

1. Historic District Commission Virtual Meeting

Documents:

[HISTORIC DISTRICT COMMISSION - 27 APR 2021 - AGENDA - PDF.PDF](#)



AGENDA

Historic District Commission Meeting

7:00 pm -April 27, 2021

Virtual via Zoom

	Page
1. CALL TO ORDER	
2. ROLL CALL	
Alex Pettit, Chair Anne Stevenson, Vice Chair Erika Lindsay James Ratzlaff Amy Swift James Chesnut VACANT Scott Slagor, Staff	
3. APPROVAL OF AGENDA	
4. PUBLIC COMMENT ON AGENDA ITEMS	
5. PUBLIC HEARINGS	
6. BUSINESS SESSION	
6.1. OLD BUSINESS	3 - 54
222 N River 39 E Cross	
6.2. NEW BUSINESS	55 - 89
317 S Huron 407 E Cross	
6.3. STUDY ITEMS	91 - 107
302 Oak 119 S Washington 05- 302 Oak	
6.4. ADMINISTRATIVE APPROVALS	
6.5. 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 04/13/2021	109 - 117
Historic District 4-13-2021 Full Minutes	
9. ADJOURNMENT	

Virtual Access Link: <https://us02web.zoom.us/j/85193593135>. **Meeting ID:** 851 9359 3135. **Toll Free**
Phone Number Access: 888 475 4499 or 877 853 5257



HDC Work Permit Staff Review

Property address: 222 N River

Property History: The property includes a Greek Revival-style house in the "Hen-and-Chick," or basilica form, which is prevalent in southeastern Michigan, but less common in other parts of the country. City Assessing records indicate the house was built ca. 1869, however research on file indicates it was built before 1860 to serve as the Dickinson Family home.ⁱ In 1867 the property was purchased by James P. Dickinson, from his brother and sister. The property remained in the Dickinson family until 1924. It has since changed hands several times. The Dickinsons owned a handle manufacturing business in Depot Town.

Date Complete Application Received: March 18, 2021

Date of Review: April 6, 2021, April 23, 2021

Date of Meeting: April 13, 2021, April 27 2021

Proposed work: Solar array.

Materials: LG NeON solar panels in black, and Ironridge anchor system.

Staff review:

1. The application was tabled at the April 13, 2021 meeting citing a lack of information. Specifically, the commission asked for a shadow study and information on the location of the panels.
2. Staff spoke to a contractor who said he would try to have the information in advance of the meeting, but as of 4/23/2021 no new information has been submitted.
3. Additionally, the contractor committed to attending the meeting, answering questions, and explaining why locations were selected and others may not work.
4. The HDC must act by the regularly scheduled meeting on **Tuesday, May 11, 2021.**

Project Information

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.

5. Two solar array installations are proposed for the south slope of the central gable roof, each consisting of LG NeON black solar panels.
 - a. One array is located west of the chimney and has two panels.
 - b. The other is east of the chimney and has six panels.
6. The panels will be installed at an angle parallel with the slope of the roof.
7. The rails/anchors will utilize an Ironridge Flush Mount System; mounted to the roof trusses with a fastener.
8. The utility meter, service panel, disconnect, and inverter, will all be located on the east elevation of the rear ell; out of view from the right-of-way.
9. Staff asked that the applicant provide example photos of the product in use and hopes they will submit said photos in advance of the meeting.

Considerations

10. Overall, the installation meets most of the guidelines outlined in the HDC Alternative Energy Fact Sheet, except the consideration for visibility.
 - a. HDC should consider that the installation will be visible from the right-of-way, although not on the façade.
 - b. There are other examples of visible solar installations in the district.
 - c. This installation, although on the side of the building, is on the core mass of the structure, rather than a secondary mass, such as the rear ell.
 - d. Staff has provided both an approval and denial motion depending on the HDC's interpretation of the Standards. Please refer to the HDC Alternative Energy Fact Sheet for guidelines specific to solar panels.

Recommended Motions:

Move to issue a Certificate of Appropriateness for the work at 222 N River as submitted in the application dated March 18, 2021, installation of two solar arrays on the south roof slope, using LG NeON solar panels in black, and Ironridge anchor system as specified. The inverter, disconnect, and other power apparatuses shall be located on the rear east elevation. Approval is granted with the understanding that the work is removable and although visible, the panels are not street-facing and have a minimal impact on the historic setting.

Relevant Secretary of the Interior's Standards:

#9, #10

Move to deny the proposed work at 222 N River as submitted in the application dated March 18, 2021 for installation of solar facilities with the finding of an adverse impact. The installation will be visible from the right-of-way and impact historic integrities of design and setting.

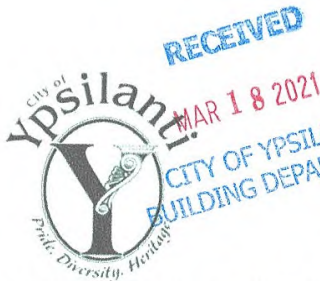
Relevant Secretary of the Interior's Standards:

#5, #9

Prepared by:

Scott E. Slagor, Preservation Planner

ⁱ Jezewski, Sara "A Profile of Ypsilanti Historic Properties: 222 N River," Eastern Michigan University Historic Preservation Program, December 15, 2005, on file Ypsilanti City Hall.



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 21-0010
R. 27625
#10134

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

222 North River St #2 Ypsilanti, MI 48198

Applicant

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

Name

William Crawford

Address

[REDACTED]

City

Portage

State

MI

Zip

49024

Phone / Fax

[REDACTED]

E-Mail

[REDACTED]

Contractor

Contractor Name & Contact Info

William Crawford

[REDACTED]

Type of work

- ☐ Roofing
☐ Window/Door Replacement

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

- ☐ Painting
☒ Other
☐ Application Amendment

Complete Description of Proposed Work:

2.72 kW Solar Project. Roof Mount, Grid tied Solar array
LG 340W Modules on the Roof.

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

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:

22,140.82

Permit fee:

\$45 + 40 = \$85.00

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:

3/15/21

Print Name:

William Crawford.

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.

DIRECTORY OF PAGES

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SAFETY LABELS

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ATTACHMENT PLAN

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ATTACHMENT DETAILS

PV-7

FIRE SAFETY PLAN

APPENDIX

ELECTRICAL CALCULATIONS

MODULE DATASHEET

OPTIMIZER DATASHEET

DISCONNECT DATASHEET

INVERTER DATASHEET

MOUNTING SYSTEM DATASHEET

MOUNTING SYSTEM ENGINEERING LETTER

UL 2703 GROUND AND BONDING CERTIFICATION

ANCHOR DATASHEET

PROJECT DETAILS

PROPERTY OWNER

HOLL ANDREWS

PROPERTY ADDRESS

222 N RIVER ST YPSILANTI, MI 48198 US

APN

111-009-100-007

ZONING

RESIDENTIAL

USE AND OCCUPANCY CLASSIFICATION

ONE- OR TWO-FAMILY DWELLING GROUP (R3)

AHJ

CITY OF YPSILANTI

UTILITY COMPANY

DETROIT EDISON CO

METER SERIAL NUMBER

2622226 16

ELECTRICAL CODE

2017 NEC (NFPA 70)

FIRE CODE

2018 NFPA 1

OTHER BUILDING CODES

2015 MI BUILDING CODE
2015 MI RESIDENTIAL CODE
2015 MI PLUMBING CODE
2015 MI MECHANICAL CODE

CONTRACTOR INFORMATION

COMPANY

OLIVAX SOLAR

ADDRESS

1004 WEST WILHAM AVE 1070 WEST GAVE PORTAGE MI 49024

CONTRACTOR SIGNATURE

SCOPE OF WORK

THIS PROJECT INVOLVES THE INSTALLATION OF A GRID-INTERACTIVE PV SYSTEM. PV MODULES WILL BE MOUNTED USING A PREENGINEERED MOUNTING SYSTEM. THE MODULES WILL BE ELECTRICALLY CONNECTED WITH DC TO AC POWER INVERTERS AND INTERCONNECTED TO THE LOCAL UTILITY USING MEANS AND METHODS CONSISTENT WITH THE RULES ENFORCED BY THE LOCAL UTILITY AND PERMITTING JURISDICTION.

THIS DOCUMENT HAS BEEN PREPARED FOR THE PURPOSE OF DESCRIBING THE DESIGN OF A PROPOSED PV SYSTEM WITH ENOUGH DETAIL TO DEMONSTRATE COMPLIANCE WITH APPLICABLE CODES AND REGULATIONS. THE DOCUMENT SHALL NOT BE RELIED UPON AS A SUBSTITUTE FOR FOLLOWING MANUFACTURER INSTALLATION INSTRUCTIONS. THE SYSTEM SHALL COMPLY WITH ALL MANUFACTURER LISTING AND INSTALLATION INSTRUCTIONS, AS WELL AS ALL APPLICABLE CODES. NOTHING IN THIS DOCUMENT SHALL BE INTERPRETED IN A WAY THAT OVERRIDES THEM. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL CONDITIONS, DIMENSIONS, AND DETAILS IN THIS DOCUMENT.

SYSTEM DETAILS

DESCRIPTION

NEW GRID-INTERACTIVE PV SYSTEM WITH NO ENERGY STORAGE

DC RATING OF SYSTEM

2.12 KW

AC RATING OF SYSTEM

2.00 KW

AC OUTPUT CURRENT

12.5 A

INVERTER(S)

1 X SOLAR EDGE SE3000-H-US0003X4

MODULE

LG L240N1K4V6

ARRAY WIRING

(1) STRING OF 8

INTERCONNECTION DETAILS

POINT OF CONNECTION

NEW LOAD-SIDE AC CONNECTION PER NEC 705.12(B)(2)(3)(B) AT MSP

UTILITY SERVICE

120/240V 1Ø

LOCATION

MAIN SERVICE PANEL WITH 100A SUBBASKET MCO

SITE DETAILS

ASHRAE EXTREME LOW

-20°F (-3°F)

ASHRAE 2% HIGH

32°F (9°F)

CLIMATE DATA SOURCE

DETROIT WILLOW RUN AIRPORT (KMP)

WIND SPEED

115 MPH (ASCE7-10)

RISK CATEGORY

II

WIND EXPOSURE CATEGORY

C

GROUND SNOW LOAD

20 PSF

ANDREWS222

GRID-TIED SOLAR POWER SYSTEM

ANDREWS RESIDENCE

222 N RIVER ST

YPSILANTI, MI 48198

PROJECT SUMMARY

DOC ID: 155477-181601-1

DATE: 3/14/21

CREATOR: A.P.

REVIEWER:

REVISIONS

PV-1

1

PLOT

SCALE: NTS

2

LOCALE

SCALE: NTS

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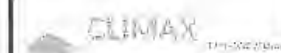


1 SITE PLAN
PV-2 SCALE: 1" = 10'

GENERAL NOTES	
1	EQUIPMENT LIKELY TO BE WORKED UPON WHILE ENERGIZED SHALL BE INSTALLED IN LOCATIONS THAT SATISFY MINIMUM WORKING CLEARANCES PER NEC 110.26.
2	CONTRACTOR SHALL USE ONLY COMPONENTS LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY FOR THE INTENDED USE.
3	CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL EQUIPMENT, CABLES, ADDITIONAL CONDUITS, RACEWAYS, AND OTHER ACCESSORIES NECESSARY FOR A COMPLETE AND OPERATIONAL PV SYSTEM.
4	WHERE DC PV SOURCE OR DC PV OUTPUT CIRCUITS ARE RUN INSIDE THE BUILDING, THEY SHALL BE CONTAINED IN METAL RACEWAYS, TYPE MC METAL-CLAD CABLE, OR METAL ENCLOSURES FROM THE POINT OF PENETRATION INTO THE BUILDING TO THE FIRST READILY ACCESSIBLE DISCONNECTING MEANS, PER NEC 890.31(G).
5	ALL EMT CONDUIT FITTINGS SHALL BE LISTED AS WEATHERPROOF FITTINGS AND INSTALLED TO ENSURE A RAINTIGHT FIT, PER NEC 358.42.

- (1) (E) UTILITY METER, OUTDOOR
- (2) (E) MAIN SERVICE PANEL (MSP), OUTDOOR
- (3) (N) VISIBLE, LOCKABLE, READILY-ACCESSIBLE AC DISCONNECT LOCATED WITHIN 10 FT OF UTILITY METER, OUTDOOR
- (4) (N) PROPOSED ROOF-MOUNTED PHOTOVOLTAIC ARRAY: 6.12 (27") SLOPED ROOF, 8 PV MODULES (BLACK FRAME, BLACK BACKSHEET), 180° AZIMUTH
- (5) (N) TRANSITION BOX, OUTDOOR, OUTPUT CIRCUIT CONDUCTORS SHALL BE RUN IN EMT CONDUIT OVER ROOF NO CLOSER THAN 0.5' ABOVE ROOF SURFACE
- (6) (N) INVERTER, OUTDOOR

ANDREWS222



GRID-TIED SOLAR POWER SYSTEM

ANDREWS RESIDENCE
222 N RIVER ST
YPSILANTI, MI 48198

SITE PLAN

DOC ID: 155477-191601-1

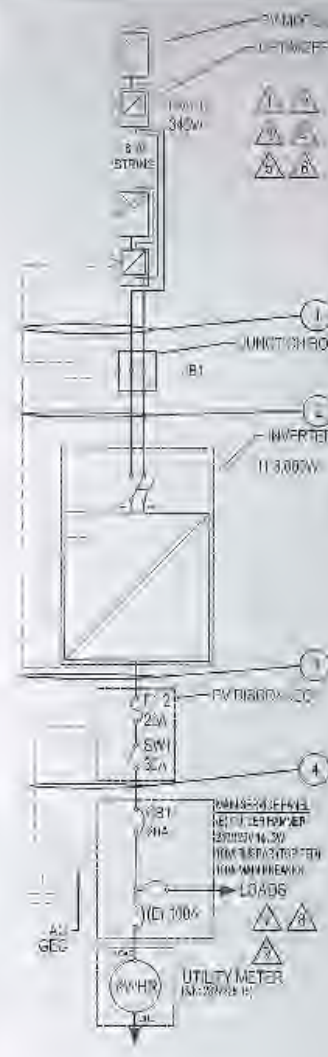
DATE: 3/14/21

CREATOR: A.F.

REVIEWER:

REVISIONS

PV-2



SCHEDULES									
SCHEDULE 1 - PANEL DATA									
REF	QTY	MAKE AND MODEL	WATT	VOL	AMP	WATT	VOL	AMP	
1	1	11 300W PV MODULES	3300	18V	183A	3300	18V	183A	
SCHEDULE 2 - INVERTER DATA									
REF	QTY	MAKE AND MODEL	WATT	VOL	AMP	WATT	VOL	AMP	
1	1	11 300W INVERTER	3300	18V	183A	3300	18V	183A	
SCHEDULE 3 - DISCONNECT DATA									
REF	QTY	MAKE AND MODEL	WATT	VOL	AMP	WATT	VOL	AMP	
1	1	11 300W DISCONNECT	3300	18V	183A	3300	18V	183A	

SYSTEM SUMMARY									
DC SOURCE (PV) OUTPUT	11 300W	18V	183A	3300	18V	183A	3300	18V	183A
NUMBER OF PV MODULES	11								
NOMINAL SYSTEM VOLTAGE	18V								
ARRAY DC-DC CONVERSION EFFICIENCY	95%								
ARRAY PDC POWER	3300W								
ARRAY PDC CURRENT	183A								
MAXIMUM DC CURRENT	183A								
MAXIMUM DC VOLTAGE	18V								
DC-DC CONVERSION EFFICIENCY	95%								

CONDUCTOR AND CONDUIT SCHEDULE AND ELECTRICAL CALCULATIONS									
ID	TYPE	CONDUCTOR	CONDUIT	CONDUCTOR	CONDUIT	CONDUCTOR	CONDUIT	CONDUCTOR	CONDUIT
1	1	10 AWG THHN, COPPER	1/2" DIA. EMT	10 AWG THHN, COPPER	1/2" DIA. EMT	10 AWG THHN, COPPER	1/2" DIA. EMT	10 AWG THHN, COPPER	1/2" DIA. EMT
2	1	10 AWG THHN, COPPER	1/2" DIA. EMT	10 AWG THHN, COPPER	1/2" DIA. EMT	10 AWG THHN, COPPER	1/2" DIA. EMT	10 AWG THHN, COPPER	1/2" DIA. EMT
3	1	10 AWG THHN, COPPER	1/2" DIA. EMT	10 AWG THHN, COPPER	1/2" DIA. EMT	10 AWG THHN, COPPER	1/2" DIA. EMT	10 AWG THHN, COPPER	1/2" DIA. EMT
4	1	10 AWG THHN, COPPER	1/2" DIA. EMT	10 AWG THHN, COPPER	1/2" DIA. EMT	10 AWG THHN, COPPER	1/2" DIA. EMT	10 AWG THHN, COPPER	1/2" DIA. EMT

GENERAL ELECTRICAL NOTES

1. ALL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL ORDINANCES.

2. CONDUCTORS EXPOSED TO SUNLIGHT SHALL BE LISTED AS SUNLIGHT RESISTANT PER NEC ARTICLE 310.10(1) AND ARTICLE 310.10(2).

3. CONDUCTORS EXPOSED TO WET LOCATIONS SHALL BE SUITABLE FOR WET LOCATIONS PER NEC ARTICLE 310.10(1).

GROUNDING NOTES

1. ALL SYSTEMS SHALL BE GROUNDING IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL ORDINANCES.

2. THE SYSTEM SHALL BE GROUNDING IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL ORDINANCES.

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4. THE SYSTEM SHALL BE GROUNDING IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL ORDINANCES.

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10. THE SYSTEM SHALL BE GROUNDING IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL ORDINANCES.

ANDREWS222

CLIMAX

GRID-TIED SOLAR POWER SYSTEM

ANDREWS RESIDENCE

222 N RIVER ST

YPSILANTI, MI 48198

SINGLE-LINE DIAGRAM

PROJECT ID: 155477

DATE: 03/14/21

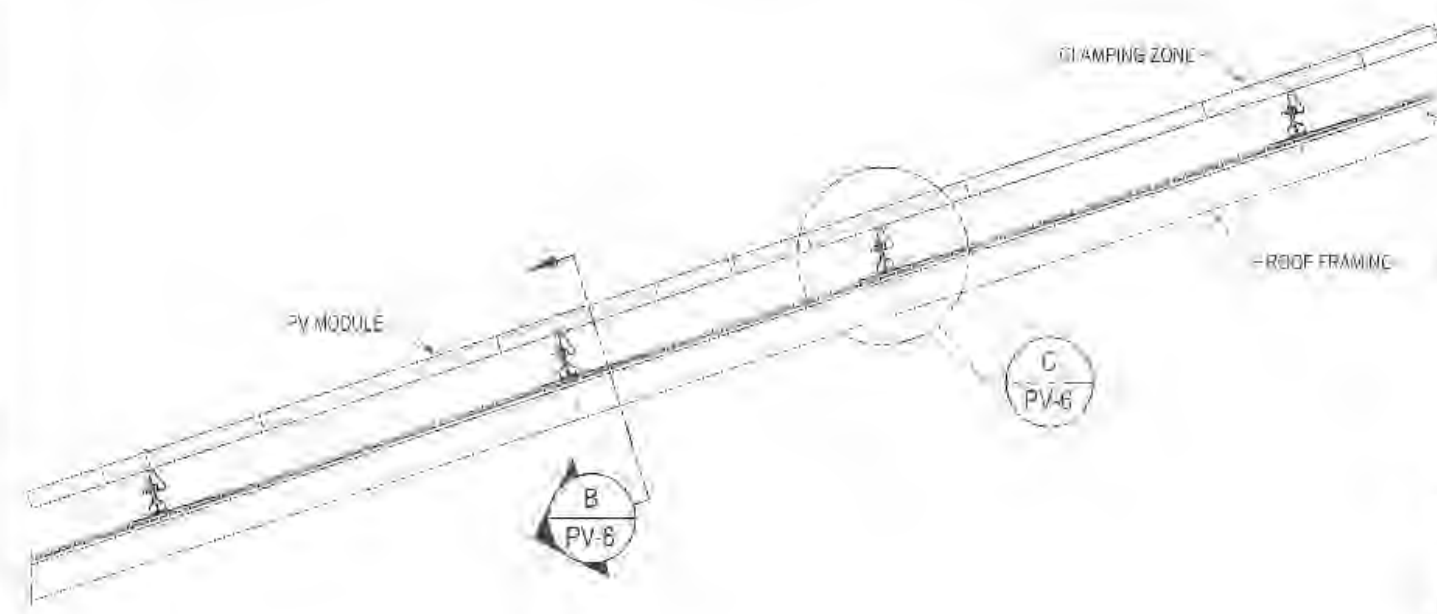
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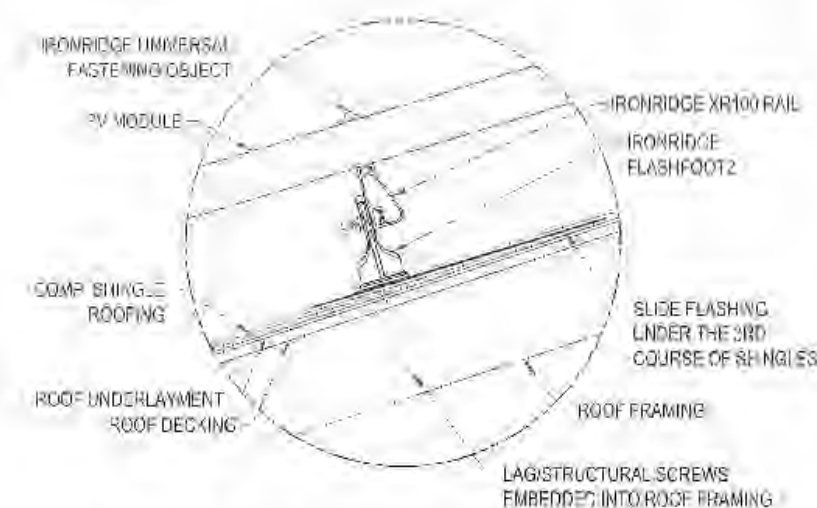
REVISIONS

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PV-3

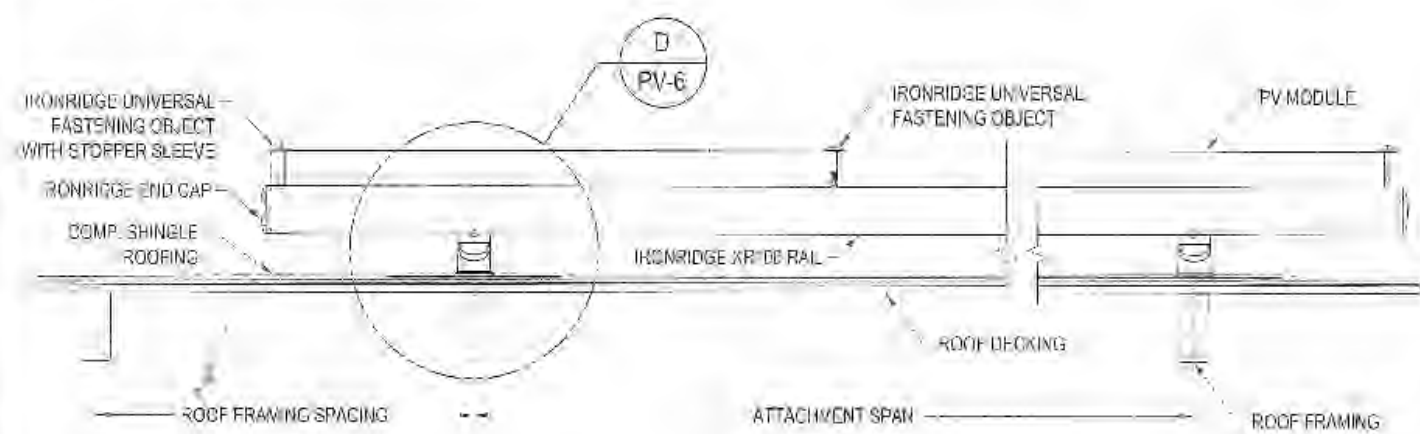


MOUNTING SYSTEM NOTES	
1	FLASHING SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2	IF THERE IS ANY CONFLICT BETWEEN WHAT IS DEPICTED HERE AND INSTRUCTIONS PROVIDED BY A MANUFACTURER, THE MANUFACTURER'S INSTRUCTIONS SHALL SUPERSEDE.

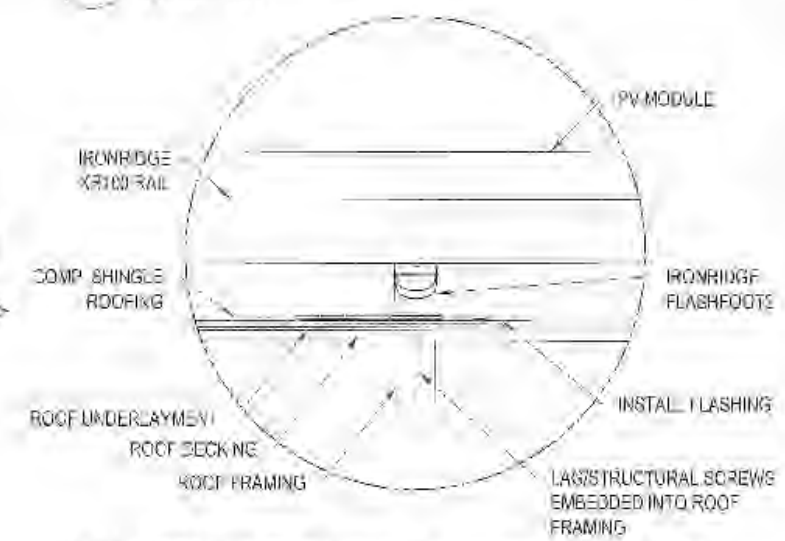


C ATTACHMENT DETAIL (TRANSVERSE VIEW)
SCALE: NTS

A RACKING ELEVATION (TRANSVERSE VIEW)
SCALE: NTS



B RACKING ELEVATION (LONGITUDINAL VIEW)
SCALE: NTS



D ATTACHMENT DETAIL (LONGITUDINAL VIEW)
SCALE: NTS

ANDREWS222									
GRID-TIED SOLAR POWER SYSTEM ANDREWS RESIDENCE 222 N RIVER ST YPSILANTI, MI 48198									
ATTACHMENT DETAILS DOC ID: 155477-101601-1 DATE: 3/14/21 CREATOR: A.F. REVIEWER:									
REVISIONS <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>									
PV-6									

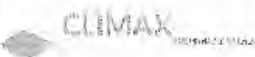


1 FIRE SAFETY PLAN
PV-7 SCALE: 1" = 10'

GENERAL NOTES	
1	EXTERIOR-MOUNTED DC CONDUITS, WIRING SYSTEMS AND RACEWAYS FOR PHOTOVOLTAIC CIRCUITS SHALL BE LOCATED AS CLOSE AS POSSIBLE TO THE RIDGE HIP, OR VALLEY, AND FROM THE HIP OR VALLEY AS DIRECTLY AS POSSIBLE TO AN OUTSIDE WALL TO REDUCE TRIP HAZARDS AND MAXIMIZE VENTILATION OPPORTUNITIES (NFPA 111.12.2.2.4.1)
2	ROOF ACCESS POINTS SHALL BE DEFINED AS AREAS WHERE FIRE DEPARTMENT LADDERS ARE NOT PLACED OVER OPENINGS (WINDOWS OR DOORS), ARE LOCATED AT STRONG POINTS OF BUILDING CONSTRUCTION, AND ARE IN LOCATIONS WHERE THEY WILL NOT CONFLICT WITH OVER-HEAD OBSTRUCTIONS (TREE LIMBS, WIRES, OR SIGNS). (NFPA 111.12.2.2.1.3)
3	PHOTOVOLTAIC MODULES SHALL BE LOCATED IN A MANNER THAT PROVIDES TWO 3 FT WIDE ACCESS PATHWAYS FROM THE EAVE TO THE RIDGE ON EACH ROOF SLOPE WHERE THE MODULES ARE LOCATED. (NFPA 111.12.2.2.2)
4	PHOTOVOLTAIC MODULES SHALL BE LOCATED NO LESS THAN 3 FT BELOW THE RIDGE. (NFPA 111.12.2.2.2)

- ① 3.0 FT. WIDE FIRE ACCESS PATHWAY, PER NFPA 111.12.2.2.1.2
- ② PV MODULES INSTALLED ON ROOF WITH IRONRIDGE ROOF MOUNTING SYSTEM. THE MOUNTING SYSTEM IS UL 1703 CLASS A FIRE RATED ON A 8/12 SLOPED ROOF WHEN INSTALLED WITH TYPE 1 OR 2 MODULES THE LG LG40N1K-V5 IS TYPE 2.
- ③ 3.0 FT. WIDE FIRE ACCESS PATHWAY, PER NFPA 111.12.2.2.1.2
- ④ ROOF ACCESS POINT
- ⑤ ROOF ACCESS POINT
- ⑥ CABLES WHEN RUN BETWEEN ARRAYS, SHALL BE ENCLOSED IN CONDUIT.

ANDREWS222



GRID-TIED SOLAR POWER SYSTEM

ANDREWS RESIDENCE
222 N RIVER ST
YPSILANTI, MI 48198

FIRE SAFETY PLAN

DOC ID: 155477-191601-1
DATE: 3/14/21
CREATOR: A.F.
REVIEWER:

REVISIONS	

PV-7

Conductor, Conduit, and OCPD Sizing Validation

1. Maximum System Voltage Test

1.1. Solar Edge inverter w/8 LG LG340N1K-V5 (340W)s

Array Properties

Array Type	Unlimited MPP™ System Inverter Array
System Description	Solar Edge inverter w/8 LG LG340N1K-V5 (340W)s
Module	LG340N1K-V5 (340W)
Highest number of modules in series in a PV Source Circuit	1
Design Low Temp	-20°C
Module Voc	41.2V
Temp. Coefficient Voc	-0.107 V/C

NEC Code Calculations

A. Maximum Voltage of PV Source Circuit	46.01V
see 690.7(A)	

NEC 690.7(A) requires that the PV module manufacturer provides a temperature coefficient of open circuit voltage, it must be used to calculate the PV array's maximum system voltage. It includes an information note recommending the use of the ASHRAE Extreme Annual Mean Minimum Design Dry Bulb temperature as the design low temperature. Using these values, the module Voc (41.2V) will increase to 46.01V at the design low temperature (-20°C).

$(-20^{\circ}\text{C} - 25^{\circ}\text{C}) \times -0.107\text{V/C} + 41.2\text{V} = 46.01\text{V}$

The module Voc at the design low temperature is 46.01V.

$46.01\text{V} \times 1 = 46.01\text{V}$

B. Maximum Voltage of DC-DC Converter Source Circuit	380V
see 690.7(B)(2)	

All PV circuits have a voltage that does not exceed 600V. This system's DC-DC Converter Source Circuits are fed by Solar Edge 7346 dc-dc converter optimization devices. Each device is connected to a single LG340N1K-V5 (340W) PV module. The voltage of this circuit is regulated by the inverter at a constant 380V.

NEC Code Validation Tests

1.	PV Source Circuit maximum Voc must not exceed 600V. $46.01\text{V} \leq 600\text{V} = \text{true}$	PASS
2.	DC-DC Converter Source Circuit voltage must not exceed 600V. $380\text{V} \leq 600\text{V} = \text{true}$	PASS

2. Wire, Conduit, and OCPD Code Compliance Validation

2.1. #1: String of Optimizer(s): Optimizer to Transition Box

Circuit Section Properties

Conductor	10 AWG PV Wire, Copper
Equipment Ground Conductor (EGC)	6 AWG Bare Copper
OCPD(s)	N/A
Runway/Conduit	Free Air
Lowest Terminal Temperature Rating	75°C
Maximum Wire Temperature	64°C
Power Source Description	DC-dc converter source circuit consisting of 8 Solar Edge P746 optimizers
Power Source Current	15A
Voltage	380V

NEC Code Calculations

A. Continuous Current	15A
see 690.8(A)(6)	

The continuous current of DC-dc converter source circuit is equal to the rated maximum output current of the optimizer.

Rated Max. Output Current of optimizer is 15A

B. Ampacity of Conductor	55A
see Table 310.15(B)(17)	

Ampacity (30°C) for a copper conductor with 90°C insulation in free air is 55A

C. Derated Ampacity of Conductor	41.8A
see Table 310.15(B)(3)pt. 1, Table 310.15(B)(3)pt. 2, and Article 100	

The temperature factor for 90°C insulation at 64°C is 0.75.

The fill factor for conductors in free air is 1.

The ampacity derated for Conditions of Use is the product of the conductor ampacity (55A) multiplied by the temperature factor (0.75) and by the fill factor (1).

$55\text{A} \times 0.75 \times 1 = 41.8\text{A}$

D. Max Current for Terminal Temp. Rating	35A
see 110.14(C)	

The lowest temperature rating for this conductor at any termination is 75°C.

Using the method specified in 110.14(C), the maximum current permitted to ensure that the device terminal temperature does not exceed its 75°C rating would be the amount referenced in the 75°C column of Table 310.15(B)(16), which is 35A.

E. Minimum Required EGC Size	12 AWG
see Table 250.132 and 250.13	

The smallest EGC size allowed is 12 AWG for OCPD rating 20A according to Table 250.132.

According to 250.45, it is not necessary to increase the size of the PV array's EGC when conductors are derated for voltage drop considerations.

NEC Code Validation Tests

1.	Derated Ampacity must be greater than or equal to the Continuous Current (Article 100). $41.8\text{A} \geq 15\text{A} = \text{true}$	PASS
2.	Conductor Ampacity must be at least 125% of Continuous Current (215.2(A)(1)). $55\text{A} \geq 15\text{A} \times 1.25 = \text{true}$	PASS
3.	Max current for terminal must be at least 125% of the Continuous Current (110.14(C)). $35\text{A} \geq 15\text{A} \times 1.25 = \text{true}$	PASS
4.	EGC must meet code requirements for minimum size (Table 250.132).	PASS
5.	EGC must meet code requirements for physical protection (250.46).	PASS

2.2. #2: String of Optimizer(s), Transition Box to Inverter

Circuit Section Properties

Conductor	18 AWG THHN-2, Copper
Equipment Ground Conductor (EGC)	18 AWG THHN-2, Copper
OCB Rating	40A
Raceway/Cable	40A max EMT
Lowest Terminal Temperature Rating	90°C
Maximum Wire Temperature	92°C
Power Source Description	DC to AC converter source circuit consisting of 6 Solar Edge 1500 EXM inverters
Power Source Current	15A
Voltage	380V

NEC Code Calculations

A. Continuous Current	15A
see 690.9(A)(2)	

The short-circuit current of DC circuit breaker or source fault is equal to the rated maximum circuit current of the combination.
Rated Max. Output Current in optimizer is 15A

B. Ampacity of Conductor	40A
see Table 310.15(B)(16)	

Ampacity (30°C) for a copper conductor with 90°C insulation in conduit/cable is 40A.

C. Derated Ampacity of Conductor	38.4A
see Table 310.15(B)(3)(a), Table 119.1(B)(2)(b), and Article 119	

The temperature factor for 90°C insulation at 32°C is 0.96.
The fill factor for conduit/cable that has 2 wires is 0.5.
The ampacity derated for conduit/cable of 18 is the product of the conductor ampacity (40A) multiplied by the temperature factor (0.96) and by the fill factor (0.5).
 $40A \times 0.96 \times 0.5 = 38.4A$

D. Max Current for Terminal Temp. Rating	40A
see 119.1(B)(2)	

The lowest temperature rating for this conductor at any termination is 90°C.
Using the method specified in 119.1(B)(2), the maximum current permitted to ensure that the device terminal temperature does not exceed its 90°C rating would be the amount referenced in the 90°C column in Table 310.15(B)(16), which is 40A.

E. Minimum Required EGC Size	12 AWG
see Table 250.122 and 680.45	

The smallest EGC size allowed is 12 AWG for OCPD rating 20A according to Table 250.122.
According to 680.45, it is not necessary to increase the size of the EGC away from the conductors are oversized for voltage drop considerations.

F. Minimum Recommended Conduit Size	0.5" dia.
see 310.17	

The total area of all conductors is 0.063 in². With a maximum fill rate of 0.4, the recommended conduit diameter is 0.5.

Qty	Description	Size	Type	Area	Total Area
2	Conductor	18 AWG	THHN-2	0.0031 in ²	0.0062 in ²
1	Equipment Ground	12 AWG	THHN-2	0.0106 in ²	0.0106 in ²
3					0.063 in ²

$0.0062 \text{ in}^2 + 0.0106 \text{ in}^2 = 0.0168 \text{ in}^2$ (Corresponding to a diameter of 0.5")

NEC Code Validation Tests

1	Derated Ampacity must be greater than or equal to the Continuous Current (Article 100) $38.4A \geq 15A = \text{true}$	PASS
2	Conductor Ampacity must be at least 125% of Continuous Current (215.2(A)(1)) $40A \geq 15A \times 1.25 = \text{true}$	PASS
3	Max current for terminal must be at least 125% of the Continuous Current (119.14(C)) $40A \geq 15A \times 1.25 = \text{true}$	PASS
4	EGC must meet code requirements for minimum size (Table 250.122) 18 AWG $\geq$ 12 AWG = true	PASS
5	Conduit must meet code recommendation for minimum size (310.17) 0.5 in. $\geq$ 0.5 in. = true	PASS

3.1. #3: Inverter Output, Inverter to Utility Disconnect

Circuit Section Properties

Conductor	12 AWG THHN-2, Copper
Equipment Ground Conductor (EGC)	12 AWG THHN-2, Copper
OCB Rating	20A
Raceway/Cable	12" dia. EMT
Lowest Terminal Temperature Rating	75°C
Maximum Wire Temperature	92°C
Power Source Description	Solar Edge SC3000H-US000EXM 3000W inverter
Power Source Current	17.5A
Voltage	600V
Maximum Max. OCPD Rating	40A

NEC Code Calculations

A. Continuous Current	17.5A
see 690.9(A)	

Equipment maximum rated circuit current is 17.5A

B. Ampacity of Conductor	30A
see Table 310.15(B)(16)	

Ampacity (30°C) for a copper conductor with 90°C insulation in conduit/cable is 30A

C. Derated Ampacity of Conductor	29.8A
see Table 310.15(B)(3)(a), Table 310.15(B)(2)(b), and Article 119	

The temperature factor for 90°C insulation at 32°C is 0.96.
The fill factor for a conduit/cable that has 2 wires is 0.5.
The ampacity derated for conduit/cable of 12 is the product of the conductor ampacity (30A) multiplied by the temperature factor (0.96) and by the fill factor (0.5).
 $30A \times 0.96 \times 0.5 = 29.8A$

D. Max Current for Terminal Temp. Rating	25A
see 119.1(B)(2)	

The lowest temperature rating for this conductor at any termination is 75°C.
Using the method specified in 119.1(B)(2), the maximum current permitted to ensure that the device terminal temperature does not exceed its 75°C rating would be the amount referenced in the 75°C column in Table 310.15(B)(16), which is 25A.

E. Minimum Allowed OCPD Rating	18A
see 240.4	

NEC 240.4(D) requires that the OCPD be rated for no less than 125% times the Continuous Current of the circuit.
 $17.5A \times 1.25 = 21.875A$

F. Maximum Allowed OCPD Rating	20A
see 690.9(A)	

NEC 690.9(A)(1) requires that the OCPD rating not exceed 20A when selecting a Copper 12 AWG conductor.

G. Minimum Required EGC Size	12 AWG
see Table 250.122	

The smallest EGC size allowed is 12 AWG for OCPD rating 20A according to Table 250.122.

H. Minimum Recommended Conduit Size	1.5" dia.
see 310.17	

The total area of all conductors is 0.252 in². With a maximum fill rate of 0.4, the recommended conduit diameter is 1.5.

Qty	Description	Size	Type	Area	Total Area
2	Conductor	12 AWG	THHN-2	0.0131 in ²	0.0262 in ²
1	Ground	12 AWG	THHN-2	0.0131 in ²	0.0393 in ²
1	Equipment Ground	12 AWG	THHN-2	0.0131 in ²	0.0524 in ²
4					0.252 in ²

$0.0262 \text{ in}^2 + 0.0131 \text{ in}^2 + 0.0131 \text{ in}^2 = 0.0524 \text{ in}^2$ (Corresponding to a diameter of 0.5")

NEC Code Validation Tests

1	OCB rating must be at least 125% of Continuous Current (240.4) $20A \geq 17.5A \times 1.25 = \text{true}$	PASS
2	Derated ampacity must exceed OCPD rating, or rating of next smaller OCPD (240.4) $29.8A \geq 20A$ (50%) Rating = true	PASS
3	OCPD rating must not exceed max OCPD rating for conductor (240.4) $20A$ (OCPD Rating) $\leq 20A = \text{true}$	PASS
4	Derated Ampacity must be greater than or equal to the Continuous Current (Article 100) $29.8A \geq 17.5A = \text{true}$	PASS
5	Conductor Ampacity must be at least 125% of Continuous Current (215.2(A)(1)) $30A \geq 17.5A \times 1.25 = \text{true}$	PASS
6	Max current for terminal must be at least 125% of the Continuous Current (119.14(C)) $25A \geq 17.5A \times 1.25 = \text{true}$	PASS
7	EGC must meet code requirements for minimum size (Table 250.122) 12 AWG $\geq$ 12 AWG = true	PASS
8	Conduit must meet code recommendation for minimum size (310.17) 1.5 in. $\geq$ 0.5 in. = true	PASS

2.4. #4: Utility Disconnect Output: Utility Disconnect to Main Service Panel

Circuit Section Properties

Conductor	12 AWG THWN-2, Copper
Equipment Ground Conductor (EGC)	12 AWG THWN-2, Copper
OCPD(s)	20A
Raceway/Cable	0.5" dia. EMT
Lowest Terminal Temperature Rating	75°C
Maximum Wire Temperature	75°C
Power Source Description	Solar Edge SE8000H-US8000HX4 3000W Inverter
Power Source Current	12.5A
Voltage	240V

NEC Code Calculations

A. Continuous Current: <i>see Article 100</i>	12.5A
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Equipment maximum rated output current is 12.5A

B. Ampacity of Conductor: <i>see Table 310.15(B)(16)</i>	30A
---	-----

Ampacity (30°C) for a 3000A conductor with 90°C insulation in conduit/cable is 30A.

C. Derated Ampacity of Conductor: <i>see Table 310.15(B)(3)(a), Table 310.15(B)(3)(a), and Article 100</i>	26.8A
---	-------

The temperature factor for 90°C insulation at 32°C is 0.96.
The fill factor for a conduit/cable that has 2 wires is 1.
The ampacity derated for Conditions of Use is the product of the conductor ampacity (30A) multiplied by the temperature factor (0.96) and by the fill factor (1).
 $30A \times 0.96 \times 1 = 28.8A$

D. Max Current for Terminal Temp. Rating: <i>see 110.14(C)</i>	25A
---	-----

The lowest temperature rating for this conductor at any termination is 75°C.
Using the method specified in 110.14(C), the maximum current permitted to ensure that the device terminal temperature does not exceed 75°C using would be the amount referenced in the 75°C column in Table 310.15(B)(16), which is 25A.

E. Minimum Allowed OCPD Rating: <i>see 240.4</i>	15A
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NEC 800.4(3) requires that the OCPD be rated for not less than 1.25 times the Continuous Current of the circuit.
 $12.5A \times 1.25 = 15.62A$

F. Maximum Allowed OCPD Rating: <i>see 240.4(D)</i>	20A
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NEC 240.4(D) requires that OCPD rating not exceed 20A when protected a Copper 12 AWG conductor.

G. Minimum Required EGC Size: <i>see Table 250.122</i>	12 AWG
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The smallest EGC size allowed is 12 AWG for OCPD rating 20A according to Table 250.122

H. Minimum Recommended Conduit Size: <i>see 300.17</i>	0.5" dia
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The total area of all conductors is 0.0532in². With a maximum fill rate of 0.4, the recommended conduit diameter is 0.5".

Qty	Description	Size	Type	Area	Total Area
2	Conductor	12 AWG	THWN-2	0.0133in ²	0.0266in ²
1	Neutral	12 AWG	THWN-2	0.0133in ²	0.0133in ²
1	Equipment Ground	12 AWG	THWN-2	0.0133in ²	0.0133in ²
4					0.0532in ²

$0.0532in^2 / 0.4 = 0.133in^2$ (Corresponding to a diameter of 0.5")

NEC Code Validation Tests

1.	OCPD rating must be at least 125% of Continuous Current (240.4) $20A \geq 12.5A \times 1.25 = true$	PASS
2.	Derated ampacity must exceed OCPD rating, or rating of next smaller OCPD (240.4) $26.8A \geq 20A$ (OCPD Rating) = true	PASS
3.	OCPD rating must not exceed max OCPD rating for conductor (240.4) $20A$ (OCPD Rating) $\leq 20A$ = true	PASS
4.	Derated Ampacity must be greater than or equal to the Continuous Current (Article 100) $26.8A \geq 12.5A$ = true	PASS
5.	Conductor Ampacity must be at least 125% of Continuous Current (215.2(A)(1)) $30A \geq 12.5A \times 1.25 = true$	PASS
6.	Maximum current for terminal must be at least 125% of the Continuous Current (110.14(C)) $25A \geq 12.5A \times 1.25 = true$	PASS
7.	EGC must meet code requirements for minimum size (Table 250.122) $12 AWG \geq 12 AWG$ = true	PASS
8.	Conduit must meet code recommendation for minimum size (300.17) $0.5in \geq 0.5in$ = true	PASS

LG NeON[®] 2 Black

350W | 345W | 340W | 335W

The LG NeON[®] 2 is LG's best-selling solar module, and is one of the most powerful and versatile modules on the market today. Featuring LG's Cell Technology, the LG NeON[®] 2 increases power output. New updates include an extended performance warranty to 99.99% to give customers a greater sense of reliability and peace of mind.



Feature

Enhanced Performance Warranty
LG NeON[®] 2 has an enhanced performance warranty. After 25 years, LG NeON[®] 2 is guaranteed to perform at minimum 99.99% of initial performance.

Better Performance on a Sunny Day
LG NeON[®] 2 now performs better on sunny days, thanks to its improved temperature coefficient.

Enhanced Product Warranty
LG has extended the warranty of the NeON[®] 2 to 25 years, which is among the top of industry standards.

Roof Aesthetics
LG NeON[®] 2 has been designed with aesthetics in mind. Using thinner wires that appear all black at a distance, the LG NeON[®] 2 can increase the aesthetic value of your home with a more modern design.

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LG NeON[®] 2 Black

LG350N1K-V5 | LG345N1K-V5 | LG340N1K-V5 | LG335N1K-V5

General Data

Cell Properties (Module Type)	Monocrystalline (Type)
Cell Package	LG
Cell Configuration	60 Cells (6 × 10)
Number of diodes	2 PA
Module Dimensions (L x W x H)	1,660mm x 1,018mm x 40mm
Weight	17.1kg
Glass (Material)	Tempered Glass with AP Coating
Backsheet (Color)	Black
Frame (Material)	Anodized Aluminum
Junction Box (Rated Voltage)	60V with 4 Hyper Diodes
Cables (Length)	1,000mm x 2PA
Connector (Type / Male)	M20 / MC

Certifications and Warranty

Certifications	UL 1709, IEC 61215, IEC 61730, ISO 9001, ISO 14001, CE, TUV, DNV, VDE, etc.
Performance	25 years, 99.99% (at 1000W/m², 25°C, 1000h)
Salt Mist Corrosion Test	ISO 9225, 24h, 25°C, 5% NaCl
Ammonia Corrosion Test	ISO 9225, 24h, 25°C, 5% NH3
Module Fire Performance	UL 1654, Class B, 1000W/m²
Fire Rating	Class E, UL 1950, IEC 61730-2
Solar Module Product Warranty	25 years
Solar Module Output Warranty	Linear Warranty
Warranty	25 years, 99.99% (at 1000W/m², 25°C, 1000h)

Temperature Characteristics

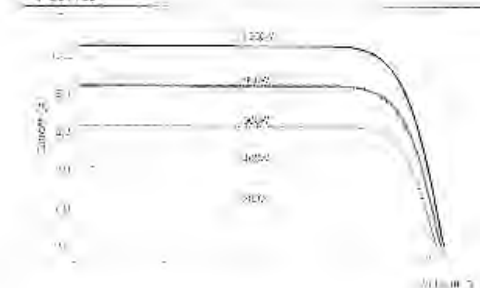
IMOT	[°C]	-25 ~ +55
Power	[W/m²]	0.35
Max	[W/m²]	0.25
Min	[W/m²]	0.25

IMOT (Based on Module Dimensions) Temperature: 25°C (Standard Temperature) 25°C, 1000h, 1000W/m², Spectral: AM 1.5

Electrical Properties (N/AUT)

Model	LG350N1K-V5	LG345N1K-V5	LG340N1K-V5	LG335N1K-V5
Maximum Power (Pmax)	350W	345W	340W	335W
MPPT Voltage (Vmp)	33.5V	33.5V	33.5V	33.5V
MPPT Current (Imp)	10.4A	10.4A	10.4A	10.4A
Open Circuit Voltage (Voc)	41.4V	41.4V	41.4V	41.4V
Short Circuit Current (Isc)	9.9A	9.9A	9.9A	9.9A

I-V Curves



Electrical Properties (S/CM)

Model	LG350N1K-V5	LG345N1K-V5	LG340N1K-V5	LG335N1K-V5
Maximum Power (Pmax)	350W	345W	340W	335W
MPPT Voltage (Vmp)	33.5V	33.5V	33.5V	33.5V
MPPT Current (Imp)	10.4A	10.4A	10.4A	10.4A
Open Circuit Voltage (Voc)	41.4V	41.4V	41.4V	41.4V
Short Circuit Current (Isc)	9.9A	9.9A	9.9A	9.9A
Module Efficiency	20.1%	20.1%	20.1%	20.1%

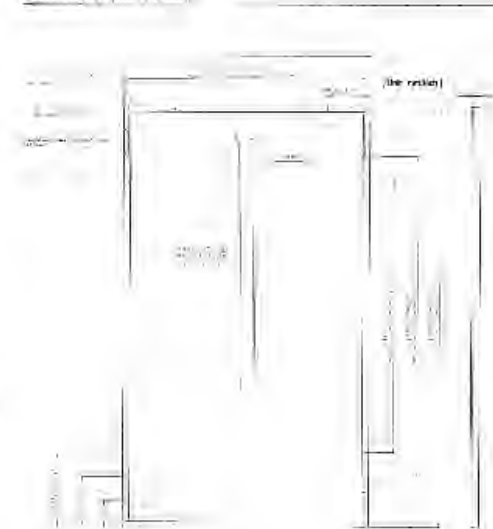
Operating Conditions

Operating Temperature	-25 ~ +55
Maximum System Voltage	1000V
Maximum Series Resistance	20
Mechanical Test Load (Front)	5,400N/m²
Mechanical Test Load (Back)	5,400N/m²
Maximum Test Load (Front/Back)	5,400N/m²
Test Load - Design Load - Safety Factor (LS)	1.5

Packaging Configuration

Number of Modules per Pallet	25
Number of Modules per 40' HQ Container	1000
Packaging Dimensions (L x W x H)	1,790 x 1,170 x 120
Packaging Box Gross Weight	460

Dimensions (mm / inch)



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www.lg.com

Product specifications are subject to change without notice.
PS-V5-B, K&F, EN 50826

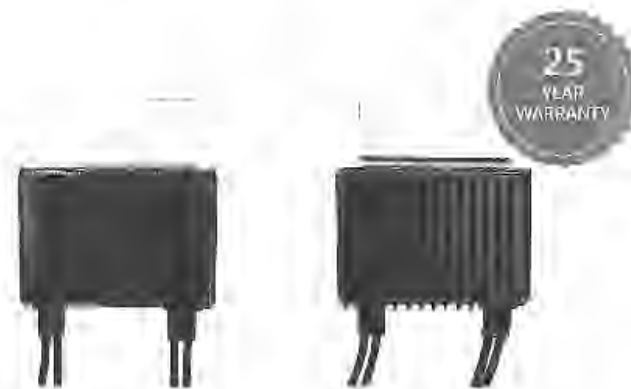
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Power Optimizer

For North America

P320 / P340 / P370 / P400 / P405 / P505



PV power optimization at the module-level

- Specifically designed to work with SolarEdge inverters
- Up to 25% more energy
- Superior efficiency (99.5%)
- Mitigates all types of module mismatch losses, from manufacturing tolerance to partial shading
- Flexible system design for maximum space utilization
- Last installation with a single hole
- Next generation maintenance with module-level monitoring
- Meets NEC requirements for arc fault protection (AFCI) and Photovoltaic Rapid Shutdown System (PVRSS)
- Module-level voltage shutdown for installer and firefighter safety

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POWER OPTIMIZER

Power Optimizer

For North America

P320 / P340 / P370 / P400 / P405 / P505

Optimizer model (typical module compatibility)	P320 (for 60-cell modules)	P340 (for high- power 60-cell modules)	P370 (for higher- power 60 and 72-cell modules)	P400 (for 72 & 96- cell modules)	P405 (for thin film modules)	P505 (for higher current modules)	
INPUT							
Rated Input DC Power	120W	140W	160W	200W	200W	250W	250W
Maximum Input Voltage (Voc at Standard Test Conditions)	42V	42V	42V	60V	110V	150V	150V
MPPT Operating Voltage	32-40V	32-40V	32-40V	40-100V	40-110V	40-150V	40-150V
Maximum Input Current (Isc at Standard Test Conditions)	3.0A	3.0A	3.0A	3.3A	3.3A	3.3A	3.3A
Maximum Input Power	120W	140W	160W	200W	200W	250W	250W
Maximum Efficiency	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%
Overvoltage Category	II	II	II	II	II	II	II
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREGE INVERTER)							
Maximum Output Current	3.3A	3.3A	3.3A	3.3A	3.3A	3.3A	3.3A
Maximum Output Voltage	150V	150V	150V	150V	150V	150V	150V
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREGE INVERTER OR SOLAREGE INVERTER OFF)							
Standby Current (Maximum)	1.0mA	1.0mA	1.0mA	1.0mA	1.0mA	1.0mA	1.0mA
STANDARD COMPLIANCE							
EMC	CE mark, Class A, EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3						
Safety	UL 1741, UL 1741E, UL 1741F, UL 1741G, UL 1741H, UL 1741I, UL 1741J, UL 1741K, UL 1741L, UL 1741M, UL 1741N, UL 1741O, UL 1741P, UL 1741Q, UL 1741R, UL 1741S, UL 1741T, UL 1741U, UL 1741V, UL 1741W, UL 1741X, UL 1741Y, UL 1741Z, UL 1741AA, UL 1741AB, UL 1741AC, UL 1741AD, UL 1741AE, UL 1741AF, UL 1741AG, UL 1741AH, UL 1741AI, UL 1741AJ, UL 1741AK, UL 1741AL, UL 1741AM, UL 1741AN, UL 1741AO, UL 1741AP, UL 1741AQ, UL 1741AR, UL 1741AS, UL 1741AT, UL 1741AU, UL 1741AV, UL 1741AW, UL 1741AX, UL 1741AY, UL 1741AZ, UL 1741BA, UL 1741BB, UL 1741BC, UL 1741BD, UL 1741BE, UL 1741BF, UL 1741BG, UL 1741BH, UL 1741BI, UL 1741BJ, UL 1741BK, UL 1741BL, UL 1741BM, UL 1741BN, UL 1741BO, UL 1741BP, UL 1741BQ, UL 1741BR, UL 1741BS, UL 1741BT, UL 1741BU, UL 1741BV, UL 1741BW, UL 1741BX, UL 1741BY, UL 1741BZ, UL 1741CA, UL 1741CB, UL 1741CC, UL 1741CD, UL 1741CE, UL 1741CF, UL 1741CG, UL 1741CH, UL 1741CI, UL 1741CJ, UL 1741CK, UL 1741CL, UL 1741CM, UL 1741CN, UL 1741CO, UL 1741CP, UL 1741CQ, UL 1741CR, UL 1741CS, UL 1741CT, UL 1741CU, UL 1741CV, UL 1741CW, UL 1741CX, UL 1741CY, UL 1741CZ, UL 1741DA, UL 1741DB, UL 1741DC, UL 1741DD, UL 1741DE, UL 1741DF, UL 1741DG, UL 1741DH, UL 1741DI, UL 1741DJ, UL 1741DK, UL 1741DL, UL 1741DM, UL 1741DN, UL 1741DO, UL 1741DP, UL 1741DQ, UL 1741DR, UL 1741DS, UL 1741DT, UL 1741DU, UL 1741DV, UL 1741DW, UL 1741DX, UL 1741DY, UL 1741DZ, UL 1741EA, UL 1741EB, UL 1741EC, UL 1741ED, UL 1741EE, UL 1741EF, UL 1741EG, UL 1741EH, UL 1741EI, UL 1741EJ, UL 1741EK, UL 1741EL, UL 1741EM, UL 1741EN, UL 1741EO, UL 1741EP, UL 1741EQ, UL 1741ER, UL 1741ES, UL 1741ET, UL 1741EU, UL 1741EV, UL 1741EW, UL 1741EX, UL 1741EY, UL 1741EZ, UL 1741FA, UL 1741FB, UL 1741FC, UL 1741FD, UL 1741FE, UL 1741FF, UL 1741FG, UL 1741FH, UL 1741FI, UL 1741FJ, UL 1741FK, UL 1741FL, UL 1741FM, UL 1741FN, UL 1741FO, UL 1741FP, UL 1741FQ, UL 1741FR, UL 1741FS, UL 1741FT, UL 1741FU, UL 1741FV, UL 1741FW, UL 1741FX, UL 1741FY, UL 1741FZ, UL 1741GA, UL 1741GB, UL 1741GC, UL 1741GD, UL 1741GE, UL 1741GF, UL 1741GG, UL 1741GH, UL 1741GI, UL 1741GJ, UL 1741GK, UL 1741GL, UL 1741GM, UL 1741GN, UL 1741GO, UL 1741GP, UL 1741GQ, UL 1741GR, UL 1741GS, UL 1741GT, UL 1741GU, UL 1741GV, UL 1741GW, UL 1741GX, UL 1741GY, UL 1741GZ, UL 1741HA, UL 1741HB, UL 1741HC, UL 1741HD, UL 1741HE, UL 1741HF, UL 1741HG, UL 1741HH, UL 1741HI, UL 1741HJ, UL 1741HK, UL 1741HL, UL 1741HM, UL 1741HN, UL 1741HO, UL 1741HP, UL 1741HQ, UL 1741HR, UL 1741HS, UL 1741HT, UL 1741HU, UL 1741HV, UL 1741HW, UL 1741HX, UL 1741HY, UL 1741HZ, UL 1741IA, UL 1741IB, UL 1741IC, UL 1741ID, UL 1741IE, UL 1741IF, UL 1741IG, UL 1741IH, UL 1741II, UL 1741IJ, UL 1741IK, UL 1741IL, UL 1741IM, UL 1741IN, UL 1741IO, UL 1741IP, UL 1741IQ, UL 1741IR, UL 1741IS, UL 1741IT, UL 1741IU, UL 1741IV, UL 1741IW, UL 1741IX, UL 1741IY, UL 1741IZ, UL 1741JA, UL 1741JB, UL 1741JC, UL 1741JD, UL 1741JE, UL 1741JF, UL 1741JG, UL 1741JH, UL 1741JI, UL 1741JJ, UL 1741JK, UL 1741JL, UL 1741JM, UL 1741JN, UL 1741JO, UL 1741JP, UL 1741JQ, UL 1741JR, UL 1741JS, UL 1741JT, UL 1741JU, UL 1741JV, UL 1741JW, UL 1741JX, UL 1741JY, UL 1741JZ, UL 1741KA, UL 1741KB, UL 1741KC, UL 1741KD, UL 1741KE, UL 1741KF, UL 1741KG, UL 1741KH, UL 1741KI, UL 1741KJ, UL 1741KK, UL 1741KL, UL 1741KM, UL 1741KN, UL 1741KO, UL 1741KP, UL 1741KQ, UL 1741KR, UL 1741KS, UL 1741KT, UL 1741KU, UL 1741KV, UL 1741KW, UL 1741KX, UL 1741KY, UL 1741KZ, UL 1741LA, UL 1741LB, UL 1741LC, UL 1741LD, UL 1741LE, UL 1741LF, UL 1741LG, UL 1741LH, UL 1741LI, UL 1741LJ, UL 1741LK, UL 1741LL, UL 1741LM, UL 1741LN, UL 1741LO, UL 1741LP, UL 1741LQ, UL 1741LR, UL 1741LS, UL 1741LT, UL 1741LU, UL 1741LV, UL 1741LW, UL 1741LX, UL 1741LY, UL 1741LZ, UL 1741MA, UL 1741MB, UL 1741MC, UL 1741MD, UL 1741ME, UL 1741MF, UL 1741MG, UL 1741MH, UL 1741MI, UL 1741MJ, UL 1741MK, UL 1741ML, UL 1741MM, UL 1741MN, UL 1741MO, UL 1741MP, UL 1741MQ, UL 1741MR, UL 1741MS, UL 1741MT, UL 1741MU, UL 1741MV, UL 1741MW, UL 1741MX, UL 1741MY, UL 1741MZ, UL 1741NA, UL 1741NB, UL 1741NC, UL 1741ND, UL 1741NE, UL 1741NF, UL 1741NG, UL 1741NH, UL 1741NI, UL 1741NJ, UL 1741NK, UL 1741NL, UL 1741NM, UL 1741NN, UL 1741NO, UL 1741NP, UL 1741NQ, UL 1741NR, UL 1741NS, UL 1741NT, UL 1741NU, UL 1741NV, UL 1741NW, UL 1741NX, UL 1741NY, UL 1741NZ, UL 1741OA, UL 1741OB, UL 1741OC, UL 1741OD, UL 1741OE, UL 1741OF, UL 1741OG, UL 1741OH, UL 1741OI, UL 1741OJ, UL 1741OK, UL 1741OL, UL 1741OM, UL 1741ON, UL 1741OO, UL 1741OP, UL 1741OQ, UL 1741OR, UL 1741OS, UL 1741OT, UL 1741OU, UL 1741OV, UL 1741OW, UL 1741OX, UL 1741OY, UL 1741OZ, UL 1741PA, UL 1741PB, UL 1741PC, UL 1741PD, UL 1741PE, UL 1741PF, UL 1741PG, UL 1741PH, UL 1741PI, UL 1741PJ, UL 1741PK, UL 1741PL, UL 1741PM, UL 1741PN, UL 1741PO, UL 1741PP, UL 1741PQ, UL 1741PR, UL 1741PS, UL 1741PT, UL 1741PU, UL 1741PV, UL 1741PW, UL 1741PX, UL 1741PY, UL 1741PZ, UL 1741QA, UL 1741QB, UL 1741QC, UL 1741QD, UL 1741QE, UL 1741QF, UL 1741QG, UL 1741QH, UL 1741QI, UL 1741QJ, UL 1741QK, UL 1741QL, UL 1741QM, UL 1741QN, UL 1741QO, UL 1741QP, UL 1741QQ, UL 1741QR, UL 1741QS, UL 1741QT, UL 1741QU, UL 1741QV, UL 1741QW, UL 1741QX, UL 1741QY, UL 1741QZ, UL 1741RA, UL 1741RB, UL 1741RC, UL 1741RD, UL 1741RE, UL 1741RF, UL 1741RG, UL 1741RH, UL 1741RI, UL 1741RJ, UL 1741RK, UL 1741RL, UL 1741RM, UL 1741RN, UL 1741RO, UL 1741RP, UL 1741RQ, UL 1741RR, UL 1741RS, UL 1741RT, UL 1741RU, UL 1741RV, UL 1741RW, UL 1741RX, UL 1741RY, UL 1741RZ, UL 1741SA, UL 1741SB, UL 1741SC, UL 1741SD, UL 1741SE, UL 1741SF, UL 1741SG, UL 1741SH, UL 1741SI, UL 1741SJ, UL 1741SK, UL 1741SL, UL 1741SM, UL 1741SN, UL 1741SO, UL 1741SP, UL 1741SQ, UL 1741SR, UL 1741SS, UL 1741ST, UL 1741SU, UL 1741SV, UL 1741SW, UL 1741SX, UL 1741SY, UL 1741SZ, UL 1741TA, UL 1741TB, UL 1741TC, UL 1741TD, UL 1741TE, UL 1741TF, UL 1741TG, UL 1741TH, UL 1741TI, UL 1741TJ, UL 1741TK, UL 1741TL, UL 1741TM, UL 1741TN, UL 1741TO, UL 1741TP, UL 1741TQ, UL 1741TR, UL 1741TS, UL 1741TT, UL 1741TU, UL 1741TV, UL 1741TW, UL 1741TX, UL 1741TY, UL 1741TZ, UL 1741UA, UL 1741UB, UL 1741UC, UL 1741UD, UL 1741UE, UL 1741UF, UL 1741UG, UL 1741UH, UL 1741UI, UL 1741UJ, UL 1741UK, UL 1741UL, UL 1741UM, UL 1741UN, UL 1741UO, UL 1741UP, UL 1741UQ, UL 1741UR, UL 1741US, UL 1741UT, UL 1741UU, UL 1741UV, UL 1741UW, UL 1741UX, UL 1741UY, UL 1741UZ, UL 1741VA, UL 1741VB, UL 1741VC, UL 1741VD, UL 1741VE, UL 1741VF, UL 1741VG, UL 1741VH, UL 1741VI, UL 1741VJ, UL 1741VK, UL 1741VL, UL 1741VM, UL 1741VN, UL 1741VO, UL 1741VP, UL 1741VQ, UL 1741VR, UL 1741VS, UL 1741VT, UL 1741VU, UL 1741VV, UL 1741VW, UL 1741VX, UL 1741VY, UL 1741VZ, UL 1741WA, UL 1741WB, UL 1741WC, UL 1741WD, UL 1741WE, UL 1741WF, UL 1741WG, UL 1741WH, UL 1741WI, UL 1741WJ, UL 1741WK, UL 1741WL, UL 1741WM, UL 1741WN, UL 1741WO, UL 1741WP, UL 1741WQ, UL 1741WR, UL 1741WS, UL 1741WT, UL 1741WU, UL 1741WV, UL 1741WW, UL 1741WX, UL 1741WY, UL 1741WZ, UL 1741XA, UL 1741XB, UL 1741XC, UL 1741XD, UL 1741XE, UL 1741XF, UL 1741XG, UL 1741XH, UL 1741XI, UL 1741XJ, UL 1741XK, UL 1741XL, UL 1741XM, UL 1741XN, UL 1741XO, UL 1741XP, UL 1741XQ, UL 1741XR, UL 1741XS, UL 1741XT, UL 1741XU, UL 1741XV, UL 1741XW, UL 1741XX, UL 1741XY, UL 1741XZ, UL 1741YA, UL 1741YB, UL 1741YC, UL 1741YD, UL 1741YE, UL 1741YF, UL 1741YG, UL 1741YH, UL 1741YI, UL 1741YJ, UL 1741YK, UL 1741YL, UL 1741YM, UL 1741YN, UL 1741YO, UL 1741YP, UL 1741YQ, UL 1741YR, UL 1741YS, UL 1741YT, UL 1741YU, UL 1741YV, UL 1741YW, UL 1741YX, UL 1741YY, UL 1741YZ, UL 1741ZA, UL 1741ZB, UL 1741ZC, UL 1741ZD, UL 1741ZE, UL 1741ZF, UL 1741ZG, UL 1741ZH, UL 1741ZI, UL 1741ZJ, UL 1741ZK, UL 1741ZL, UL 1741ZM, UL 1741ZN, UL 1741ZO, UL 1741ZP, UL 1741ZQ, UL 1741ZR, UL 1741ZS, UL 1741ZT, UL 1741ZU, UL 1741ZV, UL 1741ZW, UL 1741ZX, UL 1741ZY, UL 1741ZZ						

PV System Design Using a SolarEdge Inverter (P400)	Single Phase HD-Wave	Single phase	Three Phase 208V	Three Phase 480V	
Maximum Output Current (Amps)	3.3	3.3	3.3	3.3	
Maximum Output Voltage (V)	150	150	150	150	
Maximum Output Power (W)	495	495	495	495	
Maximum Output Current (Amps)	3.3	3.3	3.3	3.3	
Maximum Output Voltage (V)	150	150	150	150	
Maximum Output Power (W)	495	495	495	495	
Maximum Output Current (Amps)	3.3	3.3	3.3	3.3	
Maximum Output Voltage (V)	150	150	150	150	
Maximum Output Power (W)	495	495	495	495	

1. Standard SolarEdge Inverter efficiency is 98.5% at 1000W. SolarEdge Inverters are UL 1741, UL 1741E, UL 1741F, UL 1741G, UL 1741H, UL 1741I, UL 1741J, UL 1741K, UL 1741L, UL 1741M, UL 1741N, UL 1741O, UL 1741P, UL 1741Q, UL 1741R, UL 1741S, UL 1741T, UL 1741U, UL 1741V, UL 1741W, UL 1741X, UL 1741Y, UL 1741Z, UL 1741AA, UL 1741AB, UL 1741AC, UL 1741AD, UL 1741AE, UL 1741AF, UL 1741AG, UL 1741AH, UL 1741AI, UL 1741AJ, UL 1741AK, UL 1741AL, UL 1741AM, UL 1741AN, UL 1741AO, UL 1741AP, UL 1741AQ, UL 1741AR, UL 1741AS, UL 1741AT, UL 1741AU, UL 1741AV, UL 1741AW, UL 1741AX, UL 1741AY, UL 1741AZ, UL 1741BA, UL 1741BB, UL 1741BC, UL 1741BD, UL 1741BE, UL 1741BF, UL 1741BG, UL 1741BH, UL 1741BI, UL 1741BJ, UL 1741BK, UL 1741BL, UL 1741BM, UL 1741BN, UL 1741BO, UL 1741BP, UL 1741BQ, UL 1741BR, UL 1741BS, UL 1741BT, UL 1741BU, UL 1741BV, UL 1741BW, UL 1741BX, UL 1741BY, UL 1741BZ, UL 1741CA, UL 1741CB, UL 1741CC, UL 1741CD, UL 1741CE, UL 1741CF, UL 1741CG, UL 1741CH, UL 1741CI, UL 1741CJ, UL 1741CK, UL 1741CL, UL 1741CM, UL 1741CN, UL 1741CO, UL 1741CP, UL 1741CQ, UL 1741CR, UL 1741CS, UL 1741CT, UL 1741CU, UL 1741CV, UL 1741CW, UL 1741CX, UL 1741CY, UL 1741CZ, UL 1741DA, UL 1741DB, UL 1741DC, UL 1741DD, UL 1741DE, UL 1741DF, UL 1741DG, UL 1741DH, UL 1741DI, UL 1741DJ, UL 1741DK, UL 1741DL, UL 1741DM, UL 1741DN, UL 1741DO, UL 1741DP, UL 1741DQ, UL 1741DR, UL 1741DS, UL 1741DT, UL 1741DU, UL 1741DV, UL 1741DW, UL 1741DX, UL 1741DY, UL 1741DZ, UL 1741EA, UL 1741EB, UL 1741EC, UL 1741ED, UL 1741EE, UL 1741EF, UL 1741EG, UL 1741EH, UL 1741EI, UL 1741EJ, UL 1741EK, UL 1741EL, UL 1741EM, UL 1741EN, UL 1741EO, UL 1741EP, UL 1741EQ, UL 1741ER, UL 1741ES, UL 1741ET, UL 1741EU, UL 1741EV, UL 1741EW, UL 1741EX, UL 1741EY, UL 1741EZ, UL 1741FA, UL 1741FB, UL 1741FC, UL 1741FD, UL 1741FE, UL 1741FF, UL 1741FG, UL 1741FH, UL 1741FI, UL 1741FJ, UL 1741FK, UL 1741FL, UL 1741FM, UL 1741FN, UL 1741FO, UL 1741FP, UL 1741FQ, UL 1741FR, UL 1741FS, UL 1741FT, UL 1741FU, UL 1741FV, UL 1741FW, UL 1741FX, UL 1741FY, UL 1741FZ, UL 1741GA, UL 1741GB, UL 1741GC, UL 1741GD, UL 1741GE, UL 1741GF, UL 1741GG, UL 1741GH, UL 1741GI, UL 1741GJ, UL 1741GK, UL 1741GL, UL 1741GM, UL 1741GN, UL 1741GO, UL 1741GP, UL 1741GQ, UL 1741GR, UL 1741GS, UL 1741GT, UL 1741GU, UL 1741GV, UL 1741GW, UL 1741GX, UL 1741GY, UL 1741GZ, UL 1741HA, UL 1741HB, UL 1741HC, UL 1741HD, UL 1741HE, UL 1741HF, UL 1741HG, UL 1741HH, UL 1741HI, UL 1741HJ, UL 1741HK, UL 1741HL, UL 1741HM, UL 1741HN, UL 1741HO, UL 1741HP, UL 1741HQ, UL 1741HR, UL 1741HS, UL 1741HT, UL 1741HU, UL 1741HV, UL 1741HW, UL 1741HX, UL 1741HY, UL 1741HZ, UL 1741IA, UL 1741IB, UL 1741IC, UL 1741ID, UL 1741IE, UL 1741IF, UL 1741IG, UL 1741IH, UL 1741II, UL 1741IJ, UL 1741IK, UL 1741IL, UL 1741IM, UL 1741IN, UL 1741IO, UL 1741IP, UL 1741IQ, UL 1741IR, UL 1741IS, UL 1741IT, UL 1741IU, UL 1741IV, UL 1741IW, UL 1741IX, UL 1741IY, UL 1741IZ, UL 1741JA, UL 1741JB, UL 1741JC, UL 1741JD, UL 1741JE, UL 1741JF, UL 1741JG, UL 1741JH, UL 1741JI, UL 1741JJ, UL 1741JK, UL 1741JL, UL 1741JM, UL 1741JN, UL 1741JO, UL 1741JP, UL 1741JQ, UL 1741JR, UL 1741JS, UL 1741JT, UL 1741JU, UL 1741JV, UL 1741JW, UL 1741JX, UL 1741JY, UL 1741JZ, UL 1741KA, UL 1741KB, UL 1741KC, UL 1741KD, UL 1741KE, UL 1741KF, UL 1741KG, UL 1741KH, UL 1741KI, UL 1741KJ, UL 1741KK, UL 1741KL, UL 1741KM, UL 1741KN, UL 1741KO, UL 1741KP, UL 1741KQ, UL 1741KR, UL 1741KS, UL 1741KT, UL 1741KU, UL 1741KV, UL 1741KW, UL 1741KX, UL 1741KY, UL 1741KZ, UL 1741LA, UL 1741LB, UL 1741LC, UL 1741LD, UL 1741LE, UL 1741LF, UL 1741LG, UL 1741LH, UL 1741LI, UL 1741LJ, UL 1741LK, UL 1741LM, UL 1741LN, UL 1741LO, UL 1741LP, UL 1741LQ, UL 1741LR, UL 1741LS, UL 1741LT, UL 1741LU, UL 1741LV, UL 1741LW, UL 1741LX, UL 1741LY, UL 1741LZ, UL 1741MA, UL 1741MB, UL 1741MC, UL 1741MD, UL 1741ME, UL 1741MF, UL 1741MG, UL 1741MH, UL 1741MI, UL 1741MJ, UL 1741MK, UL 1741ML, UL 1741MN, UL 1741MO, UL 1741MP, UL 1741MQ, UL 1741MR, UL 1741MS, UL 1741MT, UL 1741MU, UL 1741MV, UL 1741MW, UL 1741MX, UL 1741MY, UL 1741MZ, UL 1741NA, UL 1741NB, UL 1741NC, UL 1741ND, UL 1741NE, UL 1741NF, UL 1741NG, UL 1741NH, UL 1741NI, UL 1741NJ, UL 1741NK, UL 1741NL, UL 1741NM, UL 1741NN, UL 1741NO, UL 1741NP, UL 1741NQ, UL 1741NR, UL 1741NS, UL 1741NT, UL 1741NU, UL 1741NV, UL 1741NW, UL 1741NX, UL 1741NY, UL 1741NZ, UL 1741OA, UL 1741OB, UL 1741OC, UL 1741OD, UL 1741OE, UL 1741OF, UL 1741OG, UL 1741OH, UL 1741OI, UL 1741OJ, UL 1741OK, UL 1741OL, UL 1741OM, UL 1741ON, UL 1741OO, UL 1741OP, UL 1741OQ, UL 1741OR, UL 1741OS, UL 1741OT, UL 1741OU, UL 1741OV, UL 1741OW, UL 1741OX, UL 1741OY, UL 1741OZ, UL 1741PA, UL 1741PB, UL 1741PC, UL 1741PD, UL 1741PE, UL 1741PF, UL 1741PG, UL 1741PH, UL 1741PI, UL 1741PJ, UL 1741PK, UL 1741PL, UL 1741PM, UL 1741PN, UL 1741PO, UL 1741PP, UL 1741PQ, UL 1741PR, UL 1741PS, UL 1741PT, UL 1741PU, UL 1741PV, UL 1741PW, UL 1741PX, UL 1741PY, UL 1741PZ, UL 1741QA, UL 1741QB, UL 1741QC, UL 1741QD, UL 1741QE, UL 1741QF, UL 1741QG, UL 1741QH, UL 1741QI, UL 1741QJ, UL 1741QK, UL 1741QL, UL 1741QM, UL 1741QN, UL 1741QO, UL 1741QP, UL 1741QQ, UL 1741QR, UL 1741QS, UL 1741QT, UL 1741QU, UL 1741QV, UL 1741QW, UL 1741QX, UL 1741QY, UL 1741QZ, UL 1741RA, UL 1741RB, UL 1741RC, UL 1741RD, UL 1741RE, UL 1741RF, UL



pe.eaton.com

Product compliance: No Data

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Eaton general duty cartridge fuse safety switch

DG221NRB

UPC:782113120317

Dimensions:

- Height: 6.88 IN
- Length: 11.29 IN
- Width: 7.25 IN

Weight:6.18 LB

Notes:Maximum hp ratings apply only when dual element fuses are used. 3-Phase hp rating shown is a grounded B phase rating, UL listed.

Warranties:

- Eaton Selling Policy 25-000, one (1) year from the date of installation of the Product or eighteen (18) months from the date of shipment of the Product, whichever occurs first.

Specifications:

- Type: General duty, cartridge fused
- Amperage Rating: 30A
- Enclosure: NEMA 3R
- Enclosure Material: Painted galvanized steel
- Fuse Class Provision: Class H fuses
- Fuse Configuration: Fusible with neutral
- Number Of Poles: Two-pole
- Number Of Wires: Three-wire
- Product Category: General duty safety switch
- Voltage Rating: 240V

Supporting documents:

- Eaton's Volume 2-Commercial Distribution
- Eaton Specification Sheet- DG221NRB

Certifications:

- UL Listed



SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US /
SE7600H-US / SE10000H-US / SE11400H-US



12.25
YEAR
WARRANTY



- Specifically designed to work with power optimizers
- Record-breaking 99% weighted efficiency
- Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- Fixed-voltage inverter for longer strings
- Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- UL 1741 SA certified, for EPIC Rule 21 grid compliance
- Small, lightweight, and easy to install both outdoors or indoors
- Built-in module-level monitoring
- Optional: Faster installations with built-in consumption metering (1% accuracy) and production/revenue-grade metering (0.5% accuracy, ANSI C12.20)

solar edge

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US/
SE7600H-US / SE10000H-US / SE11400H-US

[illegible]

Single Phase Inverter with HD-Wave Technology for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US/
SE7600H-US / SE10000H-US / SE11400H-US

MODEL NUMBER	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US
ADDITIONAL FEATURES							
Support of Communication Interfaces	RS485, Ethernet, ZigBee (optional), Cellular (optional)						
Reverse Load Protection (RLP)	Optional						
Overcurrent Monitoring	Built-in						
Inverter Efficiency	With the HD-Wave technology, efficiency is up to 97.5% (at full load)						
IP65 Protection (NEMA 4X)	Available. See the manual for more details.						
STANDARD COMPLIANCE							
UL	UL 1741, UL 1741-1, UL 1741-2, UL 1741-3, UL 1741-4, UL 1741-5, UL 1741-6, UL 1741-7, UL 1741-8, UL 1741-9, UL 1741-10, UL 1741-11, UL 1741-12, UL 1741-13, UL 1741-14, UL 1741-15, UL 1741-16, UL 1741-17, UL 1741-18, UL 1741-19, UL 1741-20, UL 1741-21, UL 1741-22, UL 1741-23, UL 1741-24, UL 1741-25, UL 1741-26, UL 1741-27, UL 1741-28, UL 1741-29, UL 1741-30, UL 1741-31, UL 1741-32, UL 1741-33, UL 1741-34, UL 1741-35, UL 1741-36, UL 1741-37, UL 1741-38, UL 1741-39, UL 1741-40, UL 1741-41, UL 1741-42, UL 1741-43, UL 1741-44, UL 1741-45, UL 1741-46, UL 1741-47, UL 1741-48, UL 1741-49, UL 1741-50, UL 1741-51, UL 1741-52, UL 1741-53, UL 1741-54, UL 1741-55, UL 1741-56, UL 1741-57, UL 1741-58, UL 1741-59, UL 1741-60, UL 1741-61, UL 1741-62, UL 1741-63, UL 1741-64, UL 1741-65, UL 1741-66, UL 1741-67, UL 1741-68, UL 1741-69, UL 1741-70, UL 1741-71, UL 1741-72, UL 1741-73, UL 1741-74, UL 1741-75, UL 1741-76, UL 1741-77, UL 1741-78, UL 1741-79, UL 1741-80, UL 1741-81, UL 1741-82, UL 1741-83, UL 1741-84, UL 1741-85, UL 1741-86, UL 1741-87, UL 1741-88, UL 1741-89, UL 1741-90, UL 1741-91, UL 1741-92, UL 1741-93, UL 1741-94, UL 1741-95, UL 1741-96, UL 1741-97, UL 1741-98, UL 1741-99, UL 1741-100						
IEEE 1547	IEEE 1547, IEEE 1547-1, IEEE 1547-2, IEEE 1547-3, IEEE 1547-4, IEEE 1547-5, IEEE 1547-6, IEEE 1547-7, IEEE 1547-8, IEEE 1547-9, IEEE 1547-10, IEEE 1547-11, IEEE 1547-12, IEEE 1547-13, IEEE 1547-14, IEEE 1547-15, IEEE 1547-16, IEEE 1547-17, IEEE 1547-18, IEEE 1547-19, IEEE 1547-20, IEEE 1547-21, IEEE 1547-22, IEEE 1547-23, IEEE 1547-24, IEEE 1547-25, IEEE 1547-26, IEEE 1547-27, IEEE 1547-28, IEEE 1547-29, IEEE 1547-30, IEEE 1547-31, IEEE 1547-32, IEEE 1547-33, IEEE 1547-34, IEEE 1547-35, IEEE 1547-36, IEEE 1547-37, IEEE 1547-38, IEEE 1547-39, IEEE 1547-40, IEEE 1547-41, IEEE 1547-42, IEEE 1547-43, IEEE 1547-44, IEEE 1547-45, IEEE 1547-46, IEEE 1547-47, IEEE 1547-48, IEEE 1547-49, IEEE 1547-50, IEEE 1547-51, IEEE 1547-52, IEEE 1547-53, IEEE 1547-54, IEEE 1547-55, IEEE 1547-56, IEEE 1547-57, IEEE 1547-58, IEEE 1547-59, IEEE 1547-60, IEEE 1547-61, IEEE 1547-62, IEEE 1547-63, IEEE 1547-64, IEEE 1547-65, IEEE 1547-66, IEEE 1547-67, IEEE 1547-68, IEEE 1547-69, IEEE 1547-70, IEEE 1547-71, IEEE 1547-72, IEEE 1547-73, IEEE 1547-74, IEEE 1547-75, IEEE 1547-76, IEEE 1547-77, IEEE 1547-78, IEEE 1547-79, IEEE 1547-80, IEEE 1547-81, IEEE 1547-82, IEEE 1547-83, IEEE 1547-84, IEEE 1547-85, IEEE 1547-86, IEEE 1547-87, IEEE 1547-88, IEEE 1547-89, IEEE 1547-90, IEEE 1547-91, IEEE 1547-92, IEEE 1547-93, IEEE 1547-94, IEEE 1547-95, IEEE 1547-96, IEEE 1547-97, IEEE 1547-98, IEEE 1547-99, IEEE 1547-100						
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INSTALLATION SPECIFICATIONS							
AC Output Voltage Range	120V/240V (split phase)			120V/240V (split phase)		120V/240V (split phase)	
DC Input Voltage Range	12V/24V/36V/48V/60V/72V/84V/96V/108V/120V/144V/168V/192V/216V/240V/288V/312V/336V/360V/384V/408V/432V/456V/480V/504V/528V/552V/576V/600V/624V/648V/672V/696V/720V/744V/768V/792V/816V/840V/864V/888V/912V/936V/960V/984V/1008V/1032V/1056V/1080V/1104V/1128V/1152V/1176V/1200V/1224V/1248V/1272V/1296V/1320V/1344V/1368V/1392V/1416V/1440V/1464V/1488V/1512V/1536V/1560V/1584V/1608V/1632V/1656V/1680V/1704V/1728V/1752V/1776V/1800V/1824V/1848V/1872V/1896V/1920V/1944V/1968V/1992V/2016V/2040V/2064V/2088V/2112V/2136V/2160V/2184V/2208V/2232V/2256V/2280V/2304V/2328V/2352V/2376V/2400V/2424V/2448V/2472V/2496V/2520V/2544V/2568V/2592V/2616V/2640V/2664V/2688V/2712V/2736V/2760V/2784V/2808V/2832V/2856V/2880V/2904V/2928V/2952V/2976V/3000V/3024V/3048V/3072V/3096V/3120V/3144V/3168V/3192V/3216V/3240V/3264V/3288V/3312V/3336V/3360V/3384V/3408V/3432V/3456V/3480V/3504V/3528V/3552V/3576V/3600V/3624V/3648V/3672V/3696V/3720V/3744V/3768V/3792V/3816V/3840V/3864V/3888V/3912V/3936V/3960V/3984V/4008V/4032V/4056V/4080V/4104V/4128V/4152V/4176V/4200V/4224V/4248V/4272V/4296V/4320V/4344V/4368V/4392V/4416V/4440V/4464V/4488V/4512V/4536V/4560V/4584V/4608V/4632V/4656V/4680V/4704V/4728V/4752V/4776V/4800V/4824V/4848V/4872V/4896V/4920V/4944V/4968V/4992V/5016V/5040V/5064V/5088V/5112V/5136V/5160V/5184V/5208V/5232V/5256V/5280V/5304V/5328V/5352V/5376V/5400V/5424V/5448V/5472V/5496V/5520V/5544V/5568V/5592V/5616V/5640V/5664V/5688V/5712V/5736V/5760V/5784V/5808V/5832V/5856V/5880V/5904V/5928V/5952V/5976V/6000V/6024V/6048V/6072V/6096V/6120V/6144V/6168V/6192V/6216V/6240V/6264V/6288V/6312V/6336V/6360V/6384V/6408V/6432V/6456V/6480V/6504V/6528V/6552V/6576V/6600V/6624V/6648V/6672V/6696V/6720V/6744V/6768V/6792V/6816V/6840V/6864V/6888V/6912V/6936V/6960V/6984V/7008V/7032V/7056V/7080V/7104V/7128V/7152V/7176V/7200V/7224V/7248V/7272V/7296V/7320V/7344V/7368V/7392V/7416V/7440V/7464V/7488V/7512V/7536V/7560V/7584V/7608V/7632V/7656V/7680V/7704V/7728V/7752V/7776V/7800V/7824V/7848V/7872V/7896V/7920V/7944V/7968V/7992V/8016V/8040V/8064V/8088V/8112V/8136V/8160V/8184V/8208V/8232V/8256V/8280V/8304V/8328V/8352V/8376V/8400V/8424V/8448V/8472V/8496V/8520V/8544V/8568V/8592V/8616V/8640V/8664V/8688V/8712V/8736V/8760V/8784V/8808V/8832V/8856V/8880V/8904V/8928V/8952V/8976V/9000V/9024V/9048V/9072V/9096V/9120V/9144V/9168V/9192V/9216V/9240V/9264V/9288V/9312V/9336V/9360V/9384V/9408V/9432V/9456V/9480V/9504V/9528V/9552V/9576V/9600V/9624V/9648V/9672V/9696V/9720V/9744V/9768V/9792V/9816V/9840V/9864V/9888V/9912V/9936V/9960V/9984V/10008V/10032V/10056V/10080V/10104V/10128V/10152V/10176V/10200V/10224V/10248V/10272V/10296V/10320V/10344V/10368V/10392V/10416V/10440V/10464V/10488V/10512V/10536V/10560V/10584V/10608V/10632V/10656V/10680V/10704V/10728V/10752V/10776V/10800V/10824V/10848V/10872V/10896V/10920V/10944V/10968V/10992V/11016V/11040V/11064V/11088V/11112V/11136V/11160V/11184V/11208V/11232V/11256V/11280V/11304V/11328V/11352V/11376V/11400V/11424V/11448V/11472V/11496V/11520V/11544V/11568V/11592V/11616V/11640V/11664V/11688V/11712V/11736V/11760V/11784V/11808V/11832V/11856V/11880V/11904V/11928V/11952V/11976V/12000V/12024V/12048V/12072V/12096V/12120V/12144V/12168V/12192V/12216V/12240V/12264V/12288V/12312V/12336V/12360V/12384V/12408V/12432V/12456V/12480V/12504V/12528V/12552V/12576V/12600V/12624V/12648V/12672V/12696V/12720V/12744V/12768V/12792V/12816V/12840V/12864V/12888V/12912V/12936V/12960V/12984V/13008V/13032V/13056V/13080V/13104V/13128V/13152V/13176V/13200V/13224V/13248V/13272V/13296V/13320V/13344V/13368V/13392V/13416V/13440V/13464V/13488V/13512V/13536V/13560V/13584V/13608V/13632V/13656V/13680V/13704V/13728V/13752V/13776V/13800V/13824V/13848V/13872V/13896V/13920V/13944V/13968V/13992V/14016V/14040V/14064V/14088V/14112V/14136V/14160V/14184V/14208V/14232V/14256V/14280V/14304V/14328V/14352V/14376V/14400V/14424V/14448V/14472V/14496V/14520V/14544V/14568V/14592V/14616V/14640V/14664V/14688V/14712V/14736V/14760V/14784V/14808V/14832V/14856V/14880V/14904V/14928V/14952V/14976V/15000V/15024V/15048V/15072V/15096V/15120V/15144V/15168V/15192V/15216V/15240V/15264V/15288V/15312V/15336V/15360V/15384V/15408V/15432V/15456V/15480V/15504V/15528V/15552V/15576V/15600V/15624V/15648V/15672V/15696V/15720V/15744V/15768V/15792V/15816V/15840V/15864V/15888V/15912V/15936V/15960V/15984V/16008V/16032V/16056V/16080V/16104V/16128V/16152V/16176V/16200V/16224V/16248V/16272V/16296V/16320V/16344V/16368V/16392V/16416V/16440V/16464V/16488V/16512V/16536V/16560V/16584V/16608V/16632V/16656V/16680V/16704V/16728V/16752V/16776V/16800V/16824V/16848V/16872V/16896V/16920V/16944V/16968V/16992V/17016V/17040V/17064V/17088V/17112V/17136V/17160V/17184V/17208V/17232V/17256V/17280V/17304V/17328V/17352V/17376V/17400V/17424V/17448V/17472V/17496V/17520V/17544V/17568V/17592V/17616V/17640V/17664V/17688V/17712V/17736V/17760V/17784V/17808V/17832V/17856V/17880V/17904V/17928V/17952V/17976V/18000V/18024V/18048V/18072V/18096V/18120V/18144V/18168V/18192V/18216V/18240V/18264V/18288V/18312V/18336V/18360V/18384V/18408V/18432V/18456V/18480V/18504V/18528V/18552V/18576V/18600V/18624V/18648V/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IRONRIDGE

Flush Mount System



Small Pitched Roof Mounting System

IronRidge builds the strongest mounting system for pitched roofs in solar. Every component has been tested to the limit and proven in extreme environments.

Our rigorous approach has led to unique structural features, such as curved rails and reinforced flashings, and is also why our products are fully certified, code compliant and backed by a 25-year warranty.



Strength Tested

All components evaluated for superior structural performance.



Class A Fire Rating

Certified to maintain the fire resistance rating of the existing roof.



UL 2703 Listed System

Entire system and components meet newest effective UL 2703 standard.



PE Certified

Pre-stamped engineering letters available in most states.



Design Assistant

Online software makes it simple to create, share, and price projects.



25-Year Warranty

Products guaranteed to be free of impairing defects.

XR10 Rail



A low-profile mounting rail for regions with light snow.

- 6' spanning capability
- Moderate load capability
- Clear and black finish

XR100 Rail



The ultimate residential solar mounting rail.

- 8' spanning capability
- Heavy load capability
- Clear and black finish

XR1000 Rail



A heavyweight mounting rail for commercial projects.

- 12' spanning capability
- Extreme load capability
- Clear anodized finish

Bonded Splices



All rails use internal splices for seamless connections.

- Self-drilling screws
- Varying versions for rails
- Forms secure bonding

UFOs



Universal Fastening Objects bond modules to rails.

- Fully assembled & lubed
- Single, universal size
- Clear and black finish

Stopper Sleeves



Snap onto the UFO to turn into a bonded end clamp.

- Bonds modules to rails
- Sized to match modules
- Clear and black finish

CAMO



Bond modules to rails while staying completely hidden.

- Universal end-cam clamp
- Tool-less installation
- Fully assembled

Grounding Lugs



Connect arrays to equipment ground.

- Low profile
- Single tool installation
- Mounts in any direction

FlashFoot2



Flash and mount XR Rails with superior waterproofing.

- Twist-on Cap eases install
- Wind-driven rain tested
- Mill and black finish

Conduit Mount



Flash and mount conduit, strut, or junction boxes.

- Twist-on Cap eases install
- Wind-driven rain tested
- Secures 3/4" or 1" conduit

Slotted L-Feet



Drop-in design for rapid rail attachment.

- Secure rail connections
- Slot for vertical adjusting
- Clear and black finish

Bonding Hardware



Bond and attach XR Rails to roof attachments.

- T & Square Bolt options
- Nut uses 7/16" socket
- Assembled and lubricated



Design Assistant

Go from rough layout to fully engineered system. For free.



NABCEP Certified Training

Earn free continuing education credits while learning more about our systems.



1498 Zephyr Avenue
Hayward, CA 94544
1-800-727-9523
IronRidge.com

Attn: Corey Geiger, COO, IronRidge Inc.
Date: September 7th, 2018

Re: Structural Certification and Span Tables for IronRidge Flush Mount System

This letter addresses the structural performance and code compliance of IronRidge's Flush Mount System. The Flush Mount System is a proprietary rooftop mounting system used to support photovoltaic (PV) modules installed in portrait or landscape orientation and set parallel to the underlying roof surface. PV modules are supported by extruded aluminum XR Rails and secured to the rails with IronRidge mounting clamps. The XR Rails are then mounted to a selected roof attachment with 3/8" stainless steel bonding hardware and then attached directly to the roof structure or to a purlin that is fastened to the underlying roof structure. Assembly details of a typical Flush Mount installation and its core components are shown in Exhibit EX-0015.

The IronRidge Flush Mount System is designed and certified to the structural requirements of the reference standards listed below, for the load conditions and configurations tabulated in the attached span tables:

- ASCE/SEI 7-10 Minimum Design Loads for Buildings and Other Structures (ASCE 7-10)
- 2015 International Building Code (IBC-2015)
- 2015 Michigan Building Code
- 2015 Aluminum Design Manual (ADM-2015)

The tables included in this letter provide the maximum allowable spans of XR Rails in the Flush Mount System for the respective loads and configurations listed, covering wind exposure categories B, C, & D; roof zones 1, 2 & 3; and roof slopes from 0° to 45°. The span tables are applicable provided that the following conditions are met:

1. Span is the distance between two adjacent roof attachment points (measured at the center of the attachment fastener)
2. The underlying roof pitch, measured between roof surface and horizontal plane, is 45° or less.
3. The *mean roof height*, defined as the average of the roof eave height and the roof ridge height measured from grade, does not exceed 30 feet.
4. Module length shall not exceed the listed maximum dimension provided for the respective span table and module width shall not exceed 48".
5. All Flush Mount components shall be installed in a professional workmanlike manner per IronRidge's *Flush Mount installation manual* and other applicable standards for general roof construction practice.



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The span tables provided in this letter are certified based on the structural performance of IronRidge XR Rails only with no consideration of the structural adequacy of the chosen roof attachments, PV modules, or the underlying roof supporting members. It is the responsibility of the installer or system designer to verify the structural capacity and adequacy of the aforementioned system components in regards to the applied or resultant loads of any chosen array configuration.

Sincerely,

Gang Xuan, PE, LEED AP
Senior Structural Engineer

- ✓ **Tested and approved module clamps:**
 - Supremum silver or black mid and end clamps with part numbers 75001250 where "X" is 1, 5, 6 or 7
 - IronBridge silver or black mid and end clamps with part numbers FMLS-XG-001-Y where "X" is E or M and "Y" is B or black.
- ✓ Follow module manufacturer's installation instructions to install the module clamps.
- ✓ Flameless modules require using a Grounding Lug on every rail.
- ✓ For Supremum Modules Only: It required to use slide prevention hardware, see Module Slide Prevention Addendum (Version 1.1.0).

Ametrols	Ametrol solar modules with 35, 40 and 50 mm frames AS-bYxxxZ Where 'b' can be 3 or 6, 'Y' can be M, P, M27, F27, M30, or P30, 'xxx' is the module power rating, and 'Z' can be blank, W or WB
Astronergy Solar	Astronergy modules with 30, 35, 40 and 45 mm frames aaSBbbyyD/zz-xxx Where 'aa' can be CH or 'bb' can be 60, 66, or 72, 'yy' can be blank, 10 or 12, 'D' can be M, F, M(BL), M-HC, M(BL)-HC, F-HC (DG), or (DGT), 'zz' can be blank, 1V, F-D, or F-BL, and 'xxx' is the module power rating Astronergy frameless modules GISM0810P(DG)-xxx Where 'xxx' is the module power rating
Auxin	Auxin modules with 40 mm frames AXNgy8z/xxx Where 'y' can be M or F, 'z' can be 08, 09, 10, 11, or 12, 'A' can be F or T, and 'xxx' is the module power rating
Auxin	Auxin Modules with 35 and 40 mm frames AG-xxxY/aaZ7b Where 'xxx' is the module power rating, 'Y' can be M, P or MH, 'aa' can be blank, 125, or 155, 'ZZ' can be 54, 60, 72, 120, or 144, 'b' can be S or 30
Boviet	Boviet modules with 40mm frames BYM68aaYY-xxx Where 'aa' can be 9, 10 or 12, 'YY' is M or F, and 'xxx' is the module power rating
BYD	Where 'xxx' is the module power rating, 'Y' can be M, P or MH, 'aa' can be blank, 125 or 155, 'ZZ' can be 54, 60, 72, 120, or 144, 'b' can be S or 30
Canadian Solar	Canadian Solar modules with 30, 35 and 40 mm frames CSnYxxxZ Where 'b' can be 1, 3 or U, 'Y' can be H, K, F, U, V, M, or X, 'xxx' refers to the module power rating, and 'Z' can be M, P, M3, P3, M30, P30, F30, M3-A0, M3-A0, P3-A0, M3-A0, or M3-S0 Canadian Solar frameless modules CSbY-xxxZ Where 'b' can be 3 or 6, 'Y' is K, F, U, or X, 'xxx' is the module power rating, and 'Z' can be M-G, M3-FU, F-HC, M3-FG, or P3-FG
Certified Energy	Certified Energy modules with 35 and 40 frames CTxxxY7Z-AA Where 'xxx' is the module power rating, 'Y' can be M, F or HC, 'ZZ' can be 08, 10, or 12, and 'AA' can be 01, 02, 03 or 04
Clusol	Clusol modules with 35 and 40 mm frames YVxxxxzAbb Where 'YY' is GSUN or SST, 'xxx' is the module power rating, 'zz' is blank, 60, or 72, and 'A' is blank, F or M, 'bb' is blank, BB, BW, or ROOF
Ecosolergy	Ecosolergy modules with 35, 40 and 50 mm frames ECQxxxY/zzA-bbD Where 'xxx' is the module power rating, 'Y' can be A, H, S, or T, 'zz' can be 125 or 155, 'W' can be M or F, 'bb' can be 60 or 72, and 'D' can be blank or P

ET Solar	ET Solar modules with 35, 40 and 50 mm frames ET-Y077xxxAA Where "Y" can be P, L, or M; "77" can be 60 or 72; "xxx" refers to the module power rating; and "AA" can be WP, WV, WR, WRG, WVG, WBAG, WBDQ, WWCQ, WWTQ or WRAQ.
Flex	Flex modules with 35, 40 and 50 mm frames and model identifier FAS-xxxxY-ZZ, where "xxx" is the module power rating; "Y" can be BD or DC; and "ZZ" can be MAA1B, MAA1W, MAB1W, BAA1B, BAA1W, BAA1R, BAA1W, BAA1W, BAA1R, BAA1W, BBA1B, or BBA1W.
GCL	GCL modules with 35 mm and 40 mm frames GCL-axYY-xxx Where "a" can be M or P; "YY" can be 60, 72, or 74; and "xxx" is the module power rating.
Glax/Wm Solar	Glax/Wm modules with 40 mm frames GIXxxxYY Where "xxx" refers to the module power rating; and "YY" can be either PR or MB.
Hansol	Hansol modules with 35 and 40 frames HSxxxYY-ZZ Where "xxx" is the module power rating; "YY" can be PB, PD, PE, TB, TD, UB, UD, or UE; and "ZZ" can be AN1, AN3, AN4, JYV1, or JY3.
Hanwha Solar	Hanwha Solar modules with 40, 40 and 50 mm frames HBLaa66-YV-xxx-ZZ Where "aa" can be either 60 or 72; "YV" can be FA or FB; "xxx" refers to the module power rating; and "ZZ" can be blank or 3.
Hanwha Q CELLS	Hanwha Q CELLS Modules with 32, 35, 40 and 42mm frames and model identifier qayYY-ZZ-xxx-xxxx "aa" can be D, or P; "YY" can be PLUS, PRO, PEAK, LINE PRO, LINE PLUS, or REACTOR; and "ZZ" can be G0, G3.1, G4, G4.1, L-G0, L-G3.1, L-G4, L-G4.1, L-G5, L-G5.1, L-G6, L-G6.1, L-G7, L-G7.1, L-G8, L-G8.1, L-G9, L-G9.1, L-G10, L-G10.1, L-G11, L-G11.1, L-G12, L-G12.1, L-G13, L-G13.1, L-G14, L-G14.1, L-G15, L-G15.1, L-G16, L-G16.1, L-G17, L-G17.1, L-G18, L-G18.1, L-G19, L-G19.1, L-G20, L-G20.1, L-G21, L-G21.1, L-G22, L-G22.1, L-G23, L-G23.1, L-G24, L-G24.1, L-G25, L-G25.1, L-G26, L-G26.1, L-G27, L-G27.1, L-G28, L-G28.1, L-G29, L-G29.1, L-G30, L-G30.1, L-G31, L-G31.1, L-G32, L-G32.1, L-G33, L-G33.1, L-G34, L-G34.1, L-G35, L-G35.1, L-G36, L-G36.1, L-G37, L-G37.1, L-G38, L-G38.1, L-G39, L-G39.1, L-G40, L-G40.1, L-G41, L-G41.1, L-G42, L-G42.1, L-G43, L-G43.1, L-G44, L-G44.1, L-G45, L-G45.1, L-G46, L-G46.1, L-G47, L-G47.1, L-G48, L-G48.1, L-G49, L-G49.1, L-G50, L-G50.1, L-G51, L-G51.1, L-G52, L-G52.1, L-G53, L-G53.1, L-G54, L-G54.1, L-G55, L-G55.1, L-G56, L-G56.1, L-G57, L-G57.1, L-G58, L-G58.1, L-G59, L-G59.1, L-G60, L-G60.1, L-G61, L-G61.1, L-G62, L-G62.1, L-G63, L-G63.1, L-G64, L-G64.1, L-G65, L-G65.1, L-G66, L-G66.1, L-G67, L-G67.1, L-G68, L-G68.1, L-G69, L-G69.1, L-G70, L-G70.1, L-G71, L-G71.1, L-G72, L-G72.1, L-G73, L-G73.1, L-G74, L-G74.1, L-G75, L-G75.1, L-G76, L-G76.1, L-G77, L-G77.1, L-G78, L-G78.1, L-G79, L-G79.1, L-G80, L-G80.1, L-G81, L-G81.1, L-G82, L-G82.1, L-G83, L-G83.1, L-G84, L-G84.1, L-G85, L-G85.1, L-G86, L-G86.1, L-G87, L-G87.1, L-G88, L-G88.1, L-G89, L-G89.1, L-G90, L-G90.1, L-G91, L-G91.1, L-G92, L-G92.1, L-G93, L-G93.1, L-G94, L-G94.1, L-G95, L-G95.1, L-G96, L-G96.1, L-G97, L-G97.1, L-G98, L-G98.1, L-G99, L-G99.1, L-G100, L-G100.1, L-G101, L-G101.1, L-G102, L-G102.1, L-G103, L-G103.1, L-G104, L-G104.1, L-G105, L-G105.1, L-G106, L-G106.1, L-G107, L-G107.1, L-G108, L-G108.1, L-G109, L-G109.1, L-G110, L-G110.1, L-G111, L-G111.1, L-G112, L-G112.1, L-G113, L-G113.1, L-G114, L-G114.1, L-G115, L-G115.1, L-G116, L-G116.1, L-G117, L-G117.1, L-G118, L-G118.1, L-G119, L-G119.1, L-G120, L-G120.1, L-G121, L-G121.1, L-G122, L-G122.1, L-G123, L-G123.1, L-G124, L-G124.1, L-G125, L-G125.1, L-G126, L-G126.1, L-G127, L-G127.1, L-G128, L-G128.1, L-G129, L-G129.1, L-G130, L-G130.1, L-G131, L-G131.1, L-G132, L-G132.1, L-G133, L-G133.1, L-G134, L-G134.1, L-G135, L-G135.1, L-G136, L-G136.1, L-G137, L-G137.1, L-G138, L-G138.1, L-G139, L-G139.1, L-G140, L-G140.1, L-G141, L-G141.1, L-G142, L-G142.1, L-G143, L-G143.1, L-G144, L-G144.1, L-G145, L-G145.1, L-G146, L-G146.1, L-G147, L-G147.1, L-G148, L-G148.1, L-G149, L-G149.1, L-G150, L-G150.1, L-G151, L-G151.1, L-G152, L-G152.1, L-G153, L-G153.1, L-G154, L-G154.1, L-G155, L-G155.1, L-G156, L-G156.1, L-G157, L-G157.1, L-G158, L-G158.1, L-G159, L-G159.1, L-G160, L-G160.1, L-G161, L-G161.1, L-G162, L-G162.1, L-G163, L-G163.1, L-G164, L-G164.1, L-G165, L-G165.1, L-G166, L-G166.1, L-G167, L-G167.1, L-G168, L-G168.1, L-G169, L-G169.1, L-G170, L-G170.1, L-G171, L-G171.1, L-G172, L-G172.1, L-G173, L-G173.1, L-G174, L-G174.1, L-G175, L-G175.1, L-G176, L-G176.1, L-G177, L-G177.1, L-G178, L-G178.1, L-G179, L-G179.1, L-G180, L-G180.1, L-G181, L-G181.1, L-G182, L-G182.1, L-G183, L-G183.1, L-G184, L-G184.1, L-G185, L-G185.1, L-G186, L-G186.1, L-G187, L-G187.1, L-G188, L-G188.1, L-G189, L-G189.1, L-G190, L-G190.1, L-G191, L-G191.1, L-G192, L-G192.1, L-G193, L-G193.1, L-G194, L-G194.1, L-G195, L-G195.1, L-G196, L-G196.1, L-G197, L-G197.1, L-G198, L-G198.1, L-G199, L-G199.1, L-G200, L-G200.1, L-G201, L-G201.1, L-G202, L-G202.1, L-G203, L-G203.1, L-G204, L-G204.1, L-G205, L-G205.1, L-G206, L-G206.1, L-G207, L-G207.1, L-G208, L-G208.1, L-G209, L-G209.1, L-G210, L-G210.1, L-G211, L-G211.1, L-G212, L-G212.1, L-G213, L-G213.1, L-G214, L-G214.1, L-G215, L-G215.1, L-G216, L-G216.1, L-G217, L-G217.1, L-G218, L-G218.1, L-G219, L-G219.1, L-G220, L-G220.1, L-G221, L-G221.1, L-G222, L-G222.1, L-G223, L-G223.1, L-G224, L-G224.1, L-G225, L-G225.1, L-G226, L-G226.1, L-G227, L-G227.1, L-G228, L-G228.1, L-G229, L-G229.1, L-G230, L-G230.1, L-G231, L-G231.1, L-G232, L-G232.1, L-G233, L-G233.1, L-G234, L-G234.1, L-G235, L-G235.1, L-G236, L-G236.1, L-G237, L-G237.1, L-G238, L-G238.1, L-G239, L-G239.1, L-G240, L-G240.1, L-G241, L-G241.1, L-G242, L-G242.1, L-G243, L-G243.1, L-G244, L-G244.1, L-G245, L-G245.1, L-G246, L-G246.1, L-G247, L-G247.1, L-G248, L-G248.1, L-G249, L-G249.1, L-G250, L-G250.1, L-G251, L-G251.1, L-G252, L-G252.1, L-G253, L-G253.1, L-G254, L-G254.1, L-G255, L-G255.1, L-G256, L-G256.1, L-G257, L-G257.1, L-G258, L-G258.1, L-G259, L-G259.1, L-G260, L-G260.1, L-G261, L-G261.1, L-G2

Table 1: Solar Module Naming Conventions	
Motec	MT and XS series modules with 40, 45 and 50 mm frames
Neo Solar Power	Neo Solar Power modules with 35 mm frames D6YxxZZaa Where "Y" can be M or P; xxx is the module power rating; "ZZ" can be B3A, B4A, B3A, F4A, H3A, H4A; and "aa" can be blank, (1F), MF or ME (TF)
Panasonic	Panasonic modules with 35 and 40 mm frames BHNxxxYYzzA Where "xxx" refers to the module power rating; "YY" can be either KA, BA or ZA; "zz" can be either 01, 02, 03, 04, 05, 06S, 11, 11B, 15, 15B, 16, 16B, 17, or 18; and "A" can be blank, E or G
Peimier	Peimier modules with 40 mm frames SGxxxYzz Where "xxx" is the module power rating; "Y" can be M or P; and "zz" can be blank, (BTF), or (FD)
Phivos Solar	Phivos Solar modules with 35, 40 and 45 mm frames PSxxxYZZ/A Where xxx refers to the module power rating; "Y" can be M or P; "ZZ" can be 20 or 24; and "A" can be F, T or U
Prism Solar	Prism Solar frameless modules SYYY-xxxDSIT Where "YY" can be 48, 60, 60S, 72 or 72S; and "xxx" is the module power rating
RPG Solar	REC modules with 30, 36 and 45 mm frames RECxxxYYZZ Where "xxx" is the module power rating; "YY" can be 4A, M, 4P, PP, PF72, TF, TP2, TP2M, TP2SM, or TP2S; and "ZZ" can be blank, Black, BLK, BLK2, SILV, or 72
Renasola	Renasola modules with 35, 40 and 50 mm frames J0xxxY-ZZ Where "xxx" refers to the module power rating; "Y" can be T, M or S; and "ZZ" can be Ab, Ab-b, Abt, Abh-b, Abw, Abw-b, Db, Db-b, Bbh, Bbh-b, Bbv, Bbv-b, Dti or Dti-b
Renogy	Renogy Modules with 40 and 50 mm frames RNG-xxxY Where "xxx" is the module power rating; and "Y" can be D or P
Rison	Rison Modules with 35 and 40 mm frames RSMyy-G-xxxZZ Where "yy" can be 60 or 72; "xxx" is the module power rating; and "ZZ" can be M or P Frameless modules RSMyy-G-xxxZZ Where "yy" can be 60 or 72; "xxx" is the module power rating; and "ZZ" can be MDG or PDC
S-Energy	S-Energy modules with 40 frames SNxxxY-ZZ Where "xxx" is the module power rating; "Y" can be M or P; and "ZZ" can be 7G, or 15
Seraphim Energy Group	Seraphim modules with 35 and 40 mm frames SEG-6YY-xxxZZ Where "YY" can be MA, MR, PA, or PB; "xxx" is the module power rating; and "ZZ" can be B3, BV, WB or WW
Seraphim USA	Seraphim modules with 40 and 50 mm frames SRH-xxx-6YY Where "xxx" is the module power rating; and "YY" can be MA, MB, PA, PB, QA-XX-XX, and QB-XX-XX
Sharp	Sharp modules with 40 and 40 mm frames NUYxxx Where "YY" can be SA or SG; and "xxx" is the module power rating
Sillab	Sillab Modules with 38 mm frames SYY-Z-xxx Where "YY" can be SA or LA; SB or LG; "Z" can be M, P or X; and "xxx" is the module power rating
Solaria	Solaria modules with 40 mm frames PowerX-xxxY-ZZ Where "xxx" is the module power rating; "Y" can be M or P; and "ZZ" can be AC, BD, BX, BY, CD, FX, GZ, WX or WZ
Solarcity	Solarcity modules with 40 mm frames BCxxxYY Where "xxx" is the module power rating; and "Y" can be blank, B1 or B2
SolarTech	SolarTech modules with 42 mm frames STU-xxxYY Where "xxx" is the module power rating; and "YY" can be PERC or HJT
SolarWorld AG / Industries GmbH	SolarWorld Sunmodule Plus, Protect, Bisun, XL, Bisun XL, may be followed by mono, poly, duo, black, bk, or clear; modules with 31-33 or 48 mm frames SW-xxx Where "xxx" is the module power rating
SolarWorld Americas Inc.	SolarWorld Sunmodule Plus, Protect, Bisun, XL, Bisun XL, may be followed by mono, poly, duo, black, bk, or clear; modules with 33 mm frames SWA-xx Where "xxx" is the module power rating
Sion	Sion Thin film modules with 39 mm frames STC-xxx or STD-xxxA Thin film frameless modules STL-xxx or STL-xxxA Where "xxx" is the module power rating
SunEdison	SunEdison Modules with 35, 40 and 50 mm frames SE-YxxxZABCDE Where "Y" can be B, F, H, P, R, or Z; "xxx" refers to the module power rating; "Z" can be 0 or 4; "A" can be B, C, D, F, J, L, K, J, M, or N; "B" can be R or W; "C" can be A or C; "D" can be 0, 7, 8 or 9; and "E" can be 0, 1 or 2

Table 2: Solar Module Naming Conventions	
Suniva	Suniva modules with 35, 38, 40, 46 and 50 mm frames OPTxxx-AA-R-YY-Z MVNxxx-AA-B-YYVz Where "xxx" is the module power rating; "AA" is either 60 or 72; "R" is either 4 or 5; "YY" is either 100, 101, 700, 1B0, or 1B1; and "Z" is blank or B
Sunpower	Sunpower standard (G3 or G4) or InvisiMount (G5) 40 and 48 mm frames SPR-ZUxxxYY Where "Z" is either A, E, P or X; "b" can be blank, 17, 18, 19, 20, 21, or 22; "xxx" is the module power rating; and "YY" can be blank, D-K, GDM, C-AC, D-AC, E-AC, G-AC, BLK-C-AC, or BLK-D-AC
Supreme	Supreme frameless modules GXP-xxxYY Where "xxx" is the module power rating; and "YY" can be blank or SL
Sunspark	Sunspark modules with 40 mm frames SYYY-xZ Where "YY" can be MX or 3F; "xxx" is the module power rating; and "Z" can be P or W
Suntech	Vd, Mm, Wdb, Wdc, and Wd series modules with 35, 40 and 50 mm frames
Talesun	Talesun modules with 35 and 40 frames TP6yyZxxx-A Where "yy" can be 60, 72, H50 or H72; "Z" can be M, or P; "xxx" is the module power rating; and "A" can be blank, B or I
Tina	Tina Modules with 30, 35, 40 and 46mm frames TSM-xxxYYZZ Where "xxx" is the module power rating; "YY" can be DD05, DD06, DE04, DE15, DEG15, F405, F406, F406S, F406S, F406S, PG15, PD14, PF14, or PF14; and "ZZ" can be blank, 05, 06, 10, 16, 08D, 16D, 005, 002, 005, 005S, 085, A, A 05, A 06, A 10, A 16, A (II), A 05 (II), A 06 (II), A 082 (II), A 10 (II), A 15 (II), 11, 100, 105 (II), H 08 (II), H 20 (II), H 20 (II) or M Frameless modules TSM-xxxYY Where "YY" can be 600 (II), DEG500 (II), DEG540 (II), DEG547 (II), DEG14 (II), DEG14C (II), DEG14C 07 (II), DEG1440 (II), DEG5, DEG5.07, DEG5.40, DEG5.47, or DEG14.40
Vikram	Vikram solar modules with 40 mm frames Syy.ZZ.AAA.bb Where "yy" can be M, P, MBB, MH, ME, MBBB, or PBB; "ZZ" can be 60 or 72; "AAA" is the module power rating; and "bb" can be 05, 04 or 05
Winaco	Winaco modules with 35 and 40 mm frames Wsy-xxxZ Where "y" can be either 1 or 1; "xxx" is the module power rating; and "Z" can be either M or P
Yingli	Panda, YG= and YGE-U series modules with 35, 40 and 50 mm frames



FlashFoot2

The Strongest Attachment in Solar

IronRidge FlashFoot2 raises the bar in solar roof protection. The unique water seal design is both elevated and encapsulated, delivering redundant layers of protection against water intrusion. In addition, the twist-on Cap perfectly aligns the rail attachment with the lag bolt to maximize mechanical strength.

Twist-On Cap

FlashFoot2's unique Cap design encapsulates the lag bolt and locks into place with a simple twist. The Cap helps FlashFoot2 deliver superior structural strength, by aligning the rail and lag bolt in a concentric load path.



Three-Tier Water Seal

FlashFoot2's seal architecture utilizes three layers of protection. An elevated platform diverts water away, while a stack of rugged components raises the seal an entire inch. The seal is then fully encapsulated by the Cap. FlashFoot2 is the first solar attachment to pass the TAS 100 Wind-Driven Rain Test.

Single Socket Size

A custom-design lag bolt allows you to install FlashFoot2 with the same 7/16" socket size used on other Flush Mount System components.



Water-Shedding Design

An elevated platform diverts water away from the water seal.

Installation Features

(A)

(A) Alignment Markers

Quickly align the flashing with chalk lines to find pilot holes.

(B)

(B) Rounded Corners

Makes it easier to handle and insert under the roof shingles.

(C)

(C) Reinforcement Ribs

Help to stiffen the flashing and prevent any bonding or cracking during installation.

Benefits of Concentric Loading

Traditional solar attachments have a horizontal offset between the rail and lag bolt, which introduces leverage on the lag bolt and decreases uplift capacity.

FlashFoot2 is the only product to align the rail and lag bolt. This concentric loading design results in a stronger attachment for the system.



Testing & Certification

Structural Certification

Designed and Certified for Compliance with the International Building Code & ASCE/SEI-7.

Water Seal Ratings

Water Sealing Tested to UL 441 Section 27 "Rain Test" and IAS 100-95 "Wind Driven Rain Test" by Intertek. Ratings applicable for composition shingle roofs having slopes between 2:12 and 12:12.

UL 2703

Conforms to UL 2703 Mechanical and Bonding Requirements. See Flush Mount Install Manual for full ratings.

Staff photos of 222 N River



Both photos taken from right-of-way facing northeast to proposed installation site.





Photo of 222 N River Facade from right-of-way.



CITY OF

Ypsilanti

PRIDE | DIVERSITY | HERITAGE

Historic District Fact Sheet

Alternative Energy

This Fact Sheet is not a substitute for the ordinance, but addresses common questions about City ordinances. For further information, please contact the Historic District Assistant.

All permit applications are available from the Building Department and at cityofypsilanti.com/permits.

Completed applications may be dropped off at the Building Department.

City Hall

One South Huron
Ypsilanti, MI 48197

Building

3rd Floor, City Hall
Phone: (734) 482-1025
cityofypsilanti.com/157

Planning

3rd Floor, City Hall
Phone: (734) 483-9646
cityofypsilanti.com/planning

Historic District

3rd Floor, City Hall
Phone: (734) 483-9646
cityofypsilanti.com/hd

All permits, fees, and factsheets can be found at cityofypsilanti.com/permits.

Ypsilanti's Historical Preservation ordinance and the Standards for Rehabilitation of Historic Structures set by the U.S. Secretary of the Interior govern the review of any work proposed in the district.

Under the ordinance, the HDC cannot approve any installation that would destroy or wholly obscure a character-defining feature, either by virtue of its installation or its removal. Examples of "character-defining features" include, but are not limited to, doors, windows, porches, rooflines, significant landscape features, and transoms. Both the materials and the arrangement of these features define a property's historic character and must not be obscured, radically changed, damaged, or destroyed.

General Considerations for Alternative Energy Installations

The term "alternative energy" covers a variety of technologies including geothermal, wind, and solar power. The general principles below apply equally to all types of alternative energy installations.

Effect on the Historic Material. The solar panels should not damage or obscure any historic material or character-defining feature on the structure. Installations can be denied if there is any uncertainty as to how the installation will affect the structure or materials in the future.

Visibility. Any alternative energy installation, including solar panels, should not be visible on the primary façade (or facades if located on a corner lot) of the historic structure. The best location for solar panels is usually on the south facing roof. However, if this location can be seen from the street then solar panels would not be approved in that location.

Inverters and disconnects. Any inverter and/or power disconnect boxes installed as part of an alternative energy system should not be visible from the front of the structure. Any conduits for the alternative energy system to these boxes should not differ in color from the surface on which they are mounted.

Age of Structure. The age of the structure on which any installation would be installed is also a consideration. *Example:* South-facing solar panels that would be visible from the street on a 10 year old garage that sits behind a historic structure may be an acceptable alternative to placing panels on the main historic structure.

Installation and attachment. The proposed method and materials for attachment and the method of eventual removal and repair of any resulting damage to the structure shall be clearly identified in any work permit application.

Solar Panels

Angle of Attachment. If placed on the roof of the structure, the angle of the solar panels should match that of the roof. Flat roofs will have different consideration.

For more information, please see National Park Service's [Preservation Brief 3: Improving Energy Efficiency in Historic Buildings](#).

Last updated: January 2019



HDC Work Permit Staff Review

Property address: 39 E Cross

Property History: The property includes an Italianate-style commercial block that is contributing to the historic district.

Date Complete Application Received: March 22, 2021

Date of Review: April 7, 2021, April 23, 2021

Date of Meeting: April 13, 2021, April 27, 2021

Proposed work: Covering for outdoor dining area.

Materials: treated lumber, composite decking, translucent corrugated plastic roofing or metal corrugated roofing, composite siding, and new light fixtures.

Staff review:

1. The applicant wishes to build a roof over an existing second floor patio atop the rear ell of the building.
2. Some of this work has already been started without HDC approval. The building owner stated they did not realize this work needed HDC review as there had been a previous patio covering there.
3. The application was tabled from the April 13, 2021 HDC meeting, citing a lack of information. Specifically, the HDC wanted more information regarding:
"...materiality with regards to decking and/or surface material for decking, roof material with the recommendation that an alternative be sought; the lighting, would like to reevaluate the up lighting as proposed and see spec. sheets for lighting proposed and would like to understand the position of the screen as proposed..."

The applicant has provided additional information for some of these items and has committed to attending the meeting to directly discuss others.

HDC must act by **Tuesday May 11, 2021**

Structure:

4. The applicant proposes to build a structure of cedar tone treated framing over the patio.

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.

5. The structure roof will be mounted to the building wall with a 2x8 ledger and the supportive posts will be anchored floor joists.
6. The supportive posts will include small decorative brackets.
7. The posts will be clad in Azek/HardiBoard/Boral composite trim, as well as an existing floor protrusion.
8. The roof as proposed will be comprised of a corrugated plastic material. The applicant understands that the HDC does not feel this is a compatible material and is proposing corrugated metal as a second option. There had been a similar metal roof over the area previously.
9. The floor is currently standard deck boards that are worn but not damaged beyond repair. The applicant would like to cover the floor with a composite decking to improve its appearance. If the HDC finds this inappropriate, the applicant is willing to repaint the existing floor.
 - a. In staff opinion, so long as the flooring is not going to impact the structure of the building, its material does not impact the historic integrity of the structure.

Additional Features

10. An existing privacy wall will be expanded and clad in hardi-board to cover exterior duct work.
 - a. The HDC was confused on this wall, and the applicant will be at the meeting to describe in better detail.
11. Two wall-mounted fans will be installed, finished in textured bronze.
12. The applicant has committed to following HDC standards for lighting, per the lighting fact sheet.
13. An option to replace the current steel door with a wood single-light door is being considered, however the applicant has not officially decided to change out the door.
14. Although there is a variety of materials and fixtures proposed for this balcony area, the HDC has generally been flexible with structures on the rears of commercial buildings. The HDC should consider that this area will be visible from N River and E Cross streets as well as the rear of the building. In staff opinion the one component that stands out as atypical for the historic district is corrugated plastic roofing.
15. The motion provided is approval with conditioned on mounting objects to the mortar joints, finishing in a paint or stain, and no faux wood grain. If the HDC agrees with these recommended conditions, they should confirm with the applicant.
16. The applicant would like to stress the importance of completing the outdoor eating area so the restaurant can continue to serve during the pandemic.

Recommended Motions:

Move to issue a Certificate of Appropriateness for the work at 39 E Cross as submitted in the application dated March 22, 2021, for construction of a roof over the rear second floor outdoor seating area as submitted with the conditions that objects mounted to the building are mounted to the mortar joints rather than brick, that the wood components of the structure be finished in paint or an opaques stain and that the composite siding portions of the structure have a smooth finish, rather than faux wood-grain. It is recommended that the materials utilize colors that are similar to or compatible with colors already used on the building. Lighting shall match the requirements of the HDC Lighting Fact Sheet; shielded and a light temperature of less than 3000k.

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

Prepared by:

Scott E. Slagor, Preservation Planner



**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

R:27970
#1316
PHDC-21-0012

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

39 East Cross

Applicant

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

Name

Gipfert's Construction LLC

Address

City

Willis

State

Michigan

Zip

48191

Phone / Fax

E-Mail

Contractor

Contractor Name & Contact Info

Keith Gipfert

Type of work

☐ Roofing

☐ Window/Door
Replacement

☐ Porches

☐ Sign

☐ Fence (or other sitework)

☐ Painting

☒ Other

☐ Application Amendment

Complete Description of Proposed Work:

add a roof over existing patio cedartone treated framing with clear acrylic roofing panels

Materials (for paint include color chips or samples with application):**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:
42,000.00	\$45 + \$65 = \$110

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.

Date:
3/22/2021

Print Name:
Keith Gipfert

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.

GENERAL NOTES

ALL WORK BY ALL TRADES SHALL CONFORM WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, RULES AND REGULATIONS, OSHA REQUIREMENTS.

ALL WORK SHALL FOLLOW COMMONLY ACCEPTED INDUSTRY STANDARDS AND SHALL MEET ANY AND ALL MANUFACTURERS HANDLING AND INSTALLATION SPECIFICATIONS.

CONTRACTOR AND ALL SUBCONTRACTORS MUST BE AWARE OF ALL APPLICABLE CODES, REGULATIONS AND INDUSTRY STANDARDS. IN THE CASE OF CONFLICT, THE MOST STRINGENT REQUIREMENT SHALL APPLY.

CONTRACTOR SHALL NOTIFY OWNER OF ANY DISCREPANCIES OR OTHER ISSUES WHICH SHALL NECESSITATE ALTERATION OF DESIGN INTENT PRIOR TO COMMENCEMENT OF RELATED WORK.

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND INSPECTIONS.

CONTRACTOR SHALL PROVIDE ALL TEMPORARY UTILITIES REQUIRED FOR COMPLETION OF THE WORK. CONTRACTOR TO COORDINATE ANY NECESSARY UTILITY SHUT-OFF WITH OWNER.

COORDINATE SITE ACCESS, STAGING AND STORAGE AREAS, AND PROJECT SCHEDULING CLOSELY WITH OWNER.

CONTRACTOR SHALL MAINTAIN THE IMMEDIATE CONSTRUCTION SITE IN A SAFE, SECURE AND CLEAN MANNER.

CONTRACTOR TO PROVIDE ANY TEMPORARY WEATHERPROOFING WHICH MAY BE REQUIRED BY REWORK.

CONTRACTOR TO STORE ALL MATERIALS AND REFUSE IN A SAFE AND SECURE MANNER.

COORDINATE WITH OWNER WHETHER ANY MATERIALS OR FIXTURES REMOVED DURING DEMOLITION SHALL BE SALVAGED AND RETURNED TO OWNER.

CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL CONSTRUCTION DEBRIS FROM SITE.

CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY PROTECTION OF ALL EXISTING CONSTRUCTION AND ITEMS WHICH ARE TO REMAIN

CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING FUME AND DUST CONTROL WITHIN THE STRUCTURE TO THE SATISFACTION OF THE OWNER.

MATERIAL OR CONSTRUCTION PROCEDURES WHICH ARE PROHIBITED BY LAW OR WHICH MAY CAUSE A HARMFUL EFFECT TO THE NATURAL ENVIRONMENT OR THE HEALTH OF ANY PERSON ON THE SITE DURING CONSTRUCTION AND/ OR DURING OCCUPANCY SHALL NOT BE USED ON THE PROJECT.

NO SMOKING SHALL BE ALLOWED INSIDE THE STRUCTURE OR IN THE IMMEDIATE VICINITY DURING CONSTRUCTION.

CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING ANY TEMPORARY SHORING, BRACING OR OTHER SUPPORT NECESSARY DURING REWORK.

DIMENSIONS AND ALIGNMENTS SHOWN ARE BASED UPON VISUAL INSPECTION OF EXISTING STRUCTURE AND CONSTRUCTION DOCUMENTS FOR EXISTING RESIDENCE PROVIDED BY HOMEOWNER. VERIFY COMPLIANCE WITH DESIGN INTENT (HORIZONTAL AND VERTICAL ALIGNMENT, ETC.) PRIOR TO CONSTRUCTION.

NOTIFY DESIGNER IMMEDIATELY IF ANY DEVIATION FROM DESIGN INTENT IS NECESSARY DUE TO FIELD CONDITIONS

DO NOT SCALE DRAWINGS! USE DIMENSIONS AND ALIGNMENT NOTES PROVIDED.

VERIFY ROUGH OPENING SIZES PRIOR TO PURCHASE AND INSTALLATION OF ANY PREFAB ITEMS SUCH AS DOORS, WINDOWS, FIXTURES AND EQUIPMENT. NOTIFY DESIGN + OWNER OF ANY DISCREPANCY WHICH WILL NECESSITATE ALTERATION OF DESIGN INTENT.

CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL TYPICAL ITEMS NOT SPECIFICALLY NOTED IN DRAWINGS BUT NECESSITATED BY ITEMS SHOWN SUCH AS BLOCKING, BRACING, INFILL PANELS, FIRESTOPPING, FASTENERS, PLUMBING, ELEC. AND MECH. WORK, ETC. ASSOCIATED WITH THE NEW AND RENOVATED ITEMS SHOWN OR NOTED IN DRAWINGS.

PATCH, REPAIR AND/ OR REFINISH ALL CONSTRUCTION AS NECESSARY ADJACENT TO AREAS DISTURBED BY REWORK OR DAMAGED OR OTHERWISE AFFECTED BY CONTRACTORS OR SUBCONTRACTORS PERSONNEL DURING PROJECT

COORDINATE ALL WORK BETWEEN ALL SHEETS IN THIS SET AND OTHER SUPPLEMENTARY ITEMS PROVIDED BY ARCHITECT OR OWNER SUCH AS BULLETINS, ADDENDA, OWNERS FINISH AND FIXTURE CHOICES, ETC.

CONTRACTOR TO ENSURE THAT ALL TRADES, SUBCONTRACTORS AND OTHER PERSONS DOING WORK ON THIS PROJECT ARE WORKING FROM CURRENT INFORMATION. IF BULLETINS ARE ISSUED FOR ANY SHEET IN THIS SET OR OTHER CHANGES ARE MADE TO THE WORKING DRAWINGS, CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CURRENT SHEETS. ALL REPLACED SHEETS SHALL BE CLEARLY MARKED AS "VOID" ALONG WITH THE DATE OF THE REPLACEMENT SHEET.

SAMPLE SUBMITTALS FOR FINISH MATERIALS INCLUDING BUT NOT LIMITED TO PAINT, WOOD (SPECIES, GRAIN CHARACTER, FINISH) STONE, TILE, ETC SHALL BE PROVIDED FOR OWNER + DESIGNER REVIEW AND APPROVAL.

SHOP DRAWINGS/ CUTSHEETS SHALL BE PROVIDED FOR OWNER/ DESIGNER REVIEW FOR ITEMS SUCH AS BUT NOT LIMITED TO TRIM PROFILES, LIGHT FIXTURES, HARDWARE, ETC

VERIFY PATTERN LAYOUT FOR ALL APPLICABLE ITEMS WITH DESIGNER PRIOR TO FABRICATION/ INSTALLATION

GENERAL MEP NOTES

DRAWINGS ARE FOR LAYOUT PURPOSES- ELECTRICAL, PLUMBING, MECHANICAL WORK IS TO BE DESIGN-BUILD IN NATURE BEYOND FUNCTIONAL/ VISIBLE COMPONENTS DEPICTED HEREIN.

MEP DRAWINGS TO BE PRODUCED FOR APPROPRIATE DISCIPLINE PERMIT SUBMITTAL BY OTHERS.

ALL WORK TO BE CODE-COMPLIANT WITH ALL APPLICABLE STATE, LOCAL AND FEDERAL CODES, REGULATIONS, ORDINANCES, ETC.

ALL WORK AND MATERIALS TO BE OF THE HIGHEST FINISH QUALITY FOR PARTICULAR INDUSTRY STANDARDS.

ALL WORK TO INCLUDE ALL COMPONENTS NECESSARY FOR CODE-COMPLIANT AND INDUSTRY-ACCEPTED NORMS FOR INSTALLATION OF GIVEN ITEMS SHOWN/ NOTED

ANY SUBMITTAL DOCUMENTS REQUIRED BY REVIEWING AGENCIES BEYOND THESE PLANS ARE TO BE PROVIDED BY SUBCONTRACTORS.

SUBCONTRACTOR TO PROVIDE CUTSHEETS FOR ALL DECORATIVE/ FUNCTIONAL ITEMS FOR OWNER DESIGNER REVIEW. PROVIDE FINISH SAMPLES FOR ANY APPLICABLE ITEMS.

SUBCONTRACTORS TO VERIFY LAYOUTS AT PRE-ROUGH WALKTHROUGH MEETING- AFTER DEMO AND ONCE EXACT LAYOUTS HAVE BEEN DETERMINED COORDINATED WITH FIELD CONDITIONS, EXACT DIMENSIONS, ETC.

COORDINATE ANY MINOR REVISIONS TO EXISTING MECHANICAL, ELECTRICAL, PLUMBING ITEMS WHICH NEED TO BE ADJUSTED/ RELOCATED DUE TO NEW WORK WITH DESIGNER

ELECTRICAL NOTES

ALL WORK AND MATERIALS TO BE OF THE HIGHEST FINISH QUALITY FOR PARTICULAR INDUSTRY STANDARDS.

ALL WORK TO BE CODE-COMPLIANT WITH ALL APPLICABLE STATE, LOCAL AND FEDERAL CODES, REGULATIONS, ORDINANCES, ETC.

ELECTRICAL DRAWING IS FOR LAYOUT PURPOSES- ELECTRICAL WORK IS ASSUMED TO BE DESIGN-BUILD IN NATURE BEYOND FUNCTIONAL/ VISIBLE COMPONENTS DEPICTED HEREIN.

ALL WORK TO INCLUDE ALL COMPONENTS NECESSARY FOR CODE-COMPLIANT AND INDUSTRY-ACCEPTED NORMS FOR INSTALLATION OF GIVEN ITEMS SHOWN INCLUDING BUT NOT LIMITED TO FASTENERS, BLOCKING, CONDUIT, WIRING, BRACING, SUSPENSION AND FRAMING SYSTEMS

ELECTRICAL CONTRACTOR IS TO VERIFY EXISTING PANEL, LAYOUTS AND CIRCUIT LOADS, AND LAY OUT NEW DEVICES SO AS TO FUNCTION TOGETHER AS NOTED IN THIS PLAN.

COORDINATE ALL ELECTRICAL WORK WITH REMAINDER OF ARCHITECTURAL SHEETS- FLOOR AND CEILING PLANS AND DETAILS. DO NOT SCALE DRAWINGS FOR LAYOUT

EXISTING DEVICES SUCH AS SWITCHES, OUTLETS, ETC WITHIN REWORKED AREAS ARE TO BE REMOVED OR RELOCATED AS NOTED FOR LAYOUT DEPICTED. CAP ALL REMOVED ELECTRICAL AS NECESSARY.

EXISTING DEVICES (SWITCHES, OUTLETS) NOT NOTED OTHERWISE ARE TO REMAIN

EXISTING ELECTRICAL TO REMAIN UNLESS SPECIFICALLY NOTED IN SPACES NOT BEING REWORKED

ANY ACCESS PANELS REQUIRED IN DRYWALL CEILINGS FOR VALVES, CONTROLS, UNAVOIDABLE ELECTRICAL JUNCTION BOXES, ETC TO BE FLUSH MUD-OVER-FLANGE STYLE, METAL. LOCATIONS TO BE COORDINATED WITH DESIGNER PRIOR TO ROUGH-IN

ANY ELECTRICAL WORK IMPACTING EXISTING OR NEW CODE-REQUIRED RATED ASSEMBLIES/ PARTY WALLS TO BE PATCHED TO RETAIN CONTINUITY OF SEPARATION.

ALL ITEMS NOTED ARE TO HAVE FULL SUBMITTALS TO DESIGNER FOR REVIEW- SHOP DRAWINGS FOR LAYOUT, ELECTRICAL CIRCUITING, FIXTURE CUTSHEETS, ETC.

INFORM DESIGNER OF ANY DISCREPANCY OR OTHER ISSUES BETWEEN DESIGN INTENT, EXISTING CONDITIONS, CODE REQUIREMENTS- VERIFY PROPER FUNCTION OF SYSTEMS PRIOR TO ANY COMPONENT INSTALLATION

FIRE SAFETY SYSTEM MODIFICATIONS IF REQUIRED BY THE MUNICIPALITY ARE TO BE UNDER THE ELECTRICAL SUBCONTRACTOR INCLUDING ALL COMPONENTS' DESIGN, SUPPLY, INSTALLATION, AND COORDINATION WITH WORK OF OTHER TRADES. FIELD VERIFY EXISTING CONDITIONS AND REWORK REQUIRED.

COORDINATE ALARM SYSTEM REQUIREMENTS WITH OWNER.

COORDINATE WIFI/ DATA REQUIREMENTS WITH OWNER.

ARCHITECT

DANIEL A. SONNTAG, NCARB
734.604.8833
MI ARCHITECT LICENSE #13010-41258
EXPIRATION 10/31/2021

PROJECT DESCRIPTION

REMOVAL OF EXISTING BAR, REWORK OF EXISTING EXTERIOR ROOFTOP ROOF STRUCTURE.

EXISTING ROOFTOP DECK STRUCTURE TO REMAIN - NO ADDITIONAL LOAD TO BE ADDED, NO ADDITIONAL OCCUPANCY LOAD

EXISTING EGRESS FROM SPACE TO REMAIN

BUILDING DATA

CODE:	MICHIGAN REHAB CODE 2015 WORK AREA COMPLIANCE- LEVEL 2 ALTERATION
CONSTRUCTION TYPE:	I-B
USE GROUP	A-2 (303.3)
SEPARATION	NONE, EXISTING TO REMAIN
WORK AREA	730 SF (EXISTING ROOFTOP PATIO)
BUILDING HEIGHT	2 STORY (EXISTING)
FIRE SUPPRESSION:	NON-SPRINKLERED (EXISTING)

ACCESSIBILITY

EXISTING ACCESSIBILITY CONDITIONS TO REMAIN, NO CHANGES

OCCUPANCY COUNT

730 SF @ 1/15 (UNCONCENTRATED TABLES AND CHAIRS) - 49
OCCUPANTS - NO CHANGE

LIST OF DRAWINGS

A-0.0	PROJECT INFO / GENERAL NOTES
A-1.0	DEMO FLOOR PLAN, ROOF PLAN
A-1.1	ELEVATION/ SECTION

No.	Date	Description
	3.8.21	PERMIT

DRAWN BY

DAS

FACILITY/CLIENT

AUBREES RESTAURANT
39 E. CROSS STREET
YPSILANTI, MI 48198



PROJECT

ROOFTOP REMODEL



106 S. MAIN STREET
ANN ARBOR, MI 48104
TEL. 734.998.0098
FAX 734.996.8899



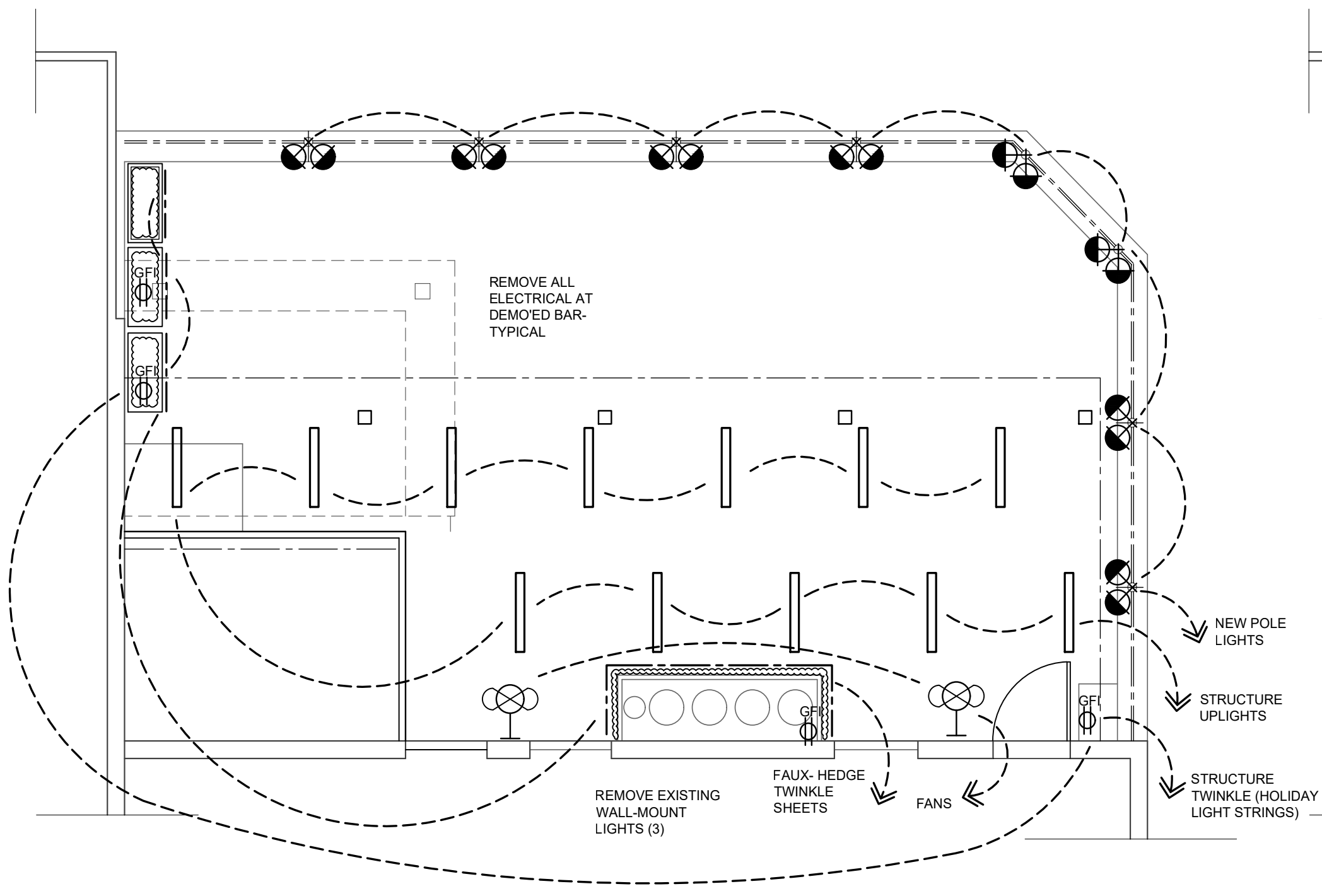
SHEET TITLE

PROJECT INFO /
GENERAL NOTES

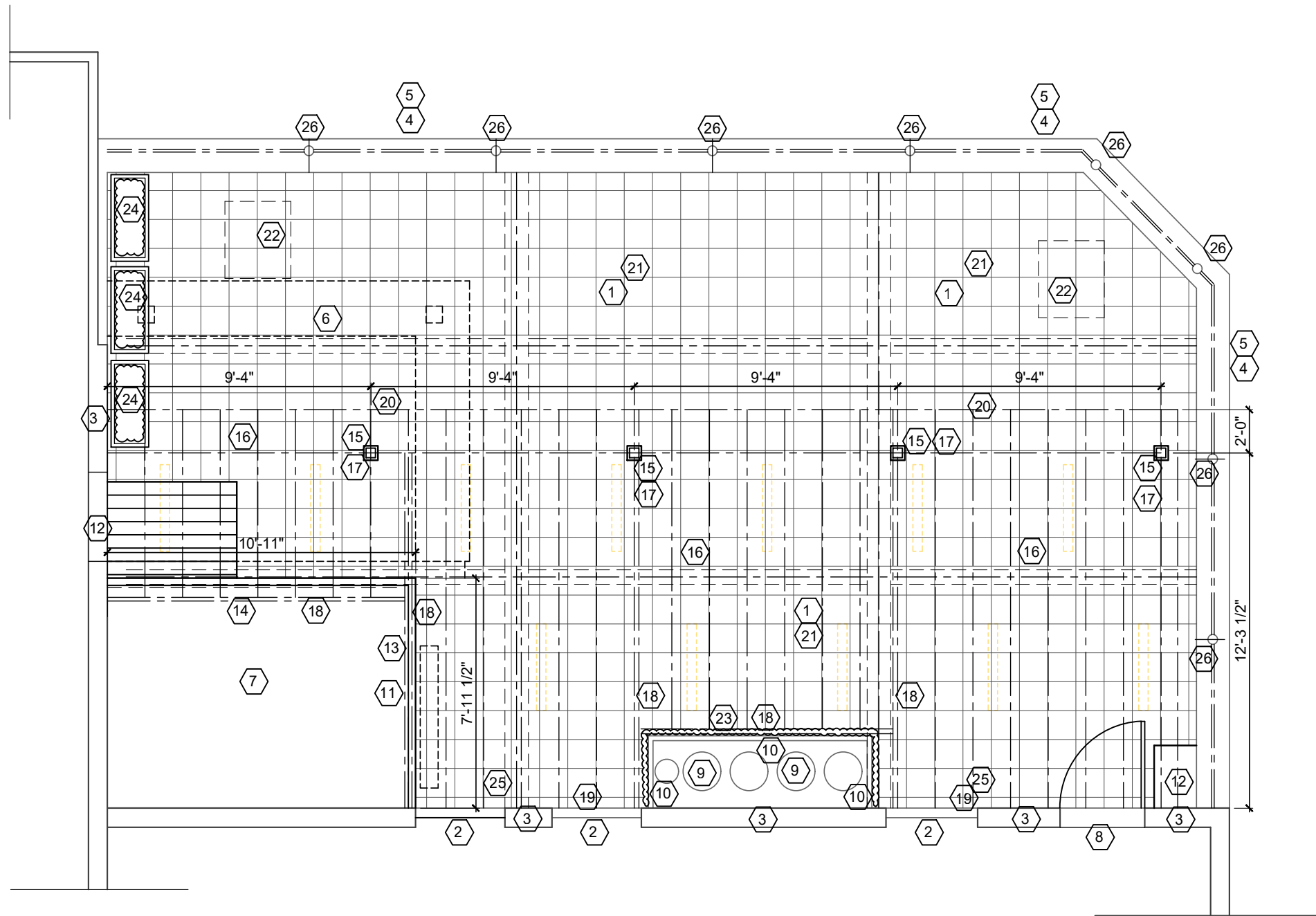
SHEET NO.

A0.0

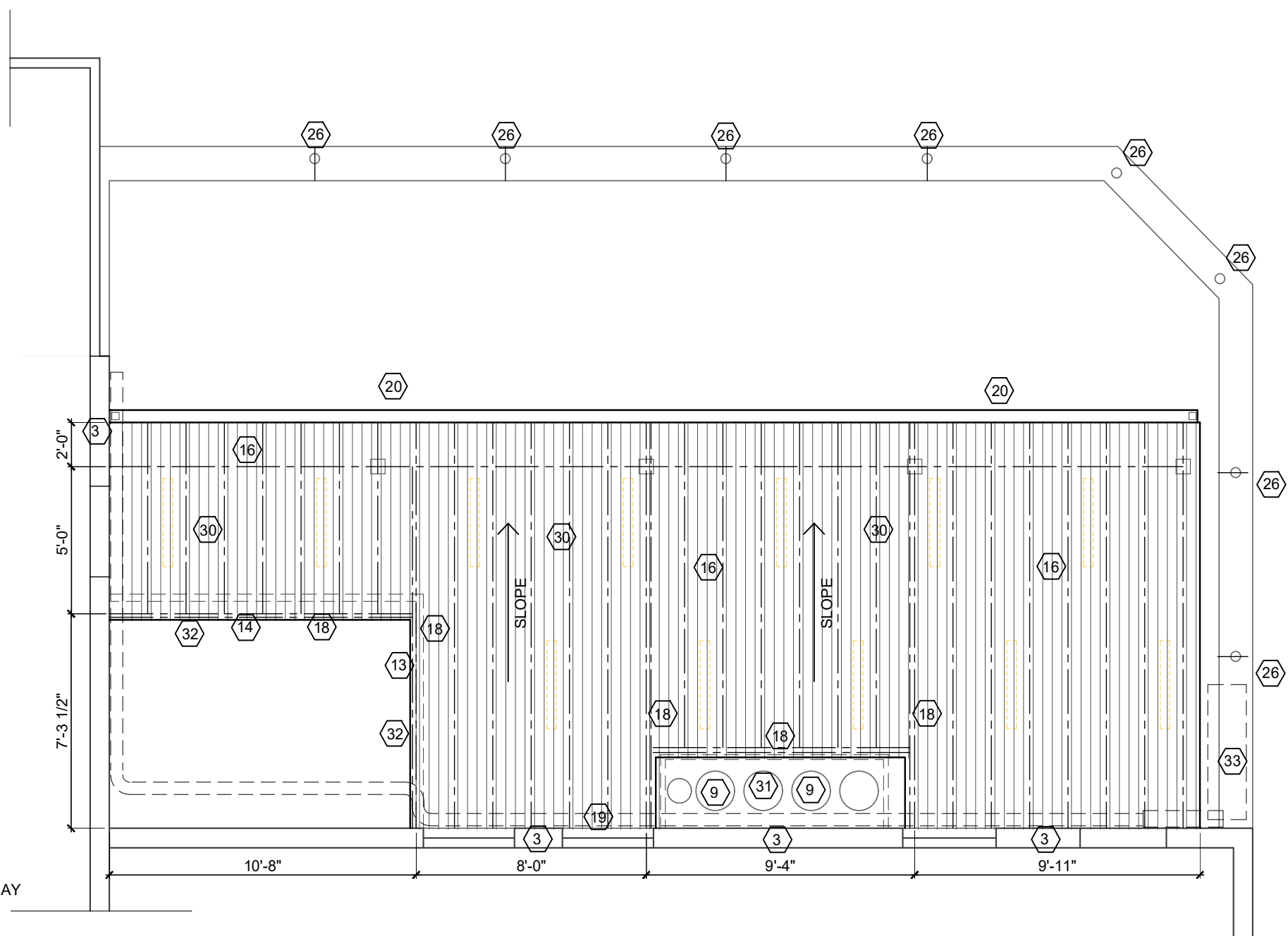
ELECTRICAL NOTES		ELECTRICAL LEGEND
ALL WORK AND MATERIALS TO BE OF THE HIGHEST FINISH QUALITY FOR PARTICULAR INDUSTRY STANDARDS.	ALL CONDUIT, J-BOXES, ETC IN FINISHED SPACES ARE TO BE RECESSED/ CONCEALED WITHIN WALL SURFACES, ABOVE CEILINGS, ETC- NO SUCH COMPONENTS ARE TO BE VISIBLE WITHIN FINISHED SPACES	EXTERIOR GFI OUTLET FOR NEW PLUG-IN LIGHTS
ALL WORK TO BE CODE-COMPLIANT WITH ALL APPLICABLE STATE, LOCAL AND FEDERAL CODES, REGULATIONS, ORDINANCES, ETC.	NO REWORK IS TO LEAVE VESTIGIAL J-BOXES WITH COVER PLATES IN FINISHED AREAS UNLESS APPROVED BY DESIGNER. ANY SUCH SITUATIONS MUST HAVE WIRING PULLED BACK TO J-BOXES WITHIN CLOSETS, OUT-OF-SIGHT, ETC.	NEW POLE-TOP LIGHT FIXTURE BY DESIGNER, INSTALLED BY CONTRACTOR- ON EXISTING POLES, REUSE EXISTING CIRCUIT
ELECTRICAL DRAWING IS FOR LAYOUT PURPOSES- ELECTRICAL WORK IS ASSUMED TO BE DESIGN-BUILD IN NATURE BEYOND FUNCTIONAL/ VISIBLE COMPONENTS DEPICTED HEREIN.	ANY ACCESS PANELS REQUIRED IN DRYWALL CEILINGS FOR VALVES, CONTROLS, UNAVOIDABLE ELECTRICAL JUNCTION BOXES, ETC TO BE FLUSH MUD-OVER-FLANGE STYLE. METAL LOCATIONS TO BE COORDINATED WITH DESIGNER PRIOR TO ROUGH-IN	NEW 36" STRIP-TYPE EXTERIOR LED SURFACE-MOUNT UPLIGHT
ALL WORK TO INCLUDE ALL COMPONENTS NECESSARY FOR CODE-COMPLIANT AND INDUSTRY-ACCEPTED NORMS FOR INSTALLATION OF GIVEN ITEMS SHOWN INCLUDING BUT NOT LIMITED TO FASTENERS, BLOCKING, CONDUIT, WIRING, BRACING, SUSPENSION AND FRAMING SYSTEMS	ALL ITEMS NOTED ARE TO HAVE FULL SUBMITTALS TO DESIGNER FOR REVIEW- SHOP DRAWINGS FOR LAYOUT, ELECTRICAL CIRCUITING, FIXTURE CUTSHEETS, ETC.	NEW HOLIDAY/ TWINKLE LIGHT SHEET TO CREATE SPARKLE IN NEW FAUX HEDGE SURFACES
ELECTRICAL CONTRACTOR IS TO VERIFY EXISTING PANEL LAYOUTS AND CIRCUIT LOADS, AND LAY OUT NEW DEVICES SO AS TO FUNCTION TOGETHER AS NOTED IN THIS PLAN.	INFORM DESIGNER OF ANY DISCREPANCY OR OTHER ISSUES BETWEEN DESIGN INTENT, EXISTING CONDITIONS, CODE REQUIREMENTS- VERIFY PROPER FUNCTION OF SYSTEMS PRIOR TO ANY COMPONENT INSTALLATION	NEW EXTERIOR WALL-MOUNT DECORATIVE FAN
COORDINATE ALL ELECTRICAL WORK WITH REMAINDER OF ARCHITECTURAL SHEETS- FLOOR AND CEILING PLANS AND DETAILS. DO NOT SCALE DRAWINGS FOR LAYOUT		
EXISTING DEVICES SUCH AS SWITCHES, OUTLETS, ETC WITHIN REWORKED AREAS ARE TO BE REMOVED OR RELOCATED AS NOTED FOR LAYOUT DEPICTED. CAP ALL REMOVED ELECTRICAL AS NECESSARY.		
EXISTING DEVICES (SWITCHES, OUTLETS) NOT NOTED OTHERWISE ARE TO REMAIN		
EXISTING ELECTRICAL TO REMAIN UNLESS SPECIFICALLY NOTED IN SPACES NOT BEING REWORKED		



3 ROOFTOP ELECTRICAL LAYOUT
A1.0 SCALE 1/4" = 1'-0"



2 OVERALL ROOFTOP DECK ROOF PLAN
A1.0 SCALE 1/4" = 1'-0"



1 OVERALL ROOFTOP DECK PLAN
A1.0 SCALE 1/4" = 1'-0"

PLAN KEY NOTES		
01	EXISTING FLOOR STRUCTURE TO REMAIN- 5/4 DECKING ON 2X8 JOISTS @16" O.C. ON HEAVY STEEL STRUCTURE- ALL TO REMAIN	
02	EXISTING WINDOWS TO REMAIN	
03	EXISTING EXTERIOR BRICK WALLS TO REMAIN- TYPICAL- TO BE REPAINTED- PREP AS NEEDED, CLEAN, SCRAPE PEELING PAINT ETC PRIOR TO REPAINT	
04	EXISTING LOW PARAPET TO REMAIN- EXISTING COPING TO BE CLEANED/ POWERWASHED	
05	EXISTING STEEL PICKET GUARDRAIL TO REMAIN	
06	EXISTING BAR TO BE REMOVED DOWN TO FLOORING- REMOVE EXISTING BAR, STRUCTURE; REMOVE EXISTING ROOF STRUCTURE, REMOVE ALL EQUIPMENT. CAP ALL UTILITIES, BEVERAGE LINES BACK AS NEEDED	
07	EXISTING SLOPING METAL ROOF TO REMAIN	
08	EXISTING DOOR TO BE REPLACED- NEW FULL-HT SINGLE- LIGHT GLASS IN WOOD STILE+RAIL- REUSE EXISTING FRAME, HARDWARE IF POSSIBLE	
09	EXISTING DUCTS TO REMAIN	
10	EXISTING FENCING AROUND DUCTS TO REMAIN	
11	EXISTING PLANTER BOX TO BE REMOVED DOWN TO FLOOR	
12	EXISTING BUILT-UP PROTRUSION TO REMAIN- NEW SURFACING (TREX/ AZEK/ HARDI) TO MATCH FLOORING/ SIDING	
13	EXISTING SCREENWALL TO BE REWORKED- EXTEND OR REPLACE UP TO UNDERSIDE OF NEW ROOF STRUCTURE	
14	NEW SCREEN WALL ACROSS BOTTOM FACE OF SLOPING ROOF/ GUTTER (TO REMAIN) - SEE ELEVATION- PROVIDE REMOVABLE SECTION AS NEEDED FOR GUTTER MAINT	
15	NEW POSTS- 4X4 TREATED WITH 1X AZEK OR COMP SURF- ACING, TRIM PER ELEVATIONS	
16	NEW ROOF STRUCTURE- TREATED 2X8 JOISTS @ 1:12 SLOPE	
17	NEW TRIPLE JOISTS BELOW IN FLOOR STRUCTURE FOR NEW POST BEARING	
18	NEW DOUBLE JOISTS N ROOF STRUCTURE FOR CROSS-BEARING- PROVIDE HANGERS	
19	CLEAT BOARD AT EXISTING BRICK WALL WITH HANGERS FOR ROOF JOIST BEARING	
20	FASCIA- 1X FACING ON 2X TREATED STRUCTURE, PREFIN METAL GUTTER TO DOWNSPOUT AT EACH END	
21	NEW FLOORING PER SPEC OVER TOP OF EXISTING	
22	EXISTING ACCESS PANELS TO REMAIN- COORDINATE WITH NEW FLOORING- PROVIDE GRIPS FOR MAINT REMOVAL	
23	NEW SCREENING ON EXISTING FENCE- FAUX HEDGE MAT MATERIAL ON WIRE MESH- PROVIDE POWER FOR TWINKLE LIGHTS	
24	NEW PLANTERS WITH FAUX HEDGES- PROVIDE POWER FOR TWINKLE LIGHTS	
25	NEW WALL-MOUNT FANS	
26	NEW LIGHTING ON EXISTING POLES	
27	NOT USED	
28	NOT USED	
29	NOT USED	
30	NEW TRANSLUCENT HALFPIPE ROOFING PER SPEC	
31	CREATE OPENING AROUND EXISTING DUCTS- COORDINATE EXACT DIMENSIONS WITH FIELD CONDITIONS	
32	CREATE OPENING OVER EXISTING SLOPING ROOF- COORDINATE EXACT DIMENSIONS WITH FIELD CONDITIONS	
33	EXISTING WALL-MOUNT SIGN TO REMAIN	
REMOVE ELECTRICAL/ PLUMBING ETC AS NECESSARY IN ANY/ ALL AFFECTED WALLS OR OTHER COMPONENTS- TYPICAL		
CONFIRM MINOR ITEMS ALSO NEEDED TO BE REMOVED DUE TO ADJACENT REWORK- COORDINATE WITH REWORK PLANS, EXISTING FIELD CONDITIONS- TYPICAL		
REFER TO COVER SHEET FOR GENERAL PROJECT NOTES		

No.	Date	Description
	3.8.21	PERMIT

DRAWN BY DAS

FACILITY/CLIENT

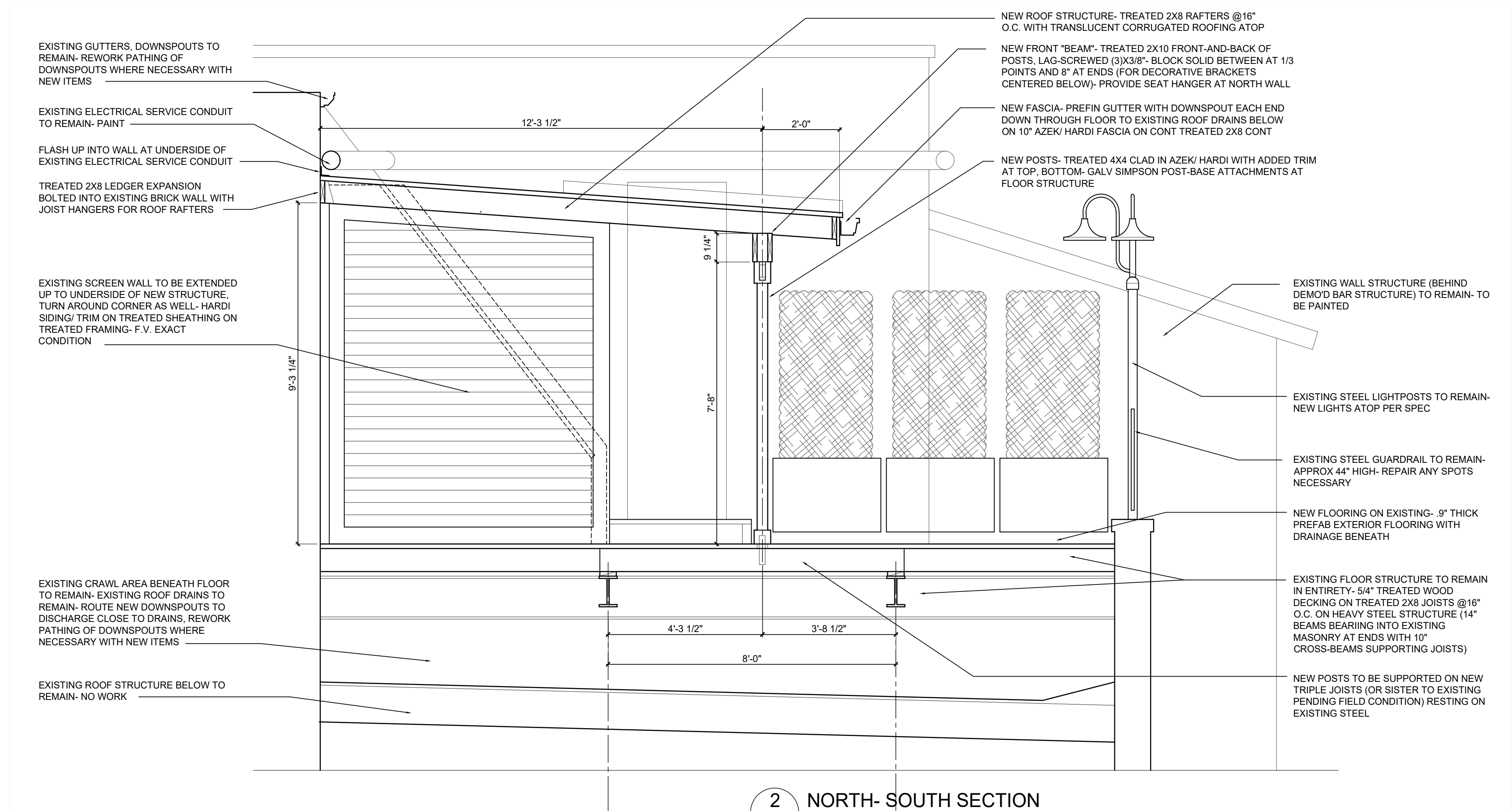
AUBREES RESTAURANT ROOFTOP
39 E CROSS STREET
YPSILANTI, MI 48198

PROJECT
ROOFTOP REMODEL

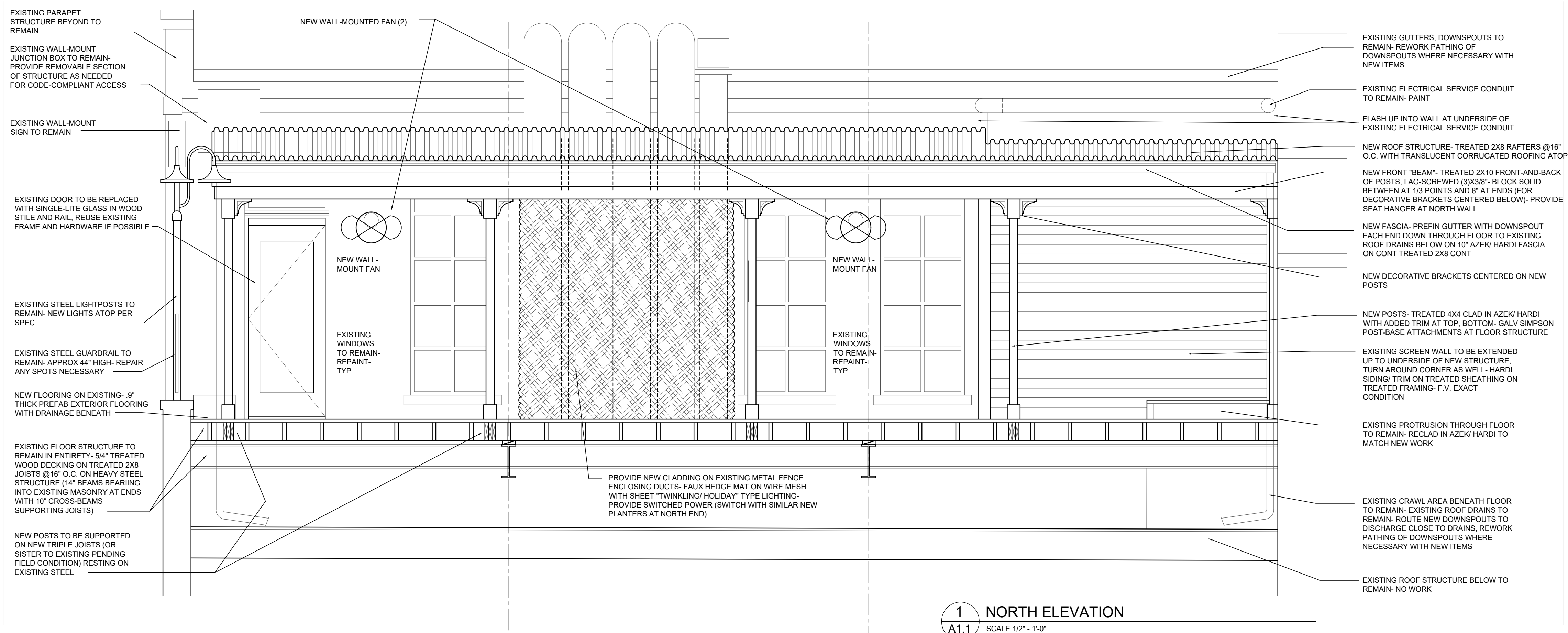


SHEET TITLE
FLOOR AND ROOF PLAN, ELECTRICAL LAYOUT PLAN

SHEET NO.
A1.0



2 NORTH-SOUTH SECTION
A1.1 SCALE 1/2" = 1'-0"



1 NORTH ELEVATION
A1.1 SCALE 1/2" = 1'-0"

No.	Date	Description
	3.8.21	PERMIT

DRAWN BY DAS

FACILITY/CLIENT

AUBREES RESTAURANT ROOFTOP
39 E CROSS STREET
YPSILANTI, MI 48198

PROJECT
ROOFTOP REMODEL



106 S. MAIN STREET
ANN ARBOR, MI 48104
TEL. 734.998.0098
FAX 734.996.8899

SHEET TITLE
ELEVATIONS/
SECTIONS

SHEET NO.
A1.1

TRIM PRODUCT DATA SHEET

	TEST METHOD	RESULTS
1. CERTIFICATES AND LISTINGS		
a. Pre-consumer Recycled Content	SCS Global Certification	Minimum 70%
b. Cal Fire (WUI)	CA SFM 12-7A-1	Listing No. 8140-2134:0101
c. Progressive Engineering		PER-14090
d. FL Building Code		FL17285
2. PROPERTIES		
a. Density	ASTM C 1185	40-50 lbs/ft ³
b. Flexural Strength	ASTM C 1185	> 1600 psi
c. Coefficient of Linear Expansion	ASTM D 6341	< 1.40 E-05 in./in./°f
d. Impact Resistance	ASTM D 6110	> 50 in.
e. Nail Withdrawl	ASTM D 1761	
3. PERFORMANCE		
a. Fungi Rot	AWPA E10	Brown Rot - Negligible Loss White Rot - Negligible Loss
b. Termite Resistance	AWPA E1	> 9.0 (10 being best)
c. Water Absorption	ASTM D 570	< 1.5%
d. Flame Spread	ASTM E 84	< 35
e. Smoke Developed	ASTM E 84	< 450
4. MANUFACTURING TOLERANCES		
a. Width		± 1/16 inch
b. Thickness		± 1/16 inch
c. Length		+2 inches / -0 inches
d. End Cut Angle		± 2°



HARDIEPLANK® LAP SIDING

SMOOTH

You can't go wrong with this sleek, modern siding. Find the perfect color in our Statement Collection products or Dream Collection products. Or get it primed for paint.



Not finding the color you're looking for?

[+ See More Color Options](#)

PRIMED FOR PAINT



James Hardie's primed for paint collection gives you the power to choose paint for your home's exterior. It's primed. It's ready for field painting. It's a durable, high-performance canvas.



AVAILABLE SIZES

THICKNESS:	0.312"	
LENGTH:	144" boards	
WIDTHS:	9.25"	6.25"
EXPOSURES:	8"	5"
	5.25"	7.25"
	4"	6"
	8.25"	
	7"	

Specification Sheet for Product:
Matthews Fan Company ME-TB
Textured Bronze Melody 13" Wall Fan - Blades and Wall Control
Included



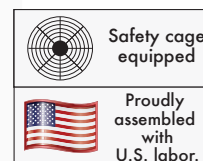
Melody

Designed in 2008

The oscillating Melody, 3-speed wall-mounted fan, designed in the Art Nouveau style with a grand, arching gooseneck, provides maximum multi-directional airflow with its 90° left to right sweep. Melody can be mounted in small, awkward spaces or in front of HVAC ducts to improve the efficiency of the heating, ventilation or air conditioning of any space. Constructed of cast aluminum and heavy stamped steel, the Melody carries a limited lifetime warranty.



shown in Textured Bronze
with safety cage



shown in Brushed Nickel
with safety cage



shown in Polished
Chrome with safety cage

Current specification sheets can be found at MatthewsFanCo.com. (08_2017)

Melody

TECHNICAL SPECIFICATIONS

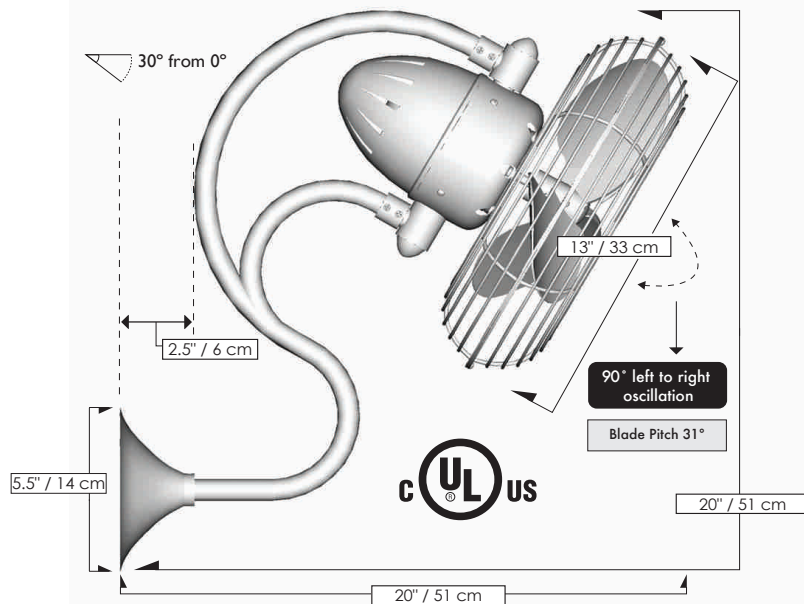
SKU NAMING CONVENTION

SKU#	ME-XX (Model+Finish)
Finishes	Brushed Nickel - BN Polished Chrome - CR Textured Bronze - TB

STANDARD EQUIPMENT

Safety cage	
Side-mounted wall junction box	
Decora-style, 3-speed wall control in white	ACCESSORY
	3-speed RF remote control in black
	

Note:
The remote control receiver will not fit behind the wall canopy. A clever electrician will need to hide the receiver in wall or ceiling according to code.



FAN SPECIFICATIONS

Fan Diameter	13 inches / 33 cm
Fan Height	20 inches / 51 cm
Fan Projection	20 inches / 51 cm
Fan Weight	14 lbs
Maximum Mounting Height	Approximately 24 inches / 61 cm from ceiling
Fan Guard	Safety cage
Voltage	110 or 220
Motor Type	AC
Blade Pitch	31°
Wall Control	Decora-style 3-speed Note: 3-wire system needed to separately operate fan and oscillating mechanisms. Each fan needs its own control.
Environment	Damp locations for all finishes Neither coastal, saltwater nor chlorine compatible
Ambience	Soothing white noise
Safety Certification	ETL / CETL
Warranty	Limited Lifetime
MOTOR EFFICIENCY DATA AT HIGH SPEED	
RPM	1445
CFM	1302.65
Watts	47.68
CFM/Watt	27.32

Matthews Fan Company

1881 Industrial Drive
Libertyville, IL 60048
Tele: 847.680.9043
Fax: 847.680.8140
www.matthewsfanco.com
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WHERE TO BUY

7037 THERMAL FRENCH

SERIES: [Exterior French & Sash Doors](#)

TYPE: Exterior French & Sash

APPLICATIONS: Can be used for a swing door, with barn track hardware, with pivot hardware, in a patio swing door or slider system and many other applications for the home's exterior.

MATCHING COMPONENTS

[Thermal Sash Sidelight \(7137\)](#)

Construction Type: Engineered All-Wood Stiles and Rails with Dowel Pinned Stile/Rail Joinery

Profile: Ovolo Sticking

Glass: 3/4" Insulated Glazing

GET A QUOTE

If you are interested in receiving a quote from a dealer, please select the options below and click on the "Request Dealer Quote" below.

Rough opening needs to be 2" wider and 2 1/2" taller than your door.

WIDTH ▾

HEIGHT ▾

WOOD SPECIES

▾

GLASS ▾

UPGRADES

- ☐ UltraBlock Technology
- ☐ WaterBarrier Technology

REQUEST DEALER QUOTE

WHERE TO BUY

APPLICATIONS

STANDARD FEATURES

-  [Any Wood Species](#)
-  [Virtually Any Size](#)
-  [Glass Options](#)
-  [Privacy Rating: 1](#)

UPGRADES

-  [UltraBlock® Technology](#)
-  [WaterBarrier® Technology](#)

DESIGN TOOLS

-  [Test Drive A Door](#)
-  [Glass Taste Test](#)
-  [Find Your Match](#)

RESOURCES

-  [View Technical Information](#)
-  [Download Literature](#)

Part #	AL-WW-HP-38-RGB	AL-WW-HP-38
Light Fixture Dimensions	1.38" (35mm) Wide 2.5" (63mm) Tall 38.25" (971mm) long	1.38" (35mm) Wide 2.5" (63mm) Tall 38.25" (971mm) long
Input Voltage	24VDC, requires non-dimmable Power Supply	24VDC, requires non-dimmable Power Supply
Beam Angle	15, 30 or 45 Degrees	15, 30 or 45 Degrees
Dimmable	Yes	No
Power Consumption	36 Watts	36 Watts
Luminous Flux	95 lm/w - 115 lm/w	95 lm/w - 115 lm/w
LED Type	SMD LED Chips	SMD LED Chips
LED Quantity	36 LEDs	36 LEDs
Fixture Material	Aluminum with 304 Stainless Brackets	Aluminum with 304 Stainless Brackets
Glass	Tempered glass	Tempered glass
IP Rating	IP67	IP67
Fixture Weight	4.6 pounds	4.6 pounds
Average Lifespan	50,000 hours	50,000 hours
Warranty	1 Year	1 Year
Suitable Uses	Dry or Damp Locations. If unit is installed upside down, it must be installed in a cove or other structure with protection from rain/moisture.	Dry or Damp Locations. If unit is installed upside down, it must be installed in a cove or other structure with protection from rain/moisture.
Standards / Certifications	RoHS, cULus	RoHS, cULus

Features:

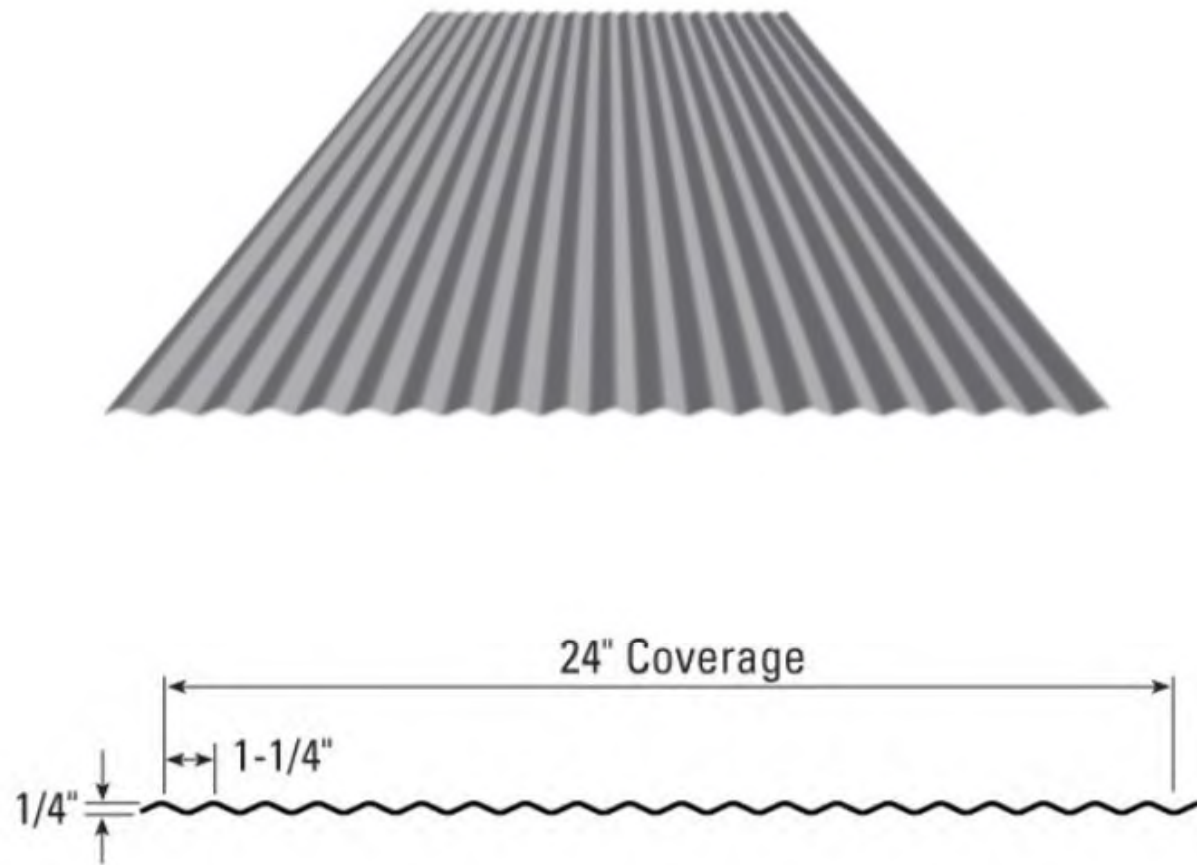
- Easy to install and mount
- RGB Model uses color mixing to provide 16.7M color output
- RGB Model utilizes DMX512 for control, channel pre-programmed to standard channel, unless special address requested



- **ACACIA WOOD FOR OUTDOOR FLOORING:** Made from 100% FSC Certified Sustainably Sourced Natural and Oiled Acacia Wood Deck Tile
- **HARD SURFACE INTERLOCKING DECK TILES:** Each 12" x 12"x .75" Floor Tile Allows for Tools Free Assembly While Retaining Durable Connectivity with its Thick Grid Lock Plastic Gauge Clips that Connects to One Another; Suitable for HARD SURFACES only!
- **STAINED AND SEALED:** The Wood Decks are Stained and Sealed at the Factory; New Applications of Stain and Sealers Will Be Required Every 6-12 Months Depending on Environment (Check our Teak Deck Tiles for Minimal Maintenance, or PVC Imitation Wood Deck Tiles for No Maintenance)
- **WATER RESISTANT & ANTI-SLIP:** Sealers are Factory Applied so the Solid Wood Decking Tiles Are Water Resistant, and The Wood Grain Itself has Anti-Slip Properties
- **INCLUDED PATTERN:** 11 Pieces Of Stripe Pattern 12" x 12" Acacia Deck Wood Tile; .75 Inch Thick



Metal roof example from what was previously used on the dining area.



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Metal roof example.



Photo from Google Street-View showing the roof-top dining area in 2020. View facing west from N River.





Staff photos of 39 E Cross. Above, facing northwest to facade and east elevation. Patio at rear.



Facing west from N River



Facing northwest from E Cross



Facing south-southwest from parking area.



Facing south from parking area.



HDC Work Permit Staff Review

Property address: 317 S Huron

Property History: The property includes a vernacular cross-gable house that according to assessing records, was erected in 1890. City Directory research indicates the house was the Goodison family home. The Goodisons included John and Harriet Hawkins Goodison; and their children Bertha, Alice, and Florence. City Directories indicate that Harriet, Bertha and Alice all resided in this house at various points. Further research is needed to know if all of the Goodison family resided here.

John Goodison (1834-1892) was a professor of drawing and geography at Michigan State Normal School (now Eastern Michigan University).ⁱ He was also an artist who specialized in floral still life pieces.ⁱⁱ It is not clear if he ever resided in the house.

Harriet Hawkins Goodison (1840-1908), was born to an Ypsilanti pioneer family and was a leader in the Ypsilanti Ladies' Literary Club from its founding. She is noted as residing in the house in the early 1900s.

Bertha Goodison (1868-1937) resided in the house from the early 1900s until her death. Bertha Goodison was a professor at the Normal School and eventually became head of the Fine Arts Department.ⁱⁱⁱ Goodison Residence Hall (1939-1998) at Eastern Michigan University was named in her honor.

Alice Goodison (1859-1946) resided in the house after her sister's death in 1937, until her own death in 1946. Alice was a graduate of the Normal School and made a twenty-year career supervising the Children's Library in Camden, New Jersey.^{iv}

Research did not reveal substantial information on Florence Goodison Warne (1863-1933). She was married to Herbert Warne and died in St. Joseph, Michigan. She does not appear to have lived in the house.

Date Complete Application Received: April 20, 2021

Date of Review: April 23, 2021

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.

Date of Meeting: April 27, 2021

Proposed work: Replace a rear window and door with one large double-casement window.

Materials: Andersen A Series wood window.

Staff review:

1. This application was submitted on April 6, 2021 but was incomplete and held until this meeting.
2. The applicant proposes to replace a non-historic window/door combination on the rear (east) facing second floor dormer.
3. The current window at this location is a vinyl double-hung, with an adjacent contemporary door.
4. The owner would like to change this opening to a window as the door opens to a roof that is not safe for pedestrian access.
5. The existing window and door will be replaced by a double-casement (that is a casement window comprised of two single-light sashes) measuring 65.5" wide by 62" high.
 - a. The new window will be an Andersen A Series wood window, which has been approved for other properties in the district. Example photos show Andersen A windows but not this specific window. The applicant was advised to provide a photo of the proposed window, but felt it was not necessary.
6. The attached scope of work indicates the trim surrounding the window will be a Hardi-board material, which appears to match the current exterior treatment.
7. Staff asked about the siding below the window in the new wall.
8. The applicant stated they are not scoped for siding work but would relay to the owner that approval would be conditioned on appropriate exterior siding.
 - a. It appears this section of the building is currently clad in fiber cement.

Considerations:

9. There are several window types present on the house already, including double-hung, multi-light double-hung, fixed vinyl and gliding vinyl.
10. The east elevation is not visible from the right-of-way and already has numerous changes to fenestration.

Recommended Motions:

Move approve and issue a Certificate of Appropriateness for the work at 317 S Huron as submitted in the application completed April 20, 2021 for replacement of a window and door with a double-casement window on the east elevation as specified. The new window shall be an Andersen A Series wood window with composite cladding. Approval is conditioned that the new window be appropriately trimmed, and the new wall space be clad to match the extant siding.

Relevant Secretary of the Interior's Standards:

#9

Prepared by:

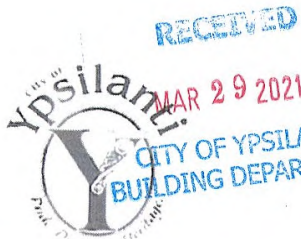
Scott E. Slagor, Preservation Planner

ⁱ *Ypsilanti Daily Press*, "Deaths: Ms. Alice Goodison," October 4, 1946, 2.

ⁱⁱ Ask Art "John Goodison," accessed April 23, 2021,
https://www.askart.com/artist/John_Goodison/105494/John_Goodison.aspx.

ⁱⁱⁱ *Ypsilanti Daily Press*, "Deaths: Ms. Alice Goodison," October 4, 1946, 2.

^{iv} *Ypsilanti Daily Press*, "Deaths: Ms. Alice Goodison," October 4, 1946, 2.



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-21.0015

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
317 S. Huron st

Applicant

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

Name Danielle Rodgers		
Address [REDACTED]		
City Ypsilanti	State MI	Zip 48197
Phone / Fax		E-Mail

Contractor

Contractor Name & Contact Info
CEL Ward / Patrick Ward Annie [REDACTED]

Type of work

- | | | |
|---|--|--|
| ☒ Roofing | ☐ Porches | ☐ Painting |
| ☒ Window/Door Replacement | ☐ Sign | ☐ Other |
| | ☐ Fence (or other sitework) | ☐ Application Amendment |

Complete Description of Proposed Work:

Replacing one Casement window in the home. Old for new.

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

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:

16,231.68

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:

[Redacted Signature]

Date:

3/29/21

Print Name:

Patrick Ward

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.

PHDC-21-0015

Sales Receipt SP000779-1

Investment Total:	\$8,308.91
C&L Ward Current Promotion - (Expires 3/31/2021):	(\$2,077.23)
Sub Total:	\$6,231.68
Total Before Deposit:	\$6,231.68
Last 4 of SSN#: 7975 Deposit	\$0.00
Remaining Balance:	\$6,231.68

The remaining balance is to be paid with the following plan:

Estimated Promo Period Payment

6.99% for 60 Months with Monthly Payment (Plan 2716)

\$134.60/month

1*Plan 2716 Fixed APR during the life of the loan. Subject to credit approval. Financing for GreenSky® consumer loan programs is provided by federally insured, equal opportunity lender banks. NMLS#1416362

Projected Install Date: 6/14/2021

This is an **ESTIMATED** install date. Estimated install dates can be affected by many factors beyond our control. **You will be contacted by your Project Coordinator to schedule your actual date and time once the materials have arrived.**

Homeowner signature or initials

BUYERS RIGHT TO CANCEL: You, the Buyer(s), may cancel this transaction at any time prior to midnight of the third business day after the date of this transaction. See the accompanying Notice of Cancellation form for an explanation of this right. Additionally, the seller is prohibited from having an independent courier service or third party pick up your payment at your residence before the end of the 3-business-day period in which you can cancel the transaction.

Agreement: Owner(s) agree that this agreement constitutes the entire understanding between the parties, and there are no verbal understandings, changing or modifying any of the terms of this agreement. This agreement may not be changed or its terms modified or varied in any way unless such changes are in writing and signed by one or both of the Owners and the Contractor. Owner(s) hereby acknowledge that Owner(s) has received and read all of the parts of the agreement including: Product Summary, Scope of Work, Terms and Conditions, and Sales Receipt. Owner(s) has received a completed, signed and dated copy of this agreement including the two accompanying

In-Home Consultation

03/01/2021
Date

Clients Signature

03/01/2021
Date

Clients Signature

03/01/2021
Date

Measure Technician Job Details

2758H5955.8448V2

<i>Line Number</i>	1
<i>ID</i>	201
<i>Location</i>	Bedroom 1
<i>Item</i>	Window - Andersen A Series Casement
<i>Brand</i>	Andersen
<i>Series</i>	A Series
<i>Style</i>	Casement
<i>Style Type</i>	Double
<i>Operation (As Viewed from Outside)</i>	Left - Right
<i>Installation Method</i>	Full Frame
<i>Pricing Method</i>	Custom Size Units
<i>Custom Width</i>	65.5
<i>Custom Height</i>	62
<i>Order Width</i>	Custom Width 65.5
<i>Order Height</i>	Custom Height 62
<i>Exterior Condition</i>	Wood Siding using Exterior Frame Measurements
<i>Exterior Frame Measurement</i>	65 1/2 width x 62 height
	:
<i>Inside Trim Coverage Measurement</i>	1 width x 1 height
	:
<i>Inside Frame Measurement</i>	1 width x 62 height
	:
<i>OVERALL Unit Dimensions</i>	65 1/2 width x 62 height::
	:
<i>NailFlanges</i>	Include Nail Flange
<i>Accessory Kerf</i>	No Exterior Accessory Kerf
<i>Exterior Color</i>	AW White
<i>Exterior Trim</i>	Cedar Smooth
<i>Exterior Trim Type</i>	1 x 6
<i>Exterior Trim Color</i>	Unfinished
<i>Interior Color</i>	Pine
<i>Interior Prefinish</i>	AW White
<i>Interior Trim</i>	Deluxe Trim w/ Sill
<i>Interior Trim Code</i>	2-1/2" Colonial Pine
<i>Interior Trim Prefinish</i>	AW White
<i>Side Step Specs:</i>	Not Applicable
<i>Jamb Specs:</i>	Custom6 Pine in AW White (Finish)
<i>Stool Specs:</i>	Pine 5 3/8" AW White
<i>Hardware</i>	Traditional Folding

SP000779-2 Danielle Rodgers

Page | 1

Measure Technician Job Details

2758H5955.8448V2

<i>Hardware Color</i>	Stone
<i>Sash Lock Qty</i>	1
<i>Screen</i>	Insect Screen
<i>Screen Color</i>	AW White
<i>Glazing</i>	SmartSun
<i>Grille</i>	Grille Construction for Unit 1 None , -- Grille Construction for Unit 2 None , --
<i>Shutters</i>	None
<i>Installation Extras:</i>	Fill In or Kneewall 1 --
<i>Window Job Notes:</i>	Flash onto roof, install osb and hardiboard siding. Client is aware it will be in a straight line, flash behind seams, bend J for shake and run hardiboard to it. Header is continuous. Client aware the are responsible for finishing.
<i>Window Private Notes:</i>	None
<i>Additional Items:</i>	(Qty 1, Flash onto roof, install osb and hardiboard siding. Client is aware it will be in a straight line, flash behind seams, bend J for shake and run hardiboard to it. Header is continuous. Client aware the are responsible for finishing., price 500)

Material List Order Windows

Sales Pilot Project #:
SP000779-2

Project Description:

Name: Danielle Rodgers

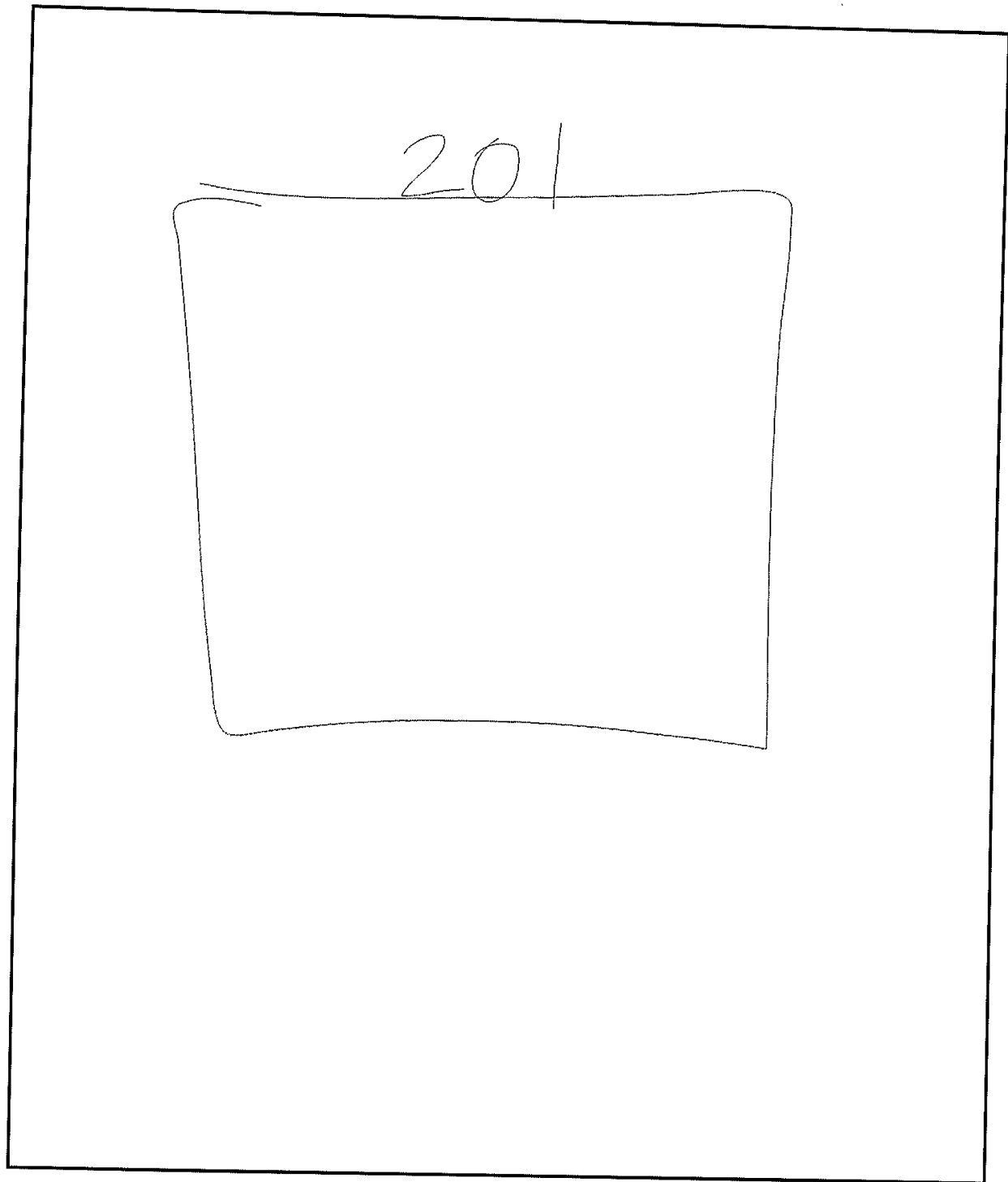
Today's Date: 03/16/2021

	<i>Total</i>	<i>Pcs. 16/0</i>	<i>Pcs. 12/0</i>	<i>Pcs. 8/0</i>
<u>Casing Description</u>				
2-1/2" Colonial Pine	27.39	2	3	4
<u>EJ Description</u>				
(Custom Jamb 6) Pine for Window A Series Casement	17.82	2	2	3
<u>Exterior Trim</u>				
Cedar Smooth 1 x 6	29.26	2	3	4
<u>Stool Description</u>				
5 3/8" Pine	8.25	1	1	2

<u>Installation Material</u>	<u>Quantity</u>	<u>U of M</u>
Cedar Shims	1	Bundle(s)
Installation Screws	10	Each
Spray Foam Insulation	1	Can(s)
Power Bond Window Wrap (100' per roll)	1	Roll(s)
Tubes of White Interior Caulk	1	Tube(s)
Solar Seal Caulk in AW White	2	Tube(s)

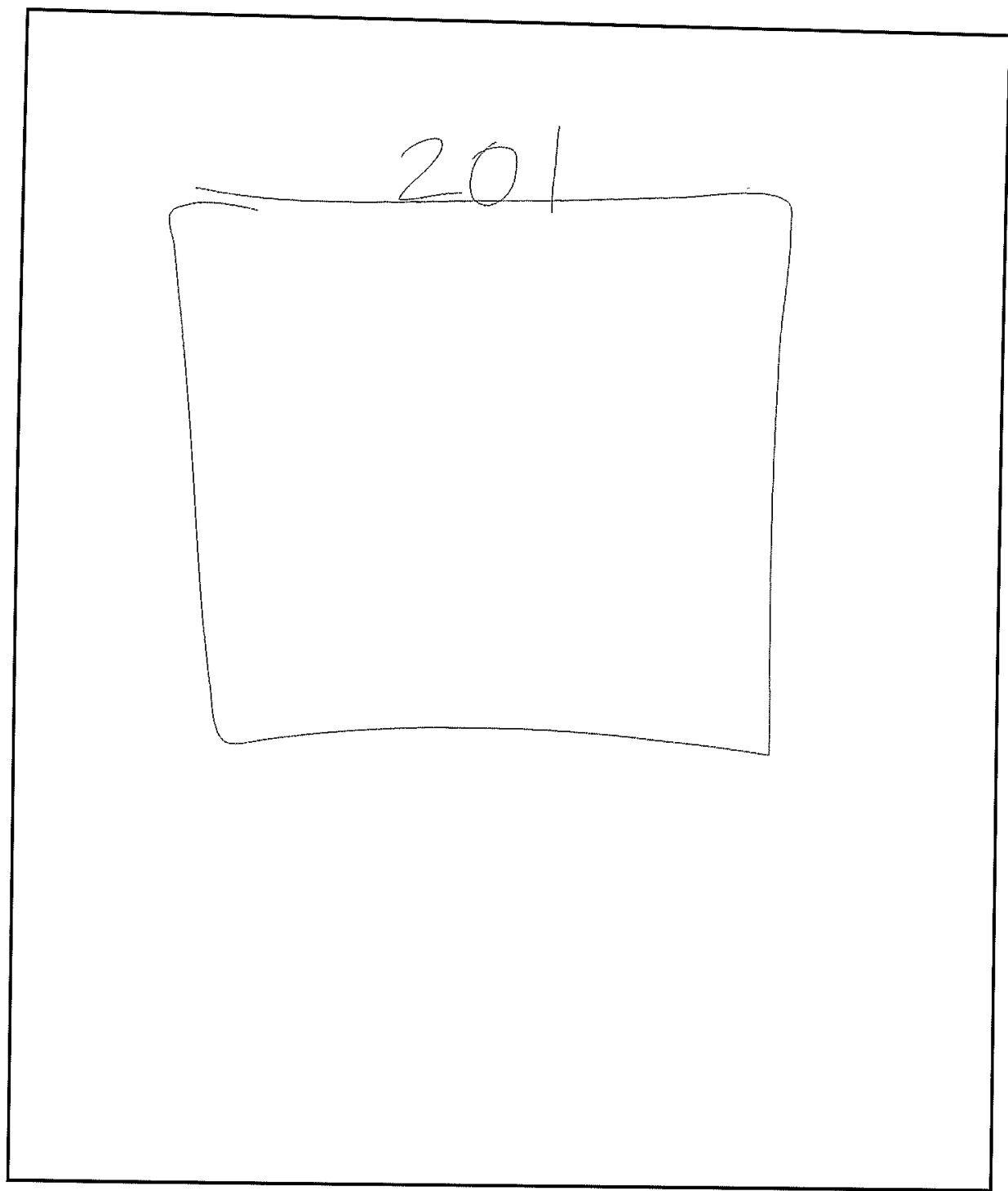
<u>Other Materials</u>	<u>Quantity</u>
7/16 4x8 OSB Plywood	1
1/2 4x8 Sheet of Drywall	1
Roll(s) of Drywall Tape	1
Bundle of R-13 Batt Faced Insulation	2
2 x 4 x 8'	4
roll coil white Unfinished	1
pcs 8" Hardiboard woodgrain cement siding Unfinished	2
solar seal clear Unfinished	3
Livingston County Number 21793 Novi	1

Floor Plan



SP000779-1 Danielle Rodgers

Floor Plan



SP000779-1 Danielle Rodgers



Lead Renovation Record Keeping Checklist

Client: Danielle Rodgers

Name of Firm:	
Location of Renovation:	
Date of Renovation:	
Brief description of renovation:	
Name of assigned Renovator:	
Crew members:	
Name of trained workers (if used):	
Name of dust sampling technician, inspector, or risk assessor (if used):	
Leo	
Neq	
Copies of renovator and dust sampling technical qualifications on file	
Certified renovator provided training to workers on: (check all that apply)	
☐	Post warning signs
☐	Set up plastic containment barriers
☐	Maintaining containment
☐	Avoid spread of dust to adjacent areas
☐	Waste handling
☐	Post-renovation cleaning
Test kits used by certified renovator to determine whether lead was present on components affected by renovation? Identify kit(s) used and describe sampling location: Int/ext trim frame/sashes and slab	
Swab	
Warning signs posted at entrance to work area	
Work area contained to prevent spread of dust and debris	
☐	All objects in the work area removed or covered (interior)
☐	HVAC ducts in the work area closed and covered (interior)
☐	Windows in the work area closed (interior)
☐	Windows in and within 20 feet of the work area closed (exterior)
☐	Doors in the work area closed and sealed (interior)
☐	Doors in and within 20 feet of the work area closed and sealed (exterior)
☐	Doors that must be used in the work area covered to allow passage but prevent spread of dust
☐	Ground covered by plastic extending 10 feet from work area; and plastic anchored to the building and weighed down by heavy object (exterior)
☐	Floors in the work area covered with taped-down plastic (interior)
Waste contained on-site and while being transported off-site	
Work site properly cleaned after renovation	
☐	All chips and debris picked up, protective sheets misted, folded dirty side inward, and taped for removal
☐	Work area surfaces and objects cleaned using HEPA vacuum and/or wet cloth or mop (interior)
Certified renovator performed post-renovation cleaning verification (describe results, including number of wet and dry cloths):	
If dust clearance testing was performed instead, attach a copy of the report.	
I certify, under penalty of law, that the above information is true and complete.	

Leo Leszczynski MT

Name and Title

3-15-2021

Date





Tuesday, March 16, 2021

C&L Ward Job Photos - Leo Leszczynski

Job Information

Client Last Name

Rodgers

MarketSharp Job Number

39471

Project Coordinator

Bailey Patterson

Picture Type

MT

Upload Job Photos



<-----Current window in home that is being replaced. This is at the back of the home.

Below pictures are of display window, A series casement. This will be the new window installed. There will NOT be grills in the window being installed. Just plain glass window.





Staff photos showing east elevation in context. Window and door to be replaced at upper left.





HDC Work Permit Staff Review

Property address: 407 E Cross

Property History: The property includes an Italianate-style house. Assessing data indicates the house was built in 1896, however architecturally, the building appears to have been erected ca. 1870. The building was converted to a duplex ca. 1921. The exterior aluminum siding was added ca 1969.

Date Complete Application Received: April 19, 2021

Date of Review: April 20, 2021

Date of Meeting: April 27, 2021

Proposed work: Replace all windows on the house.

Materials: Vinyl windows, mostly double-hung.

Staff review:

1. This application is for work already completed without HDC review.
2. The applicant replaced all windows on the house.
3. There are no photos showing all elevations, but photos available show that most windows were six-over-six wood double-hung sashes.
 - a. These windows appear to date to the historic period.
4. The applicant was issued a Building Permit from the Building Department for the work.
 - a. Usually, the Building Department does not issue a permit until work is reviewed by the HDC.
 - b. The property was erroneously not marked in the tracking system as being in the historic district.
5. According to the applicant, the windows were replaced because tenants complained of high energy bills and replacement window company, First Choice Windows, recommended replacement.
6. In staff opinion the work is not appropriate and does not meet the considerations for Notice to Proceed.

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.

7. If the Commission also finds the work inappropriate, they should discuss with the applicant potential means to correct the work.
 - a. Staff observed that many of the original sashes have been stored on-site against the garage and appear to be in good condition. Staff recommend that the owner protect these sashes and present a plan for re-installing them where possible.

Recommended Motions:

Move to deny the application for work at 407 E Cross as completed and submitted for review on April 19, 2021 with the finding of an adverse impact. The original six-over-six windows were a character-defining feature of the building and the new windows do not match the original windows in design or materiality and are not compatible with the character of the historic district.

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

Prepared by:

Scott E. Slagor, Preservation Planner



RECEIVED

APR 19 2021

CITY OF YPSILANTI
BUILDING DEPARTMENT

**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

R. 27651
#14075
PHDC 21-0019

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

407 E. Cross

Applicant

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

Name

Beal Properties, LLC

Address

[REDACTED]

City

Ypsilanti

State

MI

Zip

48197

Phone / Fax

[REDACTED]

E-Mail

[REDACTED]

Contractor

Contractor Name & Contact Info

First Choice Windows

[REDACTED]

Type of work

☐ Roofing

☒ Window/Door
Replacement

☐ Porches

☐ Sign

☐ Fence (or other sitework)

☐ Painting

☐ Other

☐ Application Amendment

Complete Description of Proposed Work:

Replace existing windows with double hung vinyl windows

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

\$10,000

Permit fee:

\$45 + 65 = \$110

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:

[Redacted Signature]

Date:

4/15/21

Print Name:

Stewart Beal

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.

PHDC-21-0019











Staff photos 407 E Cross



Facing northwest to facade and east elevation.



Facing northwest to east elevation.



Facing northeast to west elevation.



Facing northwest to facade and west elevation.



Facing southeast to north and west elevations.



Facing southeast to west elevation.



Facing southwest to east elevation.



Extant historic fabric.







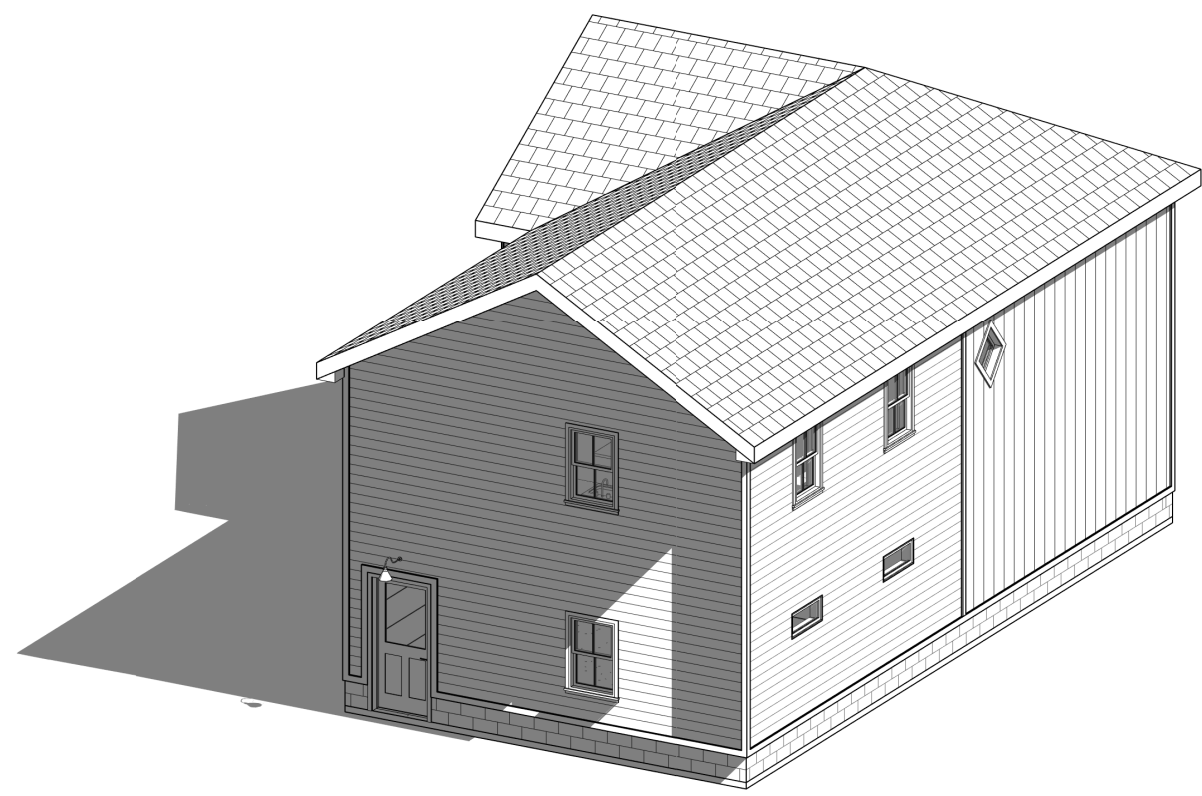
File Photo from 2008.



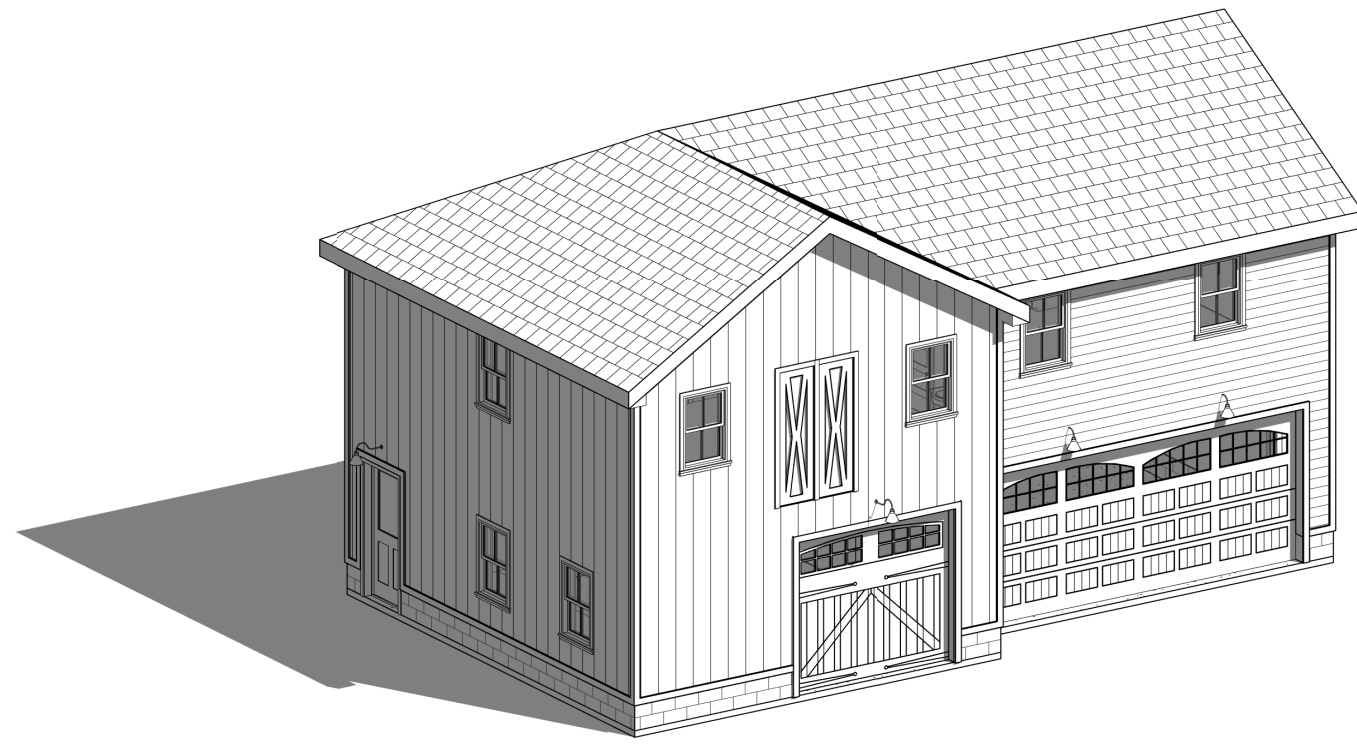
Street view photo 2016



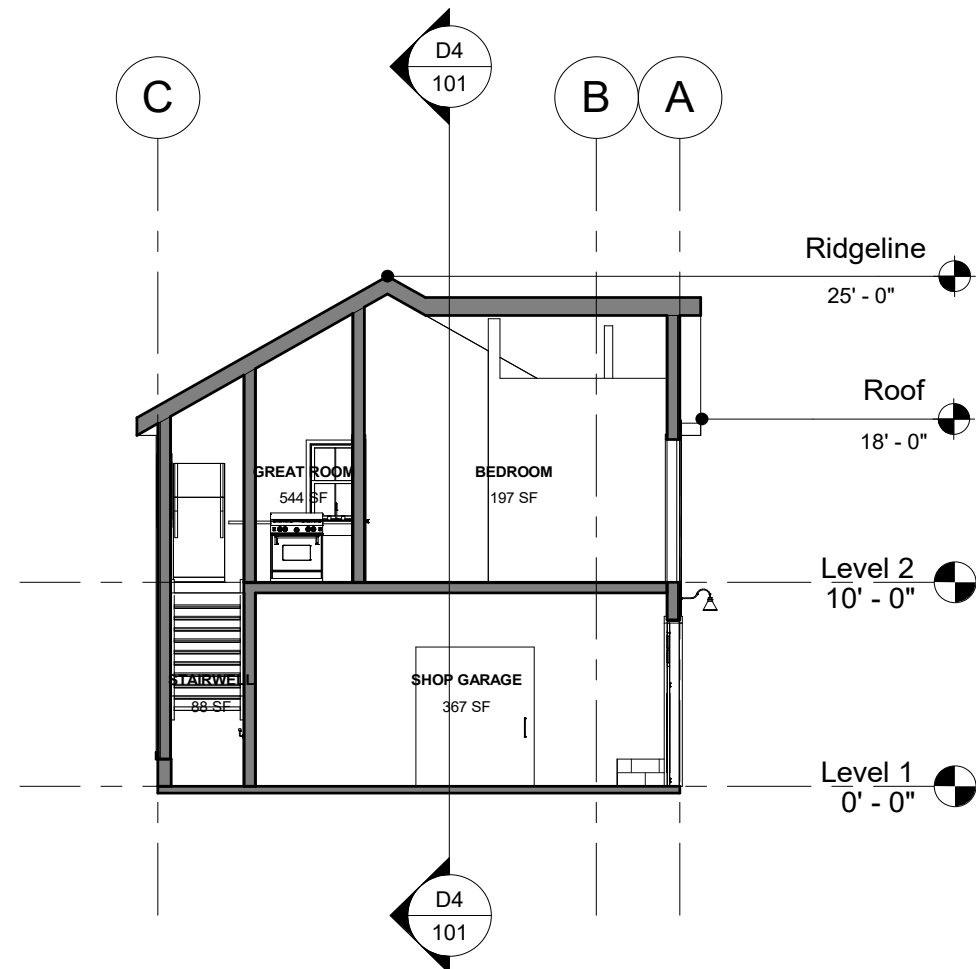
Street view photo 2019



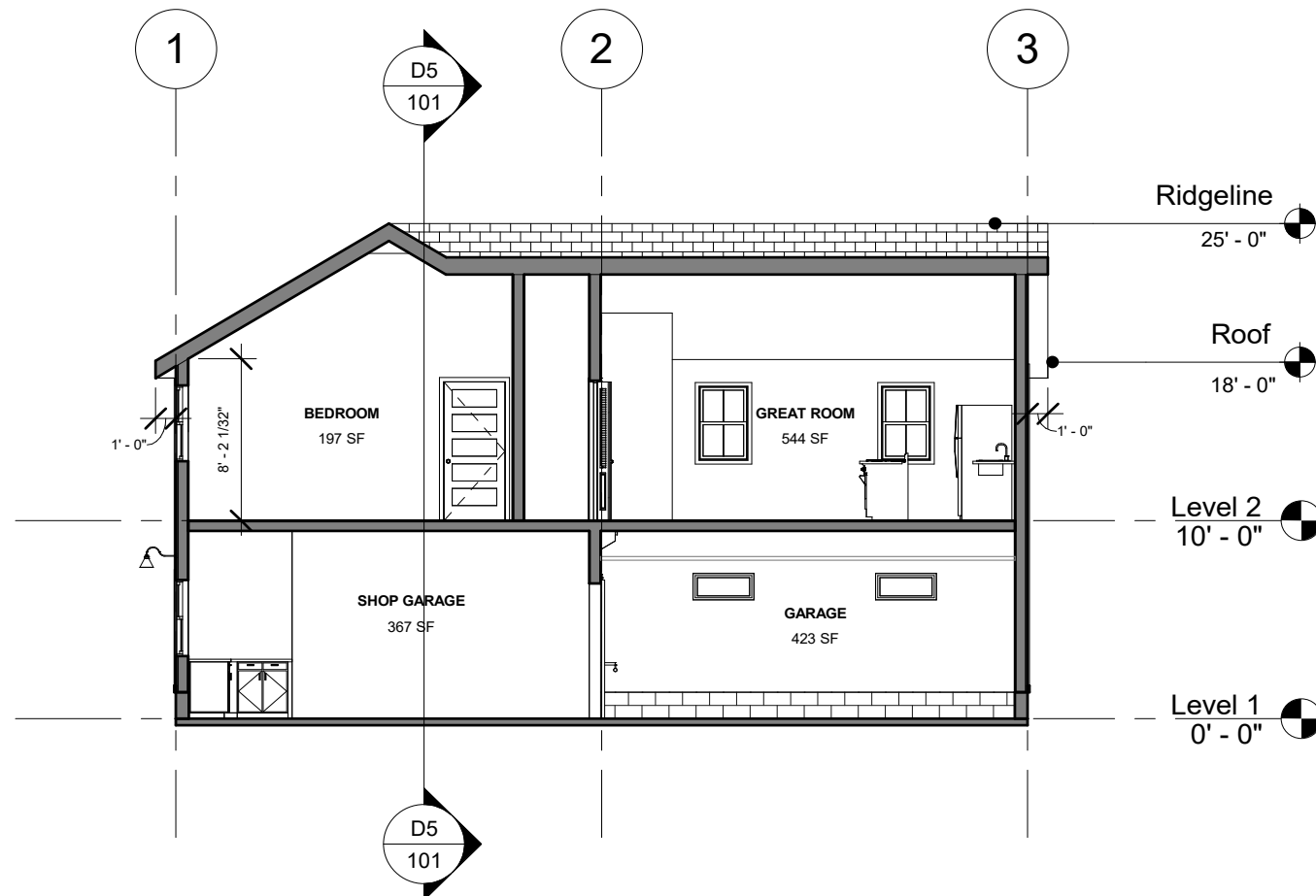
F5 3D View 2
NOT TO SCALE - FOR REFERENCE ONLY



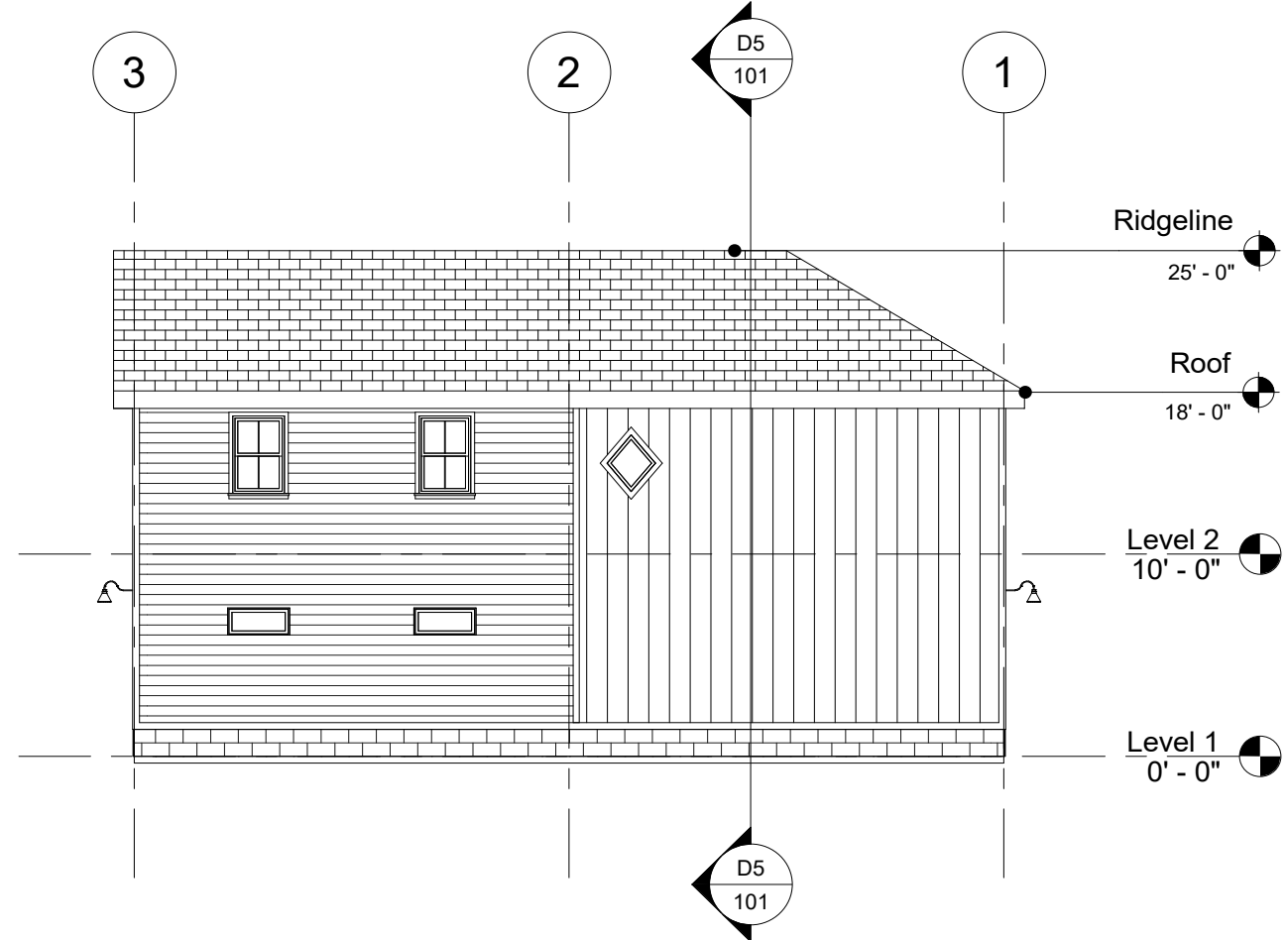
F4 3D View 1
NOT TO SCALE - FOR REFERENCE ONLY



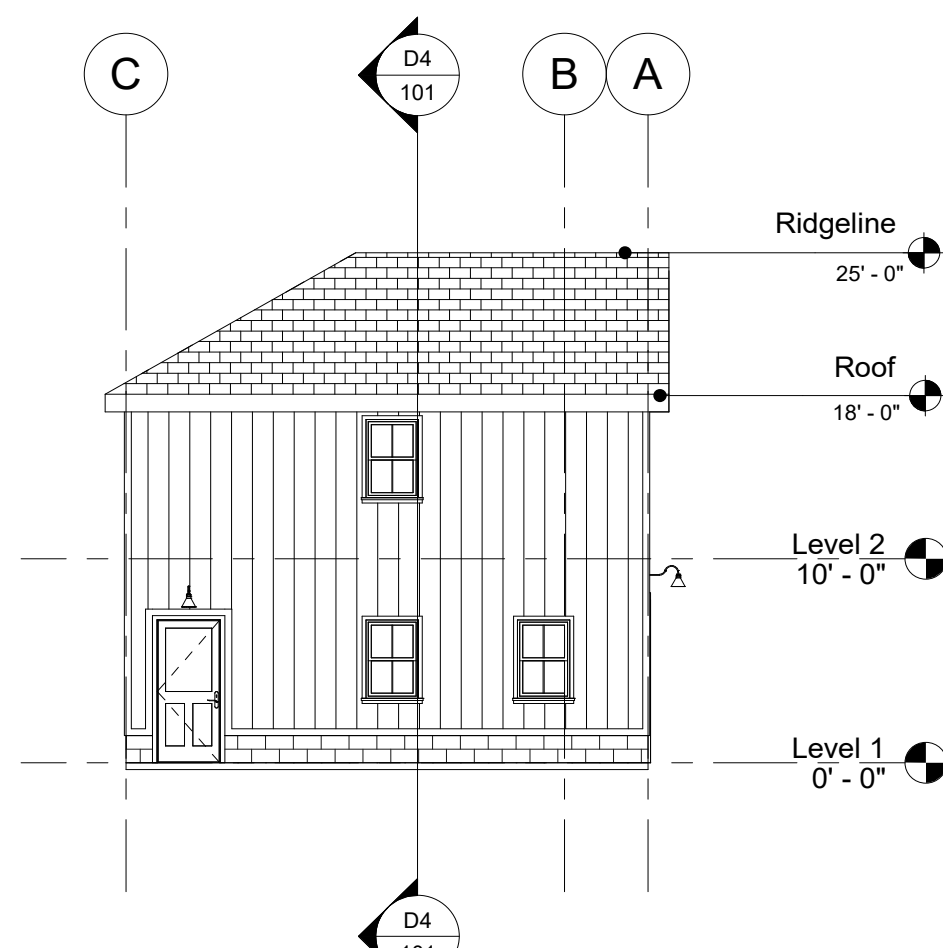
D5 Building Section AA
1/8" = 1'-0"



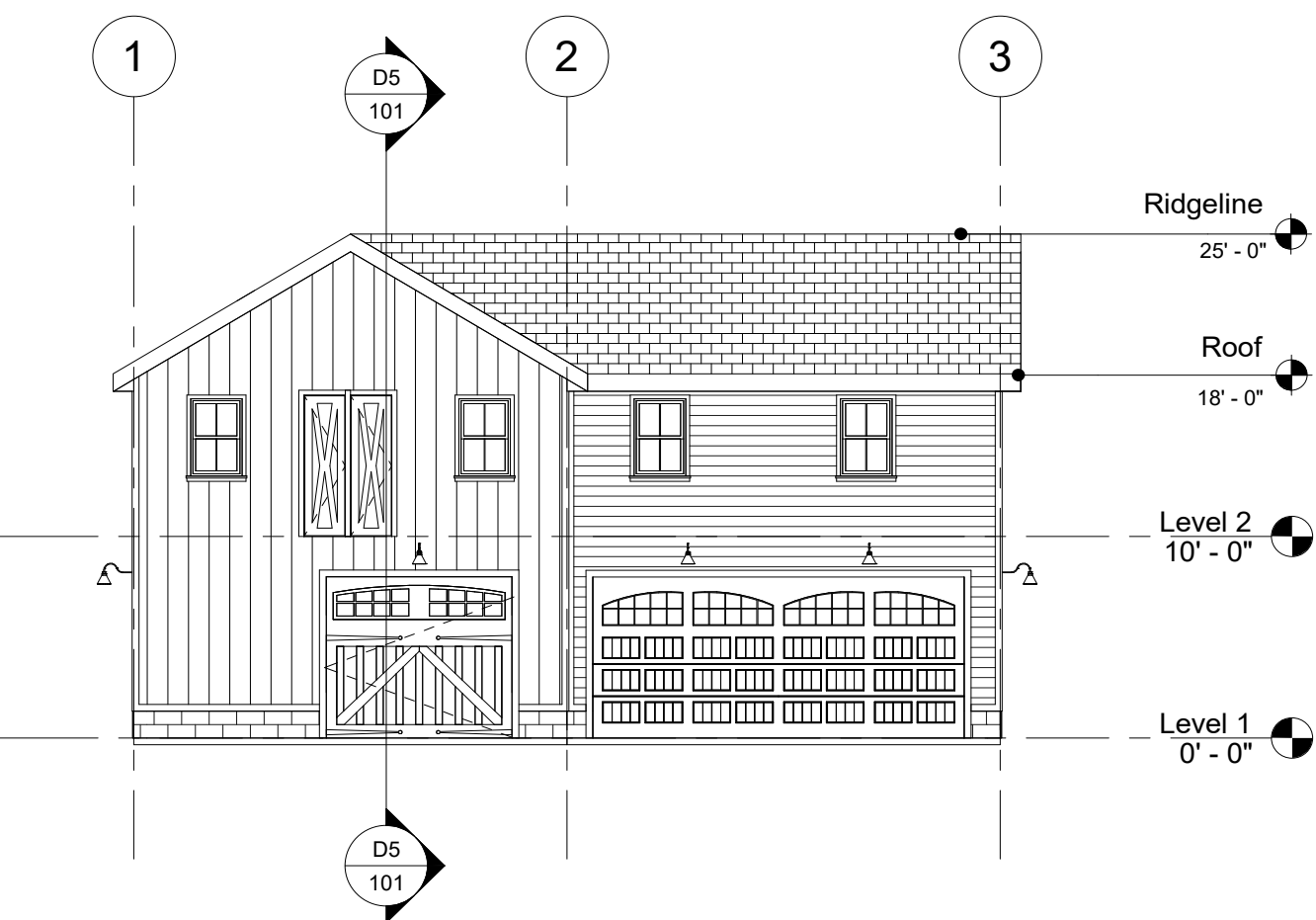
D4 Building Section BB
1/8" = 1'-0"



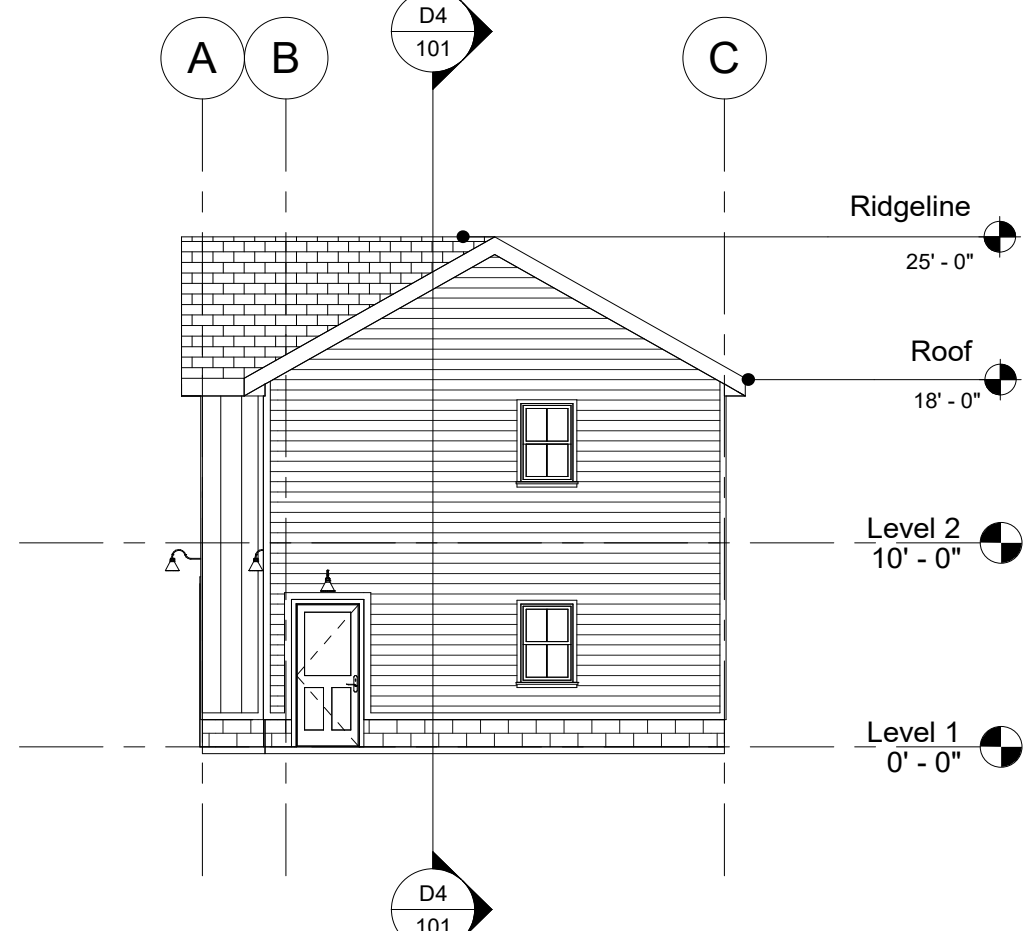
B6 WEST ELEVATION
1/8" = 1'-0"



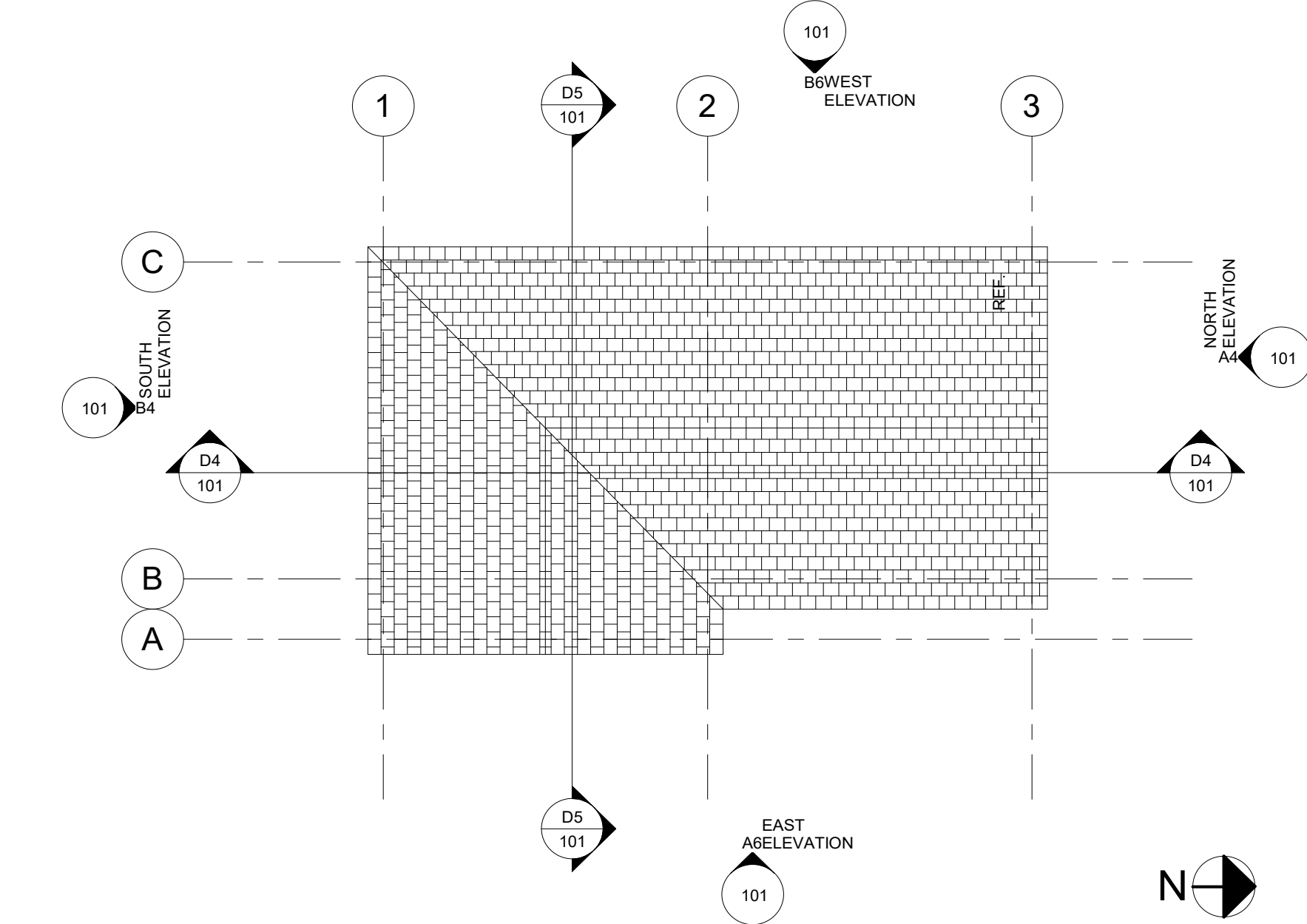
B4 SOUTH ELEVATION
1/8" = 1'-0"



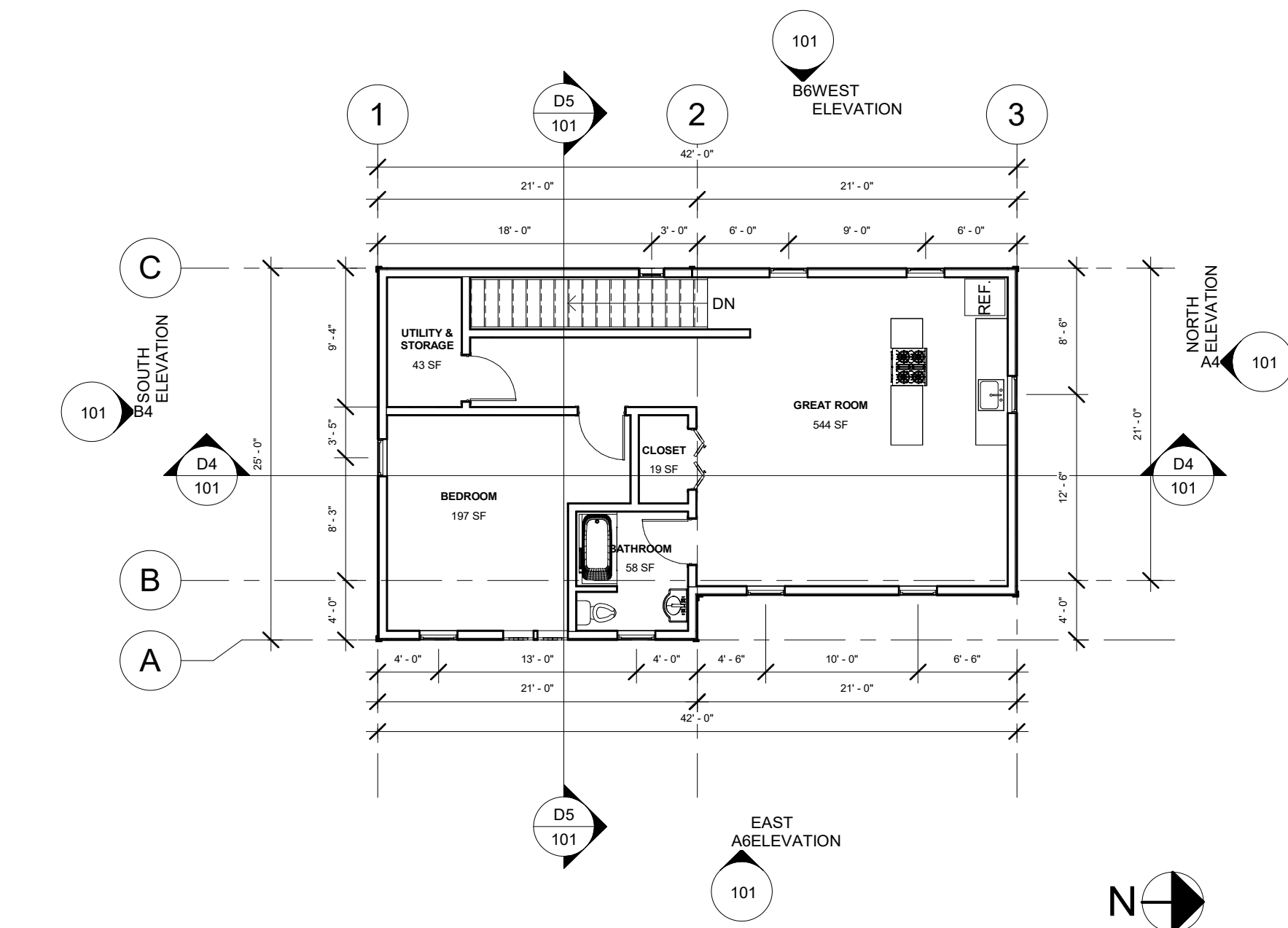
A6 EAST ELEVATION
1/8" = 1'-0"



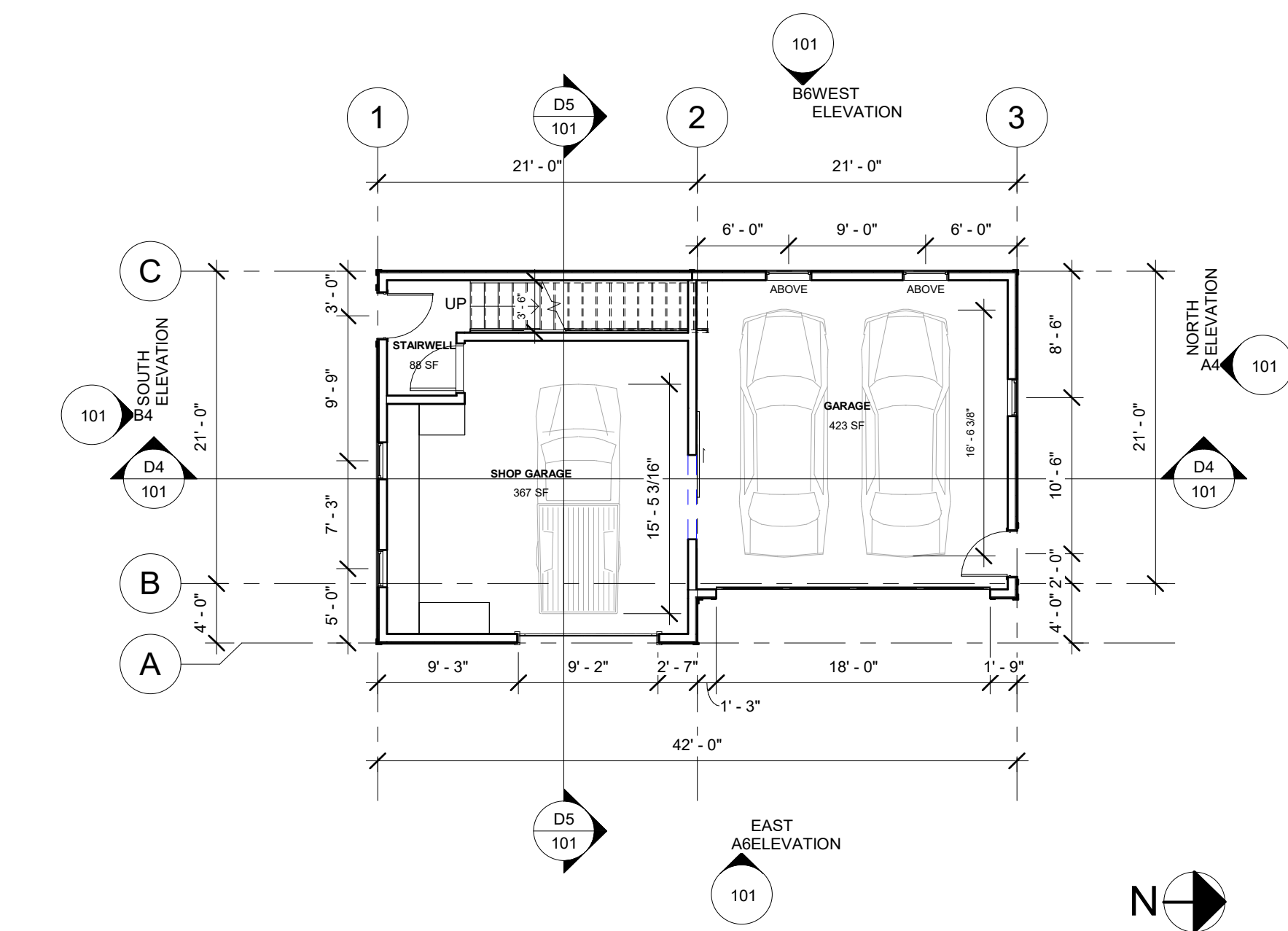
A4 NORTH ELEVATION
1/8" = 1'-0"



E2 Roof
1/8" = 1'-0"



C2 Level 2 Plan
1/8" = 1'-0"



A2 Level 1 Plan
1/8" = 1'-0"

DESIGNER
SDR

REGISTRATION SEAL

CONSULTANT

PROJECT TITLE
LaRue Garage and Loft

DRAWING TITLE

ISSUE DATES

DATE: ISSUED FOR:

PROJECT NO.

21001A

DRAWING NO.

101

400 SERIES DOUBLE-HUNG WINDOW



Interior



Exterior



Summary

Product ID#	TW24410
Unit Width	29 5/8"
Unit Height	60 7/8"
Interior Color	Pine
Glass	SmartSun™ Glass
Hardware	Standard Lock and Keeper, Stone
Optional Hardware	Traditional Finger Lift, Stone
Grille Pattern	Colonial
Grille Width	3/4"
Exterior Color	Terratone
Exterior Trim Profile	None
Exterior Trim Color	Terratone

[Home](#) / [Doors & Windows](#) / [Garage Doors](#)

Internet #204598541 Model # GR1LP_MO_SQ24



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Clopay

Gallery Collection 16 ft. x 7 ft. 6.5 R-Value Insulated Ultra-Grain Medium Garage Door with SQ24 Window

(47) [Write a Review](#) [Questions & Answers \(3\)](#)

- Integrated locking system for added security
- Deep panel edging improves appearance close-up and from the curb
- With ultra-grain stained woodgrain paint finish

\$2,066⁰⁰

OR

\$87⁰⁰ per month* suggested
payments with
24 months* financing on this
\$2066.00 purchase*.
VALID: 4/8/2021 - 4/21/2021

[Apply for a Home Depot
Consumer Card](#)

Garage Door Color: **Ultra Grain Medium**

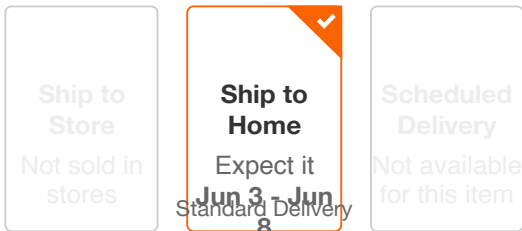


Garage Door Size: **16 ft x 7 ft**

8 ft x 7 ft

16 ft x 7 ft

How to Get It



Expect it **June 3 - June 8** to **48197**

[Delivery Options](#)



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— or —

Buy now with

We're unable to ship this item to
homes and stores in: AK, FL, GU, HI, PR, VI

Product Overview



DESIGN, VISUALIZE, & ORDER YOUR CUSTOM GARAGE DOOR

Our local, expert installation team will make sure your garage door project runs smoothly from start to finish.

[Customize your garage door with our Clopay Design Tool >](#)

Add strength, security and style to your home with a Clopay Garage Door. The 3-layer steel construction features polystyrene insulation for added energy efficiency and quiet operation. Decorative panel edging and natural embossed wood grain texture improve appearance close-up and from the curb. This door also features Clopay ultra-grain, a painted steel surface simulating a real stained door without the hassles of staining and the ongoing maintenance of wood. The price includes the door and components only. Installation is NOT included.

- Good construction 3-layer steel construction (Steel-Polystyrene insulation-steel)
- 1-3/8 in. thick polystyrene insulation providing a 6.5 R-value
- EZ-set torsion springs are included
- Ultra-grain, a durable, natural-looking, stained woodgrain paint finish that eliminates the ongoing maintenance and staining requirements of a real wood door, it won't rot, warp, crack or shrink
- Garage door comes with windows and snap-in inserts for easy cleaning
- Traditional overhead door is compatible with automatic garage door openers
- Bottom weather seal in rust-proof aluminum retainer helps seal floors and is easily replaced
- Exterior lock not included, purchase separately with SKU# 985184
- Rear track hanger kit not included, purchase separately with SKU# 235466
- Low headroom conversion kit not included, purchase separately with SKU# 773844

- Additional items may be needed to complete the install, please see installation guide to learn more
- Our local, expert installation team will make sure your garage door project runs smoothly from start to finish
- [Best Garage Doors For Your Home](#)
- [Click here to design your Custom Clopay Garage Door and schedule an install](#)

Info & Guides

- [Installation Guide](#)
- [Instructions / Assembly](#)
- [Replacement Part List](#)
- [Specification](#)
- [Warranty](#)

You will need Adobe® Acrobat®

Reader to view PDF documents.

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Shop This Collection from Clopay ⁽¹⁰⁾

Current Product



Clopay Gallery Collection
16 ft. x 7 ft. 6.5 R-Value
Insulated Ultra-Grain
Medium Garage Door with...

(47)

\$2066⁰⁰ each

☒ Item Selected



Clopay
Gallery
Collec...
16 ft. ...

(36)

\$2672⁰⁰

☐ Select This Item



Clopay
Gallery
Collec...
16 ft. ...

(36)

\$2164⁰⁰

☐ Select This Item



Clopay
Gallery
Collec...
16 ft. ...

(41)

\$2066⁰⁰

☐ Select This Item



Clopay
Gallery
Collec...
16 ft. ...

(40)

\$1554⁰⁰

☐ Select This Item



Shop This Collection from Clopay



+5 More items

Current Product



Clopay Gallery Collection 16
ft. x 7 ft. 6.5 R-Value
Insulated Ultra-Grain Medium
Garage Door with SQ24...

(47)

\$2066⁰⁰ each

☐ Item Selected



Clopay Gallery Collection 16 ft. x 7 ft. 6.5 R-
Value Insulated Ultra-Grain Medium Garage
Door with Wrought Iron Window

(36)

Get Everything You Need ⁽¹⁾
Select This Item

Current Product



Clopay Gallery Collection 16
ft. x 7 ft. 6.5 R-Value
Insulated Ultra-Grain
Medium Garage Door with...

(47)

\$2066⁰⁰ each

☒ Select This Item



Genie
Silent...
750 3/4
HPc...

(3004)

Was \$178.00

\$159⁰⁰

☐ Select This Item

1 Item Selected



Add Item To Cart

Get Everything You Need



Select This Item

Current Product



Clopay Gallery Collection 16
ft. x 7 ft. 6.5 R-Value
Insulated Ultra-Grain Medium
Garage Door with SQ24...

(47)

~~\$2066.00~~
\$1066.00 each

☐ Item Selected



Genie SilentMax 750 3/4 HPc Ultra-Quiet
Belt Drive Garage Door Opener with
Wireless Keypad

(3004)

Select This Item

Select This Item

Based on Your Interests



PROJECT GUIDE
How to Paint Exterior Windows

Bring a pop of fresh color to your homes exterior while instantly boosting curb appeal

[Read Our Guide](#)



PROJECT GUIDE
How to Paint Door Jambs

Efficiently painting door jambs and trim the final touch to your paint project

[Read Our Guide](#)

Select This Item

Sponsored Products



Genie SilentMax
750 3/4 HPc Ultra-
Quiet Belt Drive

(456)

~~\$209.00~~
\$159.00
Was \$179

Add To Cart



Genie PowerLift
1/2 HP Screw
Drive Garage Door

(456)

\$169.00
Was \$193

Add To Cart



Chamberlain 1/2
hp. Belt Drive Wi-
Fi Smart Garage

(0)

\$197.98 /bundle
Was \$227.98

Add To Cart



Genie MachForce
Plus 2 HP
Premium Screw

(230)

\$209.00
Was \$239

Add To Cart



SkyLink 1
Heavy Duty
Drive Smart

\$169.00
Was \$239.99

Add To

Specifications

Dimensions

Garage Door Size	
16 ft x 7 ft	
Product Depth (in.)	
1.38	
Product Height (in.)	
84	
Select This Item	
Product Width (in.)	
192	

Details

Color Family

Brown

Door Configuration

Double Door

Features

Insulated,With Windows

Garage Door Collection

Gallery

Garage Door Color

Ultra Grain Medium

Garage Door Style

Carriage House

Included

Hardware,Instructions

Insulation R-Value

6.5

Material

Steel

Number of Windows

8

Product Type

With Windows

Product Weight (lb.)

203lb

Returnable

90-Day

WindCode Rating

No WindCode Rating

Window Type

Clear Glass

Warranty / Certifications

Manufacturer Warranty

Paint System - Lifetime, Windows - 10 yrs.,
Sections/Delamination - 5 yrs., Hardware/Springs
-3 yrs.

Recently Viewed Items



Clopay Gallery
Collection 16 ft. x 7
ft. 6.5 R-Value

(47)



BEHR PREMIUM
1 gal. #PFC-02
Brick Red Gloss

(61)



Glidden Porch
and Floor 1 Gal.
White Gloss

(86)



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(2964)



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Features

- Durable Metal Construction
- Black Finish Offers Classic Style
- Inspired by Traditional Design
- One Medium-Base Socket Rated for 100W
- CUL Listed for Wet Locations

Details

Style	Romantic
Item Sold As	Fixture With Shade Included
Included Hardware	All Necessary Mounting Accessories
Usually Ships In	2 to 3 Business Days More info >
Warranty	5 Year Warranty

4 1 Review [Write a Review](#)

✓ 100% of respondents would recommend this to a friend

[Read Product Questions & Answers](#)

Item #: RS-03SHL-5-9584-BK

Price: \$190.90

People Interested in This Item Also Liked...



Escudilla 12-inch 1-Light Outdoor Wall
From \$110.90



Allegheny Medium Entry Light
From \$384.90



Shelton 1 Light Medium Wall Lamp
From \$138.90



Shelton 1 Light Small Wall Lamp
From \$98.95



Lakehouse Medium Outdoor 6-Light
From \$1571.90



Allegheny Medium Exterior Pendant
From \$408.90

[Free Ground Shipping](#)

Description & Dimensions

The Raleigh Collection draws its inspiration from the classic appeal of farmhouse lighting. Finished in black, the sleek, curved arm transitions effortlessly to its wide shade. Display this fixture on the exterior of your late 19th-century prairie home or California bungalow.

Dimensions: 11" H x 11" W. Projection: 15 1/2". Backplate: 5 3/4" D. Lighting: One medium base socket rated for 100W. CUL Wet Rated.





MINUTES

City of Ypsilanti HISTORIC DISTRICT COMMISSION Virtual Meeting held via Zoom

Tuesday, April 13, 2021
7:00 P.M.

CALL TO ORDER AND ROLL CALL

Chairperson Pettit Video/telephone usage instructions given for potential attendees
Meeting called to order at 7:03pm

Commissioners Present: Alex Pettit – Washtenaw County, City of Ypsilanti
Anne Stevenson - Washtenaw County, City of Ypsilanti
Erika Lindsay - Washtenaw County, City of Ypsilanti
James Chesnut – Washtenaw County, City of Ypsilanti
James Ratzlaff – Washtenaw County, City of Ypsilanti
Amy Swift – Washtenaw County, City of Ypsilanti

Commissioners Absent: None

Staff Present: Scott Slagor, Preservation Planner
Nancy Hare-Dickerson, Commission Recording Secretary

APPROVAL OF AGENDA

Motion: Stevenson (second: Swift) moved to approve the agenda as submitted.

Roll Call Vote - Ayes: Commissioners Pettit, Stevenson, Lindsay, Chesnut, Ratzlaff, Swift
Nays: None
Absent: None
Motion carried.

PUBLIC COMMENT ON AGENDA ITEMS—none

PUBLIC HEARING—none

OLD BUSINESS—none

NEW BUSINESS

222 N River

**Solar array.*

Applicants: William Crawford, contractor – not present

Discussion: Pettit: Provided an overview of the application contents. Stated that there may be commissioner questions about the location of the solar panels on the main body of the house which can be seen from a primary public viewpoint.

[Commissioners reviewed and discussed the application reference packet materials]

Ratzlaff: Query regarding the color of the existing roof and if the solar panels match.

Swift: Indicated that because the roof is so shallow, there is not as much roof surface that you see visually as part of the character-defining features of the home.

Stevenson: Stated that the proposed location is very noticeable from the street. Stated that there are two additions on the back that have quite a bit of roof surface. Indicated that the presence of the applicant would be helpful in order to discuss what the possibilities would be of putting the panels on the rear.

[Discussion continued as to appropriateness of proposed location/shadow considerations/outstanding questions needing answers from applicant]

Lindsay: Indicated that though the proposed panels are on the house, because of the roof pitch and because of the scale of the roof right in that spot, they would not be seen from that particular vantage point. Stated that if we were walking down the street, we would see it.

[Discussion continued as to appropriateness of proposed location/removeable work standards/precedent setting/case-by-case decision-making/possible re-review of Fact Sheet]

[Procedural discussion]

Motion: Lindsay (second: Chesnut) moved to table the proposed work at 222 N River, citing more information needed; specifically, a shadow study and information on location options for the panels.

Roll Call Vote - Ayes: Commissioners Pettit, Stevenson, Lindsay, Chesnut, Ratzlaff, Swift
Nays: None
Absent: None
Motion carried.

39 E Cross

**Application for rooftop patio improvements was moved to later in the agenda as the applicant was not present.*

513 N River

**Windows.*

Applicants: Johnny Merehouyias, contractor-Alexandria Windows, Doors & Metal Roofing – present

Discussion: Pettit: Indicated that the application is for the replacement of some windows. Asked applicant

to briefly describe the work that is planned.

Merehouyias: Indicated that the plan is to replace three (3) windows – one, on the north elevation facing Oak Street; the other two, on the west elevation facing the rear of the home. Stated that all three windows are visible from Oak Street. Stated that the existing windows are wood with an aluminum storm window on them. Stated that the proposed replacements would be a Pella Lifestyle series which is wood with aluminum clad, that would match the above window *[reference photo material]*.

Pettit: Asked about the glass option on the upper window *[reference photo material]*.

Merehouyias: Indicated that it is a privacy window in the bathroom. Stated that the glass is sandblasted to give it that texture *[reference photo material]* and is also tempered.

Swift: Asked if the existing windows are original to the structure.

Merehouyias: Stated his belief that the windows were previously replaced but are still older than some of the other windows are.

Swift: Indicated that she cannot tell the vintage of the proposed windows to be replaced. Stated that she would like to see their condition if they are original windows.

Slagor: Staff shared that he conducted a site visit with the property owner and confirmed that all extant windows in the house are either 1990s wood replacement sashes, or mid-twentieth century aluminum replacement sashes.

Motion: Stevenson (second: Lindsay) moved to issue a Certificate of Appropriateness for the work at 513 N River as submitted in the application dated March 22, 2021, installation of three replacement windows in the locations specified. Replacement windows are to be Pella Lifestyle double-hung aluminum-clad wood windows in white. The proposed bathroom replacement window on second story of the west elevation may have privacy glass as it is a non-street-facing elevation. Replacement windows are appropriate for this building because the current windows are non-historic.

Secretary of the Interior Standards:

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

#10-New work shall be removable.

Roll Call Vote - Ayes: Commissioners Pettit, Stevenson, Lindsay, Chesnut, Ratzlaff

Nays: Commissioner Swift

Absent: None

Motion carried.

104 S Huron

**Porch repair and new porch flooring.*

Applicants: Michael Condon, contractor – present

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Discussion: Pettit: Asked applicant to describe the proposed work.

Condon: Indicated that the plan is to redo the porch due to structural instability. Stated that the idea is to correct the pier that is leaning *[reference photo materials]*. Stated that they will have to reframe the support structure for the deck which means having to remove the decking, railings and skirting. For the new deck surface, the plan is to use the Timbertech tongue-and-groove porch flooring. Stated that they are not doing anything with the stairs.

[Discussion as to stair and column considerations]

Chesnut: Indicated that in looking through the application, it seems the one change is the decking material --- that you are going to replace the deck and you are going to change the finish material of the deck; that everything else is effectively going to stay the same, materially.

Condon: Confirmed.

Motion: Chesnut (second: Stevenson) moved to issue a Certificate of Appropriateness for the work at 104 S Huron as submitted in the application dated March 24, 2021, repair work to the porch as specified and new porch flooring. Any replacements in the repair of the porch skirt and railing should be made in-kind and painted when complete. The porch flooring shall be Timbertech composite tongue-and-groove with a textured finish.

Secretary of the Interior Standards:

#5- Preserve distinctive features.

#6- Repair don't replace, replacements shall match the original.

Roll Call Vote - Ayes: Commissioners Pettit, Stevenson, Lindsay, Swift, Chesnut, Ratzlaff

Nays: None

Absent: None

Motion carried.

211 Ferris

**Roof.*

Applicants: Mike Watcke, contractor – present

Discussion: Pettit: Indicated that there are questions about the extent of the work to be done.

Swift: Asked what is the reasoning behind the partial replacement.

Watcke: Stated that the front half is leaking and the back half is not. Stated that the front half has deteriorated more than the back half. Stated that the replacement is with the same color shingles but with a different manufacturer. *[Explained manufacturer differences]*.

Pettit: Asked if it currently has a ridge vent.

Watcke: Stated that they would follow the historic specifications – no can vents, only ridges.

Swift: Indicated that there appears to be a uniqueness to the way the shingles are arranged. Asked if the front and back shingle pattern is going to be similar *[reference photo materials]*.

Watcke: Stated that they would use the GAF Timberline dimensional shingles which are the same color. Indicated that you cannot see the front and back at the same time to see that it was different.

Ratzlaff: Indicated an opinion that those shingles are pretty characteristic (diamond shaped) on that building *[reference photo materials]*, at least from what you can see from the street. Asked if there is an issue with getting shingles like that.

Watcke: Indicated that they do sell the Sheriff-Goslin shingles in Michigan but they are more costly to install. Stated that the GAF Timberline dimensional shingles last longer – 50 years.

[Discussion as to historic value of the existing roof pattern]

Stevenson: Indicated an opinion that the roof pattern is a distinctive feature that the house has at this point that has been created over time that the Commission would want to see preserved.

Watcke: Stated that those shingles are probably about twenty years old and there is only one layer of roof because it was a tear-off before these were put on. Indicated that the property owner wanted some that lasts longer.

Slagor: Staff indicated that the main reason the application was brought before the Commission is because, although it would be the same asphalt material, it was not a full roof replacement and there would be two different styles of shingles on the same building.

[Discussion continued as to the difference in the existing and proposed roof pattern/HDC guidelines/ possible precedent setting]

Lindsay: Asked about the mechanics of how the match of the overlap is planned, where the old roof meets with the new roof.

Watcke: Stated that it is going to be the whole front all the way up to the ridge; that all those cap shingles and the ridge vent will be replaced with new. Stated that the cap shingles will look exactly the same as the Sheriff-Goslins.

[Discussion continued as to partial vs full roof replacement considerations]

Motion: Swift (second: Chesnut) moved to deny the proposed work at 211 Ferris as the proposed work establishes conflicting textures between the two roof slopes and does not meet the HDC guideline that states "shingles must be similar to the existing shingles on the structure or any adjoining roof in color and material."

Secretary of the Interior Standards:

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

Roll Call Vote - Ayes: Commissioners Stevenson, Lindsay, Swift, Chesnut
Nays: Commissioners Pettit, Ratzlaff
Absent: None
Motion carried.

58 E Forest

**Porch, fence and deck.*

Applicants: Jesse Kranyak and Elizabeth Ervin, owners – present

Discussion: *Excerpts of Staff Review: The applicant has three components to this proposed project: a fence enclosure, restoring a removed entry porch, and installing a deck.*

As to the fence, applicant proposes a continuation of the existing fence that was previously approved by the HDC. The new fence will be built and painted to perfectly match the existing fence.

As to the entry porch, the applicant proposes to reconstruct an entry porch on the west elevation that was removed by a previous owner. The porch will consist of a run of stairs and a platform.

The deck will extend across the south (rear) elevation of the house.

Kranyak: Stated that he is flexible as to the type of railing. Stated that the deck was to be made with wood, concrete footers, nothing too complex. Indicated that the proposed fence would be on the west side of the house. Stated that there is a fence existing along the property line which they wanted to bring it in towards the house and then square it up into the house. Confirmed that the new fence will match the existing.

Pettit: As to the decking, mentioned the grade change. Asked how far does it come along the side of the house to the east.

Kranyak: Stated that it will run the complete length of the back of the house. Stated that the original deck is only on a small portion of the house. Stated that an addition was put on the west side of the house by a different owner, which is now a kitchen and another bedroom *[reference photo materials]*. Indicated that the deck will start there, run across the back to where it would hit the level grade. Indicated that there are steps right there that are dangerous due to step depth *[reference photo materials]*. Stated that the plan is to completely cover up the steps with the deck. Stated that you would walk from level ground onto the deck and the grade change would be hidden behind the deck skirting. Stated that they would not be cutting any holes in the house; that the deck is not attached to the house.

[Further discussion as to location of original decking/railing considerations/skirting requirements/grading considerations/decking length/aesthetics/Porch Fact Sheet guidelines]

Lindsay: Stated that she would lean towards tabling the application for more information and for some other ideas from the applicant regarding the deck specifically – that the fence and the small porch are fine as proposed. *[Commissioner Swift voiced agreement]*

Pettit: Asked for clarification of the further details requested.

Lindsay: Stated -- a few different designs for how to deal with the really tall corner in the southwest corner of the deck, that major grade change as to how that might be considered while still attempting to have the deck *[reference photo materials]*; investigating a bit more about what that might look like.

[Clarifying discussion re: design considerations/further information needed and ways to resubmit]
[Straw poll discussion as to possible approvable items]
[Procedural discussion]

Kranyak: Requested to amend the application to remove the deck.

Motion: Ratzlaff (second: Lindsay) moved to issue a Certificate of Appropriateness for the work at 58 E Forest as amended in the application dated April 13, 2021, for construction of a fence, and entry porch as specified. The fence shall match the existing fence in style, material, height, finish, and color. The porch shall be constructed as specified and finished in an opaque stain or paint. The guardrail shall be built in the style depicted and constructed of wood. The porch shall meet the specifications of HDC guidelines [Porch Fact Sheet].

Secretary of the Interior Standards:

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

#10 New work shall be removable.

Roll Call Vote - Ayes: Commissioners Pettit, Stevenson, Lindsay, Ratzlaff

Nays: Commissioners Swift, Chesnut

Absent: None

Motion carried.

39 E Cross

**Rooftop patio improvements.*

Applicants: Keith Gipfert, contractor - not present

Discussion: *Excerpt per Staff Review: The applicant wishes to build a roof over an existing second floor patio atop the rear ell of the building. Some of this work has already been started without HDC approval.*

Pettit: Expressed having questions as to the following: proposed deck surface information; clarity as to "as specified" portions of the materials; understanding final new grade considerations; the bar – understanding of proposed removal but not replacement; understanding light fixtures - proposed LED up lights.

Motion: Swift (second: Stevenson) moved to table the application for work at 39 E Cross as submitted in the application dated as March 22, 2021, for construction of a roof over the rear second floor outdoor seating area as submitted. The Commission would like to see details for the following: materiality with regards to decking and/or surface material for decking, roof material with the recommendation that an alternative be sought; the lighting, would like to reevaluate the up lighting as proposed and see spec. sheets for lighting proposed and would like to understand the position of the screen as proposed, and would request that someone from the project attend the next meeting to answer questions.

Roll Call Vote - Ayes: Commissioners Pettit, Stevenson, Lindsay, Chesnut, Ratzlaff, Swift
Nays: None
Absent: None
Motion carried.

STUDY ITEMS

206 N Huron

**Prefabricated Carport.*

Applicant was not present, project not discussed.

302 E Cross

**Demolition by Neglect Timeline and Study Items.*

Applicant was not present, project not discussed in detail.

ADMINISTRATIVE APPROVALS

330 E Forest

**Roof.*

Motion: Lindsay (second: Chesnut) moved to accept the administrative approval for 330 E Forest for re-roofing.

Roll Call Vote - Ayes: Commissioners Pettit, Stevenson, Lindsay, Chesnut, Ratzlaff, Swift
Nays: None
Absent: None
Motion carried.

OTHER BUSINESS

1. Memo: Notice to Proceed

Slagor: Staff reviewed when to use the Notice to Proceed determination. *[Query/discussion followed]*

2. Property Monitoring

Commissioners/Staff discussed property issues under review.

3. Updates from Staff

Re: Michigan Historic Preservation Network – Upcoming training follow-up.

4. Commissioner Comments

Commissioners, who wished, shared additional comments.

AUDIENCE PARTICIPATION ON NON-AGENDA ITEMS—none

HOUSEKEEPING BUSINESS

Approval of the minutes of March 23, 2021

Motion: Stevenson (second: Chesnut) moved to approve the minutes of March 23, 2021, as submitted.

Roll Call Vote - Ayes: Commissioners Pettit, Stevenson, Lindsay, Chesnut, Ratzlaff, Swift
Nays: None
Absent: None
Motion carried.

ADJOURNMENT

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

MEETING ADJOURNED at 10:02 p.m.

Full Minutes Prepared By: Nancy Hare-Dickerson