37" x 59"	1 1/16"	5mm	3mm	—	31	27

(—) = Not Available

(1) Maximum performance for single unit when glazed with the appropriate glass thickness. See Design Data pages in this section for specific product performance class and grade values.

(2) Published performance data for air infiltration is determined by testing a minimum of four (4) products of NFRC model size. Testing is conducted in accordance with ASTM E283. Air infiltration ratings for products will differ by size. The performance data does not apply to combination assemblies unless noted. Actual product performance may vary for a number of reasons including installation and product care.

(3) The higher the level, the greater the product's ability to resist forced entry.

(4) Glazing configurations may result in higher operational forces.

(5) ASTM E 1425 defines standard sizes for acoustical testing. Ratings achieved at that size are representative of all sizes of the same configuration.



Lifestyle Series Double-Hung

Features and Options

Standard	Options / Upgrades
Glazing	
Glazing Type	
Dual-Pane Insulating Glass	—
Insulated Glass Options/Low-E Types	
Advanced Low-E	SunDefense™ Low-E
	AdvancedComfort Low-E
	NaturalSun Low-E
Additional Glass Options	
Annealed Glass	STC Glazing Options
	Tempered Glass
	Obscure Glass ¹
Gas Fill/High Altitude	
Argon	High altitude (Air-filled only)
Exterior	
EnduraClad® protective finish	—
Cladding Colors	
12 Standard colors ¹	—
Interior¹	
	Factory primed
Unfinished wood	Factory prefinished paint ¹
	Factory prefinished stain ¹
Wood Types	
Pine	—
Hardware	
Finishes	
Champagne, Matte Black, White or Brown	Oil Rubbed Bronze, Satin Nickel
Sash Locks/Sash Lifts	
Cam-action lock	Sash lifts ²
Tilt-Wash Cleaning	
Tilt to interior on both sashes	—
Grilles	
Grilles-Between-the-Glass	
—	Traditional, Prairie, Top Row, Cross, Custom - Equally Divided
Simulated Divided Light with Optional Spacer³	
—	Traditional, Prairie, Top Row, Cross, Custom - Equally Divided
Screens	
—	Full-Size InView™ screens

(-) = Not Available

(1) Contact your local Pella sales representative for current color options.

(2) Sold separately for Pella® Lifestyle Series double-hung windows.

(3) Available with Low-E argon-insulated glass only.



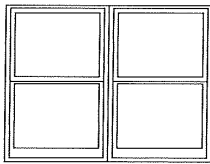
Lifestyle Series Double-Hung

Combination Assemblies

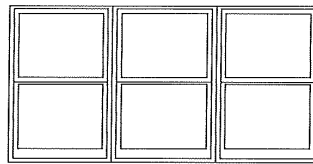
Combinations are a great way to create visual interest in any project. A combination is an assembly formed by two or more separate windows or doors whose frames are mulled together by a combination or reinforcing mullion.

Pella window combinations are available in an endless variety of arrangements. Below are available factory-assembled combinations. Some units can be fixed or vent depending on availability. Refer to Combinations section for typical combinations and requirements and limitations related to mulling various combinations.

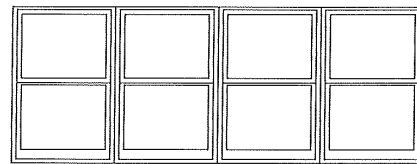
Contact your local Pella sales representative for more information.



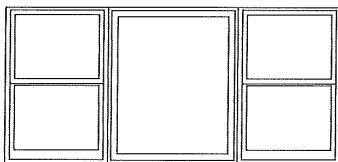
Two-Wide



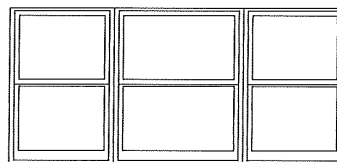
Three-Wide Equal



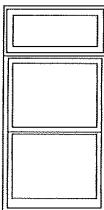
Four-Wide Equal



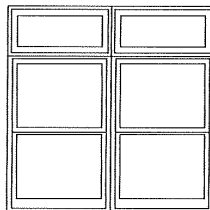
Center Fixed with Flankers



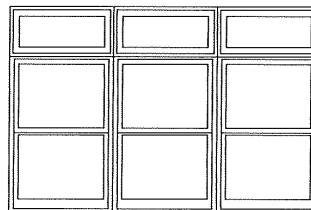
Three-Wide Unequal



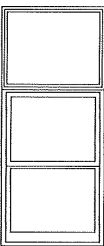
Transom over
Single



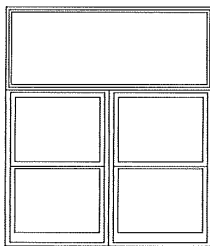
Two-Wide Transoms over
Two-Wide



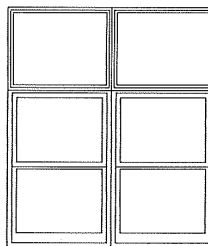
Three-Wide Transoms over
Three-Wide



Clad Frame over
Single



Single Clad Frame over
Two-Wide



Two Wide Clad Frame over
Two-Wide



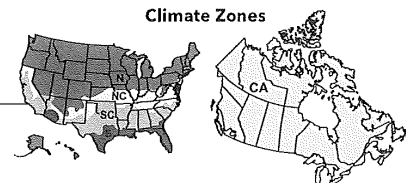
Lifestyle Series Double-Hung

Glazing Performance - Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values 1				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada 2	
										Zone				ER	Zone
Dual-Pane Vent										N	NC	SC	S	CA	
11/16"	Advanced Low-E IG	PEL-N-35-00426-00001	2.5	2.5	argon	0.30	0.30	0.56	57		NC				
	with grilles-between-the-glass	PEL-N-35-00426-00002				0.30	0.27	0.50	57		NC				
	with Simulated Divided Light	PEL-N-35-00426-00003				0.30	0.27	0.50	57		NC				
11/16"	Advanced Low-E IG	PEL-N-35-00427-00001	3	3	argon	0.30	0.30	0.56	56		NC				
	with grilles-between-the-glass	PEL-N-35-00427-00002				0.30	0.27	0.50	56		NC				
	with Simulated Divided Light	PEL-N-35-00427-00003				0.30	0.27	0.50	56		NC				
11/16"	SunDefense™ Low-E IG	PEL-N-35-00432-00001	2.5	2.5	argon	0.29	0.22	0.52	58		NC	SC	S		
	with grilles-between-the-glass	PEL-N-35-00434-00002				0.29	0.20	0.46	58		NC	SC	S		
	with Simulated Divided Light	PEL-N-35-00434-00003				0.29	0.20	0.46	58		NC	SC	S		
11/16"	SunDefense Low-E IG	PEL-N-35-00435-00001	3	3	argon	0.29	0.22	0.51	57		NC	SC	S		
	with grilles-between-the-glass	PEL-N-35-00435-00002				0.29	0.20	0.46	57		NC	SC	S		
	with Simulated Divided Light	PEL-N-35-00435-00003				0.29	0.20	0.46	57		NC	SC	S		
11/16"	AdvancedComfort Low-E IG	PEL-N-35-00430-00001	2.5	2.5	argon	0.26	0.29	0.55	46	N	NC				
	with grilles-between-the-glass	PEL-N-35-00430-00002				0.26	0.26	0.49	46	N	NC				
	with Simulated Divided Light	PEL-N-35-00430-00003				0.26	0.26	0.49	46	N	NC				
11/16"	AdvancedComfort Low-E IG	PEL-N-35-00431-00001	3	3	argon	0.26	0.29	0.54	45	N	NC				
	with grilles-between-the-glass	PEL-N-35-00431-00002				0.26	0.26	0.48	45	N	NC				
	with Simulated Divided Light	PEL-N-35-00431-00003				0.26	0.26	0.48	45	N	NC				
11/16"	NaturalSun Low-E IG	PEL-N-35-00422-00001	2.5	2.5	argon	0.30	0.56	0.64	57	N				34	CA
	with grilles-between-the-glass	PEL-N-35-00422-00002				0.30	0.50	0.57	57	N					
	with Simulated Divided Light	PEL-N-35-00422-00003				0.30	0.50	0.57	57	N					
11/16"	NaturalSun Low-E IG	PEL-N-35-00423-00001	3	3	argon	0.30	0.55	0.63	56	N				34	CA
	with grilles-between-the-glass	PEL-N-35-00423-00002				0.30	0.49	0.56	56	N					
	with Simulated Divided Light	PEL-N-35-00423-00003				0.30	0.49	0.56	56	N					

R-Value = 1/U-Factor
 SHGC = Solar Heat Gain Coefficient
 VLT % = Visible Light Transmission
 CR = Condensation Resistance
 ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500. ENERGY STAR® values are updated to 2016 (Version 6) criteria.
 (2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.
 See the Product Performance section for more detailed information or visit www.energystar.gov for Energy Star guidelines.





Lifestyle Series Double-Hung

Glazing Performance - Total Unit

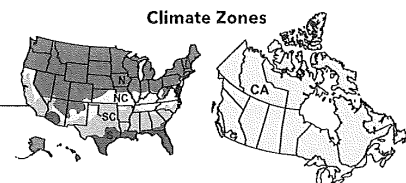
Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
Dual-Pane Vent - High Altitude Glazing										N	NC	SC	S	CA	
11/16"	Advanced Low-E IG	PEL-N-35-00428-00001	2.5	2.5	air	0.33	0.30	0.56	54						
	with grilles-between-the-glass	PEL-N-35-00428-00002				0.33	0.27	0.50	54						
	with Simulated Divided Light	PEL-N-35-00428-00003				0.33	0.27	0.50	54						
11/16"	Advanced Low-E IG	PEL-N-35-00429-00001	3	3	air	0.33	0.30	0.56	53						
	with grilles-between-the-glass	PEL-N-35-00429-00002				0.33	0.27	0.50	53						
	with Simulated Divided Light	PEL-N-35-00429-00003				0.33	0.27	0.50	53						
11/16"	SunDefense™ Low-E IG	PEL-N-35-00436-00001	2.5	2.5	air	0.33	0.22	0.52	54				S		
	with grilles-between-the-glass	PEL-N-35-00436-00002				0.33	0.20	0.46	54				S		
	with Simulated Divided Light	PEL-N-35-00436-00003				0.33	0.20	0.46	54				S		
11/16"	SunDefense Low-E IG	PEL-N-35-00437-00001	3	3	air	0.33	0.22	0.51	53				S		
	with grilles-between-the-glass	PEL-N-35-00437-00002				0.33	0.20	0.46	53				S		
	with Simulated Divided Light	PEL-N-35-00437-00003				0.33	0.20	0.46	53				S		
11/16"	AdvancedComfort Low-E IG	PEL-N-35-00432-00001	2.5	2.5	air	0.28	0.29	0.55	42		NC				
	with grilles-between-the-glass	PEL-N-35-00432-00002				0.28	0.26	0.49	42		NC				
	with Simulated Divided Light	PEL-N-35-00432-00003				0.28	0.26	0.49	42		NC				
11/16"	AdvancedComfort Low-E IG	PEL-N-35-00433-00001	3	3	air	0.28	0.29	0.54	41		NC				
	with grilles-between-the-glass	PEL-N-35-00433-00002				0.28	0.26	0.48	41		NC				
	with Simulated Divided Light	PEL-N-35-00433-00003				0.28	0.26	0.48	41		NC				
11/16"	NaturalSun Low-E IG	PEL-N-35-00424-00001	2.5	2.5	air	0.34	0.56	0.64	53						
	with grilles-between-the-glass	PEL-N-35-00424-00002				0.34	0.50	0.57	53						
	with Simulated Divided Light	PEL-N-35-00424-00003				0.34	0.50	0.57	53						
11/16"	NaturalSun Low-E IG	PEL-N-35-00425-00001	3	3	air	0.34	0.54	0.63	52						
	with grilles-between-the-glass	PEL-N-35-00425-00002				0.34	0.49	0.56	52						
	with Simulated Divided Light	PEL-N-35-00425-00003				0.34	0.49	0.56	52						

R-Value = 1/U-Factor
 SHGC = Solar Heat Gain Coefficient
 VLT % = Visible Light Transmission
 CR = Condensation Resistance
 ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500. ENERGY STAR® values are updated to 2016 (Version 6) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

See the Product Performance section for more detailed information or visit www.energystar.gov for Energy Star guidelines.





Lifestyle Series Double-Hung

Glazing Performance - Total Unit

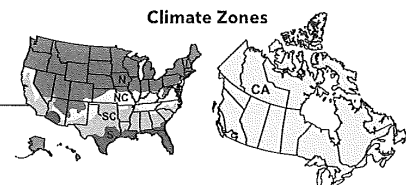
Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂	
										Zone				ER	Zone
										Dual-Pane Fixed					
11/16"	Advanced LowE IG	PEL-N-229-00861-00001	2.5	2.5	argon	0.27	0.31	0.58	58			NC			
	with grilles-between-the-glass	PEL-N-229-00862-00001				0.27	0.28	0.52	58			NC			
	with Simulated Divided Light	PEL-N-229-00863-00001				0.28	0.28	0.52	58			NC			
11/16"	Advanced LowE IG	PEL-N-229-00949-00001	3	3	argon	0.27	0.31	0.58	57			NC			
	with grilles-between-the-glass	PEL-N-229-00950-00001				0.27	0.28	0.51	57			NC			
	with Simulated Divided Light	PEL-N-229-00951-00001				0.28	0.28	0.51	57			NC			
11/16"	Advanced LowE IG	PEL-N-229-00965-00001	4	4	argon	0.28	0.30	0.57	58			NC			
	with grilles-between-the-glass	PEL-N-229-00966-00001				0.29	0.28	0.51	58			NC			
	with Simulated Divided Light	PEL-N-229-00967-00001				0.29	0.28	0.51	58			NC			
11/16"	SunDefenseTM Low-E IG	PEL-N-229-01045-00001	2.5	2.5	argon	0.27	0.23	0.54	58	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-229-01046-00001				0.27	0.21	0.48	58	N	NC	SC	S		
	with Simulated Divided Light	PEL-N-229-01047-00001				0.28	0.28	0.51	58		NC				
11/16"	SunDefense Low-E IG	PEL-N-229-01053-00001	3	3	argon	0.27	0.23	0.53	57	N	NC	SC	S		
	with grilles-between-the-glass	PEL-N-229-01054-00001				0.27	0.21	0.48	57	N	NC	SC	S		
	with Simulated Divided Light	PEL-N-229-01055-00001				0.28	0.21	0.48	57		NC	SC	S		
11/16"	SunDefense Low-E IG	PEL-N-229-01061-00001	4	4	argon	0.28	0.23	0.53	55		NC	SC	S		
	with grilles-between-the-glass	PEL-N-229-01062-00001				0.29	0.21	0.47	55		NC	SC	S		
	with Simulated Divided Light	PEL-N-229-01063-00001				0.29	0.21	0.47	55		NC	SC	S		
11/16"	AdvancedComfort Low-E IG	PEL-N-229-00997-00001	2.5	2.5	argon	0.23	0.30	0.57	46	N	NC				
	with grilles-between-the-glass	PEL-N-229-00998-00001				0.23	0.27	0.51	46	N	NC				
	with Simulated Divided Light	PEL-N-229-00999-00001				0.24	0.27	0.51	46	N	NC				
11/16"	AdvancedComfort Low-E IG	PEL-N-229-01005-00001	3	3	argon	0.23	0.30	0.56	45	N	NC				
	with grilles-between-the-glass	PEL-N-229-01006-00001				0.23	0.27	0.50	45	N	NC				
	with Simulated Divided Light	PEL-N-229-01007-00001				0.24	0.27	0.50	45	N	NC				
11/16"	AdvancedComfort Low-E IG	PEL-N-229-01013-00001	4	4	argon	0.24	0.30	0.55	43	N	NC				
	with grilles-between-the-glass	PEL-N-229-01014-00001				0.25	0.27	0.50	43	N	NC				
	with Simulated Divided Light	PEL-N-229-01015-00001				0.25	0.27	0.50	43	N	NC				
11/16"	NaturalSun LowE IG	PEL-N-229-00901-00001	2.5	2.5	argon	0.28	0.58	0.66	57					37	CA
	with grilles-between-the-glass	PEL-N-229-00902-00001				0.28	0.52	0.59	57					34	CA
	with Simulated Divided Light	PEL-N-229-00903-00001				0.29	0.52	0.59	57					34	CA
11/16"	NaturalSun LowE IG	PEL-N-229-00909-00001	3	3	argon	0.28	0.57	0.65	56					37	CA
	with grilles-between-the-glass	PEL-N-229-00910-00001				0.28	0.51	0.58	56						
	with Simulated Divided Light	PEL-N-229-00911-00001				0.29	0.51	0.58	56						
11/16"	NaturalSun LowE IG	PEL-N-229-00917-00001	4	4	argon	0.29	0.55	0.65	55					35	CA
	with grilles-between-the-glass	PEL-N-229-00918-00001				0.30	0.50	0.58	55						
	with Simulated Divided Light	PEL-N-229-00919-00001				0.30	0.50	0.58	55						

R-Value = 1/U-Factor
 SHGC = Solar Heat Gain Coefficient
 VLT % = Visible Light Transmission
 CR = Condensation Resistance
 ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500. ENERGY STAR® values are updated to 2016 (Version 6) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

See the Product Performance section for more detailed information or visit www.energystar.gov for Energy Star guidelines.





Lifestyle Series Double-Hung

Glazing Performance - Total Unit

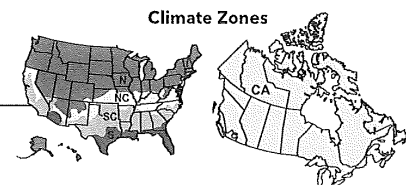
Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values 1				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada 2	
										Zone	ER	Zone			
Dual-Pane Fixed - High Altitude Glazing										N	NC	SC	S		CA
11/16"	Advanced LowE IG	PEL-N-229-00857-00001	2.5	2.5	air	0.31	0.31	0.58	54						
	with grilles-between-the-glass	PEL-N-229-00858-00001				0.31	0.28	0.52	54						
	with Simulated Divided Light	PEL-N-229-00859-00001				0.32	0.28	0.52	54						
11/16"	Advanced LowE IG	PEL-N-229-00945-00001	3	3	air	0.31	0.31	0.58	53						
	with grilles-between-the-glass	PEL-N-229-00946-00001				0.31	0.28	0.51	53						
	with Simulated Divided Light	PEL-N-229-00947-00001				0.32	0.28	0.51	53						
11/16"	Advanced LowE IG	PEL-N-229-00961-00001	4	4	air	0.33	0.31	0.57	51						
	with grilles-between-the-glass	PEL-N-229-00962-00001				0.34	0.28	0.51	51						
	with Simulated Divided Light	PEL-N-229-00963-00001				0.34	0.28	0.51	51						
11/16"	SunDefense™ Low-E IG	PEL-N-229-01041-00001	2.5	2.5	air	0.31	0.23	0.54	55					S	
	with grilles-between-the-glass	PEL-N-229-01042-00001				0.31	0.21	0.48	55					S	
	with Simulated Divided Light	PEL-N-229-01043-00001				0.28	0.21	0.48	53		NC	SC		S	
11/16"	SunDefense Low-E IG	PEL-N-229-01049-00001	3	3	air	0.31	0.23	0.53	54					S	
	with grilles-between-the-glass	PEL-N-229-01050-00001				0.31	0.21	0.48	54					S	
	with Simulated Divided Light	PEL-N-229-01051-00001				0.32	0.21	0.48	54					S	
11/16"	SunDefense Low-E IG	PEL-N-229-01057-00001	4	4	air	0.32	0.23	0.53	52					S	
	with grilles-between-the-glass	PEL-N-229-01058-00001				0.34	0.21	0.47	52					S	
	with Simulated Divided Light	PEL-N-229-01059-00001				0.34	0.21	0.47	52					S	
11/16"	AdvancedComfort Low-E IG	PEL-N-229-00993-00001	2.5	2.5	air	0.26	0.30	0.57	42	N	NC				
	with grilles-between-the-glass	PEL-N-229-00994-00001				0.26	0.27	0.51	42	N	NC				
	with Simulated Divided Light	PEL-N-229-00995-00001				0.26	0.27	0.51	42	N	NC				
11/16"	AdvancedComfort Low-E IG	PEL-N-229-01001-00001	3	3	air	0.26	0.30	0.56	41	N	NC				
	with grilles-between-the-glass	PEL-N-229-01002-00001				0.26	0.27	0.50	41	N	NC				
	with Simulated Divided Light	PEL-N-229-01003-00001				0.27	0.27	0.50	41	N	NC				
11/16"	AdvancedComfort Low-E IG	PEL-N-229-01009-00001	4	4	air	0.27	0.30	0.55	39		NC				
	with grilles-between-the-glass	PEL-N-229-01010-00001				0.28	0.27	0.50	39		NC				
	with Simulated Divided Light	PEL-N-229-01011-00001				0.28	0.27	0.50	39		NC				
11/16"	NaturalSun LowE IG	PEL-N-229-00897-00001	2.5	2.5	air	0.32	0.57	0.66	54						
	with grilles-between-the-glass	PEL-N-229-00898-00001				0.32	0.52	0.59	54						
	with Simulated Divided Light	PEL-N-229-00899-00001				0.33	0.52	0.59	54						
11/16"	NaturalSun LowE IG	PEL-N-229-00905-00001	3	3	air	0.32	0.56	0.65	53						
	with grilles-between-the-glass	PEL-N-229-00906-00001				0.32	0.51	0.58	53						
	with Simulated Divided Light	PEL-N-229-00907-00001				0.33	0.51	0.58	53						
11/16"	NaturalSun LowE IG	PEL-N-229-00913-00001	4	4	air	0.34	0.55	0.65	51						
	with grilles-between-the-glass	PEL-N-229-00914-00001				0.35	0.49	0.58	51						
	with Simulated Divided Light	PEL-N-229-00915-00001				0.35	0.49	0.58	51						

R-Value = 1/U-Factor
 SHGC = Solar Heat Gain Coefficient
 VLT % = Visible Light Transmission
 CR = Condensation Resistance
 ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500. ENERGY STAR® values are updated to 2016 (Version 6) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

See the Product Performance section for more detailed information or visit www.energystar.gov for Energy Star guidelines.



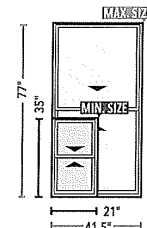


Lifestyle Series Double-Hung

Special Sizes and Dimensions

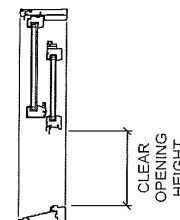
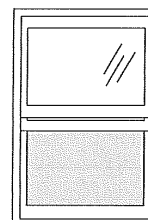
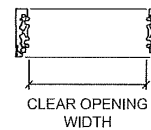
Special Size Frame Dimensions*

	Minimum	Maximum
Vent	1' 9" W x 2' 11" H (21" x 35") (533 x 889)	3' 5" W x 6' 5" H (41-1/2" x 77") (1 041 x 1 956)
Fixed	1' 9" W x 1' 2" H (21" x 14") (533 x 356)	4' 11" W x 6' 1" H (59" x 73") (1 499 x 1 854)



Miscellaneous Formulas (Equal Sash Only)

	Vent Units
Visible Glass	Width = Frame - 5" Height ₁ = (Frame - 6.3125") ÷ 2
Actual Glass	Width = Frame - 4" Height ₁ = (Frame - 4.3125") ÷ 2
Clear Opening Height:	(Frame Height ÷ 2) - 3.25"
Clear Opening Width:	Frame Width - 3.1875"



Shaded portion shows vent area.

Miscellaneous Formulas (Fixed Units Only)

	Fixed and transom units
Visible Glass	Width = Frame - 4.9375" Height = Frame - 4.9375"
Actual Glass	Width = Frame - 4" Height = Frame - 4"

* Available within size range shown. Keep frame dimensions to the nearest 1/4" increment. Frame height cannot exceed frame width on special size dual-pane vent units.
(1) Per Sash
To convert areas to square meters (m²), multiply square feet by 0.0929.



Lifestyle Series Double-Hung

Design Data - Vent Units

New Construction Vent								
Unit	Egress	Clear Opening (Inches)		Vent Area Ft ²	Visible Glass Ft ²	Standard Glass Thickness (mm)		Performance Class & Grade ⁽¹⁾
		Width	Height			Annealed	Tempered	
2135		17-13/16	14-1/4	1.8	3.2	2.5	3	LC50
2141		17-13/16	17-1/4	2.1	3.9	2.5	3	LC50
2147		17-13/16	20-1/4	2.5	4.5	2.5	3	LC50
2153		17-13/16	23-1/4	2.9	5.2	2.5	3	LC50
2157		17-13/16	25-1/4	3.1	5.6	2.5	3	LC40/LC50
2159		17-13/16	26-1/4	3.2	5.9	2.5	3	LC40/LC50
2165		17-13/16	29-1/4	3.6	6.5	2.5	3	LC40/LC50
2171		17-13/16	32-1/4	4.0	7.2	2.5	3	LC30/LC50
2177		17-13/16	35-1/4	4.3	7.8	2.5	3	LC30
2535		21-13/16	14-1/4	2.2	4.0	2.5	3	LC50
2541		21-13/16	17-1/4	2.6	4.8	2.5	3	LC50
2547		21-13/16	20-1/4	3.1	5.7	2.5	3	LC50
2553		21-13/16	23-1/4	3.5	6.5	2.5	3	LC50
2557		21-13/16	25-1/4	3.8	7.0	2.5	3	LC40/LC50
2559		21-13/16	26-1/4	4.0	7.3	2.5	3	LC40/LC50
2565		21-13/16	29-1/4	4.4	8.2	2.5	3	LC40/LC50
2571		21-13/16	32-1/4	4.9	9.0	2.5	3	LC30/LC50
2577	E1	21-13/16	35-1/4	5.3	9.8	2.5	3	LC30
2935		25-13/16	14-1/4	2.6	4.8	2.5	3	LC50
2941		25-13/16	17-1/4	3.1	5.8	2.5	3	LC50
2947		25-13/16	20-1/4	3.6	6.8	2.5	3	LC50
2953		25-13/16	23-1/4	4.2	7.8	2.5	3	LC50
2957		25-13/16	25-1/4	4.5	8.4	2.5	3	LC40/LC50
2959		25-13/16	26-1/4	4.7	8.8	2.5	3	LC40/LC50
2965	E1	25-13/16	29-1/4	5.2	9.8	2.5	3	LC40/LC50
2971	E	25-13/16	32-1/4	5.8	10.8	2.5	3	LC30/LC50
2977	E	25-13/16	35-1/4	6.3	11.7	2.5	3	LC30
3335		29-13/16	14-1/4	3.0	5.6	2.5	3	LC50
3341		29-13/16	17-1/4	3.6	6.7	2.5	3	LC50
3347		29-13/16	20-1/4	4.2	7.9	2.5	3	LC50
3353		29-13/16	23-1/4	4.8	9.1	2.5	3	LC40/LC50
3357	E1	29-13/16	25-1/4	5.2	9.9	2.5	3	LC40/LC50
3359	E1	29-13/16	26-1/4	5.4	10.2	2.5	3	LC40/LC50
3365	E	29-13/16	29-1/4	6.1	11.4	2.5	3	LC35/LC50
3371	E	29-13/16	32-1/4	6.7	12.6	2.5	3	LC30/LC50
3377	E	29-13/16	35-1/4	7.3	13.7	2.5	3	LC30
3735		33-13/16	14-1/4	3.3	6.4	2.5	3	LC35/LC50
3741		33-13/16	17-1/4	4.1	7.7	2.5	3	LC35/LC50
3747		33-13/16	20-1/4	4.8	9.0	2.5	3	LC35/LC50
3753		33-13/16	23-1/4	5.5	10.4	2.5	3	LC35/LC50
3757	E	33-13/16	25-1/4	5.9	11.3	2.5	3	LC35/LC50
3759	E	33-13/16	26-1/4	6.2	11.7	2.5	3	LC35/LC50
3765	E	33-13/16	29-1/4	6.9	13.0	2.5	3	LC35/LC50
3771	E	33-13/16	32-1/4	7.6	14.4	2.5	3	LC30/LC50
3777	E	33-13/16	35-1/4	8.3	15.7	2.5	3	LC30
4135		37-13/16	14-1/4	3.7	6.5	2.5	3	LC30
4141		37-13/16	17-1/4	4.5	7.9	2.5	3	LC30
4147		37-13/16	20-1/4	5.3	9.2	2.5	3	LC30
4153		37-13/16	23-1/4	6.1	11.7	2.5	3	LC30
4157	E	37-13/16	25-1/4	6.6	12.7	2.5	3	LC30
4159	E	37-13/16	26-1/4	6.9	13.2	2.5	3	LC30
4165	E	37-13/16	29-1/4	7.7	14.7	2.5	3	LC30
4171	E	37-13/16	32-1/4	8.5	16.2	2.5	3	LC30
4177	E	37-13/16	35-1/4	9.2	17.6	2.5	3	LC30

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

(1) Maximum performance when glazed with the appropriate glass thickness. Second number, where shown, indicates performance with DP Enhancement Kit installed.

To convert area to square meters (m²), multiply square feet by 0.0929.



Lifestyle Series Double-Hung

Design Data - Fixed and Transoms

New Construction Fixed

Unit	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹
		Annealed	Tempered	
4135	7.5	3	3	LC50
4141	9.0	3	3	LC50
4147	10.5	3	3	LC50
4153	12.0	3	3	LC50
4157	13.0	3	3	LC50
4159	13.6	3	3	LC50
4165	15.1	3	3	LC50
4171	16.6	3	3	LC45/LC50
4735	8.8	3	3	LC50
4741	10.5	3	3	LC50
4747	12.3	3	3	LC50
4753	14.1	3	3	LC50
4757	15.2	3	3	LC50
4759	15.8	3	3	LC45/LC50
4765	17.6	3	3	LC45/LC50
4771	19.3	4	4	LC50
5335	10.0	3	3	LC50
5341	12.0	3	3	LC50
5347	14.1	3	3	LC50
5353	16.1	3	4	LC45/LC50
5357	17.4	3	4	LC45/LC50
5359	18.1	4	4	LC50
5365	20.1	4	4	LC50
5371	22.1	4	4	LC50
5935	11.3	3	3	LC50
5941	13.6	3	3	LC50
5947	15.8	3	3	LC45/LC50
5953	18.1	4	4	LC50
5957	19.6	4	4	LC50
5959	20.3	4	4	LC50
5965	22.6	4	4	LC50
5971	24.8	4	4	LC45/LC50

New Construction Fixed Transom

Unit	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade ¹
		Annealed	Tempered	
2114	1.0	3	3	LC50
2117	1.3	3	3	LC50
2121	1.8	3	3	LC50
2125	2.2	3	3	LC50
2514	1.3	3	3	LC50
2517	1.7	3	3	LC50
2525	2.8	3	3	LC50
2914	1.5	3	3	LC50
2917	2.0	3	3	LC50
2925	3.4	3	3	LC50
2929	4.0	3	3	LC50
3314	1.8	3	3	LC50
3317	2.4	3	3	LC50
3325	3.9	3	3	LC50
3714	2.0	3	3	LC50
3717	2.7	3	3	LC50
3725	4.5	3	3	LC50
4114	2.3	3	3	LC50
4117	3.0	3	3	LC50
4125	5.0	3	3	LC50

(1) Maximum performance when glazed with the appropriate glass thickness. Second number, where shown, requires tempered glass.
To convert areas to square meters (m²), multiply square feet by 0.0929.



Lifestyle Series Double-Hung

Design Data - Replacement Double-Hung

Replacement Vent								
Unit	Egress	Clear Opening		Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade
		Width (Inches)	Height (Inches)			Annealed	Tempered	
23.5 x 35.5		20-5/16	14-1/2	2.0	3.7	2.5	3	LC50
23.5 x 37.5		20-5/16	15-1/2	2.1	4.0	2.5	3	LC50
23.5 x 41.5		20-5/16	17-1/2	2.4	4.5	2.5	3	LC50
23.5 x 45.5		20-5/16	19-1/2	2.7	5.0	2.5	3	LC50
23.5 x 47.5		20-5/16	20-1/2	2.8	5.3	2.5	3	LC50
23.5 x 51.5		20-5/16	22-1/2	3.1	5.8	2.5	3	LC50
23.5 x 53.5		20-5/16	23-1/2	3.3	6.1	2.5	3	LC40/LC50
23.5 x 57.5		20-5/16	25-1/2	3.5	6.6	2.5	3	LC40/LC50
23.5 x 59.5		20-5/16	26-1/2	3.7	6.8	2.5	3	LC40/LC50
23.5 x 61.5		20-5/16	27-1/2	3.8	7.1	2.5	3	LC40/LC50
23.5 x 65.5		20-5/16	29-1/2	4.1	7.6	2.5	3	LC30/LC50
23.5 x 71.5		20-5/16	32-1/2	4.5	8.4	2.5	3	LC30/LC50
27.5 x 35.5		24-5/16	14-1/2	2.4	4.6	2.5	3	LC50
27.5 x 37.5		24-5/16	15-1/2	2.6	4.9	2.5	3	LC50
27.5 x 41.5		24-5/16	17-1/2	2.9	5.5	2.5	3	LC50
27.5 x 45.5		24-5/16	19-1/2	3.2	6.1	2.5	3	LC50
27.5 x 47.5		24-5/16	20-1/2	3.4	6.4	2.5	3	LC50
27.5 x 51.5		24-5/16	22-1/2	3.7	7.1	2.5	3	LC50
27.5 x 53.5		24-5/16	23-1/2	3.9	7.4	2.5	3	LC40/LC50
27.5 x 57.5		24-5/16	25-1/2	4.3	8.0	2.5	3	LC40/LC50
27.5 x 59.5		24-5/16	26-1/2	4.4	8.3	2.5	3	LC40/LC50
27.5 x 61.5		24-5/16	27-1/2	4.6	8.6	2.5	3	LC40/LC50
27.5 x 65.5		24-5/16	29-1/2	4.9	9.2	2.5	3	LC30/LC50
27.5 x 71.5	E1	24-5/16	32-1/2	5.4	10.2	2.5	3	LC30/LC50
29.5 x 35.5		26-5/16	14-1/2	2.6	5.0	2.5	3	LC50
29.5 x 37.5		26-5/16	15-1/2	2.8	5.3	2.5	3	LC50
29.5 x 41.5		26-5/16	17-1/2	3.1	6.0	2.5	3	LC50
29.5 x 45.5		26-5/16	19-1/2	3.5	6.7	2.5	3	LC50
29.5 x 47.5		26-5/16	20-1/2	3.7	7.0	2.5	3	LC40/LC50
29.5 x 51.5		26-5/16	22-1/2	4.1	7.7	2.5	3	LC40/LC50
29.5 x 53.5		26-5/16	23-1/2	4.2	8.0	2.5	3	LC40/LC50
29.5 x 57.5		26-5/16	25-1/2	4.6	8.7	2.5	3	LC40/LC50
29.5 x 59.5		26-5/16	26-1/2	4.8	9.0	2.5	3	LC35/LC50
29.5 x 61.5	E1	26-5/16	27-1/2	5.0	9.4	2.5	3	LC35/LC50
29.5 x 65.5	E1	26-5/16	29-1/2	5.3	10.1	2.5	3	LC30/LC50
29.5 x 71.5	E	26-5/16	32-1/2	5.9	11.1	2.5	3	LC30/LC50

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

(1) Maximum performance when glazed with the appropriate glass thickness. Second number, where shown, indicates performance with DP Enhancement Kit installed.



Lifestyle Series Double-Hung

Design Data - Replacement Double-Hung

Replacement Vent								
Unit	Egress	Clear Opening		Vent Area Ft²	Visible Glass Ft²	Standard Glass Thickness (mm)		Performance Class & Grade
		Width (Inches)	Height (Inches)			Annealed	Tempered	
31.5 x 35.5		28-5/16	14-1/2	2.8	5.4	2.5	3	LC50
31.5 x 37.5		28-5/16	15-1/2	3.0	5.7	2.5	3	LC50
31.5 x 41.5		28-5/16	17-1/2	3.4	6.5	2.5	3	LC50
31.5 x 45.5		28-5/16	19-1/2	3.8	7.2	2.5	3	LC50
31.5 x 47.5		28-5/16	20-1/2	4.0	7.6	2.5	3	LC40/LC50
31.5 x 51.5		28-5/16	22-1/2	4.4	8.3	2.5	3	LC40/LC50
31.5 x 53.5		28-5/16	23-1/2	4.6	8.7	2.5	3	LC40/LC50
31.5 x 57.5	E1	28-5/16	25-1/2	5.0	9.4	2.5	3	LC40/LC50
31.5 x 59.5	E1	28-5/16	26-1/2	5.2	9.8	2.5	3	LC35/LC50
31.5 x 61.5	E1	28-5/16	27-1/2	5.4	10.2	2.5	3	LC35/LC50
31.5 x 65.5	E	28-5/16	29-1/2	5.8	10.9	2.5	3	LC30/LC50
31.5 x 71.5	E	28-5/16	32-1/2	6.3	12.0	2.5	3	LC30/LC50
35.5 x 35.5		32-5/16	14-1/2	3.2	6.2	2.5	3	LC35/LC50
35.5 x 37.5		32-5/16	15-1/2	3.4	6.6	2.5	3	LC35/LC50
35.5 x 41.5		32-5/16	17-1/2	3.9	7.5	2.5	3	LC35/LC50
35.5 x 45.5		32-5/16	19-1/2	4.3	8.3	2.5	3	LC35/LC50
35.5 x 47.5		32-5/16	20-1/2	4.6	8.7	2.5	3	LC35/LC50
35.5 x 51.5		32-5/16	22-1/2	5.0	9.6	2.5	3	LC35/LC50
35.5 x 53.5		32-5/16	23-1/2	5.2	10.0	2.5	3	LC35/LC50
35.5 x 57.5	E1	32-5/16	25-1/2	5.7	10.8	2.5	3	LC35/LC50
35.5 x 59.5	E	32-5/16	26-1/2	5.9	11.3	2.5	3	LC35/LC50
35.5 x 61.5	E	32-5/16	27-1/2	6.1	11.7	2.5	3	LC35/LC50
35.5 x 65.5	E	32-5/16	29-1/2	6.6	12.5	2.5	3	LC30/LC50
35.5 x 71.5	E	32-5/16	32-1/2	7.2	13.8	2.5	3	LC30/LC50
39.5 x 35.5		36-5/16	14-1/2	3.6	7.0	2.5	3	LC30
39.5 x 37.5		36-5/16	15-1/2	3.9	7.5	2.5	3	LC30
39.5 x 41.5		36-5/16	17-1/2	4.4	8.4	2.5	3	LC30
39.5 x 45.5		36-5/16	19-1/2	4.9	9.4	2.5	3	LC30
39.5 x 47.5		36-5/16	20-1/2	5.1	9.9	2.5	3	LC30
39.5 x 51.5		36-5/16	22-1/2	5.6	10.8	2.5	3	LC30
39.5 x 53.5		36-5/16	23-1/2	5.9	11.3	2.5	3	LC30
39.5 x 57.5	E	36-5/16	25-1/2	6.4	12.3	2.5	3	LC30
39.5 x 59.5	E	36-5/16	26-1/2	6.6	12.7	2.5	3	LC30
39.5 x 61.5	E	36-5/16	27-1/2	6.9	13.2	2.5	3	LC30
39.5 x 65.5	E	36-5/16	29-1/2	7.4	14.2	2.5	3	LC30
39.5 x 71.5	E	36-5/16	32-1/2	8.1	15.6	2.5	3	LC30
41.5 x 35.5		38-5/16	14-1/2	3.6	7.4	2.5	3	LC30
41.5 x 37.5		38-5/16	15-1/2	3.9	7.9	2.5	3	LC30
41.5 x 41.5		38-5/16	17-1/2	4.4	8.9	2.5	3	LC30
41.5 x 45.5		38-5/16	19-1/2	4.9	9.9	2.5	3	LC30
41.5 x 47.5		38-5/16	20-1/2	5.1	10.4	2.5	3	LC30
41.5 x 51.5		38-5/16	22-1/2	5.6	11.5	2.5	3	LC30
41.5 x 53.5		38-5/16	23-1/2	5.9	12.0	2.5	3	LC30
41.5 x 57.5	E	38-5/16	25-1/2	6.4	13.0	2.5	3	LC30
41.5 x 59.5	E	38-5/16	26-1/2	6.6	13.5	2.5	3	LC30
41.5 x 61.5	E	38-5/16	27-1/2	6.9	14.0	2.5	3	LC30
41.5 x 65.5	E	38-5/16	29-1/2	7.4	15.0	2.5	3	LC30
41.5 x 71.5	E	38-5/16	32-1/2	8.1	16.5	2.5	3	LC30

Egress Notes:

Check all applicable local codes for emergency egress requirements.

E = Window meets minimum clear opening of 24" height, 20" width, and 5.7 ft².

E1 = Window meets minimum clear opening of 24" height, 20" width, and 5.0 ft².

(1) Maximum performance when glazed with the appropriate glass thickness. Second number, where shown, indicates performance with DP Enhancement Kit installed.



Lifestyle Series Double-Hung

Design Data - Replacement Fixed and Transoms

Replacement Fixed				
Unit	Visible Glass Ft ²	Standard Glass Thickness (mm)		Performance Class & Grade ¹
		Annealed	Tempered	
41 x 35.5	7.7	3	3	LC50
41 x 37.5	8.2	3	3	LC50
41 x 41.5	9.2	3	3	LC50
41 x 45.5	10.2	3	3	LC50
41 x 47.5	10.7	3	3	LC50
41 x 51.5	11.7	3	3	LC50
41 x 53.5	12.2	3	3	LC50
41 x 57.5	13.2	3	3	LC50
41 x 59.5	13.7	3	3	LC50
41 x 61.5	14.2	3	3	LC50
41 x 65.5	15.2	3	3	LC50
41 x 71.5	16.7	3	3	LC45/LC50
47 x 35.5	8.9	3	3	LC50
47 x 37.5	9.5	3	3	LC50
47 x 41.5	10.7	3	3	LC50
47 x 45.5	11.9	3	3	LC50
47 x 47.5	12.4	3	3	LC50
47 x 51.5	13.6	3	3	LC50
47 x 53.5	14.2	3	3	LC50
47 x 57.5	15.4	3	3	LC50
47 x 59.5	15.9	3	3	LC45/LC50
47 x 61.5	16.5	3	3	LC45/LC50
47 x 65.5	17.7	3	3	LC40/LC50
47 x 71.5	19.5	4	4	LC50
53 x 35.5	10.2	3	3	LC50
53 x 37.5	10.9	3	3	LC50
53 x 41.5	12.2	3	3	LC50
53 x 45.5	13.5	3	3	LC50
53 x 47.5	14.2	3	3	LC50
53 x 51.5	15.6	3	3	LC50
53 x 53.5	16.2	3	4	LC45/LC50
53 x 57.5	17.6	3	4	LC40/LC50
53 x 59.5	18.2	4	4	LC50
53 x 61.5	18.9	4	4	LC50
53 x 65.5	20.2	4	4	LC50
53 x 71.5	22.2	4	4	LC50
59 x 35.5	11.5	3	3	LC50
59 x 37.5	12.2	3	3	LC50
59 x 41.5	13.7	3	3	LC50
59 x 45.5	15.2	3	3	LC50
59 x 47.5	16.0	3	3	LC45/LC50
59 x 51.5	17.5	3	4	LC45/LC50
59 x 53.5	18.2	4	4	LC50
59 x 57.5	19.7	4	4	LC50
59 x 59.5	20.5	4	4	LC50
59 x 61.5	21.2	4	4	LC50
59 x 65.5	22.8	4	4	LC50
59 x 71.5	25.0	4	4	LC45/LC50

Replacement Fixed Transom				
Unit	Visible Glass Ft ²	Standard Glass Thickness (mm)		Performance Class & Grade ¹
		Annealed	Tempered	
23.5 x 14	1.2	3	3	LC50
23.5 x 17	1.6	3	3	LC50
23.5 x 25	2.6	3	3	LC50
27.5 x 14	1.4	3	3	LC50
27.5 x 17	1.9	3	3	LC50
27.5 x 25	3.1	3	3	LC50
29.5 x 14	1.5	3	3	LC50
29.5 x 17	2.1	3	3	LC50
29.5 x 25	3.4	3	3	LC50
31.5 x 14	1.7	3	3	LC50
31.5 x 17	2.2	3	3	LC50
31.5 x 25	3.7	3	3	LC50
35.5 x 14	1.9	3	3	LC50
35.5 x 17	2.6	3	3	LC50
35.5 x 25	4.3	3	3	LC50
39.5 x 14	2.2	3	3	LC50
39.5 x 17	2.9	3	3	LC50
39.5 x 25	4.8	3	3	LC50
41.5 x 14	2.3	3	3	LC50
41.5 x 17	3.1	3	3	LC50
41.5 x 25	5.1	3	3	LC50

(1) Maximum performance when glazed with the appropriate glass thickness. Second number, where shown, requires tempered glass.
To convert areas to square meters (m²), multiply square feet by 0.0929.



Lifestyle Series Double-Hung

Detailed Product Description

Frame

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are clear pine.
- Exterior surfaces are clad with aluminum.
- Components are assembled with screws, staples and concealed corner locks.
- Overall frame depth is 5" (127 mm) for a wall depth of 3-11/16" (94mm).
- Jamb liner shall be high-impact polyvinyl chloride backed by continuous hard-tempered aluminum springs.
- Optional factory applied jamb extensions are available.
- Optional factory installed fold-out installation fins with flexible fin corners.
- Optional factory-applied EnduraClad® exterior trim.

Sash

- Select softwood, immersion treated with Pella's EnduraGuard® wood protection formula in accordance with WDMA I.S.-4. The EnduraGuard formula includes three active ingredients for protection against the effects of moisture, decay, stains from mold and mildew. Plus, an additional ingredient adds protection against termite damage.
- Interior exposed surfaces are clear pine.
- Exterior surfaces are clad with aluminum, lap-jointed and sealed.
- Corners mortised and tenoned, glued and secured with metal fasteners.
- Sash thickness is 1-5/8" (41 mm).
- Sashes tilt for easy cleaning.

Weatherstripping

- Foam with 3 mm skin at head and bottom rail. Thermal-plastic elastomer bulb with slip-coating set into upper sash for tight contact at check rail.
- Secondary polyvinyl chloride leaf-type weatherstrip on bottom sash at sill.
- Jamb liner to seal against sides of sash.

Glazing System

- Quality float glass complying with ASTM C 1036.
- High altitude glazing available.
- Silicone groove-glazed 1 1/16" [obscure] dual-seal insulating glass [[annealed] [tempered]] [[Advanced Low-E] [SunDefense™ Low-E] [AdvancedComfort] [NaturalSun Low-E] with argon]].

Exterior

- Exterior aluminum surfaces are finished with EnduraClad® protective finish, in a multi-step, baked-on finish.
- Color is [White] [Tan] [Putty] [Brown] [Poplar White] [Portobello] [Hartford Green] [Morning Sky Gray] [Brick Red] [Black].

Interior

- [Unfinished, ready for site finishing] [factory primed with one coat acrylic latex] [factory prefinished [White] [Linen] [Bright White] [stain]].

Hardware

- Galvanized block-and-tackle balances are connected to sash with a polyester cord and concealed within the frame.
- Factory installed self-aligning surface-mounted sash lock. Two sash locks on units with frame width 33-1/4" and greater.
- Optional Sash lift furnished for field installation. Two lifts on units with frame width 33-1/4" and greater.
- Finish is [baked enamel [Champagne] [White] [Brown] [Matte Black]] [Satin Brass] [Satin Nickel].
- Champagne locks are standard on unfinished units; White locks are standard on factory prefinished white units.

Optional Products

Grilles

- Simulated-Divided-Light [with optional spacer]
 - 7/8" Grilles permanently bonded to the interior and exterior of glass.
 - Patterns are [Traditional] [Prairie] [Cross] [Top Row] [Custom - Equally Divided].
 - Interior surfaces are [unfinished, ready for site finishing] [factory primed] [pine: factory prefinished [White] [Linen White] [Bright White] [stain]]. Exterior grilles to match the exterior cladding color.
 - Available only on units glazed with Low-E insulated glass with argon.
- or -
- Grilles-Between-the-Glass²
 - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass.
 - Patterns are [Traditional] [9-Lite Prairie] [Top Row] [Custom - Equally Divided].
 - Interior color is [White] [Ivory] [Tan] [Brickstone] [Black] [Putty] [Brown] [Harvest] [Cordovan].
 - Exterior color [matched to the exterior cladding color] [White]⁴.

Screens

- InView™ screens
 - Full-size Vinyl-coated 18/18 mesh fiberglass screen cloth complying with the performance requirements of SMA 1201, set in aluminum frame fitted to outside of window, supplied complete with all necessary hardware.
 - Screen frame finish is baked enamel, color to match window cladding.

Hardware

- Optional factory applied limited opening device available for vent units in steel, nominal 3-3/4" opening.
- Optional window opening control device available for field installation. Device allows window to open less than 4" with normal operation, with a release mechanism that allows the sash to open completely. Complies with ASTM F2090-10.

Sensors

- Optional factory installed integrated security sensors available in vent units.

(1) Contact your local Pella sales representative for current designs and color options.

(2) Available on units glazed with Low-E insulated glass with argon, and obscure insulated glass.

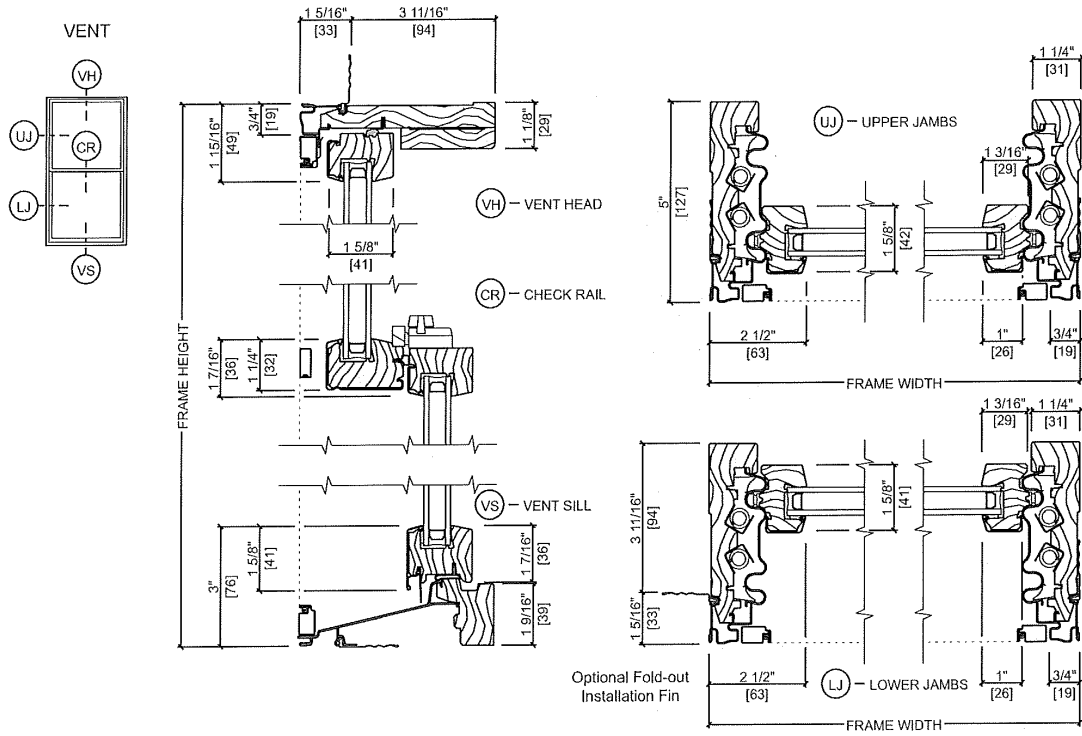
(3) Tan, brown and putty Interior GBG colors are available only with matching interior and exterior colors.

(4) Appearance of exterior grille color will vary depending on Low-E coating on glass.



Lifestyle Series Double-Hung

Unit Sections

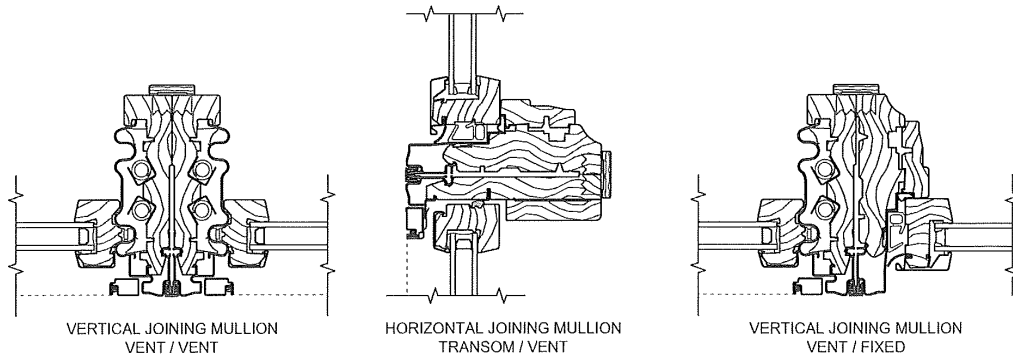
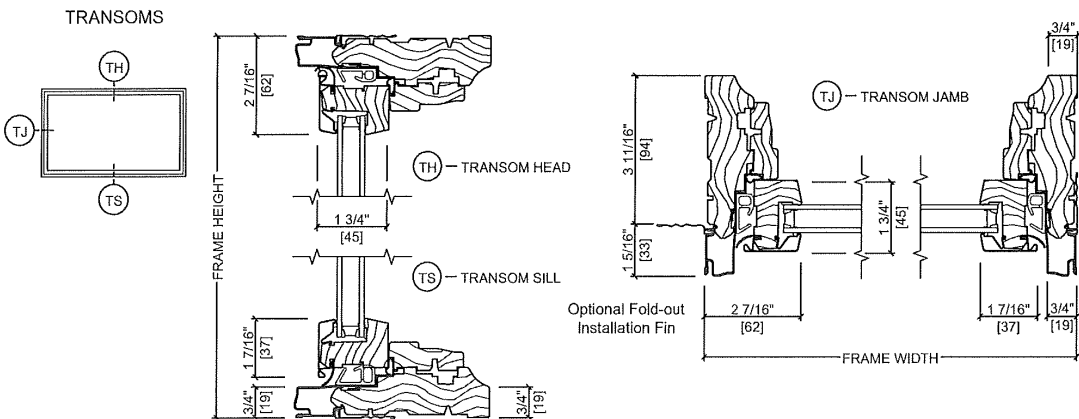
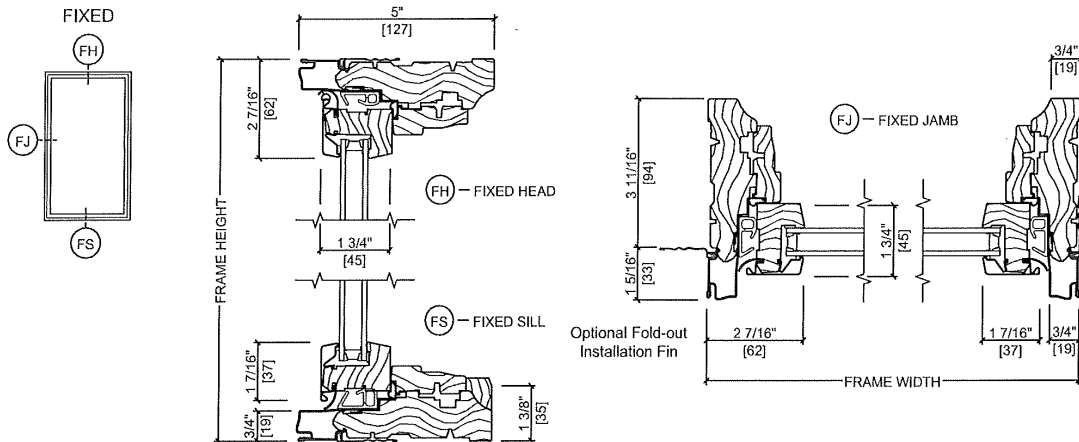


Scale 3" = 1' 0"
All dimensions are approximate.



Lifestyle Series Double-Hung

Unit Sections



Scale 3" = 1' 0"
All dimensions are approximate.
See www.Pella.com for mullion limitations and reinforcing requirements.



Historic District Commission
Study Item and Materials
305 E Forest—siding and garage doors

305 E Forest Ave









4/28/22

Good morning Ellen,

We have been doing a little investigation about our neighborhood and wanted to share these photos with you of our street. Here is a pic of 313 E Forest with their vinyl siding, and a shot of our block, just 6 little bungalows in a row all with vinyl or aluminum except us. Would you be able to lookup when 313 E Forest applied for their vinyl siding with the commission? To my eyes, it looks much less than 30 years old, so theoretically they would have had to go through you to have it installed.





Here are some additional homes on our street that are also sided with modern vinyl siding that has wood grain.





Garage Door:









Historic District Commission

Study Item and Materials

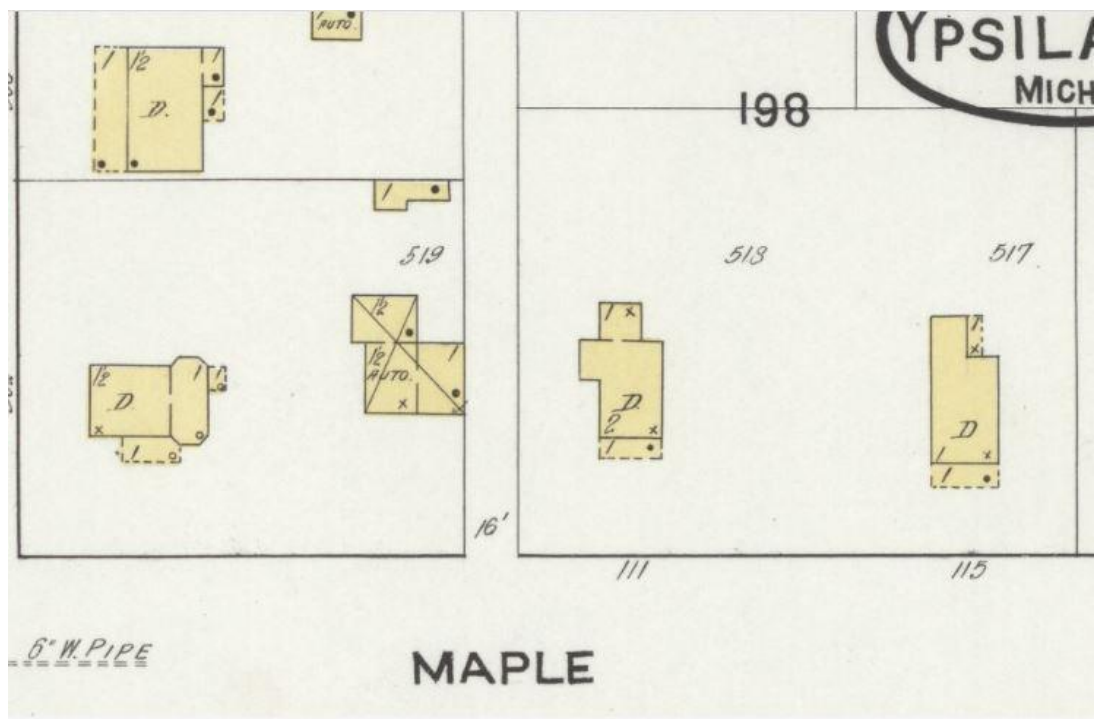
109 Maple—porch















MINUTES

City of Ypsilanti HISTORIC DISTRICT COMMISSION

Meeting held in person at City Hall Council Chambers and virtually by Zoom

Tuesday, April 26, 2022
7:00 P.M.

CALL TO ORDER AND ROLL CALL

Meeting Called to Order 7:04 pm

Chair Alex Pettit welcomed everyone, told public when and how they would have an opportunity to address commission

Commissioners Present:

James Ratzlaff – Washtenaw County, City of Ypsilanti
Stefan Szumko - Washtenaw County, City of Ypsilanti
Jeff Muir – Washtenaw County, City of Ypsilanti
Alex Pettit – Washtenaw County, City of Ypsilanti
James Chesnut – Washtenaw County, City of Ypsilanti

Commissioners Absent: none

Commissioners recently appointed: Jimmy Huffman – Washtenaw County, City of Ypsilanti, sworn in 4/26/22, attending but abstaining from tonight's votes
Delrhea Byrge—Washtenaw County, City of Ypsilanti, will take the oath after May 6, 2022

Staff Present: Ellen Thackery, Preservation Planner

AMENDMENT TO AGENDA

Staff requested introduction of newest commissioner Jimmy Huffman. Agenda item added under "Updates from Staff." New study item requested that is not on the current agenda: 305 E Forest. Added as a study item to the agenda.

APPROVAL OF AGENDA

Motion: Chesnut (second: Szumko) moved to approve the agenda as amended.

Approval: Roll call vote. Unanimous. Motion carried.

PUBLIC COMMENT ON AGENDA ITEMS—none

PUBLIC HEARING—none

OLD BUSINESS

208 N Hamilton

**Window Replacement (retroactive)*

Commissioner Muir recused himself from this discussion and vote.

Staff Report: Staff indicated that this agenda item had been rescheduled from the last two meetings because a recusal left the commission without a quorum on this issue. House is a Queen Anne with its original porch detailing and massing but covered with non-historic siding. A side porch toward the rear of the house appears on the 1927 Sanborn map. That side porch was enclosed at some point and windows were added. In 2014, the windows were double-hung. At some point, slider windows were installed on this enclosed porch, and the City noticed and requested an application. Applicant submitted an application and explained that these windows had been installed on an emergency basis and so they were to submit an application for the proper permits within 48 hours. They did not, but the application is before the commission now. Application is for Marvin aluminum-clad wood windows in stone white.

Applicant: Colleen Kennedy for Beal: Nothing really to add--supply chains are very difficult and products are very expensive right now.

Discussion: This is a secondary façade, not really visible from the street. Façade here is a filled-in porch and so the only historic materials here are the c. 1920s porch columns and brick piers, and the windows don't impact those. Commission acknowledged that there aren't many slider windows in that neighborhood, but this is a secondary façade. Proposed window is an aluminum-clad wood window.

Motion: Szumko moved (seconded by Ratzlaff) to approve the application for the replacement of two non-historic windows at 208 N Hamilton as proposed with Marvin Ultimate glider windows in stone white because the proposal meets the Secretary of the Interior's Standards for Rehabilitation, specifically Standards 3 and 10.

Relevant Secretary of the Interior's Standards:
#3, #10

Approval: Roll call, unanimous. Motion carried.

211 N Washington

**Re-roofing and new gutters and downspouts*

Commissioner Muir recused himself from this discussion and vote.

Staff Report: This original building was a large Colonial Revival house with a hipped roof and dormers, and then the house received a new roofline with a full third story and large additions, and then eventually new windows and a modern façade. The building in its modern form might be considered contributing to the district

with more research—enough time has passed that it may be that these modernist changes have acquired significance in their own right. The proposal is for a new EPDM adhered roof system and new metal copings, flashings, gutters, and downspouts, with all metal in hunter green.

Applicant: Applicant Colleen Kennedy was on hand to answer questions. No change in the building's appearance.

Discussion: The roof is a flat roof, unseen from the street, and a new roof and working gutters and full-length downspouts to move water from the building is important for the longevity of the building.

Motion: Ratzlaff (seconded by Szumko) moved to approve the work as proposed in the application received March 24, 2022 and issue a certificate of appropriateness for reroofing the entire building with an EPDM adhered roof system, and installing new metal copings, flashing, gutters, and downspouts all in hunter green. Relevant Secretary of the Interior's Standards are Standards 5 and 9.

NEW BUSINESS

421 N Adams

**Skylight*

Staff Report: House contributes to the National Register and local historic districts and has changed very little since its 1981 file photo. Proposed work is for a skylight to be installed on the north slope of the roof toward the rear of the house.

Applicant: Andrew Rodriguez, homeowner – present. Clarified that because the house is so close to its next-door neighbor (they used to be one house and they still share a foundation), the skylight will not really be visible from the sidewalk or the alley.

Discussion: Commission discussed how a skylight is reviewed—is it a window? Is it like a solar panel? That could be argued, but skylights are not as reversible as solar panels. Staff offered that she relied on the Guidelines that accompany the Secretary of the Interior's Standards that specifically put skylights in the same category as roof alterations, with dormer windows and vents. The Guidelines state that these alterations should not diminish the historic character of the house/resource.

Motion: Ratzlaff (second: Chesnut) moved to approve the application received April 13, 2022 and issue a certificate of appropriateness for the proposed work at 421 N Adams for the installation of a Velux skylight on the house's north side toward the rear. The proposed work meets the Secretary of the Interior's Standards, specifically Standards 2 and 9, because it will not remove or destroy original features or character and it is compatible.

Relevant Secretary of the Interior's Standards:
#2, #9

Approval: Roll call. Unanimous. Motion carried.

410 W Cross

**Reroof with matching clay tile, install new copper gutters for copper gutters, and copper downspouts for copper downspouts*

Staff Report: This is a historic church that contributes to both the National Register and local historic districts. All of the proposed materials are in-kind replacements. Historic clay roof tiles will be replaced with the same material and profile, and all copper gutters and downspouts will be replaced with copper of the same size and profile.

Applicant: John Recznik, Church Business Manager, attended by Zoom.

Discussion: All roof tiles will be removed, but as many tiles will be salvaged as possible. Copper will get a patina over time, but all of the copper is being replaced at once, the existing metals have not taken on a greenish patina anyway, and the patina just happens over time—it's a natural process and the new would catch up with the old in time anyway. Some commissioner discussion about the parapets—will that copper be removed and replaced? You can see those from the street and so that requires some extra attention. Be careful not to affect the brick in those locations. How will the area just behind the parapets will be protected from water intrusion where the copper roof butts up to the parapet? From looking at photos, it looks like there is step flashing so the bricks will not likely be affected. Reviewed materials list to ensure compatibility of materials in contact with one another. Applicant confirmed that the consulting firm they hired will be supervising the work and making sure that the conditions they specified are being met.

Motion: Szumko (seconded by Chesnut) moved to approve the application for work at 410 W Cross, submitted April 14, 2022, and issue a certificate of appropriateness for the roof tear-off and replacement as specified of the clay tile roof on the church and rectory using replacement clay tiles in the same size, material, and profile, and the replacement of copper gutters and downspouts with copper in the same size and shape as the historic materials. The work is appropriate because it meets the Secretary of the Interior's Standards for Rehabilitation, including Standards 2, 5, and 6.

Approval: Roll call. Unanimous. Motion carried.

Relevant Secretary of the Interior's Standards:
#2, #5, and #6

330 E Forest

**new patio with step, new drive, and approach*

Staff: House contributes to both the local and National Register Districts, proposed work will install a new colored concrete patio, a new standard-colored approach, and a colored driveway. The patio would be stamped concrete, and the drive and approach would be smooth concrete.

Applicant: Homeowner attended by Zoom.

Discussion: There have been occasions in the past where the commission has very strictly not wanted materials to be patterned like other materials, like an exaggerated wood grain on vinyl siding. Would the idea of a pattern stamped in concrete be similar to that? Patio is behind the house and will not touch the house or foundation. In the past, there have been commissioners who felt very strongly that materials shouldn't "try" to look like other materials. There isn't anything specific in the Standards that speaks to stamped concrete. This proposed patio is replacing a small existing plain concrete patio.

Motion: Chesnut moved (Szumko seconded) to approve the application received April 18, 2022 and issue a certificate of appropriateness for the work proposed at 330 E Forest to include a stamped and colored concrete patio behind the house with a stamped concrete step, a colored concrete smooth driveway, and a standard concrete approach because, as long as proper expansion joints keep the concrete from touching the historic house and its foundation, the proposed work meets the Secretary of the Interior's Standards for Rehabilitation, specifically Standard 9.

Approval: Roll call. Unanimous. Motion carried.

18 N Washington

**Retroactive window replacement and proposed half-round transom installment*

Staff Report: This commercial Italianate building contributes to both the National Register and the local historic districts. The owner replaced all of the wood second-story windows that filled the entire rounded window openings with rectangular vinyl windows and rounded wood boards on the primary façade without historic district commission approval or building permits. The retroactive application for the window replacement was reviewed and denied at the December 2021 meeting.

In March, applicant submitted an application to install half-round wood windows above the double-hung vinyl windows, in place of now-existing boards. The scope of work did not mention the vinyl double-hungs that had been installed, but the intention of the application was to install half-rounds in order to make the vinyl windows meet the Secretary of the Interior's Standards for Rehabilitation. Because the scope of work did not mention the vinyl double-hungs, the application was denied because it was found it be incomplete.

The application is back before the Commission April 26 because the application has been amended so that it clearly requests approval for the half-round transom windows and the retroactive approval of the vinyl windows.

Applicant: Applicant Gary Turner attended the meeting in person.

Discussion: Commissioners discussed the background of this application. The historic windows were replaced at some point, but in the 1980s or 1990s, restoration efforts were made to replicate a full-height slender-framed and muntined wood window. It is those wood windows that had been made to meet the Secretary of the Interior's Standards (they were similar to the historic windows in design and materials) that were removed to install the double-hung vinyl windows before the commission currently. Commissioners clarified that this proposal would have the vinyl double-hungs stay and then add to them a wood half-round transom in order to open up the full height of the window to glass. Commissioner acknowledged that opening the full height of the window

to glass would be a positive change, but it is the materiality of the vinyl double-hung windows that have been and remain an issue. Another commissioner agreed. Clarifying that this application is not just for the half-round transoms—it would seek to allow the vinyl double-hungs to remain and the half-round transom would help the double-hungs be more in compliance with the Standards. These windows were installed without a permit and the building is definitely a historic building.

The applicant stated that this vinyl window is a high-quality vinyl with a more slender, not chunky profile for vinyl windows. The window has been installed to manufacturer specifications and will not sag. With the wood rounded transoms above, the windows would now completely fill the arched opening again and would look like many of the rounded windows around the district. Applicant states that it will be hard to tell that the window is vinyl from the street.

A commissioner explained that one concern is the loss of glass surface when you go to vinyl.

Applicant understands that, and states that there are many windows around the district that have a mullion between a door or window and the transom window above. The applicant and the property owner like the mullion they're proposing between the double-hung vinyl and the rounded transom window.

Commissioner states that one issue is that because this application did not go through the correct process, the commission did not have the opportunity to weigh in on this proposal and it is not likely that the commission would have led the applicant to believe that these windows would have been approved.

Commissioner clarifies that the applicant could bring a new proposal back as a study item, or could bring a new proposal back to the commission. Commissioners confirm.

Scott Munzel, property owner's attorney, addressed the commission to state that (1) when you research the Italianate style, there really is no monolithic standard either with or without a mullion between the rounded portion and the more square or rectangular portions of the window, and so what is being proposed here as far as the half-moon window goes is well constructed and meets the Standards, so you should be able to approve those, and (2) there are many examples throughout the district of double-hung windows with the half-round transoms above that are very like what this applicant is proposing—Haab's, Spark East, etc. It's not known for sure that those windows were approved by the commission or that they were just installed without approval, but Mr. Munzel suggested that it's likely that at least some of them were approved, so the commission should be sure that they're being fair to all applicants.

Commissioner states that the commission considers materials when they make their decisions, and vinyl has historically been a material the commission does not approve. This is an ongoing issue—people simply replacing windows without getting the proper permits. Mr. Munzel stated that there are issues with wood windows and the commission should not be punitive because the applicant did not go through the correct process.

Commissioner asked if retroactively approving vinyl windows is something the commission has done. One commissioner stated that there was an instance where illegal windows were installed and the commission required that on the most prominent façade, the original window(s) were re-

installed. The commissioner can remember no time that the commission approved vinyl windows like this on a primary façade. Not that vinyl will never be approved, but it has not been approved. Applicant stated that, to that point, there comes a time in the development of alternative materials in which they become more widely accepted, like composite decking on porches or cementitious siding on houses. In this case, the screen is the same screen that would be on an aluminum-clad window and the screen is the most prominent thing you see from the street. Applicant acknowledged that you don't want to see vinyl on the primary façade but this is the situation we find ourselves in.

Commissioner stated that we find ourselves here because the legal process was not followed. Everyone is held to the same process and Standards. Commissioner stated that the wood transom windows meet the Standards, but the vinyl windows that were installed without a permit do not. Another commissioner stated that if these vinyl windows had been in existence and the half-round transoms were being proposed, it could be argued that the commission would likely approve the half-round wood windows because those meet the Standards. But as another commissioner pointed out, going from the full-height glass to a half-round wood window above a double-hung would likely be a different discussion. The windows that were here weren't vinyl windows—they were appropriate wood windows that had full glass to the arched opening for the building based on the historic windows and these have now been replaced with vinyl. The Commission can't approve half of an application—the application is for both the vinyl double-hung windows and the rounded transoms above.

A commissioner stated that it seems to keep coming back to the fact that there was a wood window there, and it was appropriate for the building, and it was removed. One option would be to vote now and see how that vote comes out and then that would help determine what happens next. If the application gets denied, the commission usually likes to give an applicant a way they can correct their application, and the way it seems to do that would be to submit an amended application that doesn't include vinyl windows. One commissioner stated that they appreciate the work the applicant put in to the application. Commissioner explained that there are no precedents in the historic district—everything is case by case because every house or situation is different. We apply the Secretary of the Interior's Standards as consistently and fairly as possible. Another commissioner stated that, to add to that, their reviews are not about being punitive—it's about trying to be fair to everyone, and there's a factsheet available to help property owners evaluate their options. Applicant stated that he thinks these vinyl windows do meet the Standards and that the commission should consider approving them.

Applicant stated that there aren't many wood window repair craftspeople around and also, that work is expensive, and the applicant restated that at some point, some materials that were considered in the past to not meet the Standards, like Azek, are often considered to meet the Standards now. One commissioner stated that this is worth drilling down a bit—why doesn't vinyl meet the Standards? Commission discussed why vinyl doesn't meet the Standards—it tends to need a thicker profile than wood windows do to do the same job—glass is lost and the look is different from the street. It doesn't interact with historic materials as wood does, because of its greater rate of expansion and contraction. And it's not a quality material—it doesn't wear well and it yellows, fades, and cracks over time. Some composite materials may be stronger and may come closer to wood in their profile and proportions than vinyl does. Some commissioners

mentioned that they would like to learn more about the new materials on the market, and they are looking to the upcoming statewide training to learn more.

These windows are on the front façade of a contributing building and went from wood to vinyl. Proper procedures were not followed, and the usual ways in which the commission would have been able to influence the decision toward windows that would have met the Secretary of the Interior's Standards for Rehabilitation were short-circuited. Normally, first, there would have been an assessment regarding current conditions of existing wood windows. If they were beyond repair, then what kind of replacement would meet the Secretary of the Interior's Standards? Commission knows what they would need to see in order to make a decision—they would see cut sheets, cross sections, profiles, and conditions assessments of existing windows. This discussion was not had in this case and the windows are gone. So the commission now needs to evaluate retroactively whether these windows meet the Secretary of the Interior's Standards for Rehabilitation. Vinyl has not shown itself to be a quality enough product to use in a historic district, and this application did not go through any of the steps needed for the commission to get to the point of being able to approve a replacement material.

Motion: Ratzlaff moved (seconded by Chesnut) to deny the application for the retroactive installation of Pella 250 vinyl double-hung windows at 18 N Washington as submitted April 19, 2022 because the proposed windows do not meet the Secretary of the Interior's Standards, specifically Standards 2, 6, and 9. The proposed half-round transoms are also denied because the primary windows would need approval before these secondary windows could be approved or installed.

Approval: Roll call. Unanimous. Motion carried.

STUDY ITEMS

305 E Forest

**Would like to cover peeling cedar siding on house with siding and replace two separate garage doors with one overhead door.*

Commission discussed that the wood siding was restored and the fact that it's peeling within about 5 years or so indicates to them perhaps a problem with the way the wood was prepped for painting. Much of a paint job is prep, and then some is about the quality of the paint used. A good paint job should last 8 years or more, and then, it can be touched up as needed and it's not a major paint job down to the bare wood every time. Covering up the wood siding with more siding can seal moisture in, which isn't good for a house, and the ways that the windows and doors and rooflines will be handled with applied siding can have a negative impact on the house too. Commission would want to see in more detail that the siding can not be repaired and then siding options can be considered.

Regarding the garage, the commission would again want to better understand the deterioration issues and what is causing them and whether the original material is no longer repairable. If that is the case, then options can be explored. Homeowner noted that the doors really don't open well at all, and the header above the doors is

bowing—a new header is proposed. Homeowner did note that it is difficult to find garage doors that are not textured. Homeowner will consider submitting an application for the next meeting.

ADMINISTRATIVE APPROVALS—none

OTHER BUSINESS

1. Property Monitoring

- a. Commissioners/Staff discussed property concerns and property issues under review.

2. Updates from Staff

- a. Update on potential new historic district commissioners: Two new members were appointed. Jimmy Huffman will be attending an orientation with staff at about 6 pm before the next HDC meeting 5/10. Staff will see if Delrhea Byrge, the other appointee, can attend then as well. Other commissioners are welcome as well.
- b. State historic Tax Credit Infoshop, Wednesday June 15, at the Freighthouse. Registration is open at <https://cityofpysilanti.com/263/Historic-District>.
- c. Staff working on lining up a training for commissioners about new infill, elements of design, and how to review.

3. Commissioner Comments

- a. **Meeting schedule:** back in December, commission agreed to meet twice a month in the construction season, and agreed to revisit this schedule in April. Does commission want to consider a change in that meeting-every-two-weeks rhythm? Consensus: defer a decision about changing that every-two-weeks schedule until there are new commissioners on board.
- b. **Vice chair:** currently don't have one and let's revisit this once new commissioners are on board.

AUDIENCE PARTICIPATION ON NON-AGENDA ITEMS—none

HOUSEKEEPING BUSINESS

Approval of the Minutes of April 12, 2022

Motion: Szumko (second: Ratzlaff) moved to approve the minutes of April 12, 2022, as submitted.

Approval: Roll call. Unanimous
Motion carried.

ADJOURNMENT

Chair adjourned the meeting, citing the end of the agenda with no further items to discuss.

MEETING ADJOURNED at 9:48 p.m.