

City of Huron Agenda for the Planning Commission/DRB Wednesday, June 18, 2025 5:00pm.

- I. <u>Call to Order</u>
- II. Roll Call
- III. Adoption of the Minutes (5-21-25)
- **IV.** Audience Comments (3-minute time limit) *Please step to the podium and state your name and address for the record.
- V. <u>New Business</u>

218 Cleveland Road E PPN42-00282.000 Zoning: I-1

Site and Design Review: Accessory Structure

204 Rye Beach PPN43-00177.000 Zoning: R-1

Design Review: Solar Structure –Residential Roof Panels

720 River Road PPN42-01728.000 Zoning: I-2

Site & Design Review: New cold storage structure.

225 Willams Street PPN42-00884.000 Zoning: R-2

Site & Design Plan Review- Commercial Cooler Addition.

Public Hearing: Rezoning Application – OJD Holdings LLC

3 Parcels- vacant land on River Road PPN's 42-01720.000, 42-01720.001, 42-01719.000 From the current I-2 General Industrial to B-3 General Business.

Public Hearing: General Development Concept Plan- Huron Harbor (former ConAgra Site) Cleveland Road E. PPN42-61270.001 General Development Concept Plan Review #2

- VI. Staff Report
- VII. Other Matters

Next Regular Meeting: July 16, 2025

VIII. Adjournment



TO: Chairman Boyle and Members of the Planning Commission and Design Review Board

FROM: Christine Gibboney, Planning & Zoning Manager

RE: 218 Cleveland d Road E (Berardi's)

DATE: June 18, 2025

Address: 218 Cleveland Rd E Zoning District: I-1 Light Industrial

Parcel No.: 42-00282.000 Existing Land Use: Restaurant

Traffic Considerations: N/A

Owner: Round III- Al Berardi

Cleveland Road E Huron OH 44839

PROJECT DESCRIPTION-SITE AND DESIGN REVIEW

Applicant is proposing an accessory structure in the rear yard of the restaurant to house the trash receptacle.

APPLICABLE CODE SECTIONS:

Chapter 1131 Landscape Requirements

1131.07 SCREENING REQUIREMENTS. (a) Refuse Disposal Dumpsters and Refuse Storage Areas. All refuse disposal dumpsters, containers and refuse storage areas must be fully enclosed on four (4) sides by a solid wood or simulated wood screen fence, an opaque masonry wall (stone, stucco or brick) or principal structure wall at least one (1) foot higher that the tallest refuse container in the collection area, but in no case shall the wall or fence be less than six (6) feet in height. The base of the exterior portion of the screening infrastructure shall be landscaped to soften the appearance of the screening wall. The enclosure must be gated. The gate must be opaque, fully operational at all times, and closed while not in use. The materials used for screening, including the enclosure and gate, must complement the architecture of the principal building. An extension of an exterior principal building wall may be used as one or more of the screening walls for a refuse container, provided that the wall is six (6) feet in height and is of the same building materials as the principal building. The wall may not serve as the required gated enclosure. The location of refuse containers is subject to approval by the Planning Commission, but is prohibited within the front yard.

1125.04 I-1 LIGHT INDUSTRIAL DISTRICT

(c) Accessory Uses. Accessory uses and structures permitted and as regulated in the B-3 District, except as hereinafter modified and such other uses and structures customarily accessory and incidental to any of the foregoing principal permitted uses, except for uses prohibited in an I-1 District.

STAFF ANALYSIS/RECOMMENDATION:

Applicant is proposing a 71sq. ft. resin shed to house the trash cart used to transfer trash to their dumpster. The location of the shed will be in a corner at the rear of the property. As proposed, it will not take away from any parking spaces and complies with the height regulations of accessory structures as it is under 15'. The applicant spoke to the Building Department regarding any distance requirements from the electrical unit.

Staff believes the shed will provide for the screening requirements of Section 1131.07 for this trash container and would recommend approval as proposed.

Attachments:

• Application, site plan, elevation

Planning Commission (PC)

Commercial Site Plan Application/Design Approval-Exterior/Design-Signage Only

DATE: 5/14/25

Exterior/Design-S

Property Owner
Name: Berard, & Rostaurant
Address: 218 Cleveland Rd E.
Phone: (419) 433-5984
Email: aberard: 67 @ Smail.com
Applicant
Name: Al Berardi
Company/Business Name: Berardi's Restaurant
Mailing Address: 218 Cleveland Rd E.
Phone: (419) 656 - 4702
Phone: (419) 656 - 4702 Email: a berardi 67 égmail.com
9
Location and Description of Project
Address: 218 Cleveland Rd E County Parcel #: 42-00282.000
Existing Use: Restaurant business Acreage/Area of Site: 1.2 acres
Proposed Use: Restaurant business Lot# (if applicable):
Estimated Value of Project: \$2,500 Total SF: 71
New Construction Demolition
Addition to Existing Structure Other:
ZONING & FLOOD ZONE DICTRICTS
ZONING & FLOOD ZONE DISTRICTS
Zoning District: -1 (R-1 R-1A R-2 R-3 B-1 B-2 B-3 I-1 I-2 P-1 MU)
Flood Zone: X (A AE AO AH X-SHADED X)
Description of Project:
This is a person! Shed (Resin) to house
the trash cart we use to transfer trash to
dun pster.

SECTION 3. DESIGN APPROVAL (EXTERIOR, LANDSCAPING, LIGHTING, SIGNAGE) * The application fee of \$150.00 and complete plans to include the following information must be included with this application and provided in a PDF format.

	Photographs of Existing Conditions
	Elevations of Proposed Modifications
	Paint or Color Samples
	Exterior Building Material Samples
	Landscape Plan
	Exterior Lighting Plan
	Commercial Signage- Site Plan, Colored Elevations, Description of sign materials, Illumination
specif	ications. Complete the table below:

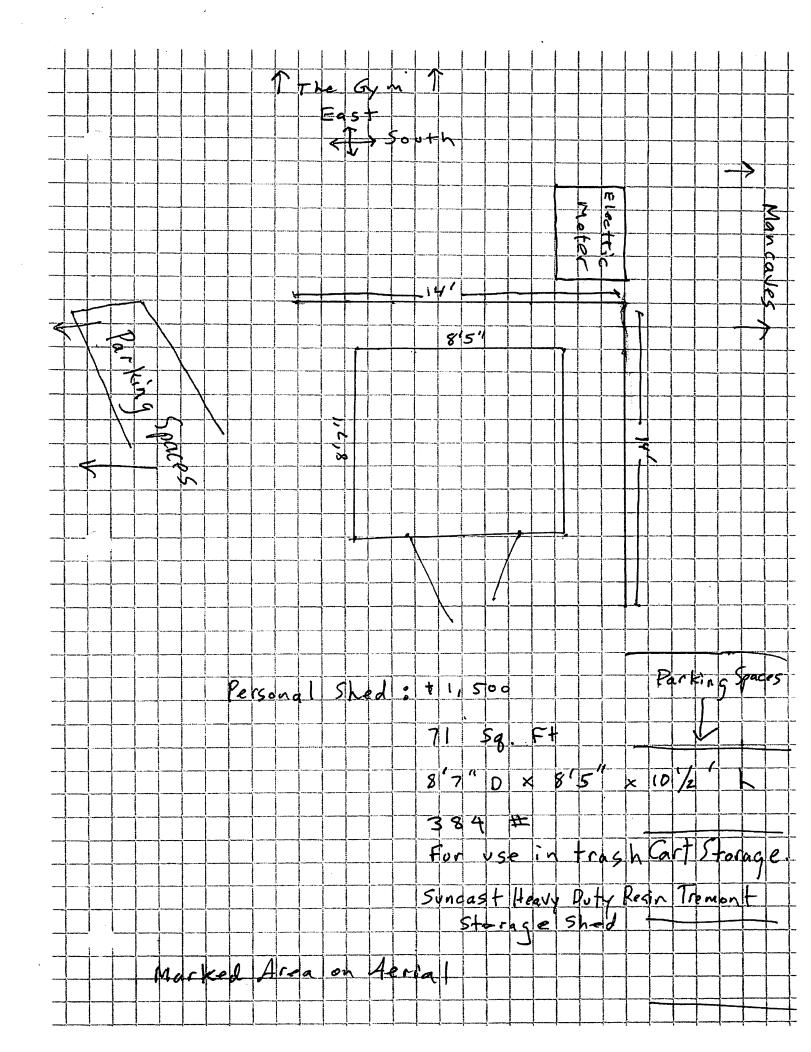
		Sign Type							Dimensions		
Sign #1.	Wall	Window	Other:		Height		Width		Display Area		Height (if ground)
Sign #1:	Ground	Changeable C	ору			X		=		sq. ft.	ft.
		Sign Type							Dimensions		
Sign #2:	Wall	Window	Other:	140 M X 10 10 10 10 10 10 10 10 10 10 10 10 10	Height		Width	T	Display Area		Height (if ground)
orgii #2.	Ground	Changeable	Сору			X		=		sq. ft.	ft.
		Sign Type (circle)						Dimensions		
Sign #3:	Wall	Window	Other:		Height		Width		Display Area		Height (if ground)
orgii #3.	Ground	Changeable	Сору			X		=		sq. ft.	ft.
		Sign Type (circle)						Dimensions		
Sign #4.	Wall	Window	Other:	į.	Height		Width		Display Area		Height (if ground)
Sign #4:	Ground	Changeable (Copy		T. S. Charles	X				sq. ft.	ft.

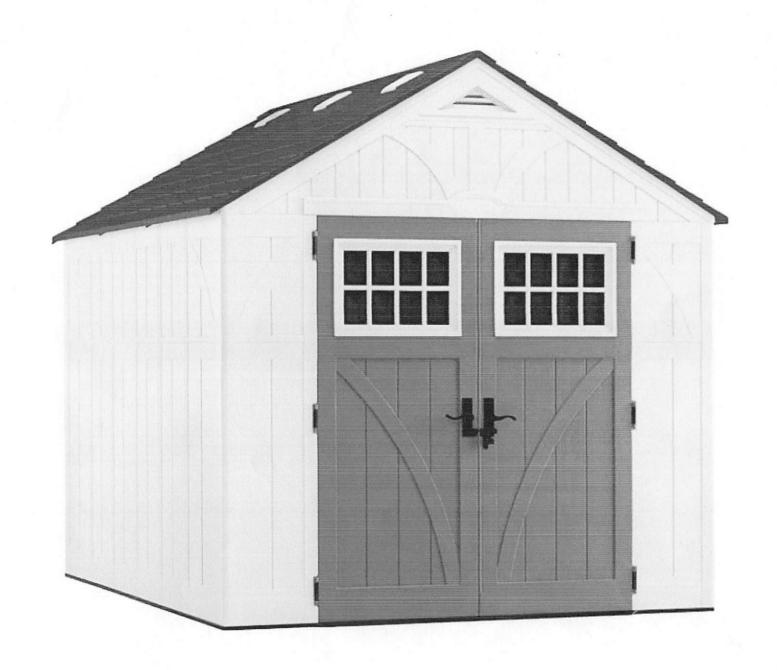
SECTION 4. DESIGN APPROVAL (COMMERCIAL SIGNAGE ONLY) * The application fee of \$50.00 and complete plans to include the following information must be included with this application and provided in a PDF format. Signage Site Plan with all setback dimensions Rendering(s) of all signs with detail of dimensions, construction materials, graphics, illumination Sign Type (circle) Dimensions Height (if ground) Wall Window Other: Height Width Display Area Sign #1: X Ground sq. ft. Changeable Copy Sign Type (circle) Dimensions Height (if ground) Wall Window Other: Height Width Display Area Sign #2: Ground X sq. ft. Changeable Copy Sign Type (circle) Dimensions Height (if ground) Wall Window Other: Height Width Display Area Sign #3: X Ground ft. sq. ft. Changeable Copy Sign Type (circle) Dimensions Wall Window Height (if ground) Other: Height Width Display Area Sign #4: Ground X ft. sq. ft. Changeable Copy PLEASE NOTE: Upon approval from the Planning Commission, your project may require Engineering Plan review and Storm Water/Erosion Control Plan review, associated fees will apply. Zoning and/or Building Permits may be required, associated permit fees will apply. All Contractors on your project must be registered with the City. Contact the Planning and Zoning Department with any questions: 419-433-5000 ext, 1302 OR 1303. APPROVAL FROM THIS BOARD WILL EXPIRE 1 YEAR FROM THE DATE OF ISSUANCE. I hereby certify that I am the owner of record of the named property or that the proposed work is authorized by the owner of record and/or I have been authorized to make this application as an authorized agent, and we agree to conform to all applicable laws, regulations, and ordinances. All information contained within this application and supplemental materials is true and accurate to the best of my knowledge and belief. Applicant Signature: Owner Signature: For Departmental use uniy:

PC Meeting Date:

Date of Submission: 5-15-25 Application Fee: L









TO: Chairman Boyle and Members of the Planning Commission

FROM: Alec Romick, Zoning Inspector

RE: 204 Rye Beach- Roof Mounted Solar Panels

DATE: June 18th, 2025

Address: 204 Rye Beach Road PPN 43-00177.000

Zoning District: R-1A Existing Land Use: Residential

Traffic Considerations: N/A

Owner/Applicant: Robert Ribnicky, Owner

Applicant- Sunergy Solar LLC

PROIECT DESCRIPTION

Applicant is proposing to install a 4.920KW DC roof mounted solar panel system. The system consists of twelve (12) panels.

APPLICABLE CODE SECTIONS: 1126.18 Solar Structures (attached)

STAFF ANALYSIS/ RECOMMENDATION:

Pursuant to Code Section 1126.18 Solar Structures (d) (1), approval of the Design Review Board is required before the issuance of permits. The residence is a single-family home on Rye Beach Road. The Residential Zoning application is complete and the plan review by Zoning has found the application to be compliant with Section 1126.18.

The proposed roof mounted solar panel system contains 12 panels, roof array area=257.88sq. ft. to be installed on the pitched roof of a single-story residential structure.

- The total roof area is 1535.96sq.ft.; roof area covered by the array is 16.85%.
- The panel attachment detail reflects a 6" rise from the roof to the top side of the panel (18" max per the code).
- The code requires that the system shall not be located within 12" of the edge of the roof, as proposed the system meets this requirement.
- The home is located within a neighborhood that has an HOA, however, the association is limited to the private park maintenance and use.

Upon approval from the DRB, the application will be submitted to the Building Department for the review and issuance of the Building Permit(s).

Attachments: Application & Plans

1126.18 SOLAR STRUCTURES.

(a) <u>Purpose</u>. It is the purpose of this chapter to regulate the construction, modification, operation and abandonment by discontinuation of use of solar energy systems in the City of Huron, subject to reasonable conditions that will protect the public health, safety, and welfare while preserving the enjoyment of private property, promoting orderly land use, and development; allowing the safe, effective, and efficient use of solar energy systems. Solar energy systems shall be considered a permitted use in any zoning district, subject to the requirements of any other applicable chapter of this Code.

(b) Definitions.

- (1) "Abandonment" means choosing to give up or discontinue use of the solar energy generation system in whole or part.
- (2) "Alternating-current (ac) module" means a complete, environmentally protected unit consisting of solar cells, optics, inverter, and other components, exclusive of tracker, designed to generate ac power when exposed to sunlight.
- (3) "Applicant" means the person or entity filing an application under this Chapter.
- (4) "Array" means a mechanically integrated assembly of modules or panels with a support structure and foundation, tracker, and other components, as required, to form a direct-current power producing unit.
- (5) "Facility owner" means the entity or entities having equity interest in the solar energy facility, including their respective successors and assigns.
- (6) "Ground mount" means a solar electrical system that is mounted directly to ground mounted structure instead of solely on a building wall or roof.
- (7) "Operator" means the entity responsible for the day-to-day operation and maintenance of the solar energy system.
- (8) "Solar cell" means the basic photovoltaic device that generates electricity when exposed to light.
- (9) "Solar energy system (active or passive)" means the equipment, assembly or building construction and requisite hardware that provides and is used for collecting, transferring, converting, storing, or using incident solar energy for water heating, space heating, cooling, generating, electricity, or other applications that would otherwise require the use of a conventional source of energy such as petroleum products, natural gas, manufactured gas, or electricity produced from a nonrenewable resource. Such systems include Passive Solar Energy Systems that capture the Sun's energy in building design and construction components; Solar Thermal Energy Systems that convert sunlight to heat as in a hot water tank or swimming pool; and Photovoltaic Solar Energy Systems that convert sunlight to electricity.
 - (10) "Solar panel" means one of any type of assembly that produces energy, either electrical, heat or hot water for use or distribution include PV (Photovoltaic) an electrical device consisting of an array of connected solar cells, heat collectors and interstitial spaces including trombe panels, or hydronic panels for water heating systems.
- (11) "Solar photovoltaic systems" means the total components and subsystems that, in combination convert solar energy into electrical energy suitable for connection to utilization load.

(c) Applicability.

- (1) No person shall construct, erect, maintain, extend, or remove a solar system in any zoning district in the City without compliance with the provisions of this chapter and applicable related requirements of the entire ordinance.
- (2) Solar energy systems constructed prior to the effective date of this chapter shall not be required to meet the requirements of this code; unless any physical condition or modification renders such system un-repairable or un-usable. If any pre-existing solar energy system is damaged or destroyed such an extent that is cannot be returned to original service, or any such damage or modification creates an unsafe condition it shall be replaced or removed in conformity to this chapter and pursuant to Section 1121.07.
- (3) Like-kind replacements of panels shall require applicable electrical or general building permits.
 - (4) Like-kind replacements of entire ground-mount solar energy systems shall require proper zoning approval and applicable electrical/building permits. Existing installations shall provide emergency disconnect locations to the City of Huron Building Department.

(d) Contents of Application.

- (1) Solar structures shall only be an accessory use in residential (R) and commercial (B) zoning districts. Ground-mounted solar panels are a conditional accessory use at any residential or non-residential building, excluding Industrial (I) zones, where they are permitted by right. In all districts, solar equipment including solar panels, may be located on the roof in compliance with all requirements of this Code including building height and screening, after approval by the Design Review Board. Nothing in this regulation shall preclude standalone systems for small accessory lighting, ventilation or battery storage systems either roof or ground-mounted not to exceed twelve (12) square feet.
- (2) An application for a solar energy system shall be approved in compliance with the standards and criteria of this Chapter and shall include:
- A. A narrative describing the proposed solar energy system including the approximate generating capacity of the project and the number, manufacturer, and model of the solar panels to be installed, their individual generating capacity and a description of ancillary systems.
 - B. A site plan to scale of the subject property showing the planned location of the solar panels, setback lines, proposed and existing ancillary equipment buildings, and structures. For systems with more than thirty-five percent (35%) of roof area facing the street, elevation(s) shall be provided to scale.
- C. Certified approval from the Homeowners Association (HOA) and/or an approval letter from the HOA legal representative, if applicable.

- (e) Design and Performance Standards.
 - (1) <u>Lighting.</u> Solar energy systems shall be lit only if required by an applicable authority. Lighting of other parts of the solar energy systems, such as appurtenant structures shall be limited to that required for safety and operational purposes, and shall be reasonably shielded from abutting structures.
 - (2) Appearance and Signage. The factory or original equipment manufacturer identification and/or logo are permitted. Required signage and emergency services disconnect placard shall be appropriate warning signs (Danger-High Voltage or Caution-Electrical Shock Hazard or any other recognized safety precaution signage) installed at the base of the solar array.
 - (3) <u>Construction Codes.</u> To extent applicable, the solar system shall comply with the Ohio Building Code and any other applicable building and fire codes.
 - (4) <u>Electrical Codes.</u> Permit applications for solar energy systems shall be accompanied by a line-drawing of the electrical components, as supplied by the manufacturer, in sufficient detail to allow for determination that the manner of installation conforms to all relevant and applicable local, state, and national codes, including the current national electric code NEC (NFPA 70). Solar energy systems interconnected to local utility shall have/provide surge and lightning arrestors. All solar energy systems shall be grounded to reduce lightning strikes. All electrical lines and utility wires shall be buried underground.
 - (5) <u>Utility Notification.</u> Permits for solar energy systems shall not be issued until evidence has been provided that the utility company approves the customer's intent to install an interconnected customer-owned generator. Applicant shall supply the letter of approval from the utility company at the time of application.
 - (6) Completion. A solar energy system installation shall commence within six months of the issuance of the zoning permit and shall be completed and operational within one year from the date of commencement of installation. Commencement of installation shall be the date the solar panels are placed into position. If the solar energy system is not completed within the stated time period, the facility owner or operator or the landowner shall be required, at his or their expense, to complete decommissioning of the site within 180 days without exception.
 - (7) <u>Solar Access Easements.</u> Ohio R.C. 5301.63 sets forth the requirements for solar access, for the pwpose of ensuring adequate access of solar energy collection devices to sunlight, any person may grant a solar access easement. Such easements shall be in writing and subject to the same conveyance and recording requirements as other easements. Any instrument creating a solar easement shall be recorded in the Erie County Recorder's Office.
 - (8) <u>Installation.</u> Solar Panels must be installed in accordance with the manufacturer's design and operation standards, as well as all local county, state, and federal guidelines. Reasonable access for emergency response shall be provided to all solar systems and components including a twenty-four (24) inches clear area around all flat-roof or ground-mounted solar array(s).
 - (9) Roof-Mounted. Roof-mounted solar energy systems shall be permitted in all zoning districts provided the roof-mounted solar system meets all other requirements of the zoning and building regulations, including design review, and all applicable local and state fire and building codes. Pitched roof-mounted arrays shall be parallel to the roof. The distance between the roof and the uppermost portion of the solar panels shall not exceed eighteen (18) inches. Pitched-roof-mounted solar systems shall not be located within twelve (12) inches of the edge of the roof. Roof-mounted panels on a flat roof shall not project vertically more than five (5) feet from the surface of the roof and shall be buffered as prescribed by the Zoning Code.

(10) Ground-Mounted.

- A. Ground-mounted solar panels located on the ground or attached to a framework located on the ground shall not exceed fifteen (15) feet in height above the adjacent grade.
 - B. All related mechanical equipment, other than the actual photoelectric panels shall be fully buffered from the adjacent properties by fencing and/or by evergreen plantings as prescribe by city ordinance and must be maintained and effective through the life of the system. Buffering shall permit work access to panel and shall conform to Chapter 1131.
- C. Ground-mounted solar panel arrays shall not exceed thirty percent (30%) of the remaining rear yard area within the setbacks defined by other chapters of the Zoning Code.
- D. <u>Non-Residential.</u> Ground-mounted solar energy systems shall be permitted by right in all Industrial (I) Zones. Any proposed ground-mounted solar energy system may be located within any yard subject to applicable setback requirements for accessory structures and front setback requirements for principal structures within the designated I District.
- E. <u>Residential.</u> No ground installations are permitted by right. Any proposed ground-mounted solar panels are conditional uses based on full compliance with this Zoning Code and approval from the Board of Building and Zoning Appeals.
- (i) If approved, ground-mounted solar energy systems shall not be permitted in the front or side yard of a residential property. It shall be permitted in the rear yard of a residence. Such equipment shall be subject to the applicable rear yard coverage regulations and setbacks for accessory structures in residential districts as set forth in Section 1121.06 or other prevailing chapters of the Zoning Code.
- F. <u>Commercial and Retail Business.</u> No ground installations are permitted by right in Business (B) Zones. Any proposed ground-mounted solar panels are conditional uses based on full compliance with this Zoning Code and approval from the Board of Building and Zoning Appeals.

- (i) If approved, ground-mounted solar energy systems shall not be permitted in the front or side yard of a residential property. It shall be permitted in the rear yard of a residence. Such equipment shall be subject to the applicable rear yard coverage regulations and setbacks for accessory structures in residential districts as set forth in Section 1121.06 and/or other prevailing chapters of the Zoning Code.
- (f) Fees. See Chapter 1321 for the fee schedule pertaining to conditional use, accessory structures, and electrical fees.
- (g) Abandonment.
 - (1) At such a time a solar energy system is scheduled to be abandoned or operation is to be discontinued, the applicant will notify the Building Official and Planning Department of the proposed date of abandonment or discontinuation of use. If applicant fails to notify either department, then in that event the provisions contained under subsection (g)(2) herein below shall apply.
 - (2) Upon abandonment or discontinuation of use, the owner shall physically remove the solar energy system within 180 days from the date of abandonment or discontinuation of use. This period may be extended sixty (60) days at the request of the owner but only upon the approval of the Building Official. "Physically remove" shall include, but not be limited to:
 - A. Removal of the solar energy system and related above grade structures.
 - B. Restoration of the location of the solar energy system to its natural condition, except that any landscaping, grading may remain in the after-conditions.
 - (3) In the event that an applicant fails to give such notice, the system shall be considered abandoned or discontinued if the system is out-of-service for a continuous six-month period. After the six-month period of inoperability, the Building Official shall issue a Notice of Abandonment to the owner and operator of the solar energy system and, if residential, the property owner. The owner shall have the right to respond to the Notice of Abandonment within thirty (30) days from Notice receipt time. The Building Official shall withdraw the Notice of Abandonment and notify the owner that the Notice has been withdrawn if the owner provides information that demonstrates the solar energy system has not been abandoned.
 - (4) If the owner fails to respond to the Notice of Abandonment or if after review by the Building Official it is determined that the solar energy system has been abandoned or use discontinued, the owner of the solar energy system shall remove the system at the owner's sole expense within sixty (60) days of receipt of the Notice of Abandonment. An extension may be granted to the applicant for just cause by the Building Official.
- (h) <u>Severability.</u> Should any section, subdivision, clause, or phrase of this chapter be declared by the courts to be invalid, the validity of the chapter as a whole, or in part, shall not be affected other than the part invalidated.
- (i) <u>Penalty.</u> See Section 1139.01 for Zoning Code violations. (Ord. 2022-60. Passed 1-10-23.)

City of Huron Planning and Zoning Dept. 417 Main St. Huron, Ohio 44839 P: 419-433-5000 F: 419-433-5120



Residential Zoning Permit Application- SOLAR Chapter 1126

Name: RIBNICKY ROBERT												_
Address, City, State, Zip:	204 Rye Be	each Rd,	Huron, C	DH, 4483	9			•				
Phone: (419) 901-0711						•				-		
Email: bobbyribnicky@icloud.	com											
Contractor (must be reg Name: Dennis St Clair	istered	with th	e City	of Hur	ron)							
Address, City, State, Zip: Phone: (727) 375-9375	7625 Little	Rd Suite	200a, N	ew Port F	Richey, Fl	_ 34654						
Email: Permitting@gosunergy	.com											
Location of Project Address: 204 Rye Beach Rd, Hui Zoning District & Flood		³³⁹ Cou	inty Pa	rcel Nu	ımber: _.	43-0017	7.000	Lot	#:			
Zoning District:		R-1A	R-2	R-3	B-1	B-2	B-3	I-1	I-2	P-1	MU)	
Flood Zone:	-	AE	AO	АН		ADED	X)				•	
		PF	ROJECT	Γ INFO	RMATI	ON						
Ground Mount					Roc	of Mou	nt:					
Description of proposed p		•	-			•	ootage)				
	nonog	an nn c	VID OT	d 40045								
ESTIMATED VALUE OF P	ROPOSI	ED PRO	JECT:	\$ <u>18915</u>	.2							
SETBACKS FROM PROPI Front Yard Setback: In the fi	ERTY LII 1 NOT be 1 ont vard				for roo i k:	-		of Struc	ture:_		_	
Side Yard Setbacks: (Left)		_ (R	ight)									
Square footage: 257.88												

Documents that must be included with this Zoning Application:

- A. A narrative describing the proposed solar energy system including the approximate generating capacity of the project and the number, manufacturer, and model of the solar panels to be installed, their individual generating capacity and a description of ancillary systems.
- B. A site plan to scale of the subject property showing the planned location of the solar panels, setback lines, proposed and existing ancillary equipment buildings, and structures. For systems with more than thirty-five percent (35%) of roof area facing the street, elevation(s) shall be provided to scale.
- C. Certified approval from the Homeowners Association (HOA) and/or an approval letter from the HOA legal representative, if applicable supply the letter of approval from the utility company at the time of application
- D. Utility Notification. Permits for solar energy systems shall not be issued until evidence has been provided that the utility company approves the customer's intent to install an interconnected customer-owned generator. Applicant shall supply the letter of approval from the utility company at the time of application.

Roof-Mounted. (REQUIRES APPROVAL THROUGH THE DESIGN REVIEW BOARD)

- Roof-mounted solar energy systems shall be permitted in all zoning districts provided the roof-mounted solar system meets all other requirements of the zoning and building regulations, including design review, and all applicable local and state fire and building codes.
- Pitched roof-mounted arrays shall be parallel to the roof.
- The distance between the roof and the uppermost portion of the solar panels shall not exceed eighteen (18) inches. Pitched-roof-mounted solar systems shall not be located within twelve (12) inches of the edge of the roof. Roof mounted panels on a flat roof shall not project vertically more than five (5) feet from the surface of the roof and shall be buffered as prescribed by the Zoning Code.

Ground-Mounted. (REQUIRES APPROVAL THROUGH THE BUILDING & ZONING APPEALS BOARD

- Ground-mounted solar panels located on the ground or attached to a framework located on the ground shall not exceed fifteen(15) feet in height above the adjacent grade.
- All related mechanical equipment, other than the actual photoelectric panels shall be fully buffered from the adjacent properties by fencing and/or by evergreen plantings as prescribe by city ordinance and must be maintained and effective through the life of the system. Buffering shall permit work access to panel and shall conform to Chapter 1131.
- Ground-mounted solar panel arrays shall not exceed thirty percent (30%) of the remaining rear yard area within the setbacks defined by other chapters of the Zoning Code.

BOARD/COMMISSION APPROVALS

UPON RECEIPT OF YOUR APPLICATION AND VERIFICATION OF COMPLIANCE, THE APPLICATION WILL BE PLACED ON THE NEXT APPLICABLE BOARD/COMMISSION AGENDA (Monthly Meetings) FOR APPROVAL BEFORE THE THE ZONING AND BUILDING PERMIT REVIEWS CAN BEGIN FOR PERMIT ISSUANCE.

City Code: Section 1126.18 Solar Structures available on our website at www.cityofhuron.org

VERIFICATION OF PROPERTY LINES:

It is the responsibility of the property owner to verify the location of property lines and reflect these on the required site plan. It is recommended owners refer to their survey map and/or have a survey performed to verify the property lines before applications are submitted.

(Initials)

Denial date and reason:__

I hereby certify that I am the owner of record of the named property or that the proposed work is authorized by the owner of record and/or I have been authorized to make this application as an authorized agent, and we agree to conform to all applicable laws, regulations, and ordinances. All information contained within this application and supplemental materials is true and accurate to the best of my knowledge and belief.

Incomplete applications will not be accepted, please complete all applicable sections and include all specified plans as listed above.

Applicant Signature: De Roll.	Date:	5/8/25
Owner Signature: Roh R Rylin	Date:	5/8/25
PLEASE NOTE, DO NOT APPLY FOR PERMITS UNLESS YOU ARE READY TO WITHIN 6 MONTHS.	BEGIN Y	OUR PROJECT
PERMITS FEES ARE DUE AND PAYABLE AT THE TIME OF ISSUANCE AND A ZONING PERMITS EXPIRE 12 MONTHS FROM DATE OF ISSU		-REFUNDABLE.
YOUR PROJECT ALSO REQUIRES A BUILDING PERMIT, SUBMIT THE I APPLICATION AND REQUIRED PLANS WITH THIS APPLICA		G PERMIT
For use by City of Huron Zoning Department:		
Date of Submission: 5/9/25 Required Plans Included?: <u>yes</u> Building F	ermit in	cluded?:
Comments/Additional Information requested:		

PHOTOVOLTAIC ROOF MOUNT SYSTEM

12 MODULES-ROOF MOUNTED - 4.920 KW DC, 3.840 KW AC

204 RYE BEACH RD, HURON, OH 44839

PROJECT DATA

PROJECT 204 RYE BEACH RD, ADDRESS HURON, OH 44839

OWNER: ROBERT RIBNICKY

DESIGNER: ESR

SCOPE: 4.920 KW DC ROOF MOUNT

SOLAR PV SYSTEM WITH

12 HYUNDAI SOLAR HIS-S410YH(BK) 410W PV MODULES WITH 12 ENPHASE IQ8MC-72-M-US MICROINVERTERS EQUIPPED WITH

RAPID SHUTDOWN

AUTHORITIES HAVING JURISDICTION: BUILDING: CITY OF HURON ZONING: CITY OF HURON

UTILITY: OHIO EDISON

SHEET INDEX

G001 COVER SHEET E001 SITE PLAN

S001 ROOF PLAN AND MODULES

E002 ELECTRICAL PLAN S002 STRUCTURAL DETAIL

E003 ELECTRICAL LINE DIAGRAM E004 WIRING CALCULATIONS

E005 LABELS E006 PLACARD

PD001+ EQUIPMENT SPECIFICATIONS

SIGNATURE

GENERAL NOTES

- ALL COMPONENTS ARE UL LISTED AND NEC CERTIFIED, WHERE WARRANTED.
- 2. THE SOLAR PV SYSTEM WILL BE INSTALLED IN ACCORDANCE WITH ARTICLE 690 OF THE NEC 2023.
- 3. THE UTILITY INTERCONNECTION APPLICATION MUST BE APPROVED AND PV SYSTEM INSPECTED PRIOR TO PARALLEL OPERATION.
- 4. ALL CONDUCTORS OF A CIRCUIT, INCLUDING THE EGC, MUST BE INSTALLED IN THE SAME RACEWAY, OR CABLE, OR OTHERWISE RUN WITH THE PV ARRAY CIRCUIT CONDUCTORS WHEN THEY LEAVE THE VICINITY OF THE PV ARRAY.
- WHERE METALLIC CONDUIT CONTAINING DC CONDUCTORS IS USED INSIDE THE BUILDING, IT SHALL BE IDENTIFIED AS "CAUTION: SOLAR CIRCUIT" EVERY 10FT.
- 6. HEIGHT OF THE AC DISCONNECT SHALL NOT EXCEED 6'-7" PER NEC CODE 240.24
- 7. A GROUNDING ELECTRODE SYSTEM IN ACCORDANCE WITH NEC 2023 690.47 AND 250.50 THROUGH 60 AND 250-166 SHALL BE PROVIDED. PER NEC GROUNDING ELECTRODE SYSTEM OF EXISTING BUILDING MAY BE USED AND BONDED TO THE SERVICE ENTRANCE. IF EXISTING SYSTEM IS INACCESSIBLE OR INADEQUATE A SUPPLEMENTAL GROUNDING ELECTRODE WILL BE USED AT THE INVERTER LOCATION CONSISTING OF A UL LISTED 8 FT. GROUND ROD WITH ACORN CLAMP. GROUNDING ELECTRODE CONDUCTORS SHALL BE NO LESS THAN #8 AWG AND NO LARGER THAN #6 AWG COPPER AND BONDED TO THE EXISTING GROUNDING ELECTRODE TO PROVIDE FOR A COMPLETE SYSTEM.
- 3. PHOTOVOLTAIC MODULES ARE TO BE CONSIDERED NON-COMBUSTIBLE.
- 9. PHOTOVOLTAIC INSTALLATION WILL NOT OBSTRUCT ANY PLUMBING, MECHANICAL, OR BUILDING ROOF VENTS.
- 10. ALL WIRING MUST BE PROPERLY SUPPORTED BY DEVICES OR MECHANICAL MEANS DESIGNED AND LISTED FOR SUCH USE. WIRING MUST BE PERMANENTLY AND COMPLETELY HELD OFF THE ROOF SURFACE.
- 11. ALL SIGNAGE TO BE PLACED IN ACCORDANCE WITH THE LOCAL BUILDING CODE. IF EXPOSED TO SUNLIGHT, IT SHALL BE UV RESISTANT. ALL PLAQUES AND SIGNAGE WILL BE INSTALLED AS REQUIRED BY THE NEC AND AHJ.
- 12. INVERTER(S) USED IN UNGROUNDED SYSTEM SHALL BE UL 1741 LISTED.
- THE INSTALLATION OF EQUIPMENT AND ALL ASSOCIATED WIRING AND INTERCONNECTION SHALL BE PERFORMED ONLY BY QUALIFIED PERSONS [NEC 690.4(C)]
- 14. ALL OUTDOOR EQUIPMENT SHALL BE NEMA 3R RATED (OR BETTER), INCLUDING ALL ROOF MOUNTED TRANSITION BOXES AND SWITCHES.
- 15. ALL EQUIPMENT SHALL BE PROPERLY GROUNDED AND BONDED IN ACCORDANCE WITH NEC ARTICLE 250.
- SYSTEM GROUNDING SHALL BE IN ACCORDANCE WITH NEC 690.41.
- 17. PV SYSTEM CIRCUITS INSTALLED ON OR IN BUILDINGS SHALL INCLUDE A RAPID SHUTDOWN FUNCTION IN ACCORDANCE WITH NEC
- 18. DISCONNECTING MEANS SHALL BE LOCATED IN A VISIBLE, READILY ACCESSIBLE LOCATION WITHIN THE PV SYSTEM EQUIPMENT OR A MAXIMUM OF 10 FEET AWAY FROM THE SYSTEM INEC 690.13(A)]
- 19. ALL WIRING METHODS SHALL BE IN ACCORDANCE WITH NEC 690.31
- 20. WORK CLEARANCES AROUND ELECTRICAL EQUIPMENT WILL BE MAINTAINED PER NEC 110,26(A)(1), 110,26(A)(2) AND 110,26(A)(3).
- 21. ROOFTOP MOUNTED PHOTOVOLTAIC PANELS AND MODULES SHALL BE TESTED. LISTED & IDENTIFIED IN ACCORDANCE WITH UL1703
- 22. ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT EXPANSION JOINTS AND ANCHOR CONDUIT RUNS AS REQUIRED PER NEC.
- 23. IN ACCORDANCE WITH 2021 IFC 1205.5, 2018 IFC 1204.4, AND 2015 IFC 605.11.2 A CLEAR, BRUSH-FREE AREA OF 10 FEET(3048 MM) SHALL BE REQUIRED FOR GROUND-MOUNTED PHOTOVOLTAIC ARRAYS.
- 24. PANEL LAYOUT ORIENTATION IS SUBJECT TO CHANGE ON DESIGNED MOUNTING PLANES.
- 25. ALL PERMANENTLY INSTALLED LUMINARIES, EXCLUDING THOSE IN KITCHEN APPLIANCES, SHALL HAVE AN EFFICIENCY OF AT LEAST 45 LUMENS-PER-WATT OR SHALL UTILIZE LAMPS WITH AN EFFICIENCY OF NOT LESS THAN 65 LUMENS-PER-WATT.
- 3. MOUNTING SYSTEMS SHALL BE LISTED AND LABELLED IN ACCORDANCE WITH UL 2703 TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THEIR LISTINGS.

VICINITY MAP



HOUSE PHOTO



CODE REFERENCES

PROJECT TO COMPLY WITH THE FOLLOWING:

2023 NATIONAL ELECTRIC CODE, NFPA 70 (NEC) AMENDED 2019 RESIDENTIAL CODE OF OHIO 2024 OHIO BUILDING CODE (2021 IBC) 2024 OHIO MECHANICAL CODE (2021 IMC) 2024 OHIO PLUMBING CODE (2021 IPC) 2024 OHIO EXISTING BUILDING CODE 2024 OHIO FIRE CODE (2021 IFC)

ZEO ENERGY

ZEO ENERGY

7625 LITTLE RD. SUITE 200A, NEW PORT RICHEY, FL 34654

REVISIONS						
DESCRIPTION	DATE	REV				
INITIAL DESIGN	04/17/2025					



PROJECT NAME & ADDRESS

RIBNICKY RESIDENCE

DRAWN BY

204 RYE BEACH RD HURON, OH 44839

SHEET NAME

COVER SHEET

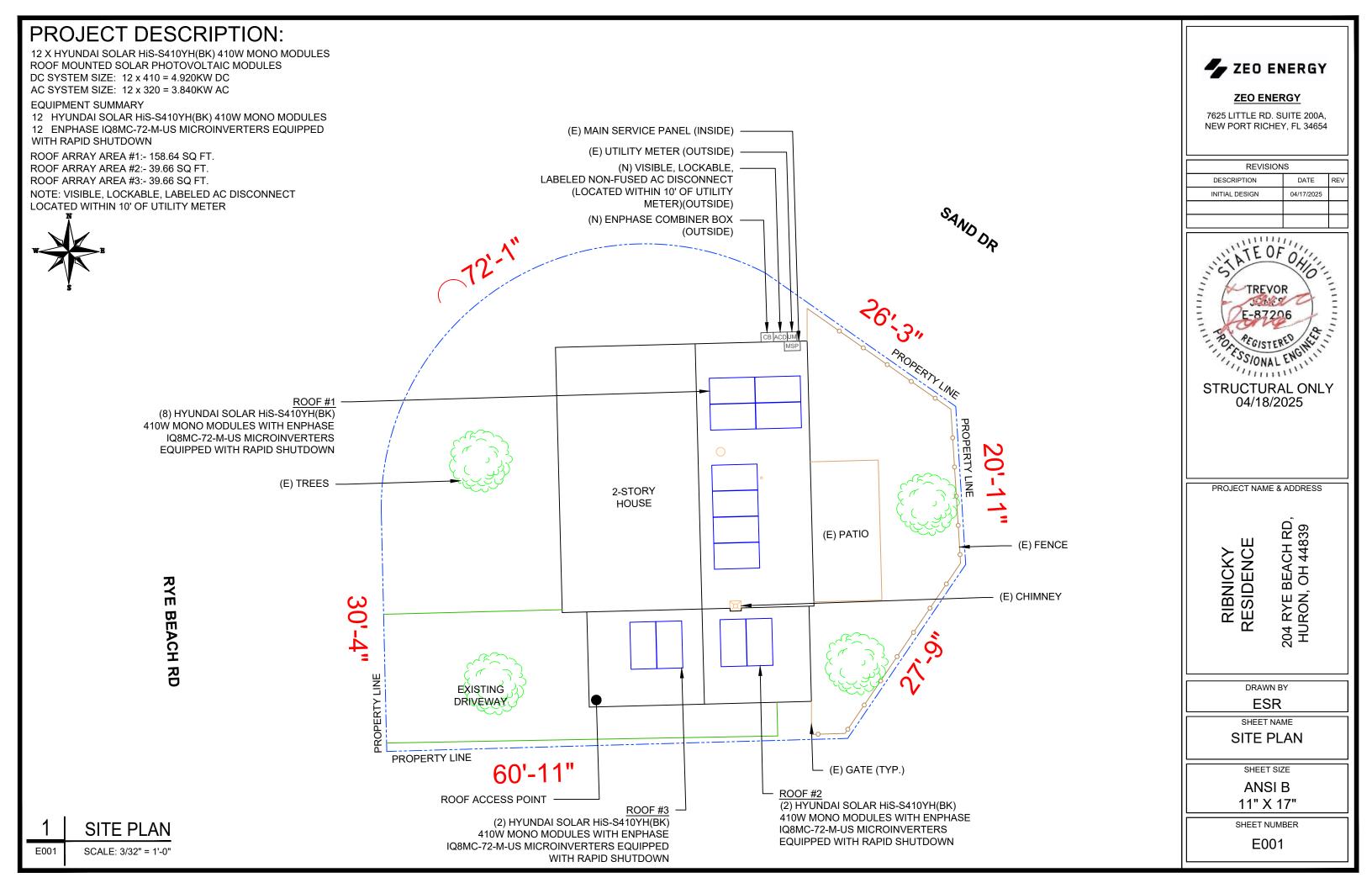
SHEET SIZE

ANSI B

11" X 17"

SHEET NUMBER

G001



MODULE TYPE, DIMENSIONS & WEIGHT

ROOF PLAN AND MODULES

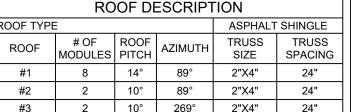
S001

SCALE: 1/8" = 1'-0"

NUMBER OF MODULES = 12 MODULES MODULE TYPE = HYUNDAI SOLAR HiS-S410YH(BK) 410W MONO MODULES MODULE WEIGHT = 46.51 LBS / 21.1KG. MODULE DIMENSIONS = 75.74" x 40.86" = 21.49 SF

ACTUAL MAXIMUM CANTILEVER ALLOWED = L/3, WHERE L IS THE ATTACHMENT SPACING ATTACHMENT SPACING, L = 48" **ACTUAL MAXIMUM CANTILEVER ALLOWED = 48/3** ACTUAL MAXIMUM CANTILEVER ALLOWED = 16",i.e, 1'-4"

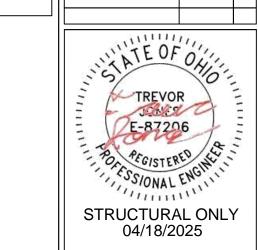
	ROOF DESCRIPTION						
ROOF TYPE				ASPHALT	SHINGLE		
ROOF	# OF MODULES	ROOF PITCH	AZIMUTH	TRUSS SIZE	TRUSS SPACING		
#1	8	14°	89°	2"X4"	24"		
#2	2	10°	89°	2"X4"	24"		
#3	2	10°	269°	2"X4"	24"		



- 1			
+	REVISION	S	
	DESCRIPTION	DATE	REV
	INITIAL DESIGN	04/17/2025	
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ZEO ENERGY

ZEO ENERGY 7625 LITTLE RD. SUITE 200A, NEW PORT RICHEY, FL 34654



PROJECT NAME & ADDRESS

RIBNICKY RESIDENCE

204 RYE BEACH RD, HURON, OH 44839

DRAWN BY **ESR**

SHEET NAME **ROOF PLAN AND MODULES**

> SHEET SIZE ANSI B

- VENT, ATTIC FAN

- TRUSS

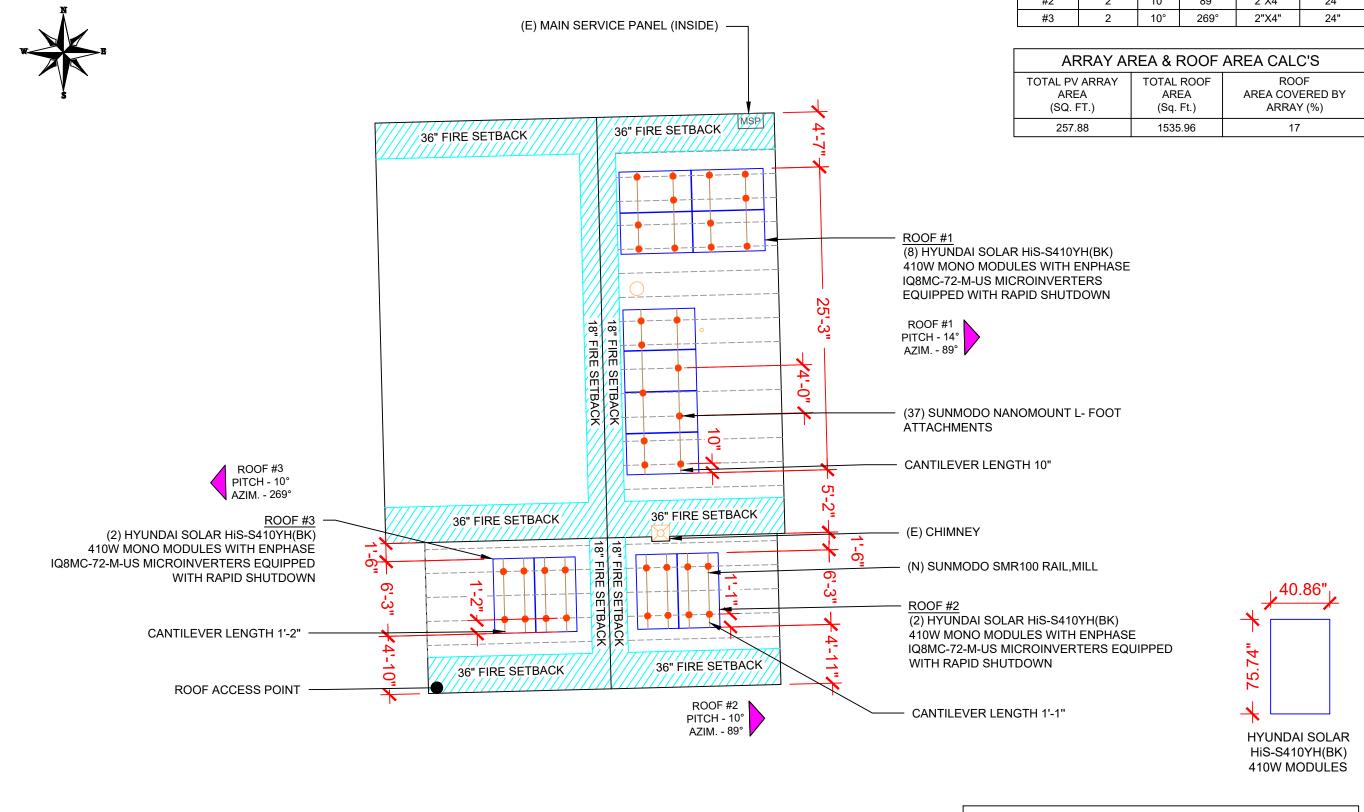
(ROOF OBSTRUCTION) - ROOF ATTACHMENT

LEGEND

- MAIN SERVICE PANEL

11" X 17" SHEET NUMBER

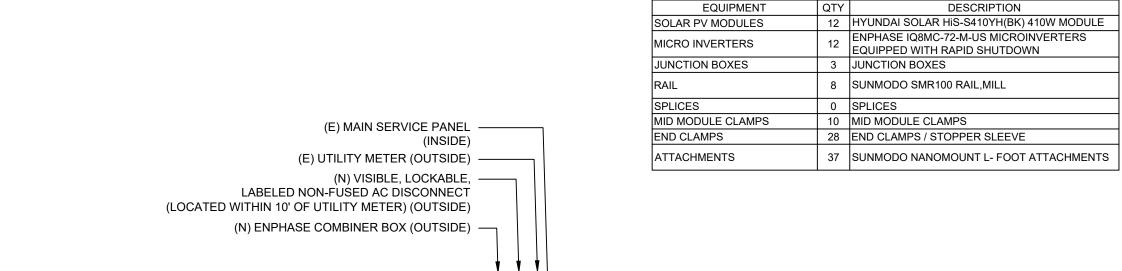
S001



CIRCUIT LEGENDS ---- CIRCUIT #1

NOTE: CONDUIT INSTALLED AT MINIMUM DISTANCE OF 7/8 INCHES **ABOVE ROOF**





BILL OF MATERIALS DESCRIPTION

ZEO ENERGY

ZEO ENERGY

7625 LITTLE RD. SUITE 200A, NEW PORT RICHEY, FL 34654

REVISIONS

DATE

04/17/2025

DESCRIPTION

INITIAL DESIGN

RIBNICKY RESIDENCE

204 RYE BEACH RD, HURON, OH 44839

DRAWN BY **ESR**

PROJECT NAME & ADDRESS

SHEET NAME

ELECTRICAL PLAN

SHEET SIZE

ANSI B 11" X 17"

SHEET NUMBER

E002

(12) ENPHASE IQ8MC-72-M-US MICROINVERTERS EQUIPPED WITH RAPID SHUTDOWN LOCATED UNDER EACH PANEL (240V)

LEGEND

- COMBINER BOX

ACD - AC DISCONNECT

UM - UTILITY METER

- TRUSS

JB - JUNCTION BOX

- VENT, ATTIC FAN (ROOF OBSTRUCTION)

MSP - MAIN SERVICE PANEL

- CONDUIT

E002

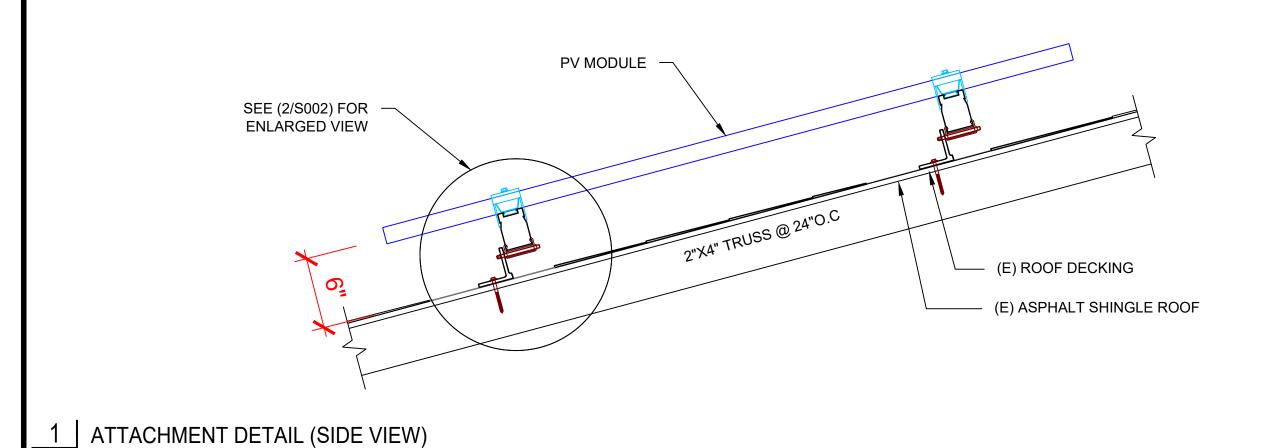
SCALE: 1/8" = 1'-0"

ELECTRICAL PLAN

(N) CONDUIT -

CIRCUIT #1 (12 MODULES)

(N) JUCTION BOX (TYP.) -



SCALE: N.T.S.

SCALE: N.T.S.

S002

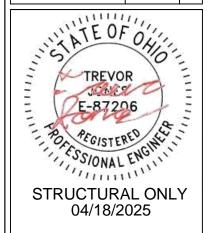
S002

ZEO ENERGY

ZEO ENERGY

7625 LITTLE RD. SUITE 200A, NEW PORT RICHEY, FL 34654

REVISION	IS	
DESCRIPTION	DATE	REV
INITIAL DESIGN	04/17/2025	



PROJECT NAME & ADDRESS

RIBNICKY RESIDENCE

DRAWN BY **ESR**

204 RYE BEACH RD, HURON, OH 44839

SHEET NAME

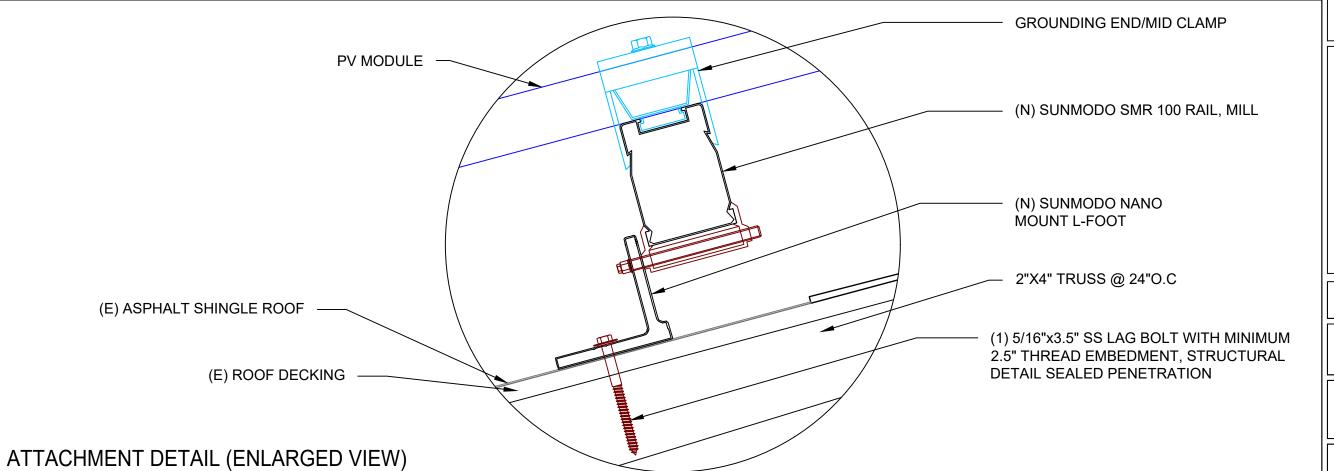
STRUCTURAL DETAIL

SHEET SIZE ANSI B

11" X 17"

SHEET NUMBER

S002



DC SYSTEM SIZE: 12 x 410 = 4.920KW DC AC SYSTEM SIZE: 12 x 320 = 3.840KW AC

(12) HYUNDAI SOLAR HIS-S410YH(BK) 410W MONO MODULES WITH (12) ENPHASE IQ8MC-72-M-US MICROINVERTERS EQUIPPED WITH RAPID SHUTDOWN LOCATED UNDER EACH PANEL (240V)

1) BRANCH CIRCUIT OF 12 MODULES CONNECTED IN PARALLEL

OCPD CALCULATIONS:

NEC 690.9(B)

(12 IQ8 MC) * 1.33A * 1.25 = 19.95A

BACKFEED BREAKER CALCULATION (120% RULE):

(MAIN BUS X 1.2 - MAIN BREAKER) >= (INVERTER CURRENT*1.25)

(100A X 1.2 - 100A) >= (19.95A) (20A) >= (19.95A) HENCE OK

INTERCONNECTION NOTES:

- 1. INTERCONNECTION SIZING, LIMITATIONS AND COMPLIANCE DETERMINED IN ACCORDANCE WITH [NEC 705.12], AND [NEC 690.59].
 2. GROUND FAULT PROTECTION IN ACCORDANCE WITH [NEC 215.9],
- 3. ALL EQUIPMENT TO BE RATED FOR BACKFEEDING.
- 4. PV BREAKER TO BE POSITIONED AT THE OPPOSITE END OF THE BUSBAR RELATIVE TO THE MAIN BREAKER.

DISCONNECT NOTES:

1. DISCONNECTING SWITCHES SHALL BE WIRED SUCH THAT WHEN THE SWITCH IS OPENED THE CONDUCTORS REMAINING LIVE ARE CONNECTED TO THE TERMINALS MARKED "LINE SIDE" (TYPICALLY THE UPPER TERMINALS)

2. AC DISCONNECT MUST BE ACCESSIBLE TO QUALIFIED UTILITY PERSONNEL, BE LOCKABLE, AND BE A VISIBLE-BREAK SWITCH 3. DISCONNECT MEANS AND THEIR LOCATION SHALL BE IN ACCORDANCE WITH [NEC 225.31] AND [NEC 225.32].

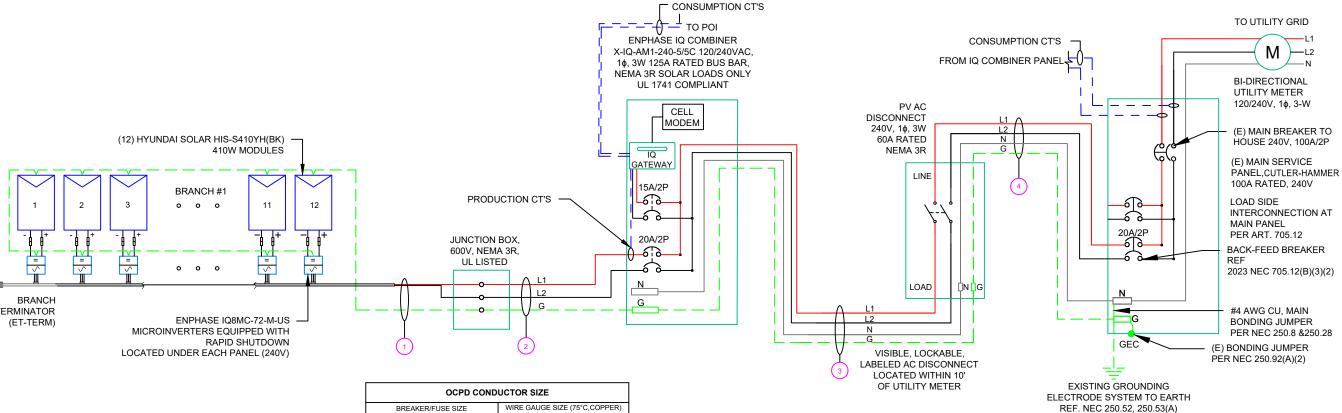
RACKING NOTE:

1. BOND EVERY OTHER RAIL WITH #6 BARE COPPER

INSTALLER / ELECTRICIAN NOTE: EC IS TO MEASURE VOLTAGE BEFORE STARTING WORK. IF RESULT IS ANY OTHER VOLTAGE MEASURED THAN 120/240V IS OBSERVED, DO NOT PROCEED. CONTACT ENGINEER.

GROUNDING & GENERAL NOTES:

- 1. **GROUNDING ELECTRODES AND GROUNDING ELECTRODE CONDUCTORS.**ADDITIONAL GROUNDING ELECTRODES SHALL BE PERMITTED TO BE
 INSTALLED IN ACCORDANCE WITH 250.52 AND 250.54.GROUNDING ELECTRODES
 SHALL BE PERMITTED TO BE CONNECTED DIRECTLY TO THE PV MODULE
 FRAME(S) OR SUPPORT STRUCTURE PER [NEC 690.47(B)]
- 2. PV INVERTER IS UNGROUNDED, TRANSFORMER-LESS TYPE.
- 3. DC GEC AND AC EGC TO REMAIN UNSPLICED, OR SPLICED TO EXISTING ELECTRODE
- 4. ANY EXISTING WIRING INVOLVED WITH PV SYSTEM CONNECTION THAT IS FOUND TO BE INADEQUATE PER CODE SHALL BE CORRECTED PRIOR TO FINAL INSPECTION.
- 5. JUNCTION BOXES QUANTITIES, AND PLACEMENT SUBJECT TO CHANGE IN THE FIELD JUNCTION BOXES DEPICTED ON ELECTRICAL DIAGRAM REPRESENT WIRE TYPE TRANSITIONS.
- 6. AC DISCONNECT NOTED IN EQUIPMENT SCHEDULE OPTIONAL IF OTHER AC DISCONNECTING MEANS IS LOCATED WITHIN 10' OF SERVICE DISCONNECT.
 7. RACEWAYS AND CABLES EXPOSED TO SUNLIGHT ON ROOFTOPS SHOULD BE INSTALLED MORE THAN 7/8" ABOVE THE ROOF USING CONDUIT SUPPORTS.
 8. ALL NEW SERVICE INSTALLATIONS AND REPLACEMENTS REQUIRE A SURGE-PROTECTIVE DEVICE (SPD) IN ACCORDANCE WITH [NEC 230.67]. THE SPD SHALL BE TYPE 1 OR TYPE 2 AND IS REQUIRED TO BE AN INTEGRAL PART OF THE SERVICE EQUIPMENT OR LOCATED IMMEDIATELY ADJACENT THERETO.



OCPD CONDUCTOR SIZE					
BREAKER/FUSE SIZE	WIRE GAUGE SIZE (75°C,COPPER)				
20A	10 AWG				
25A	10 AWG				
30A	10 AWG				
35A	8 AWG				
40A	8 AWG				
45A	8 AWG				
50A	8 AWG				
60A	6 AWG				
70A	4 AWG				
80A	4 AWG				
90A	3 AWG				
100A	3 AWG				
110A	2 AWG				
125A	1 AWG				
150A	1/0 AWG				
175A	2/0 AWG				
200A	3/0 AWG				

						CONDUIT
	QTY	СО	NDUCTOR INFOR	MATION	CONDUIT TYPE	SIZE
1	(2)	CU#12AWG -	ENPHASE ENGA (L1 & L2 NO NEU		N/A	N/A
	(1)	CU #6AWG -	BARE COPPER I	N FREE AIR		
(2)	(2)		THWN-2 L1 &L2	#12/2 ROMEX IN	ENT OR LEMC IN ATTIC	3/4"
2	(1)	CU #10AWG -	CU,THWN-2 GNE	ATTIC	ENT OR EFINE IN ATTIC	3/4
	(2)	CU #10AWG -	THWN-2 OR THH	N L1 &L2		
(3)	(1)	CU #10AWG -	CU,THWN-2 OR 1	THHN N	EMT, LFMC OR PVC	3/4"
	(1)	CU #10AWG -	CU,THWN-2 OR 1	THHN GND		
			THWN-2 OR THH			
4	(1)		CU,THWN-2 OR T		EMT, LFMC OR PVC	3/4"
	(1)	CU #10AWG -	CU,THWN-2 OR T	THHN GND		

ZEO ENERGY

ZEO ENERGY

7625 LITTLE RD. SUITE 200A, NEW PORT RICHEY, FL 34654

REVISIONS						
DESCRIPTION	DATE	REV				
INITIAL DESIGN	04/17/2025					

PROJECT NAME & ADDRESS

RIBNICKY RESIDENCE

DRAWN BY

204 RYE BEACH RD HURON, OH 44839

SHEET NAME

ELECTRICAL LINE DIAGRAM

SHEET SIZE

ANSI B 11" X 17"

SHEET NUMBER

E003

ELECTRICAL LINE DIAGRAM

E003

SCALE: NTS

INVI	ERTER SPECIFICATIONS
MANUFACTURER / MODEL #	ENPHASE IQ8MC-72-M-US MICROINVERTERS EQUIPPED WITH RAPID SHUTDOWN
MIN/MAX DC VOLT RATING	22V MIN/ 58V MAX
MAX INPUT POWER	260W-460W
NOMINAL AC VOLTAGE RATING	240V/ 211-264V
MAX AC CURRENT	1.33A
MAX MODULES PER CIRCUIT	12 (SINGLE PHASE)
MAX OUTPUT POWER	320 VA

VOLTAGE

240

240

240

CIRCIUT DESTINATION

JUNCTION BOX

COMBINER BOX

AC DISCONNECT

AMPS "FLA"

15.96

15.96

15.96

15.96

FLA*1.25 OCPD

SIZE (A)

20

19.95 20 CU #10 AWG

(A)

19.95

19.95

NEUTRAL SIZE

N/A

20 CU #10 AWG

GROUND SIZE

CU #10 AWG

CU #10 AWG

CU #10 AWG

BARE COPPER #6 AWG CU #12 AWG

SOLAR M	ODULE SPECIFICATIONS
	HYUNDAI SOLAR HIS-S410YH(BK) 410W MODULE
VMP	38.1V
IMP	10.76A
VOC	45.9V
ISC	11.40A
TEMP. COEFF. VOC	-0.268%/°C
MODULE DIMENSION	75.74"L x 40.86"W x 1.37"D (In Inch)

AMPACITY

25

35

35

35

CONDUCTOR

SIZE

CU #10 AWG

CU #10 AWG

CU #10 AWG

AC CALCULATIONS

PASS

PASS

PASS

PASS

AMPACITY AMBIENT

CHECK #1 TEMP. (°C)

34

34

34

AMBIENT TEMPERATURE SPEC	<u>S</u>
RECORD LOW TEMP	-19°
AMBIENT TEMP (HIGH TEMP 2%)	34°
MODULE TEMPERATURE COEFFICIENT OF Voc	-0.268%/°C

PERCENT OF	NUMBER OF CURRENT
VALUES	CARRYING CONDUCTORS IN EMT
.80	4-6
.70	7-9
.50	10-20

FOR AMBIENT FOR CONDUCTORS AMPACITY AMPACITY

TEMPERATURE NEC PER RACEWAY NEC DERATED CHECK #2

28.8

38.4

38.4

38.4

PASS

PASS

PASS

PASS

310.15(B)(3)(a)

DERATION FACTOR DERATION FACTOR

310.15(B)(2)(a)

0.96

0.96

0.96

0.96

90°C

AMPACITY (A)

40

40

40

CONDUCTORS

IN RACEWAY



ZEO ENERGY

7625 LITTLE RD. SUITE 200A, NEW PORT RICHEY, FL 34654

REVISION	S	
DESCRIPTION	DATE	REV
INITIAL DESIGN	04/17/2025	

			ш	DECORUM MORE	
LTAGE	CONDUIT	CONDUIT		INITIAL DESIGN	04/
OP AT	SIZE	FILL (%)	l		
(/0)			П		

#N/A

11.87617

15.8349

CONDUCTO

RESISTANCE

(OHM/KFT)

1.24

1.24

1.24

Circuit 1 Voltage Drop 1.150

0.49

0.082

0.082

N/A

3/4" EMT

3/4" EMT 15.8349

0.495 3/4" ENT

FEEDER

LENGTH

(FEET)

30

5

PROJECT NAME & ADDRESS

RIBNICKY RESIDENCE

204 RYE BEACH RD HURON, OH 44839

DRAWN BY **ESR**

SHEET NAME

WIRING CALCULATIONS

SHEET SIZE

ANSIB

11" X 17"

SHEET NUMBER

E004

CIRCUIT ORIGIN

CIRCUIT 1

JUNCTION BOX

COMBINER BOX

AC DISCONNECT

ELECTRICAL NOTES

- ALL EQUIPMENT TO BE LISTED BY UL OR OTHER NRTL, AND LABELED FOR ITS APPLICATION.
- ALL CONDUCTORS SHALL BE COPPER, RATED FOR 600 V AND 90 DEGREE C WET ENVIRONMENT.
- WIRING, CONDUIT, AND RACEWAYS MOUNTED ON ROOFTOPS SHALL BE ROUTED DIRECTLY TO, AND LOCATED AS CLOSE AS POSSIBLE TO THE NEAREST RIDGE, HIP, OR VALLEY.
- WORKING CLEARANCES AROUND ALL NEW AND EXISTING ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC 110.26.
- DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS. CONTRACTOR SHALL FURNISH ALL NECESSARY OUTLETS, SUPPORTS, FITTINGS AND ACCESSORIES TO FULFILL APPLICABLE CODES AND STANDARDS.
- WHERE SIZES OF JUNCTION BOXES, RACEWAYS, AND CONDUITS ARE NOT SPECIFIED, THE CONTRACTOR SHALL SIZE THEM ACCORDINGLY.
- ALL WIRE TERMINATIONS SHALL BE APPROPRIATELY LABELED AND READILY VISIBLE.
- MODULE GROUNDING CLIPS TO BE INSTALLED BETWEEN MODULE FRAME AND MODULE SUPPORT RAIL, PER THE GROUNDING CLIP MANUFACTURER'S INSTRUCTION.
- MODULE SUPPORT RAIL TO BE BONDED TO CONTINUOUS COPPER G.E.C. VIA WEEB LUG OR ILSCO GBL-4DBT LAY-IN LUG.
- TEMPERATURE RATINGS OF ALL CONDUCTORS, TERMINATIONS, BREAKERS, OR OTHER DEVICES ASSOCIATED WITH THE SOLAR PV SYSTEM SHALL BE RATED FOR AT LEAST 75 DEGREE C.
- 11. CONDUIT INSTALLED AT MINIMUM DISTANCE OF 7/8 INCHES ABOVE ROOFNEC 310.15(B)(3)(C)

CAUTION: AUTHORIZED SOLAR PERSONNEL ONLY!

LABEL-1: LABEL LOCATION: AC DISCONNECT

⚠ WARNING

ELECTRICAL SHOCK HAZARD

TERMINALS ON THE LINE AND LOAD SIDES MAY
BE ENERGIZED IN THE OPEN POSITION

LABEL- 2:
LABEL LOCATION:
AC DISCONNECT
COMBINER
MAIN SERVICE PANEL
SUBPANEL
MAIN SERVICE DISCONNECT
CODE REF: NEC 690.13(B)

⚠WARNING DUAL POWER SOURCE SECOND SOURCE IS PHOTOVOLTAIC SYSTEM

LABEL- 3: <u>LABEL LOCATION:</u> UTILITY METER MAIN SERVICE PANEL SUBPANEL

CODE REF: NEC 705.12(C) & NEC 690.59

⚠ WARNING

TURN OFF PHOTOVOLTAIC AC DISCONNECT PRIOR TO WORKING INSIDE PANEL

LABEL LOCATION:
MAIN SERVICE PANEL
SUBPANEL
MAIN SERVICE DISCONNECT
COMBINER
CODE REF: NEC 110.27(C) & OSHA 1910.145 (f) (7)

LABEL- 4:

CAUTION PHOTOVOLTAIC SYSTEM CIRCUIT IS BACKFEED

LABEL- 5: LABEL LOCATION: MAIN SERVICE PANEL (ONLY IF SOLAR IS BACK-FED) SUBPANEL (ONLY IF SOLAR IS BACK-FED) CODE REF: NEC 705.12(B)(3-4) & NEC 690.59



POWER SOURCE OUTPUT CONNECTION. DO NOT RELOCATE THIS OVERCURRENT DEVICE

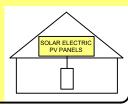
LABEL- 6:
LABEL LOCATION:
MAIN SERVICE PANEL (ONLY IF SOLAR IS BACK-FED)
SUBPANEL (ONLY IF SOLAR IS BACK-FED)
CODE REF: NEC 705.12(B)(3)(2)

THIS EQUIPMENT FED BY
MULTIPLE SOURCES. TOTAL
RATING OF ALL OVERCURRENT
DEVICES EXCLUDING MAIN
SUPPLY OVERCURRENT DEVICE
SHALL NOT EXCEED AMPACITY
OF BUSBAR.

LABEL- 7: <u>LABEL LOCATION:</u> MAIN SERVICE PANEL (ONLY IF SOLAR IS BACK-FED) SUBPANEL (ONLY IF SOLAR IS BACK-FED) CODE REF: NEC 705.12(B)(3)(2)

SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN THE ARRAY



LABEL - 8: LABEL LOCATION: AC DISCONNECT CODE REF:NEC 690.56(C)

RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM

LABEL- 9: LABEL LOCATION: AC DISCONNECT CODE REF: NEC 690.56(C)(2)

PHOTOVOLTAIC

AC DISCONNECT

LABEL-10: LABEL LOCATION: AC DISCONNECT CODE REF: NEC 690.13(B)

PHOTOVOLTAIC AC DISCONNECT

NOMINAL OPERATING AC VOLATGE

240 V

RATED AC OUTPUT CURRENT

15.96 A

LABEL- 11:
LABEL LOCATION:
MAIN SERVICE PANEL
SUBPANEL
AC DISCONNECT
CODE REF: NEC 690.54

MAIN PHOTOVOLTAIC SYSTEM DISCONNECT

LABEL- 12:

<u>LABEL LOCATION:</u>

MAIN SERVICE DISCONNECT (ONLY IF MAIN SERVICE DISCONNECT IS PRESENT)

CODE REF: NEC 690.13(B)

ZEO ENERGY EMERGENCY CONTACT (727) 375-9375

LABEL-13:

LABEL LOCATION:

MAIN SERVICE DISCONNECT

CODE REF: NFPA 1 (11.12.2.1.5)



ZEO ENERGY

7625 LITTLE RD. SUITE 200A, NEW PORT RICHEY, FL 34654

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DRAWN BY

204 RYE BEACH RD HURON, OH 44839

SHEET NAME

LABELS

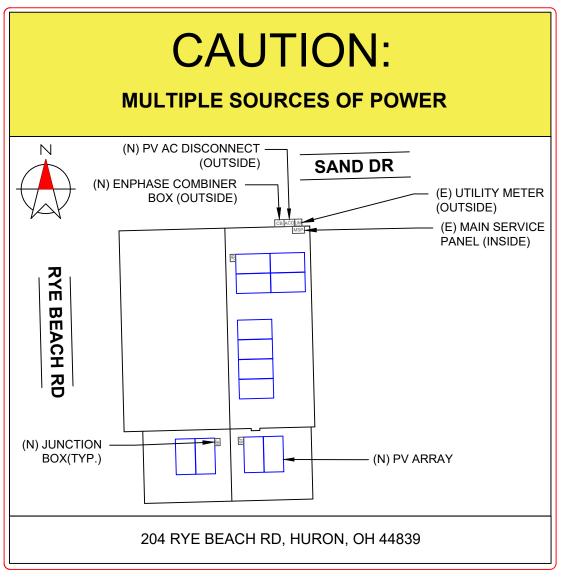
SHEET SIZE

ANSI B

11" X 17"

SHEET NUMBER

E005



DIRECTORY

PERMANENT PLAQUE OR DIRECTORY PROVIDING THE LOCATION OF THE SERVICE DISCONNECTING MEANS AND THE PHOTOVOLTAIC SYSTEM.

(ALL PLAQUES AND SIGNAGE WILL BE INSTALLED AS OUTLINED WITHIN: NEC 690.56(A)&(B), [NEC 705.10])

LABELING NOTES:

- 1. LABELS CALLED OUT ACCORDING TO ALL COMMON CONFIGURATIONS. ELECTRICIAN TO DETERMINE EXACT REQUIREMENTS IN THE FIELD PER CURRENT NEC AND LOCAL CODES AND MAKE APPROPRIATE ADJUSTMENTS.
- 2. LABELING REQUIREMENTS BASED ON THE 2023 NATIONAL ELECTRIC CODE, OSHA STANDARD 19010.145, ANSI Z535.
- 3. MATERIAL BASED ON THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
- 4. LABELS TO BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED [NEC 110.21]
- 5. LABELS TO BE A MINIMUM LETTER HEIGHT OF 3/8", WHITE ON RED BACKGROUND; REFLECTIVE, AND PERMANENTLY



ZEO ENERGY

7625 LITTLE RD. SUITE 200A, NEW PORT RICHEY, FL 34654

REVISION	IS	
DESCRIPTION	DATE	REV
INITIAL DESIGN	04/17/2025	

PROJECT NAME & ADDRESS

204 RYE BEACH RD, HURON, OH 44839

RIBNICKY RESIDENCE

DRAWN BY

SHEET NAME

PLACARD

SHEET SIZE

ANSI B 11" X 17"

SHEET NUMBER

E006

HYUNDAI SOLAR MODULE



Dual Black Max

HiS-S385YH(BK) HiS-S390YH(BK) HiS-S400YH(BK) HiS-S405YH(BK)





132

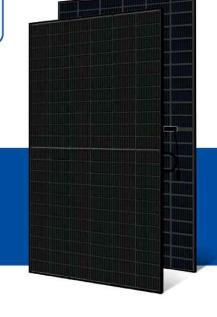




Saves BOS Costs

For Sleek Design (Black Meshed T-Back sheet)

WARRANTY





Maximized Power Generation

Increased total power output through capturing light from both the front and back of Bifacial solar modules. Back side power gain up to 25% of the front output depending on PV system design.



Mechanical Strength

Tempered glass and reinforced frame design withstand rigorous weather conditions such as heavy snow(5,400Pa) and strong wind(4,000Pa).

Hyundai's Warranty Provisions



25-Year Product Warranty Materials and workmanship



- · 25-Year Performance Warranty Initial year: 98.0%
- · Linear warranty after second year: with 0.54%p annual degradation, 85.0% is guaranteed up to 25 years



Half-Cut & Multi-Wire Technology

Improved current flow with half-cut technology and 9 thin wiring technology allows high module efficiency of up to 20.5%, It also reduces power generation loss due to micro-cracks.



UL / VDE Test Labs

Hyundai's R&D center is an accredited test laboratory of both UL and VDE.



strength provide reliable 25-year warranty.

About Hyundai Energy Solutions



As a core energy business entity of HHI, Hyundai Energy Solutions has strong pride in providing high-quality PV products to more than 3,000 customers worldwide.

Certification



UL61730 certified by UL, Type 1 (for Fire Class A)

Anti-LID / PID

Both LID(Light Induced Degradation) and PID(Potential Induced Degradation) are significantly reduced to ensure higher actual yield during lifetime.



Reliable Warranty

Global brand with powerful financial

heavy industries sector and is a Fortune 500 company. As a global leader and innovator, Hyundai

Printed Date: 03/2022(final)

Electrical Characteristics

		385	200	ONE	400	ADE	440
		300	390	395	400	405	410
Nominal Output (Pmpp)	W	385	390	395	400	405	410
Open Circuit Voltage (Voc)	V	44.5	44.8	45.0	45.3	45.6	45.9
Short Circuit Current (Isc)	A	11.04	11.11	11.18	11.25	11.33	11.40
Voltage at Pmax (Vmpp)	V	37.1	37.3	37.5	37.7	37.9	38.1
Current at Pmax (Impp)	A	10.40	10.47	10.54	10.61	10.69	10.76
Module Efficiency	%	19.3	19.5	19.8	20.0	20.3	20.5
Cell Type				Mono crysta	lline, 9busbar		
Maximum System Voltage	V			1,5	500		
Temperature Coefficient of Pmax	%/K			-0.	347		
Temperature Coefficient of Voc	%/K			-0.	268		
Temperature Coefficient of Isc	%/K			+0.	032		

*All data at STC (Measurement tolerances Pmpp $\pm 3\%$; lsc ; Voc $\pm 3\%$). Above data may be changed without prior notice.

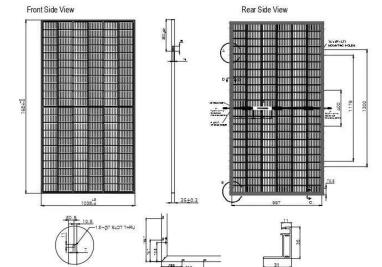
Mono-Crystalline Type(HiS-S____YH(BK))

Additional Power Gain from rear sid	е	385	390	395	400	405	410
5%	W	399	404	410	415	425	431
15%	W	437	443	449	454	466	472
25%	W	475	482	488	494	506	513

Mechanical Characteristics

Dimensions	1,038 mm (W) x 1,924 mm (L) x 35 mm(H)
Weight	Approx. 21.1 kg
Solar Cells	132 half cut bifacial cells (2 parallel x 66 half cells in series)
Output Cables	Cable : 1,200mm / 4mm² Connector : MC4 genuine connector
Junction Box	IP68, weatherproof, IEC certified (UL listed)
Bypass Diodes	3 bypass diodes to prevent power decrease by partial shade
Construction	Front : 3.2mm, High Transmission, AR Coated Tempered Glass Encapsulant : EVA Back Sheet : Black Meshed Transparent Backsheet
Frame	Anodized aluminum alloy type 6063

Module Diagram (unit: mm)



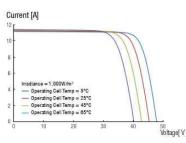
DETAIL B

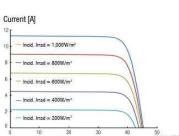
Installation Safety Guide

- · Only qualified personnel should install or perform maintenance.
- Be aware of dangerous high DC voltage.
- · Do not damage or scratch the rear surface of the module.
- · Do not handle or install modules when they

45.5°C ± 2
-40°C ~ +85°C
DC 1,500V
20A
Front 5,400 Pa (113psf) Rear 4,000 Pa (84psf)

I-V Curves





HYUNDAI

ENERGY SOLUTIONS

DRAWN BY **ESR**

RIBNICKY RESIDENCE

PROJECT NAME & ADDRESS

204 RYE BEACH RD HURON, OH 44839

ZEO ENERGY

ZEO ENERGY

7625 LITTLE RD. SUITE 200A, NEW PORT RICHEY, FL 34654

REVISIONS

DATE

04/17/2025

DESCRIPTION

INITIAL DESIGN

SHEET NAME **MODULE** DATASHEET

> SHEET SIZE ANSI B

11" X 17"

SHEET NUMBER

PD001





DETAIL A

Input data (DC)

MPPT voltage range

Min./Max. start voltage

Max. input DC voltage

Overvoltage class DC port DC port backfeed current

PV array configuration

Output data (AC)

Max. continuous output power

Max. continuous output current

AC short-circuit fault current over

Max. units per 20 A (L-L) branch

Total harmonic distortion Overvoltage class AC port

AC port backfeed current

CEC weighted efficiency

Relative humidity range

Nighttime power consumption

Grid-tied power factor (adjustable)

Power factor setting

Peak efficiency

Nominal grid voltage (L-L)

Min./Max. grid voltage⁶

Nominal frequency

three cycles

circuit⁷

Max. continuous operating DC current Max. input DC short-circuit current

Operating range

Max. module I_{sc}

Commonly used module pairings⁵

V

V

Hz

Δrms

mΑ

%

mW

IQ8MC Microinverter

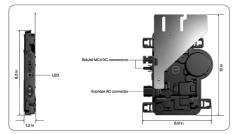
Our newest IQ8 Series Microinverters^{1, 2, 3} are the industry's first microgrid-forming⁴, software-defined microinverters with split-phase power conversion capability to convert DC power to AC power efficiently.







Key specifications	IQ8MC-72-M-US @240 VAC	IQ8MC-72-M-US @208 VAC
Peak output power	330 VA	315 VA
Nominal grid voltage (L-L)	240 V split-phase (L-L), 180°	208 V single-phase (L-L), 120°
Nominal frequency	60 Hz	60 Hz
CEC weighted efficiency	97%	96.5%
Maximum input DC voltage	60 V	60 V
MPPT voltage range	25-45 V	25-45 V
Maximum module I _{sc}	20 A	20 A
Ambient temperature range	-40°C to 65°C (-40°F to 149°F)	



- during installation. Meets UL 1741 only when installed with IQ System Controller 2 or 3.



- · Faster installation with simple two-

- hours of testing
- · Industry-leading limited warranty of up to 25 years



- Complies with the latest advanced grid support
- latest grid requirements
- IEEE 1547:2018 (UL 1741-SB 3rd Ed.)

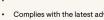
(2)	Simple

- Lightweight and compact with plug-and-play connectors
- Power line communication (PLC)
- wire cabling

✓ Reliable

- Produces power even when the grid is down⁴
- More than one million cumulative
- Class II double-insulated enclosure
 Optimized for the latest high-

•	Optimized for the latest h
	powered PV modules



- · Remote automatic updates for the
- Configurable to support a wide
- range of grid profiles

 Meets CA Rule 21 (UL 1741-SA) and

⁵ No enforced DC/AC	;

97.0

33

IQ8MC-72-M-US

260-460

To meet compatibility, PV modules must be within the following max. input DC voltage and max. module I_{sc} . Module compatibility can be checked at https:// enphase.com/installers/microinverters/calculator.

18-58

22/58

60

20

Ungrounded array; no additional DC side protection required; AC side protection

requires a maximum of 20 A per branch circuit.

47-68

2.70

0.85 leading ... 0.85 lagging

-40°C to 65°C (-40°F to 149°F)

4% to 100% (condensing)

330 320

240, split-phase (L-L). 180°

1.33

IQ8MC-72-M-US @208 VAC

208, single-phase (L-L), 120°

183-229

1.49

Mechanical data	IQ8MC-72-M-US
DC connector type	Stäubli MC4
Dimensions (H × W × D); Weight	212 mm (8.3") × 175 mm (6.9") × 30.2 mm (1.2"); 1.1 kg (2.43 lb)
Cooling	Natural convection - no fans
Approved for wet locations; Pollution degree	Yes; PD3
Enclosure	Class II double-insulated, corrosion-resistant polymeric enclosure
Environ. category; UV exposure rating	NEMA Type 6; outdoor

Environ. Category, 64 exposure rating	NEWA Type o, outdoor
Compliance	IQ8MC-72-M-US
Certifications	CA Rule 21 (UL 1741-SA), UL 62109-1, IEEE 1547:2018 (UL 1741-SB 3 rd Ed.), FCC Part 15 Class B. ICES-0003 Class B. CAN/CSA-C22.2 NO. 107.1-01.
	This product is UL Listed as PV rapid shutdown equipment and conforms with NEC 2014, NEC 2017, NEC 2020, and NEC 2023 section 690.12 and C22.1-2018
	Rule 64-218 rapid shutdown of PV systems for AC and DC conductors when installed according to the manufacturer's instructions.

ZEO ENERGY

ZEO ENERGY

7625 LITTLE RD. SUITE 200A, NEW PORT RICHEY, FL 34654

REVISIONS		
DESCRIPTION	DATE	REV
INITIAL DESIGN	04/17/2025	

PROJECT NAME & ADDRESS

RIBNICKY RESIDENCE

DSH-00049-5.0-EN-2024-12-10

204 RYE BEACH RD HURON, OH 44839

DRAWN BY **ESR**

SHEET NAME

MICROINVERTER DATASHEET

> SHEET SIZE ANSI B

11" X 17" SHEET NUMBER

PD002

97.2

96.5

25





IQ Combiner 5/5C

The IQ Combiner 5/5C consolidates interconnection equipment into a single enclosure and streamlines IQ Series Microinverters and IQ Gateway installation by providing a consistent, pre-wired solution for residential applications. IQ Combiner 5/5C uses wired control communication and is compatible with IQ System Controller 3/3G and IQ Battery 5P.

The IQ Combiner 5/5C, IQ Series Microinverters, IQ System Controller 3/3G, and IQ Battery 5P provide a complete grid-agnostic Enphase Energy System.

IQ System Controller 3/3G

IQ Load Controller

Helps prioritize essential appliances during a grid outage to optimize energy consumption and prolong battery life.

IO System Controller 3/36
Provides microgrid interconnection
device (MID) functionality by
automatically detecting grid failures and
seamlessly transitioning the home energy
system from grid power to backup power.



IQ Series Microinverters The high-powered smart grid-ready IQ Series Microinverters (IQ6, IQ7, and IQ8 Series) simplify the installation process.



IQ Battery 5P Fully integrated AC battery system. Includes six field-replaceable IQ8D-BAT Microinverters.





5-year limited

*For country-specific warranty information, see the https://enphase.com/installers/resources/warranty page O 2024 Enphase Energy, All rights reserved. Enphase, the e and CC logos, IQ, and certain other marks listed at https://imphase.com/trude/mark-usage-quidelines are trademarks of Enphase Energy, Inc. in the US, and other countries. Data subject to change.

- Includes IQ Gateway for communication and control
- Includes Enphase Mobile Connect (CELLMODEM-M1-06-SP-05), only with IQ Combiner 5C

X-IQ-AM1-240-5 X-IQ-AM1-240-5C

- Supports flexible networking: Wi-Fi, Ethernet, or cellular
- Provides production metering (revenue grade) and consumption monitoring

- Mounts to one stud with centered brackets
- · Supports bottom, back, and side
- Supports up to four 2-pole branch circuits for 240 VAC plug-in breakers (not included)
- · 80 A total PV branch circuits
- Bluetooth-based Wi-Fi provisioning for easy Wi-Fi setup

- Durable NRTL-certified NEMA type 3R

IQC-5-5C-DSH-00007-3.0-EN-US-2024-03-01

- · 5-year limited warranty 2-year labor reimbursement program coverage included for both the IQ Combiner SKUs'
- UL1741 Listed

IQ Combiner 5/5C

Circuit breakers (provided by Enphase) XA-SOLARSHIELD-ES

XA-ENV2-PCBA-5

MODEL NUMBER	
IQ Combiner 5 (X-IQ-AM1-240-5)	IQ Combiner 5 with IQ Gateway printed circuit board for integrated revenue-grade PV production metering (ANSICI2.20 ± 0.5%), consumption monitoring (± 2.5%), and IQ Battery monitoring (±2.5%). Includes a sliver solar shifted to deflect here.
Q Combiner 5C (X-IQ-AMI-240-5C)	IQ Combiner 5C with IQ Gateway printed circuit board for integrated revenue-grade PV production metering (ANSI C12.20 ± 0.5%), consumption monitoring (±2.5%) and IQ Battery monitoring (±2.5%). Includes Enphase Mobile Connect cellular modem (CELLMODEM-M1-06-SP-05). Includes a silver solar shelld to deflect heat.
WHAT'S IN THE BOX	
IQ Gateway printed circuit board	IQ Gateway is the platform for total energy management for comprehensive, remote maintenance, an management of the Enphase Energy System
Busbar	80 A busbar with support for 1 × IQ Gateway breaker and 4 × 20 A breaker for installing IQ Series Microinverters and IQ Battery 5P
IQ Gateway breaker	Circuit breaker, 2-pole, 10 A/15 A
Production CT	Pre-wired revenue-grade solid-core CT, accurate up to ±0.5%
Consumption CT	Two consumption metering clamp CTs, shipped with the box, accurate up to $\pm 2.5\%$
IQ Battery CT	One battery metering clamp CT, shipped with the box, accurate up to ±2.5%
CTRL board	Control board for wired communication with IQ System Controller 3/3G and the IQ Battery 5P
Enphase Mobile Connect (only with IQ Combiner 5C)	4G-based LTE-M1 cellular modern (CELLMODEM-M1-06-SP-05) with a 5-year T-Mobile data plan
Accessories kit	Spare control headers for the COMMS-KIT-02 board
ACCESSORIES AND REPLACEMENT PARTS (NOT INCLUDE	D, ORDER SEPARATELY)
CELLMODEM-M1-06-SP-05	4G-based LTE-M1 cellular modern with a 5-year T-Mobile data plan
CELLMODEM-M1-06-AT-05	4G-based LTE-M1 cellular modern with a 5-year AT&T data plan
Circuit breakers (off-the-shelf)	Supports Eaton BR2XX, Siemens Q2XX and GE/ABB THOL21XX Series circuit breakers (XX represents 10, 15, 20, 30, 40, 50, or 60). Also supports Eaton BR220B, BR230B, and BR240B circuit breakers compatible with the hold-down kit.
Circuit breakers (provided by Enphase)	BRK-10A-2-240V, BRK-15A-2-240V, BRK-20A-2P-240V, BRK-15A-2P-240V-B, and BRK-20A-2P-240V-B (more details in the "Accessories" section)

X-IQ-NA-HD-125A	Hold-down kit compatible with Eaton BR-B Series circuit breakers (with screws)
XA-COMMS2-PCBA-5	Replacement COMMS-KIT-02 printed circuit board (PCB) for IQ Combiner 5/5C
ELECTRICAL SPECIFICATIONS	
Rating	A 08
System voltage and frequency	120/240 VAC, 60 Hz
Busbar rating	125 A
Fault current rating	10 kAIC
Maximum continuous current rating (input from PV/storage)	64 A
Branch circuits (solar and/or storage)	Up to four 2-pole Eaton BR, Siemens Q, or GE/ABBTHQL Series distributed generation (DG) breakers only (not included)
Maximum total branch circuit breaker rating (input)	80 A of distributed generation/95 A with IQ Gateway breaker included
IQ Gateway breaker	10 A or 15 A rating GE/Siemens/Eaton included
Production metering CT	200 A solid core pre-installed and wired to IQ Gateway
Consumption monitoring CT (CT-200-CLAMP)	A pair of 200 A clamp-style current transformers is included with the box
IQ Battery metering CT	200 A clamp-style current transformer for IQ Battery metering, included with the box

Replacement solar shield for IQ Combiner 5/5C

IQ Gateway replacement printed circuit board (PCB) for IQ Combiner 5/5C

IQC-5-5C-DSH-00007-3.0-EN-US-2024-03-01

Dimensions (W × H × D)	37.5 cm × 49.5 cm × 16.8 cm (14.75" × 19.5" × 6.63"). Height is 21.06" (53.5 cm) with mounting brackets
Weight	7.5 kg (16.5 lbs)
Ambient temperature range	-40°C to 46°C (-40°F to 115°F)
Cooling	Natural convection, plus heat shield
Enclosure environmental rating	Outdoor, NRTL-certified, NEMA type 3R, polycarbonate construction
Wire sizes	20 A to 50 A breaker inputs; 14 to 4 AWG copper conductors 60 A breaker branch input: 4 to 10 AWG copper conductors Main lug combined output: 10 to 270 AWG copper conductors Neutral and ground: 41 to 170 copper conductors Always follow local code requirements for conductor sking
Communication (in-premise connectivity)	Built-in CTRL board for wired communication with IQ Battery 5P and IQ System Controller 3/3G integrated power line communication for IQ Series Microinverters
Altitude	Up to 2,600 meters (8,530 feet)
COMMUNICATION INTERFACES	
Integrated Wi-Fi	802.11b/g/n (dual band 2.4 GHz/5 GHz), for connecting the Enphase Cloud through the interne
Wi-Firange (recommended)	10 m (32.8 feet)
Bluetooth	BLE4.2, 10 m range to configure Wi-Fi SSID
Ethernet	Optional, 802.3, CatSE (or Cat 6) UTP Ethernet cable (not included), for connecting to the Enph Cloud through the internet
Cellular/Mobile Connect	CELLMODEM-M1-06-SP-05 or CELLMODEM-M1-06-AT-05 (included with IQ Combiner 5C)
Digital I/O	Digital input/output for grid operator control
USB 2.0	Mobile Connect, COMMS-KIT-01 for IQ Battery 3/3T/10/10T, COMMS-KIT-02 for IQ Battery 5P
Access point (AP) mode	For connection between the IQ Gateway and a mobile device running the Enphase Installer App
Metering ports	Up to two Consumption CTs, one IQ Battery CT, and one Production CT
Power line communication	90-110 kHz
Web API	See https://developer-v4.enphase.com
Local API	See guide for local API
COMPLIANCE	
IQ Combiner with IQ Gateway	UL 1741, CAN/CSA C22.2 No. 1071, Title 47 CFR, Part 15, Class B, ICES 003, NOM-208-SCFI-20 UL 60601-I/CANCSA 22.2 No. 61010-1, IEEE 1947: 2018 (UL 1741-5B, 3rd Ed.), IEEE 2030.5/CSIP Compliant, Production metering: ANSI C12.20 accuracy class 0.5 (Py production)

IQ6, IQ7, and IQ8 Series Microinverter

SC200D111C240US01, SC200G111C240US01

ENCHARGE-3-1P-NA, ENCHARGE-10-1P-NA, ENCHARGE-3T-1P-NA, ENCHARGE-10T-1P-NA

EP200G101-M240US00

EP200G101-M240US01

IQBATTERY-5P-1P-NA

IQ System Controller

IQ Battery

IQ Battery

IO System Controller 2

IQ System Controller 3

COMMS-KIT-012

IQC-5-5C-DSH-00007-3.0-EN-US-2024-03-01



ZEO ENERGY

7625 LITTLE RD. SUITE 200A, NEW PORT RICHEY, FL 34654

REVISIONS		
DESCRIPTION	DATE	REV
INITIAL DESIGN	04/17/2025	

PROJECT NAME & ADDRESS

RIBNICKY RESIDENCE

204 RYE BEACH RD, HURON, OH 44839

DRAWN BY **ESR**

SHEET NAME

COMBINER BOX DATASHEET

> SHEET SIZE ANSI B

11" X 17"

SHEET NUMBER

PD003

^{1.} A plug- and-play industrial-grade cell modern for systems of up to 60 microinverters. Available in the United States, Canada, Mexico, Puerto Rico, and the US Virgin Islanda, where there is adequate cellular service in the installation area.



Damaging roof shingles used to be one of a solar installers' worst challenges.

Now, the easy, affordable solution is NanoMount[®], SunModo's patented solar mounting innovation.

The mount eliminates the need for lifting shingles and dramatically reduces the installation time.

The NanoMount® Advantage

- ✓ The fastest roof attachment in solar.
- ✓ Versatile mounting options including direct-to-decking.
- ✓ Eliminates the need to lift shingles and prevents damage to shingles.
- ✓ High-Velocity Hurricane Zone Approved - Passed TAS 100 (a) Wind-Driven Rain Test.
- ✓ All materials are compatible with asphalt shingles and single-ply roof membranes.

Key Features of NanoMount®

Open L-Foot for fast

rail attachment



5 levels of protection against water penetration

360-degree positioning, serrated surface on both sides for rail mounting

Aesthetically pleasing unibody aluminum cast construction

Alignment markers enable easy installation

4 Deck Screws for Deck Mount or 1 Lag Bolt for Rafter Mount

Integrated Ultra Soft Weather Resistant gasket

Technical Data

Application	Residential roof coverings, commercial single-ply roof membranes
Material	High grade aluminum, 304 stainless steel hardware
Finish	Black powder coating
Roof Attachment	Rafter and decking
Structural integrity	IBC and IRC Compliant
Warranty	25 years

SunModo, Corp. Vancouver, WA., USA • www.sunmodo.com • 360.844.0048 • info@sunmodo.com



ZEO ENERGY

7625 LITTLE RD. SUITE 200A, NEW PORT RICHEY, FL 34654

REVISIONS		
DESCRIPTION	DATE	REV
INITIAL DESIGN	04/17/2025	

PROJECT NAME & ADDRESS

RIBNICKY RESIDENCE 204 RYE BEACH RD HURON, OH 44839

DRAWN BY

SHEET NAME
ATTACHMENT
DATASHEET

SHEET SIZE

ANSI B 11" X 17"

SHEET NUMBER

PD004



SunModo introduces the SMR Pitched Roof System, the best value pitched roof mounting system on the market.

With fast and easy Pop-On Clamps and L-Foot adaptors, professional installers can mount, adjust, and secure PV panels with a single tool.

Whether rafter or deck, portrait or landscape, the SMR System is the ideal solution for your solar installation. Save money on materials and installation time.

The SMR System Advantage

- ✓ The best value, best performing. rail system on the market
- ✓ Lag-to-Panel single tool installation
- ✓ Pop-On universal clamps make installation fast, reliable and flexible
- ✓ A full range of roof attachments to meet every need
- ✓ Fastest install and lowest cost

Key Features of the SMR System



The SMR System represents a huge leap in racking technology. Optimized design makes the SMR Rails not only the lightest but also the strongest rails on the market. One tool assembly and Pop-On technology allow fast and





L Foot Adaptor

Clamps & Grounding



Mid Clamp

The Bonding Pop-On Universal Mid Clamps accommodate PV module frame heights ranging from 30mm to 50mm. The fastest installing Mid Clamps on the market.



module frame heights and provide fas and secure attachment of modules.



Shared Rail Mid/End Clamp

Easily adapt racking to Shared Rail install Uses the same Pop-On technology to provide fast and easy install.



Rail Splice

The Lug provides proper grounding of the

Fast and easy Pop-On L-Foot Adaptor

old-fashioned T-Bolts. Install fast with full

Structural bonding splice with fast and

speeds installation and eliminates

confidence in every attachment.

easy single bolt installation



Grounding Lug

PV System

Technical Data

Application	Pitched Roof
Roof Type	Composition shingle, Metal and Tile
Material	High grade aluminum and 304 stainless steel hardware
PV Modules	Compatible with all common module types
Module Orientation	Portrait and landscape
Roof Attachment	Rafter and decking
Structural Integrity	IBC compliant, stamped engineering letters available
Certificate	UL 2703 listed by ETL
Warranty	25 years

SunModo, Corp. Vancouver, WA., USA • www.sunmodo.com • 360.844.0048 • info@sunmodo.com



ZEO ENERGY

7625 LITTLE RD. SUITE 200A, NEW PORT RICHEY, FL 34654

REVISIONS		
DESCRIPTION	DATE	REV
INITIAL DESIGN	04/17/2025	
-		

PROJECT NAME & ADDRESS

RIBNICKY RESIDENCE

DRAWN BY

204 RYE BEACH RD HURON, OH 44839

ESR

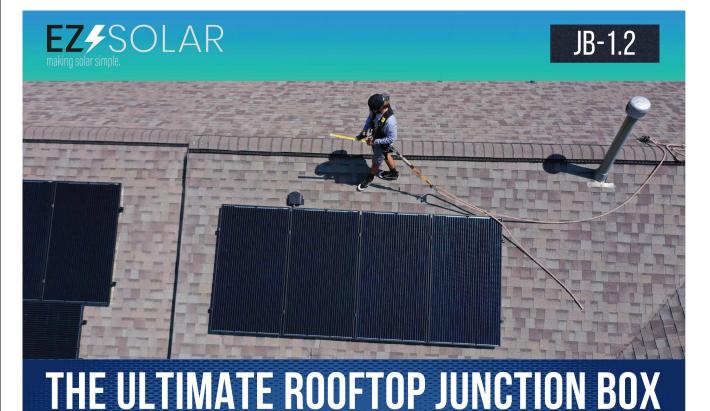
SHEET NAME **RACKING** DATASHEET

SHEET SIZE

ANSI B 11" X 17"

SHEET NUMBER

PD005





SIMPLE TO INSTALL

- Minimal Shingle Cutting
- Enter Through 3 Sidewalls
- Wider and Taller Sidewalls

MADE IN USA



EZ Solar believes innovation is key to making Solar Simple! The most revolutionary junction box on the market

just got better! Designed with the installer in mind, the JB-1.2 makes installation fast and easy!

HIGH QUALITY

- Made from advanced durable polycarbonate
 + superior components, UL1741, Nema 3R,
 CSA C22.2 No. 290
- 3 patented layers of water protection
- 2 Weep Holes for breathability



LOWER PRICE

- We believe that EVERYONE should have access to affordable renewable energy
- With the same great features as the JB-1, the JB-1.2 is now available with updates to make installation even easier.



JB-1.2, JB-1.XL

Specification Sheet

PV Junction Box for Composition/Asphalt Shingle Roofs

PHONE: 385-202-4150 | WWW.EZSOLARPRODUCTS.COM

A. System Specifications and Ratings

Maximum Voltage: 1,000 Volts

Maximum Current: JB-1.2: 80 Amps; JB-1.XL: 120 Amps

Allowable Wire: 14 AWG – 6 AWG

 Spacing: Please maintain a spacing of at least ½" between uninsulated live parts and fittings for conduit, armored cable, and uninsulated live parts of opposite polarity.

Enclosure Rating: Type 3R
Roof Slope Range: 2.5 – 12:12
Max Side Wall Fitting Size: 1"

Max Floor Pass-Through Fitting Size: 1"

Ambient Operating Conditions: (-35°C) - (+75°C)

Compliance:

- JB-1.2: UL1741, CSA C22.2 No. 290; JB-1.XL: UL1741, CSA C22.2 No. 290

- Approved wire connectors: must conform to UL1741, CSA C22.2 No. 290



System Marking: Interek Symbol and File #5019942

Periodic Re-inspections: If re-inspections yield loose components, loose fasteners, or any corrosion between components, components that are found to be affected are to be replaced immediately.

Table 1: Typical Wire Size, Torque Loads and Ratings

	1 Conductor 2 Conductor		Torque				
	1 Conductor	2 Conductor	Туре	NM	Inch Lbs	Voltage	Current
ABB ZS6 terminal block	10-24 awg	16-24 awg	Sol/Str	0.5-0.7	6.2-8.85	600V	30 amp
ABB ZS10 terminal block	6-24 awg	12-20 awg	Sol/Str	1.0-1.6	8.85-14.16	600V	40 amp
ABB ZS16 terminal block	4-24 awg	10-20 awg	Sol/Str	1.6-2.4	14.6-21.24	600V	60 amp
ABB M6/8 terminal block	8-22 awg		Sol/Str	.08-1	8.85	600V	50 amp
Ideal 452 Red WING-NUT Wire Connector	8-18 awg		Sol/Str	Self-Torque	Self-Torque	600V	
Ideal 451 Yellow WING-NUT Wire Connector	10-18 awg		Sol/Str	Self-Torque	Self-Torque	600V	
Ideal, In-Sure Push-In Connector	10-14 awg		Sol/Str	Self-Torque	Self-Torque	600V	
WAGO, 2204-1201	10-20 awg	16-24 awg	Sol/Str	Self-Torque	Self-Torque	600V	30 amp
WAGO, 221-612	10-20 awg	10-24 awg	Sol/Str	Self-Torque	Self-Torque	600V	30 amp
Dottie DRC75	6-12 awg		Sol/Str	Snap-In	Snap-In		
ESP NG-53	4-6 awg	·	Sol/Str		45	2000V	
Loi NG-55	10-14 awg		Sol/Str		35		
ESP NG-717	4-6 awg		Sol/Str		45	00001/	
LSF NG-717	10-14 awg		Sol/Str		35	2000V	
Brumall 4-5,3	4-6 awg		Sol/Str		45		
Diditial 4-5,5	10-14 awg Sol/Str 35		200	V000			

Table 2: Minimum wire-bending space for conductors through a wall opposite terminals in mm (inches)

	Wires per terminal (pole)			
Wire size, AWG or kcmil (mm2)	1 mm (inch)	2 mm (inch)	3 mm (inch)	4 or More mm (inch)
14-10 (2.1-5.3)	Not Specified	-	-	-
8 (8.4)	38.1 (1-1/2)	-	-	-
6 (13.3)	50.8 (2)	-	-	-

ZEO ENERGY

ZEO ENERGY

7625 LITTLE RD. SUITE 200A, NEW PORT RICHEY, FL 34654

REVISION	S	
DESCRIPTION	DATE	REV
INITIAL DESIGN	04/17/2025	

PROJECT NAME & ADDRESS

RIBNICKY RESIDENCE 204 RYE BEACH RD HURON, OH 44839

DRAWN BY

SHEET NAME
JUNCTION BOX
DATASHEET

SHEET SIZE

ANSI B 11" X 17"

SHEET NUMBER

PD006

ezsolarproducts.com | info@ezsolarproducts.com | 385.202.4150

simple. **EZ**#SOLAR



APPLICATION FOR SOLAR PROJECTS

Submit one application per building or structure.

Type of Project:			
X Roof Top Units			
Ground Units			
Hot Water Heating System			
Building Integrated Photovoltaics - materials tha	t are integrated in to the outer surface or		
structure of a building and serve as the outer pro	_		
Off-Grid. Not using or depending on public utilitie	_		
Other			
*Electrical Production and Distribution Networks pleas	e contact the office beforehand.		
Building/Project Location			
Owner's Name Rother Rithmicky	Address 204 Rye Beach Rd		
City/State Huron, OH	Zip Code 44839		
Phone Number (419) 901-0711	Email bobbyribnicky@icloud.com		
* Has the proper application from the electric utility bea	en obtained and approvedYes No		
* Has this project received zoning approval	Yes X No		
* Is this project located with your local flood plain?	Yes X No		
Brief Description of the scope of the work covered un	der this application:		
INSTALL 4.920 KW DC ROOF MOUNT SOLAR P			
Contractor Information			
Name <u>Dennis St Clair</u> Address	S 7625 Little Rd Suite 200a		
City/State New Port Richey, FL 34654 Phone	(727) 375-9375		
Email Permitting@sunergysolar.com			
Email	-		
Required Submittal with this application:			
*Building permit application for a solar energy system or systems s	shall be accompanied by standard construction		
documents of the solar panel and related frame work, including but not limited to: the mounting hardware and			
attachment to the dwelling, building or structure, base and/or footings, etc. An engineering analysis showing compliance			
with the current adopted Ohio Builing Code, NEC, and Fire Code shall be prepared by a registered design professional			
and shall be submitted at the time of application. This analysis may be prepared by the manufacturer of the solar panel			
provided that he/she is a registered design professional in the State			
shall be sealed according to the State of Ohio Seal Law	·		

April 18, 2025

Zeo Energy

Contractor Address: 7625 Little Rd. Suite 200A, New Port

Richey, FL 34654

Subject: Proposed Solar Panel Installation

Robert Ribnicky Residence, 204 Rye Beach Rd, Huron, OH

DC System Size: 4.920 kW PV Letters Job #004-21719

To Whom it May Concern,

We have reviewed information, provided by our client, related to the proposed solar panel installation at the above-referenced address. The purpose of the review was to determine if the existing roof is structurally adequate for the proposed installation. Based on our review and analysis of the given information, and in accordance with governing building codes, I certify that the capacity of the structural roof framing that directly supports the additional gravity loading due to the solar panel supports and modules had been reviewed and determined to meet or exceed the requirements in accordance with the Design Criteria.

Design Parameter Summary

Governing Building Code: 2019 Residential Code of Ohio

Risk Category: II Wind Exposure: C

Design Wind Speed: 110 mph Ground Snow Load: 20 psf

Roof Information

Roof Structure: 2x4 Manufactured Trusses @ 24" O.C.

Roofing Material: Asphalt Shingles

Roof Slope: 10, 14 degrees

Roof Connection Details

Lag Screws: 1 screw, 5/16" dia min., with min. 2.5" embedment into roof truss top chord only, at 48" O.C. max Stagger attachments to avoid overloading any individual truss top chord.

Engineering Analysis

The proposed installation - including weight of panels, racking, mounts, and inverters where applicable - will be approximately 3 psf. In the areas where panels are installed, roof live loads will not be present. The reduction of roof live load is adequate to fully or partially compensate for the addition of the panel installation. Because the member forces in the area of the solar panels are not increased by more than 5%, and so per provisions in the adopted building codes, the structure need not be altered for gravity loading.

The proposed installation will be 6" max. above the roof surface (flush mounted) and parallel to the roof surface. Therefore, any increase in wind loading on the building structure from the solar panel installation is expected to be negligible. Wind is the governing lateral load case. Because the increase in lateral loading is not increased by more than 10%, per provisions in the adopted building codes, the structure need not be altered for lateral loading.

Wind uplift on the panels has been calculated in accordance with the relevant provisions of ASCE 7-16. This loading has been used to verify the adequacy of the connection specified above. Connection locations should be in accordance with design drawings.

SunModo SMR 100 rails will support the modules and will fasten to the roof structure with SunModo Nano Mount L-Foot along the rail.

Conclusion

The roof structure need not be altered for either gravity loading (including snow) or lateral loading (including wind). Therefore, the existing structure is permitted to remain unaltered. Connections to the roof must be made per the "Roof Connection Details" section above. Copies of all relevant calculations are enclosed.

Limitations and Disclaimers

The opinion expressed in this letter is made in reliance on the following assumptions: the existing structure is in good condition; the existing structure is free from defects in design or workmanship; and the existing structure was code-compliant at the time of its design and construction. These assumptions have not been independently verified, and we have relied on representations made by our client with respect to the foregoing. The undersigned has not inspected the structure for defects, although we have reviewed the information provided by our client, including pictures where applicable.

Electrical design is excluded from this analysis. Waterproofing is the sole responsibility of the installer and is also excluded from this analysis. Solar panels must be installed per manufacturer specifications. Structural design and analysis of the adequacy of solar panels, racks, mounts, and other components is performed by each component's respective manufacturer; the undersigned makes no statement of opinion regarding such components. This letter and the opinions expressed herein are rendered solely for the benefit of the permitting authority (city or county building department) and your office, and may not be utilized or relied on by any other party.

If you have any questions or concerns, please contact us at (208)-994-1680, or by email at Projects@pvletters.com.

Sincerely,

Trevor A. Jones, P.E.

4/18/2025



Standard Loading Comparison (Roof 1)

This calculation justifies the additional solar load by comparing existing to proposed gravity loads in the location of the solar panels.

	Without Solar	With Solar	
Dead Load			
Asphalt Shingles	5	5	psf
1/4" Plywood	1	1	psf
Framing	4	4	psf
Insulation	1	1	psf
1/2" Gypsum Ceiling	2	2	psf
M,E, & Misc	1.5	1.5	psf
Solar Panel	0	3	psf
Total Dead Load	14.5	17.5	psf
Snow Load			
Ground Snow Load, Pg	20)	psf
Exposure Factor, C _e	1.0	0	
Thermal Factor, C _t	1.1	1	
Importance Factor, I _s	1		
Flat Roof Snow Load	15	5	ASCE 7 Eqn. 7.3-1 or jurisdiction min.
Slope	14	1	degrees
Unobstructed Slippery Surface?	No	No	
Slope Factor, C _s	1.00	1.00	
Sloped Roof Snow Load	15.4	15.4	psf
Live Load			
Roof Live Load	20	0	psf
Load Combination			
D + Lr	34.5	17.5	psf
D + S	29.9	32.9	psf
Max. Load	34.5	32.9	psf
% of original		95.36%	_
D 1/	D 41 4 1 6	•	

Result: Because the total forces are decreased, per the relevant code provisions stated in the body of the letter, the existing roof structure is permitted to remain unaltered.



Lag Screw Calculation (per ASCE 7-16) (Roof 1)

This calculation justifies the connection of the solar panels to existing roof members, by showing the connection capacity is equal to or greater than the uplift force demands.

Connection Demand

Spacing perpendicular to rail, in	38	
Roof Angle, degrees	14	
Roof Layout	Gable	
Wind Speed, mph	110	
Exposure Coefficient, K _z	0.85	(Table 26.10-1)
Topographic Factor, K _{zt}	1.00	(Table 26.8.1)
Directionality Factor, K _d	0.85	(Table 26.6-1)
Elevation Factor, K _e	0.98	(Table 26.9-1)
Velocity Pressure q _z , psf	21.9	(Table26.10-1)

Zones:	<u>1</u>	<u>2n, 2r, 2e</u>	
	48	48	

Spacing parallel to rail, in	
GC _p (max)(Figure 29.4-7)	

Exposed Panels? ($\gamma_E = 1.5$) (Fig. 29.4-7)

Effective Wind Area on each con., ft²

Pressure Equalization Factor, γ_a (Figure 29.4-8)

Uplift Force, psf (Equation 29.4-7)

Max. Uplift Force / Connection (0.6 WL), lbs

Solar Dead Load (0.6 DL). Lbs

Max. Uplift Force (0.6 WL - 0.6 DL), lbs

<u>1</u>	2n, 2r, 2e	<u>3r, 3e</u>
48	48	48
2.00	2.86	3.42
No	No	No
12.6	12.6	12.6
0.76	0.76	0.76
33.2	47.4	56.8
251.7	359.4	430.2
22.7	22.7	22.7
229.0	336.7	407.5

Connection Capacity

Attachment FTG	SunModo Nano Mount L-Foot

Attachment location	Framing
Fastener Type	Lag Screw
Fastener Diameter, in	0.3125
Embedment Length, in	2.5

Nominal Withdrawal Capacity W, lbs

of Screws

Load Duration Factor C_d

Lumber Species & Grade

Screw Adj. Withdrawal Cap. W', lbs Attachment FTG Strength with Cd, lbs

Max applied load, lbs Max allowable load, lbs

0.0120	
2.5	
SPF #2 (Assum	ied)

407
819

Compare Adjusted Withdrawal Capacity to ASD Factored Demand

Zones:	<u>1</u>	2n, 2r, 2e	3r, 3e
	O.K.	O.K.	O.K.



Standard Loading Comparison (Roof 2 and 3)

This calculation justifies the additional solar load by comparing existing to proposed gravity loads in the location of the solar panels.

With Solar

Without Solar

	without Solar	with Solar	
Dead Load			
Asphalt Shingles	5	5	psf
1/4" Plywood	1	1	psf
Framing	4	4	psf
Insulation	1	1	psf
1/2" Gypsum Ceiling	2	2	psf
M,E, & Misc	1.5	1.5	psf
Solar Panel	0	3	psf
Total Dead Load	14.5	17.5	psf
Snow Load			
Ground Snow Load, Pg	20		psf
Exposure Factor, C _e	1.0	0	
Thermal Factor, C _t	1.1		
Importance Factor, I _s	1		
Flat Roof Snow Load	15		ASCE 7 Eqn. 7.3-1 or jurisdiction min.
Slope	10	1	degrees
Unobstructed Slippery Surface?	No	No	
Slope Factor, C _s	1.00	1.00	
Sloped Roof Snow Load	15.4	15.4	psf
Live Load			
Roof Live Load	20	0	psf
Load Combination			
D + Lr	34.5	17.5	psf
D + S	29.9	32.9	psf
Max. Load	34.5	32.9	psf
% of original		95.36%	
Doggalfe.	Dagayaa Aba AsAal C		and may the volument and

Result:

Because the total forces are decreased, per the relevant code provisions stated in the body of the letter, the existing roof structure is permitted to remain unaltered.



Lag Screw Calculation (per ASCE 7-16) (Roof 2 and 3)

This calculation justifies the connection of the solar panels to existing roof members, by showing the connection capacity is equal to or greater than the uplift force demands.

Connection Demand

Spacing perpendicular to rail, in	38	
Roof Angle, degrees	10	
Roof Layout	Gable	
Wind Speed, mph	110	
Exposure Coefficient, K _z	0.85	(Table 26.10-1)
Topographic Factor, K _{zt}	1.00	(Table 26.8.1)
Directionality Factor, K _d	0.85	(Table 26.6-1)
Elevation Factor, K _e	0.98	(Table 26.9-1)
Velocity Pressure q _z , psf	21.9	(Table26.10-1)

	Zones:	<u>1</u>	<u>2n, 2r, 2€</u>
il in		48	48

Spacing parallel to rail,	in
GC _p (max)(Figure 29.4	-7)

Exposed Panels? ($\gamma_E = 1.5$) (Fig. 29.4-7)

Effective Wind Area on each con., ft2

Pressure Equalization Factor, γ_a (Figure 29.4-8)

Uplift Force, psf (Equation 29.4-7)

Max. Uplift Force / Connection (0.6 WL), lbs

Solar Dead Load (0.6 DL). Lbs

Max. Uplift Force (0.6 WL - 0.6 DL), lbs

<u>1</u>	<u>2n, 2r, 2e</u>	<u>3r, 3e</u>
48	48	48
2.00	2.86	3.42
No	No	No
12.6	12.6	12.6
0.76	0.76	0.76
33.2	47.4	56.8
251.7	359.4	430.2
22.7	22.7	22.7
229.0	336.7	407.5

Connection Capacity

Attachment FTG	SunModo Nano Mount L-Foot
Attachment FIG	Suniviodo Nano iviount L-F

Attachment location	Framing
Fastener Type	Lag Screw
Fastener Diameter, in	0.3125
Embedment Length, in	2.5

Lumber Species & Grade Nominal Withdrawal Capacity W, lbs

of Screws

Load Duration Factor C_d

Screw Adj. Withdrawal Cap. W', lbs Attachment FTG Strength with Cd, lbs

Max applied load, lbs Max allowable load, lbs

	L
SPF #2 (Assum	ied)
512	
1	

312
1
1.6
819
1184

407
819

Compare Adjusted Withdrawal Capacity to ASD Factored Demand

Zones:	<u>1</u>	2n, 2r, 2e	<u>3r, 3e</u>
	O.K.	O.K.	O.K.



TO: Chairman Boyle and Members of the Planning Commission and Design Review Board

FROM: Christine Gibboney, Planning & Zoning Manager

RE: 720 River Road- Latanick Equipment- New Cold Storage Facility

DATE: June 18, 2025

Address: 720 River Road Zoning District: I-2- General Industrial Parcel No.: 42-01728.000 Existing Land Use: Fabrication & Machining

Traffic Considerations: River Road Owner: Latanick Realty LLC- Rick Poorman

PROJECT DESCRIPTION-Site & Design Plan Review- Cold Storage Facility

Applicant is proposing a new 7,200 sq.ft. cold storage structure to house finished and inprocess projects. The exterior will be tan with white trim, to match the existing structures on site.

APPLICABLE CODE SECTIONS:

1125.05 I-2 General Industrial

(f) Height Regulations. Same as specified in I-1 District:

1125.04 I-1 (f) Height Regulations. Within 100 feet of any R District, no structure shall exceed three stories or fifty feet in height, and no structure otherwise shall exceed in height the distance measured to the centerline of any adjoining street, except as provided in Section 1137.02 .

(g) <u>Lot Area, Frontage and Yard Requirements.</u> The following minimum requirements shall be observed, except as otherwise provided herein:

Lot Area	Lot Frontage	Front Yard Depth	Side Yard Depth	Rear Yard Depth
Nonresidential Structures - None	30 ft.	20 feet	None except when adjoining R or B-1 or B-2 District - then the otherwise specified distance requirements	1-story: 40 feet 2-story: 50 feet 3-story: 60 feet Five feet each additional story
Dwelling or residential parts of nonresidential buildings			Not permitted in District	

Existing dwellings:	Same as R-3	
---------------------	-------------	--

1133.03 Number of Parking Spaces Required.(1) Printing, publishing, storage, warehousing of goods, wholesale establishments: 1 space for each three (3) employees on a max shift or for 3000 sq. ft. of floor area, whichever is greater.

STAFF ANALYSIS/RECOMMENDATION

The location of the proposed 60×120 cold storage structure is compliant with the I-2 code for the rear yard min. depth requirement of 40' and the height regulations. There are no side yard depth requirements as the property does not adjoin R or B zoning districts. The proposed structure does not affect parking compliance, as the primary parking areas located at the front of the parcel meet the code requirement of 1133.03.

Staff would recommend the approval of the site and design plan as proposed.

Attachments:

• Application, Site Plans, Designs

Planning Commission (PC)

Commercial Site Plan Application/Design Approval-Exterior/Design-Signage Only

DATE:	
Property Owner	
Name:	
Address:	
Phone:	
Email:	
Applicant	
Name:	
Company/Business Name:	
Mailing Address:	
Phone:	
Email:	
Location and Description of Project	
Address:	County Parcel #:
Existing Use:	Acreage/Area of Site:
Proposed Use:	
Estimated Value of Project:	
=	molition ner:
ZONING & FLOOD ZONE DISTRICTS	
Zoning District: (R-1 R-1A R-2 R-3	B-1 B-2 B-3 I-1 I-2 P-1 MU)
Flood Zone: (A AE AO AH X-S	SHADED X)
escription of Project:	

SECTION 1. SITE DEVELOPMENT PLAN APPROVAL (SECTION 1139.01) *The application fee

of \$150.00 and a complete site development plan with the following information included:

A.SITE PLAN & SCALED DRAWINGS

- •Legal Survey or Plat Map
- •Dimensions of the Lot & Property Lines
- •Size and Location of the Existing Structure (if applicable)
- •Size and Location of the Proposed Structure
- Front, Rear, and Side Setbacks of Existing Structure (if applicable)
- •Front, Rear, and Side Setbacks of Proposed Structure
- •Height of the Proposed Structure•Existing and proposed land uses and the location of existing & proposed buildings and other accessory structures on the site.
- •Location of vehicular ingress& egress, parking spaces (both existing & proposed) and the dimensions of same. *Refer to code for parking requirements.
- •Extent and type of parking lot and driveway paving.
- •Location and dimensions of all pedestrian ways and/or sidewalks.
- •Location and size of all existing and proposed utilities
- •Complete building elevations and signage including color renderings of same
- •Lighting plan for the site including style and intensity of all parking lot and building mounted lighting. (Design Review)
- •Landscape Plan. *Refer to code for requirements. (Design Review)
- •The plan and method of disposing of all surface water from the development area; drainage plan shall be in accordance with Section 1115.03.

B.WRITTEN STATEMENT

- •A legal description of the site and state of the present ownership of all the land included within the site development area.
- •A statement of ownership (names & addresses) and the present use of all properties within 150' of the exterior boundaries of the subject development site.
- A general indication of the expected schedules and/or phases of development.

SECTION 2. STORMWATER/DRAINAGE/GRADING PLANS/SWPPP

DEVELOPEMENT PROJECTS DISTURBING LESS THAN 1 ACRE

Development Sites Under One (1) Acre in Size: Individual development sites that are larger than 8,000 square feet and smaller than one (1) acre (43,560 square feet) in total size of disturbed area, can submit abbreviated soil erosion and sediment control plans with the topography plan for the requested permit(s). Refer to Chapters 1315, 1317 of City Ordinances for complete plan information required.

DEVELOPMENT PROJECTS DISTURBING 1 OR MORE ACRES

The City Engineer and Erie Conservation will determine the deposit amount required for applicable plan reviews. Approval of the plans from the City Engineer and Erie Conservation are required before Zoning and/or Building Permits can be issued. Refer to Chapters 1115, 1117, 1313, 1315 for required plan details.

	Photographs of Existing Conditions
	Elevations of Proposed Modifications
	Paint or Color Samples
	Exterior Building Material Samples
	Landscape Plan
	Exterior Lighting Plan
	Commercial Signage- Site Plan, Colored Elevations, Description of sign materials, Illumination
specif	ications. Complete the table below:

		Sign Type						Dimensions			
Sign #1:	Wall	Window	Other:	Height		Width		Display Area		Height(if gro	und)
Jigii π1.	Ground	Changeable Co	ру		X		=		sq. ft.		ft.
		Sign Type						Dimensions			
Sign #2:	Wall	Window	Other:	Height		Width		Display Area		Height(if gro	und)
Jigii #2.	Ground	Changeable C	ору		X		=		sq. ft.		ft.
		Sign Type (c	ircle)					Dimensions			
Sign #3:	Wall	Window	Other:	Height		Width		Display Area		Height(if gro	und)
Jigii πJ.	Ground	Changeable C	ору		X		=		sq. ft.		ft.
			l .								
		Sign Type (c	ircle)					Dimensions			
Sign #4:	Wall	Sign Type (c	Other:	Height		Width		Dimensions Display Area		Height(if gro	und)

\$50.00	and compl			OMMERCIAL llowing inform							
_	•		etback dimens ith detail of di	sions mensions, con	strı	ıction m	ate	rials, grapl	hics, il	llumination	1
		Sign Type (circle)				Ì	Dimensions			
Sign #1:	Wall	Window	Other:	Height		Width		Display Area		Height (if gro	ound)
Jigii π1.	Ground	Changeable (Сору		X		=		sq. ft.		ft.
		Sign Type (circle)					Dimensions			
Sign #2:	Wall	Window	Other:	Height		Width		Display Area		Height (if gro	ound)
0.8	Ground	Changeable C	ору		X		=		sq. ft.		ft.
		Sign Type (circle)					Dimensions			
Sign #3:	Wall	Window	Other:	Height		Width		Display Area		Height (if gro	ound)
	Ground	Changeable (Сору		X		=		sq. ft.		ft.
		Sign Type (circle)				Ī	Dimensions			
Sign #4:	Wall	Window	Other:	Height		Width		Display Area		Height (if gro	ound)
	Ground	Changeable (Сору		Х		=		sq. ft.		ft.
Plan re Buildi must k 419-4	eview and S ng Permits be registere 33-5000 ex	Storm Water may be requed with the Ca t. 1302 OR 1	/Erosion Cont ired, associate ity. Contact th 303.	anning Commistrol Plan reviewed permit fees ne Planning and PIRE 1 YEAR F	w, a will d Zo	ssociate l apply. oning De	d fe All pa	ees will ap Contractortment wit	ply. Zo ors on th any	oning and/ your proje questions:	or
	— wor app regu	k is authoriz lication as ar ılations, and	ed by the owr authorized a ordinances. A	owner of record and gent, and we a ll information and accurate	nd/ gre con	or I have e to conf tained v	e be forr	een author n to all app nin this app	ized to olicab olicati	o make this le laws, on and	
Appl	icant Signa	ture:						D	ate: _		
Own	er Signatur	e:						D	ate:		
For I)epartmen	tal Use Only		_							
Date	of Submissi	on:	Application	Fee:		_ PC M	eet	ing Date:			











TO: Chairman Boyle and Members of the Planning Commission and Design Review Board

FROM: Christine Gibboney, Planning & Zoning Manager

RE: 225 Williams- First Presbyterian Church

DATE: June 18, 2025

225 Williams Parcel No.: 42-00884.000 Zoning: R-2

Existing Land Use: First Presbyterian Church

Property Size: Property is comprised of 6 separate parcels

Traffic Considerations: Cleveland Road West, Center Street, Williams Street

PROJECT DESCRIPTION

The applicant, Christ Community Meal Soup Kitchen, operating out of the First Presbyterian Church, is seeking to add an outdoor walk-in cooler/freezer addition to the existing kitchen area of the facility. The walk-in cooler/freezer will only have access from the interior of the kitchen.

APPLICABLE CODE SECTIONS:

1123.03 R-2 ONE AND TWO-FAMILY RESIDENCE DISTRICT.

(a) Principal Uses Permitted. Any principal use permitted and as regulated in the R-1 District, and as hereinafter specified in this section: Two-family dwellings. Churches and other places of worship and Sunday school buildings located no less than twenty feet from any other lot in any R District.

STAFF ANALYSIS/RECOMMENDATION

The parcel is one of six that comprises the First Presbyterian Church complex. The location is bordered by three public roadways: Williams Street, Cleveland Road West, and Center Street. The parcels are all zoned Residential, some being R-2 and others R-3. The parcel where the proposed cooler/freezer will be installed is zoned R-2. The abutting residential property along Williams and Center Streets are also zoned R-2. The proposed location of the cooler/freezer does not affect parking requirements.

This application required a variance through the BZA as the proposed addition did not meet the 20' distance requirement to lot lines specified in Section 1123.03. The BZA approved of the variance to the side yard setback at their regular meeting of June 9, 2025 (Finding of Fact attached).

The proposed walk-in cooler/freezer addition will have a setback of 9'-8" from the side yard and will be placed on a new concrete slab. The location of this cooler/freezer will face the rear yards of the abutting residential homes on Williams and Center; each have accessory structures in this location. The exterior surrounding the cooler will be screened with tall, fast-growing Arborvitae.

With the variance approved, the proposed location will comply with 1123.03 for setback regulations and proposed Arborvitae will provide for screening of the cooler/freezer.

Staff would recommend approval of the site and design plans as proposed.

Attachments:

• Application, Site Plans, Designs



June 10, 2025

First Presbyterian Church 225 Williams Street Huron OH 44839

BEFORE THE BOARD OF BUILDING AND ZONING APPEALS OF THE CITY OF HURON, OHIO

IN THE MATTER OF:

Address:225 Williams Street Zoning District: R-2 Parcel No.: 42-00884.000 Christ Community Meal- First Presbyterian Church

Project Description:

The applicant is proposing a walk-in cooler to be installed in the kitchen area of the structure. The cooler/freezer will store bulk foods and donations for the Christ Community Kitchen which serves the needy in the community. Access to this cooler will be from the inside of the kitchen, however, the unit will be an addition to the exterior. The cooler addition will be setback 9'-8" from the side property line.

As proposed, the following variance is required:

• 10'-4" variance to Section 1123.03 (a) requirement of a 20'setback

Upon evidence presented at a public hearing held in the Council Chambers at Huron City Hall, 417 Main Street, Huron, OH 44839 at 5:30p.m. on Monday, June 10, 2025 the BZA Board took the following action:

A motion was made and seconded, to approve the area variance request, as proposed, citing the testimony presented has shown:

- The essential character of the neighborhood would not be substantially altered and/or the adjoining properties would not suffer a substantial detriment as a result of the variance.
- The variance would not adversely affect the delivery of governmental services
- The spirit and intent behind the zoning requirement would be observed, substantial justice done by granting the variance.

With a 5-0 Vote, the motion passed, and the variance request approved as submitted.



EXPIRATION OF VARIANCES

Area Variances: Construction must commence within 1 year from the date of the BZA approval or the variance will expire and reapplication to the BZA required.

Use Variances: If a Use is established and the use is discontinued for any reason for a period of one year, the permit becomes void. Reapplication to the BZA would be required.

APPEAL

1139.04 (e) Any person(s) jointly or severally aggrieved by the decision of the BZA may appeal to the Court of Common Pleas; must be filed within 30 days after the filing of the decision.

Sincerely,

Alec Romick, Zoning Inspector

Retain this document with your property records/deed.

Planning Commission (PC)

<u>Commercial Site Plan Application/Design Approval-Exterior/Design-Signage Only</u>

DATE: <u>5-27-25</u>	
Property Owner	
Name: 1st Presbyterian Church	
Address: 225 Williams Street, Huron, OH 44839	
Phone: 419-602-0656	
Email: cseirons@aol.com	
Anulianut	
Applicant Obristie Firons	
Name: Christie Eirons Company/Business Name: Christ Community Meal - So	nun Kitchen
Mailing Address: 225 Williams St, Huron, OH 44839	rap raction
Phone: 419-602-0656	
Email: cseirons@aol.com	
Liliali.	
Location and Description of Project	
Address: 225 William Street, Huron	County Parcel #: 42-00884.000
Existing Use: Church	Acreage/Area of Site:
Proposed Use: Church	Lot # (if applicable):
Estimated Value of Project: \$50,000	Total SF: 96 sqft Walk-in cooler/freezer
New Construction Do	emolition
Addition to Existing Structure	ther: Outdoor walk-in cooler/freezer
ONING & FLOOD ZONE DISTRICTS	
oning District: R-2 (R-1 R-1A R-2 R-3	B-1 B-2 B-3 I-1 I-2 P-1 MU)
lood Zone: (A AE AO AH X-	-SHADED X)
escription of Project:	
dition of an outdoor mounted walk-in cooler/freezer on new concrete slab per drawings a	
•	

SECTION 1. SITE DEVELOPMENT PLAN APPROVAL (SECTION 1139.01) *The application fee of \$150.00 and a complete site development plan with the following information included:

A.SITE PLAN & SCALED DRAWINGS

- •Legal Survey or Plat Map
- •Dimensions of the Lot & Property Lines
- •Size and Location of the Existing Structure (if applicable)
- •Size and Location of the Proposed Structure
- Front, Rear, and Side Setbacks of Existing Structure (if applicable)
- Front, Rear, and Side Setbacks of Proposed Structure
- •Height of the Proposed Structure•Existing and proposed land uses and the location of existing & proposed buildings and other accessory structures on the site.
- •Location of vehicular ingress& egress, parking spaces (both existing & proposed) and the dimensions of same. *Refer to code for parking requirements.
- •Extent and type of parking lot and driveway paving.
- •Location and dimensions of all pedestrian ways and/or sidewalks.
- Location and size of all existing and proposed utilities
- •Complete building elevations and signage including color renderings of same
- •Lighting plan for the site including style and intensity of all parking lot and building mounted lighting. (Design Review)
- Landscape Plan. *Refer to code for requirements. (Design Review)
- The plan and method of disposing of all surface water from the development area; drainage plan shall be in accordance with Section 1115.03.

B.WRITTEN STATEMENT

- •A legal description of the site and state of the present ownership of all the land included within the site development area.
- •A statement of ownership (names & addresses) and the present use of all properties within 150' of the exterior boundaries of the subject development site.
- •A general indication of the expected schedules and/or phases of development.

SECTION 2. STORMWATER/DRAINAGE/GRADING PLANS/SWPPP

DEVELOPEMENT PROJECTS DISTURBING LESS THAN 1 ACRE

Development Sites Under One (1) Acre in Size: Individual development sites that are larger than 8,000 square feet and smaller than one (1) acre (43,560 square feet) in total size of disturbed area, can submit abbreviated soil erosion and sediment control plans with the topography plan for the requested permit(s). Refer to Chapters 1315, 1317 of City Ordinances for complete plan information required.

DEVELOPMENT PROJECTS DISTURBING 1 OR MORE ACRES

The City Engineer and Erie Conservation will determine the deposit amount required for applicable plan reviews. Approval of the plans from the City Engineer and Erie Conservation are required before Zoning and/or Building Permits can be issued. Refer to Chapters 1115, 1117, 1313, 1315 for required plan details.

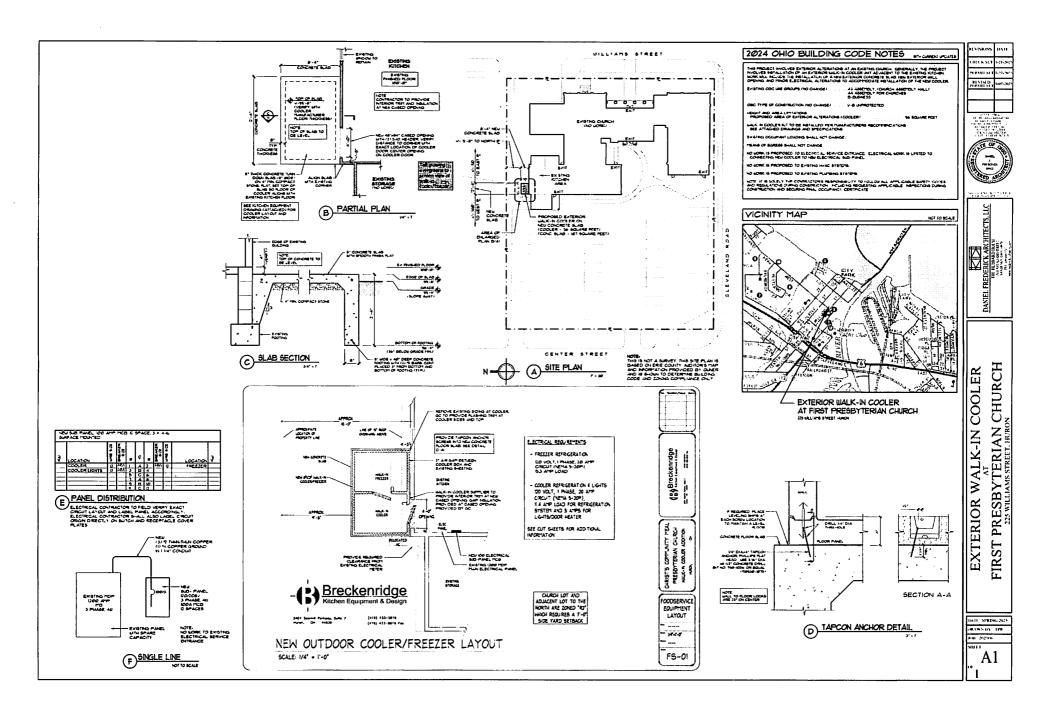
SECTION 3. DESIGN APPROVAL (EXTERIOR, LANDSCAPING, LIGHTING, SIGNAGE) *

The application fee of \$150.00 and complete plans to include the following information must be included with this application and provided in a PDF format.

- <u>x</u> Photographs of Existing Conditions
- <u>x</u> Elevations of Proposed Modifications
- NA Paint or Color Samples
- <u>x</u> Exterior Building Material Samples
- x Landscape Plan
- NA Exterior Lighting Plan
- <u>NA</u> Commercial Signage- Site Plan, Colored Elevations, Description of sign materials, Illumination specifications. Complete the table below:

		Sign Type				CIP/E	Dimensions		3.6
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		Sign Type					Dimensions		
Sign #2:	Wall	Window Other:	Height	ON PERSONAL PROPERTY.	Width		Display Area		Height (if ground)
	Ground	Changeable Copy		Х		=		sq. ft.	ft.
		Sign Type (circle)			76		Dimensions		
Sign #3:	Wall	Window Other:	Height		Width		Display Area		Height (if ground)
Sign #3:	Wall Ground	Window Other: Changeable Copy	Height	Х	Width	=	Display Area	sq. ft.	Height (if ground)
Sign #3:	-		Height	X	Width		Display Area Dimensions	sq. ft.	
Sign #3:	-	Changeable Copy	Height Height	X	Width			sq. ft.	

		te plans to DF format.	include the follo	MMERCIAL owing inform	SI(n must l	be i	NLY) * The ncluded w	ith thi	olication fee is applicatio	of
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		Sign Type ((circle)					Dimensions			
	Wall	Window	Other:	Height		Width		Display Area		Height(ifgrou	ind)
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	Wall	Window	Other:	Height		Width		Display Area		Height(ifgrou	ind)
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	Wall	Window	Other:	Height	П	Width		Display Area		Height(ifgrou	ınd)
n #3:	Ground	Changeable	Сору		Х		=		sq. ft.		ft.
		Sign Type	(circle)					Dimensions			
	Wall	Window	Other:	Height		Width		Display Area		Height(ifgrou	and)
n #4:	Ground	Changeable	Copy		Х		=		sq. ft.		ft.
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PPRO	VAL FROM			e Planning an	d Zo	oning De	epa	rtment wit	h any	questions:	
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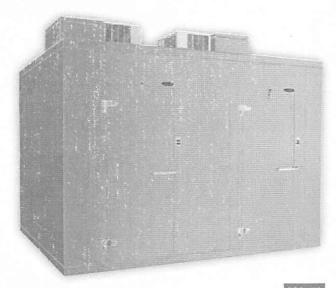




ITEM NO	
PROJECT	* 1 To 1 T
LOCATION	
DATE	QTY

FAST-TRAK®

Walk-In Coolers & Freezers With Matching Refrigeration Systems





OPTIONS

(Most options available two weeks from receipt of order. Please contact us for specific questions.)

- ☐ Outdoor membrane roof systems
- ☐ Door rain hoods
- ☐ Interior and/or exterior 30" high stainless steel or aluminum diamond tread door kick plates
- ☐ Exterior ramp for floor models
- ☐ Interior ramps (30" & 36" wide) for floor models
- ☐ Leak detector/alarm (may be a requirement in some areas)
- ☐ Extra LED lights (shipped loose)
- ☐ Strip curtains (shipped loose)
- ☐ Non-skid floor strips (shipped loose)
- ☐ Shelving systems
- □ 1-5/8" screed for use with 5/8" tile after walk-in installation
- ☐ 14" x 24" viewport

FEATURES

- · Unlimited lengths in 1' increments
- Available in widths of 6', 7', 8', 9', 10', 11' & 12'
- Heights: 6'7", 7'7" and 8'7" with floor, 7'4" and 8'4" floorless for single compartment and combinations
- Heights: 7'7" and 8'7" combination with floor freezers and less floor coolers with 4-3/8" foam sealers
- · Indoor or outdoor models
- Available with Split-Pak™ remote refrigeration systems or Capsule Pak™ and Capsule Pak ECO™ self-contained systems (systems ordered separately; Capsule Pak and Capsule Pak ECO systems applicable to single compartment walk-ins under 14¹ in length)
- Temperatures: +37°F, -10°F
- Full 4" thick panels foamed-in-place with EPA-compliant polyurethane insulation
- 26 gauge corrosion resistant stucco embossed coated steel on all surfaces except interior floor
- Smooth aluminum interior floor (models with floor)
- Floorless models supplied with NSF listed vinyl sealers
- 26", 30" or 36" wide self-closing doors
- Deadbolt locking handle with independent key/padlock feature and inside safety release
- Two heavy duty cam-lift hinges per door, top hinge field adjustable with locking set screw
- · Spring loaded hinge and spring actuated door closer
- · Magnetic gasket
- · Combination digital thermometer and light switch
- · Floor double sweep gasket
- · Perimeter door heater wire
- · Heated air vents standard in freezer door sections
- High output low profile LED light positioned above door to prevent interference with shelving or product
- NSF listed, UL flame spread 25 or less for all foam cores on all panels; UL electrical listing on door sections
- UL & C-UL electrical listing on refrigeration systems*
- UL NCKL listed certifying compliant walk-ins are ignition protected
- · City of Houston listed
- · CN UL flame spread listed
- · California State listed
- Oregon State listed
- USDA accepted
- 15 year panel warranty
- · 18 months parts and labor warranty

^{*} C-UL is Underwriters Laboratories Safety Certification Mark which indicates that UL has tested the equipment to applicable CSA Standards

WALK-IN SPECIFICATIONS

Fast-Trak walk-ins are built of modular panels, and are insulated with foamed-in-place EPA- compliant polyurethane insulation. Each panel is designed to ensure ease of installation, long term reliability and high insulating efficiency.

A. All panels are manufactured with male and female mating rails to ensure proper alignment during installation. The polyurethane insulation wraps around the return bend metal seams on both sections to create a lightweight panel of exceptional strength and durability. All panels are a full (4) inches thick and provide a superior insulating value.

Insulation:

Panels to be four (4) inches thick, metal clad and foamed-inplace with EPA-compliant polyurethane insulation.

The minimum R-values for 4" HFO panels are:

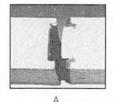
· Cooler:

Walls/CeilingsR-value	25
DoorsR-value	25

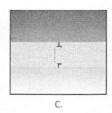
• Freezer:

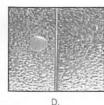
Walls/Ceilings	R-value	32
Doors	R-value	32
Floors	R-value	28

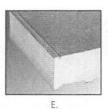
- B. The foamed-in-place cam locking fasteners ensure an airtight seal for maximum energy efficiency.
- C. Fast-Trak panel gaskets around the outer perimeter of the panel are continuous, without cuts or breaks at corners. Because gaskets are foamed-in-place as an integral part of the panel, they cannot fall off or pull off during shipment or installation.
- D. Panels lock together tightly to assure an energy efficient walk-in.
- E. Edge caps for ends of floor and ceiling panels are foamed-in-place rather than overlapped or mechanically fastened. Edge caps cannot come loose, and they stay in place through the life of the walk-in.
- F. Panel Finishes: Interior and exterior complete to be 26 gauge corrosion resistant stucco embossed coated steel. Models supplied with a floor will include a smooth aluminum interior floor surface.

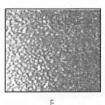




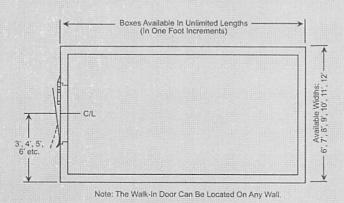


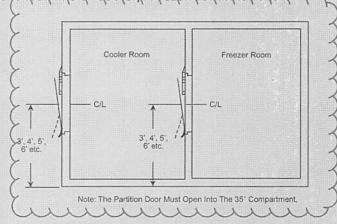






Fast-Trak Walk-ins Available in Both Single Compartment-Walk-ins-or-Cooler/Freezer Combinations





DOOR

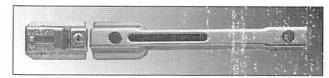
Door sections are factory tested to assure proper fit, performance and alignment. All doors feature a stepped profile design that serves as a barrier to air flow which results in an energy efficient door system.

Each Fast-Trak Remote walk-in compartment is equipped with a 26", 30" or 36" wide door opening. The height of the door opening varies with the series of Fast-Trak walk-in ordered. The 45 Series has a 59" high door, the Standard Series (6'7" high) has a 66" high door opening and the 74 and 77 Series Fast-Trak walk-ins have a 78" high door opening. The door is self-closing, flush mounted, infitting and constructed to incorporate heavy duty, molded ABS breaker which is permanently foamed-in-place.

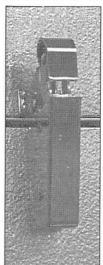
Doors are available with right or left side hinges and include two field adjustable cam-lift hinges with locking set screw, top hinge spring loaded, spring actuated door closer, NL9800 deadbolt locking handle with independent key/padlock feature and inside safety release. The doors are pre-hung in a four foot wide frame panel which is equipped with replaceable perimeter heater wire, magnetic stainless steel trim, digital thermometer, above door LED light fixture and switch with exterior pilot indicator light.

The door section is completely pre-wired within concealed conduit inside the door frame panel. 120/60/1 electrical is field wired to a junction box which is surface mounted on the interior frame above the LED light fixture. Door sections are 4" thick, metal clad and foamed-in-place with EPA- compliant polyurethane insulation.

Hinges and door handle are mounted to heavy-duty tapping plates. Each door section is complete with a fiberglass reinforced plastic heated threshold.



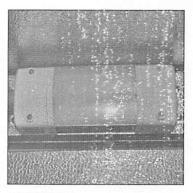
Deadbolt-locking handle



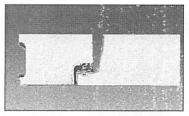
Spring actuated door closer



Digital thermometer/ light switch



LED light fixture



Doors feature a stepped profile design

Doors designed and certified for use in walk-in cooler applications

DOOR MODEL NUMBER	ENERGY CONSUMPTION (KWH/DAY)	DOOR SURFACE AREA (SQ. FT.)	ELECTRICAL	WATTS	AMPS
KL26X59	2.30	12.00	120/60/1	97.73	0.81
KL26X66	2.37	13.40	120/60/1	100.80	0.84
KL26X78	2.49	15.80	120/60/1	106.07	0.88
KL30X66	2.46	15.27	120/60/1	102.56	0.85
KL30X78	2.60	18.00	120/60/1	107.80	0.90
KL36X66	2.60	18.06	120/60/1	105.20	0.88
KL36X78	2.76	21.29	120/60/1	110.50	0.92

Doors designed and certified for use in walk-in freezer applications

DOOR MODEL NUMBER	ENERGY CONSUMPTION (KWH/DAY)	DOOR SURFACE AREA (SQ. FT.)	ELECTRICAL	WATTS	AMPS
KL26X59	6.48	12.00	120/60/1	189.69	1.58
KL26X66	6.68	13.40	120/60/1	196.07	1.63
KL26X78	7.01	15.80	120/60/1	207.07	1.73
KL30X66	6.94	15.27	120/60/1	199.75	1.66
KL30X78	7.32	18.00	120/60/1	210.80	1.76
KL36X66	7.33	18.06	120/60/1	205.25	1.71
KL36X78	7.78	21.29	120/60/1	216.30	1.80



CAPSULE PAK ECO™

Self-Contained Refrigeration Systems With Natural Refrigerant

INDOOR COOLERS

☐ CPB050PC-S-0

☐ CPB075PC-S-0

☐ CPB100PC-S-0

INDOOR FREEZERS

CPF050PC-S-0

☐ CPF075PC-S-0

☐ CPF100PC-S-0☐ CPF150PC-S-4

☐ CPF175PC-S-4

OUTDOOR COOLERS

☐ CPB050PC-E-0

☐ CPB075PC-E-0

☐ CPB100PC-E-0

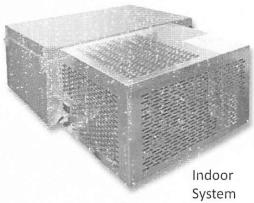
OUTDOOR FREEZERS

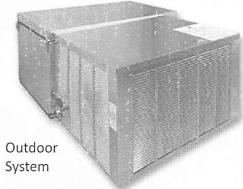
☐ CPF050PC-E-0

☐ CPF075PC-E-0

☐ CPF100PC-E-0☐ CPF150PC-E-4

☐ CPF175PC-E-4













FEATURES

- Condensing unit and evaporator coil contained in a single housing ready to mount on top of your Norlake walk-in
- · Indoor and outdoor ceiling mount models
- · Available for coolers or freezers
- Systems may be specified for walk-in rooms 14' long and under
- Two temperatures: +37°F and -10°F
- · Air cooled condensing unit
- Automatic condensate evaporator on indoor systems
- LogiTemp® electronic controller system
- Electronic control provided for automatic defrost on both coolers and freezers
- All models feature standard cord and plug eliminating the need for field connection
- Outdoor coolers incorporate a patent pending heater design for low ambient conditions to keep walk-in temperatures at the set point
- UL and C-UL electrical listing on complete Capsule Pak ECO refrigeration systems*
- · DOE, CARB and SNAP compliant
- 18 months parts and labor warranty (optional 5 year compressor warranty available)

OPTIONS

· Five year compressor warranty

^{*} C-UL is Underwriters Laboratories Safety Certification Mark which indicates that UL has tested the equipment to applicable CSA Standards.

CAPSULE PAK ECO™ REFRIGERATION SYSTEM SPECIFICATIONS

Capsule Pak ECO™ refrigeration systems consist of a single assembly pre-charged condensing unit and evaporator coil factory assembled, wired, tested and ready for insertion into a factory prepared walk-in ceiling opening. All systems are UL and C-UL listed and DOE compliant.

Capsule Pak ECO systems are ceiling mount and available for indoor or outdoor installations. Models are available for interior compartment design temperatures of +37°F and -10°F. Installation is fast and easy with no plumbing required on indoor units.

A flush evaporator coil keeps all components outside the walk-in storage area allowing more storage inside. The

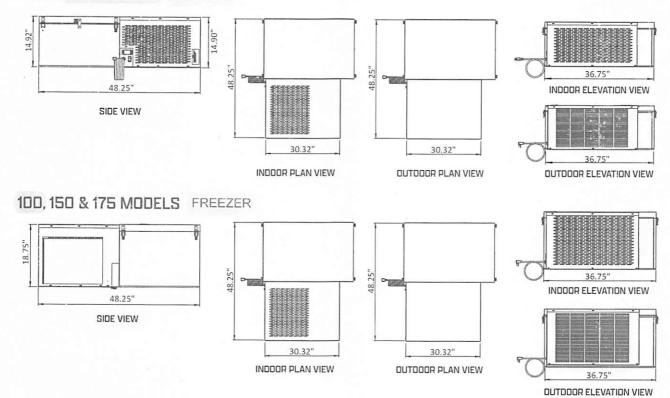
evaporator enclosure is constructed utilizing foamedin-place polyurethane insulation and equipped with a removable, gasketed access cover. High efficiency EC evaporator fan motors circulate air throughout the walk-in.

Indoor Capsule Pak ECO models incorporate a condensate pan with wicking pads and forced air from the condenser fan to evaporate condensate. Outdoor models feature crankcase heaters for low ambient conditions.

Note: Allow minimum of 4" clearance above and 24" on each side of the system for installation. Consideration should be given to accessibility for service and free condenser air flow. Consult factory with installation questions.

REFRIGERATION SYSTEM PHYSICAL SPECIFICATIONS

050 & 075 MODELS COOLER



NOTE:

- · Consideration must be given to accessibility for service and free condenser air flow. Consult factory with installation questions.
- Proper condensing unit ventilation must be provided. The factory recommends 200cfm of fresh air in the surrounding area with ample clearance around the condensing unit.
- Subject to change without notice.

SYSTEM TECHNICAL DATA

HNDOOR REFRIGERATION SYSTEMS (CORD AND PLUG CONNECTED)

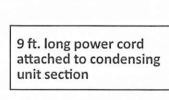
MODEL	REFRIGERANT	REFRIGERANT .	ELECTRICAL	TOTAL SYSTEM AMPS	NEMA PLUG	AWEF	BTUH*	SHIP WT. (LB/KG)
CPB050PC-S-0	R290	5.25	115/60/1	6.9	5-15P	5.61	4100	192/87
CPB075PC-S-0		9.5**	115/60/1	11.4	5-20P	5.61	6700	214/97
CPB100PC-S-0		10.5***	115/60/1	15.3	5-20P	5.61	8800	257/117
CPF050PC-S-0		5.25	115/60/1	6.9	5-15P	1.96	1600	197/89
CPF075PC-S-0		9.5**	115/60/1	11.4	5-20P	2.07	2900	219/99
CPF100PC-S-0		10.5***	115/60/1	15.3	5-20P	2.14	3600	262/119
CPF150PC-S-4		10.5***	230/60/1	7.4	6-15P	2.21	4400	262/119
CPF-175PC-S-4		10.5***	230/60/1	10.7	6-15P	2.38	6350	375/170

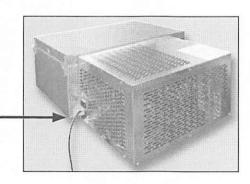
OUTDOOR REFRIGERATION SYSTEMS (CORD AND PLUG CONNECTED)

FREEZER

REFRIGERANT TOTAL SYSTEM SHIP WT. MODEL REFRIGERANT CHARGE (OZ) ELECTRICAL **NEMA PLUG** AWEF BTUH* (LB/KG) CPB050PC-E-0 5.25 115/60/1 6.9 5-15P 7.6 206/93 4100 COOLER CPB075PC-E-0 9.5** 115/60/1 11.4 5-20P 7.6 6700 228/103 CPB100PC-E-0 10.5*** 115/60/1 15.3 5-20P 7.6 8800 271/123 CPF050PC-E-0 5.25 115/60/1 6.9 5-15P 2.84 1600 211/95 R290 CPF075PC-E-0 9.5** 115/60/1 11.4 5-20P 2.91 233/105 2900 CPF100PC-E-0 10.5*** 115/60/1 15.3 5-20P 2.96 3600 276/125 CPF150PC-E-4 10.5*** 230/60/1 7.4 6-15P 3.01 4400 276/125 CPF175PC-E-4 10.5*** 230/60/1 10.7 6-15P 3.12 6300 390/177

- · Consult factory for application specifics
- All Capsule Pak ECO systems require a single power supply.



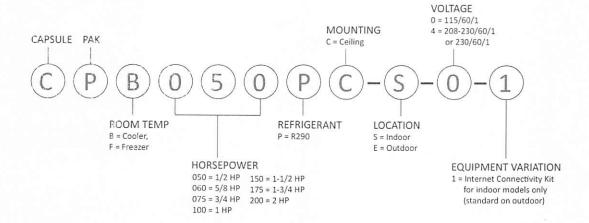


^{*}BTUH calculated using 90°F ambient.

^{**}Two compressors using 4.75 oz each.

^{***}Two compressors using 5.25 oz each.

MODEL NUMBER GUIDE



STANDARD LOGITEMP® ELECTRONIC CONTROLLER SYSTEM



FOOD SAFETY

- More precise and reliable controls than an all-mechanical system for increased food safety
- Should there be an issue with the refrigeration system, operators will know instantly through error codes and data provided online

ENERGY SAVINGS

- Demand Defrost technology initiates defrosts only as needed for further energy savings
- Defrost time, when intiated, is also greatly shortened.
 Shorter defrost times also help protect food integrity.

INSTALLATION SAVINGS

 LogiTemp is already installed on the Capsule Pak refrigeration system so no additional installation is necessary

CONNECTIVITY

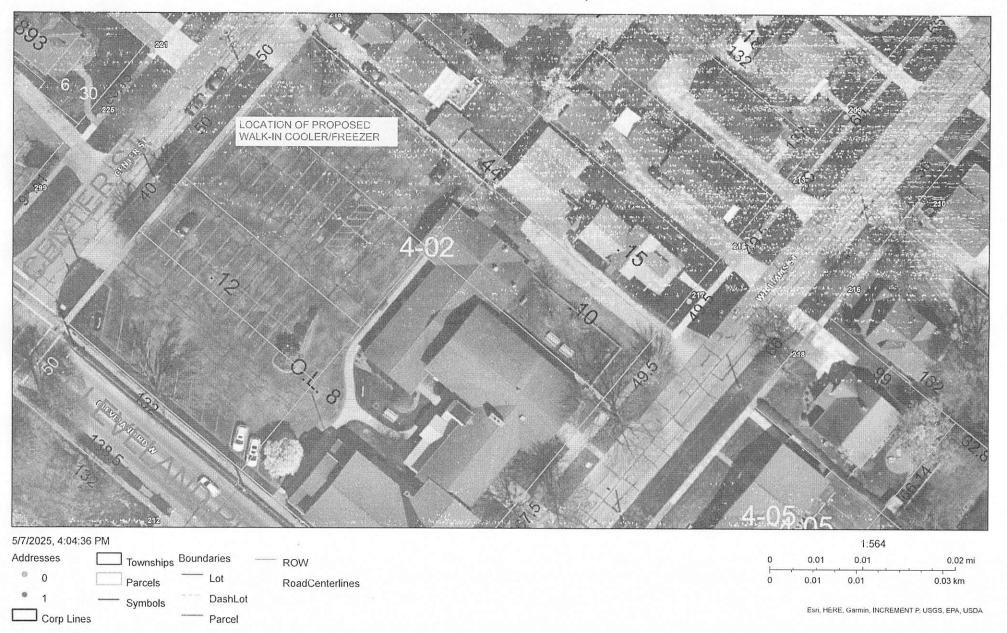
(standard feature on outdoor systems, optional on indoor)

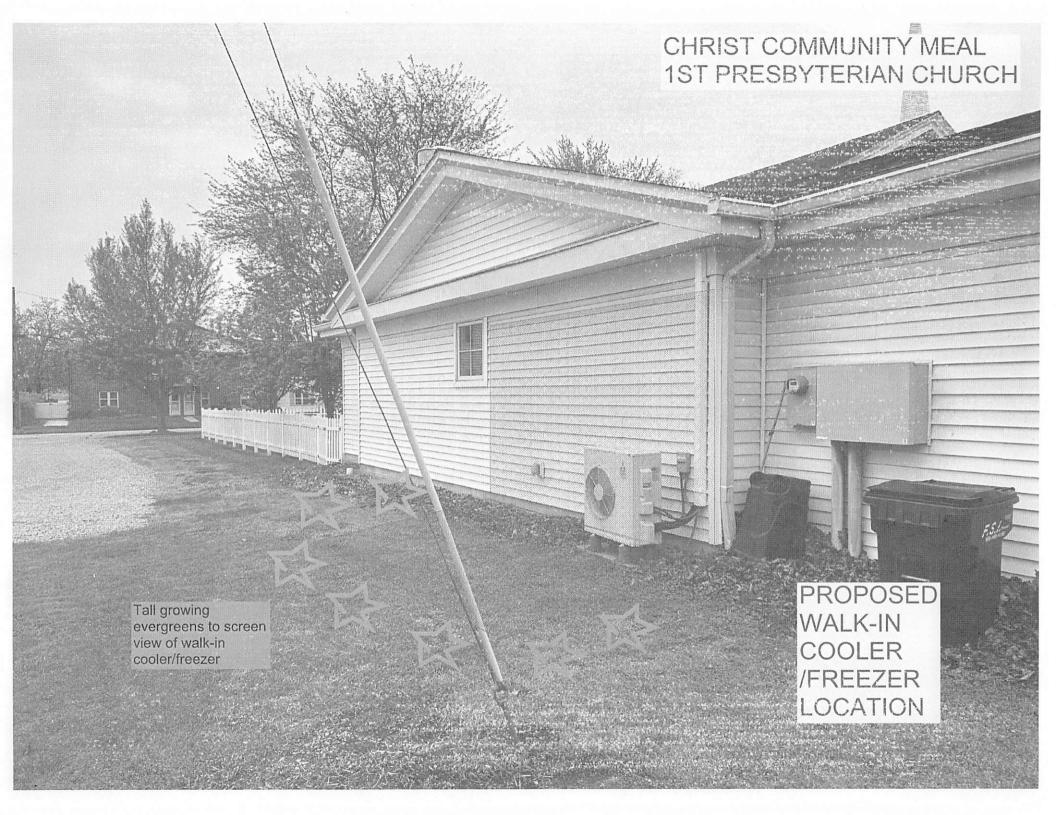
- Software loaded on each controller allows remote monitoring and programming using any device with a wireless internet or cabled (cat 5) connection*
- No need for a service tech to climb onto a roof or enter the walk-in to monitor or adjust the refrigeration system
- Constant data access allows users to improve refrigeration performance and avoid service issues
- *Requires converter kit sold separately.
- Part no. 002768 converter kit for CAT5 connection
- Part no. 002769 converter kit for wifi connection Each converter can monitor up to 32 controls.

NOTE: All specifications within this publication subject to change without notice.



ArcGIS Web Map







TO: Chairman Boyle and Members of the Planning Commission and Design Review Board

FROM: Christine Gibboney, Planning & Zoning Manager

RE: Public Hearing: Rezoning Application – River Road (3) Vacant Parcels from I-2 to B-3

DATE: June 18, 2025

Zoning District: I-2- General Industrial Parcel No.: 42-01720.000, 42-

01720.001, & 42-01719.000.

Existing Land Use: Vacant land, 3 separate parcel approximately XX acres

Traffic Considerations: River Road/Cleveland Rd E

Owner: OJD Holdings LLC (Joe Dike)

Project Description-Rezoning of vacant parcels from I-2 to B-3

Applicant seeks approval for the rezoning of three vacant parcels of on River Road from the current I-2 General Industrial to B-3 General Business in anticipation of proposed principal uses prohibited by I-2 but allowed as principal uses within B-3. The applicant explained to staff a developer is interested in constructing a recreational/sports facility on one of the parcels.

APPLICABLE CODE SECTIONS:

1139.06 ZONING DISTRICT CHANGES AND ZONING REGULATION AMENDMENTS.

- (a) Council May Amend Zoning Ordinance. Whenever the public necessity, convenience, general welfare or good zoning practice require, Council may by ordinance, after recommendation thereon by the Planning Commission and subject to the procedure provided in this section, amend, supplement or change the regulations, district boundaries or classifications of property, now or hereinafter established by this chapter or amendments thereof. The Planning Commission shall submit its recommendations regarding all applications or proposals for amendments or supplements. An amendment, supplement, reclassification or change may be initiated by the Commission on its own motion or by a verified application of one or more of the owners or lessees of property within the area proposed to be changed or affected by this chapter. This only applies to content based
- (b) Procedure for Change. Applications for change of district boundaries or classifications of property as shown on the Zoning Map shall be submitted to the Commission (with a copy provided to the Clerk of Council), which Commission shall be allowed a reasonable time, not less than thirty days, for submitting its recommendations on

a proposed amendment or reclassification to Council. Each such application shall be verified by at least one of the owners or lessees of property within the area proposed to be reclassified, attesting to the truth and correctness of all facts and information presented with the applications. Applications for amendments initiated by the Commission itself shall be accompanied by its own motion pertaining to such proposed amendment.

- (1) List of property owners. Any person or persons desiring change in the zoning classification of property shall file with the application for such change a statement giving the names and addresses of the owners of all properties lying within 100 feet of any part of the exterior boundaries of the premises the zoning classification of which is proposed to be changed.
- (2) Notice and hearing. Before submitting its recommendations on a proposed amendment or reclassification to Council, the Commission may hold a public hearing thereon, notice of which shall be given by one publication in a newspaper of general circulation in the City at least ten (10) days before the date of such hearing. The notice shall state the place and time at which the proposed amendment to the Ordinance, including text and maps, may be examined. If the Ordinance intends to rezone or redistrict ten (10) or less parcels of land as listed on the tax duplicate, written notice of the hearing shall be mailed by the Clerk of Council by first-class mail, at least twenty (20) days before the date of the public hearing, to the owners of property within and contiguous to and directly across the street from such parcel or parcels, to the address of such owners appearing on the County Auditor's current tax list or the Treasurer's mailing list. The failure of delivery of such notice shall not invalidate any such ordinance.
- (3) Recommendation to Council. Following their review, the Commission may recommend that the application be granted as requested, or it may recommend a modification of the zoning amendment requested in the application, or it may recommend that the application not be granted. These recommendations shall then be certified to Council.
- (4) Council hearing. After receiving from the Commission the certification of such recommendations on the proposed content-based amendment or amendments, and before adoption of such amendment, Council shall hold a public hearing thereon, at least thirty (30) days' notice of the time and place of which shall be given by one publication in a newspaper of general circulation in the City. The 30-day notice shall be waived for minor formatting amendments only.
- (5) Council; final action. Following such hearing and after reviewing the recommendations of the Commission thereon, Council shall consider such recommendations and vote on the passage of the proposed amendment to the text of the Ordinance or the Zoning Map. Council may overrule the recommendations of the Commission by a majority vote of the full membership of Council.
- (6) Fees. Each application for a zoning amendment, except those initiated by the Planning Commission, shall be accompanied by a fee as prescribed by Council in the Fee Schedule set in the Administrative Code to cover the costs of publishing, posting and/or mailing notices of hearings.

(Ord. 2023-53. Passed 1-23-24.)

Staff Analysis/Recommendation

Staff met with the applicant, reviewing the current allowable uses within I-2, which is limited to industrial manufacturing uses. Most, if not all, of the vacant parcels or farmland in this area is zoned I-1 or I-2. With the recent city owned parcels on River Road being rezoned from I-2 to R-1 to accommodate the anticipated residential development, staff finds this request to rezone these parcels to B-3 would provide better uses suitable in proximity to the anticipated residential development.

With regard to traffic flow, as noted in recent discussions, Administration has already authorized two traffic studies to be conducted by OHM Advisors related to traffic lights for the River Road/Cleveland Road E intersection.

Staff supports a recommendation to City Council for the approval of the rezoning application as submitted.

Attachments:

• Application, Survey, Map

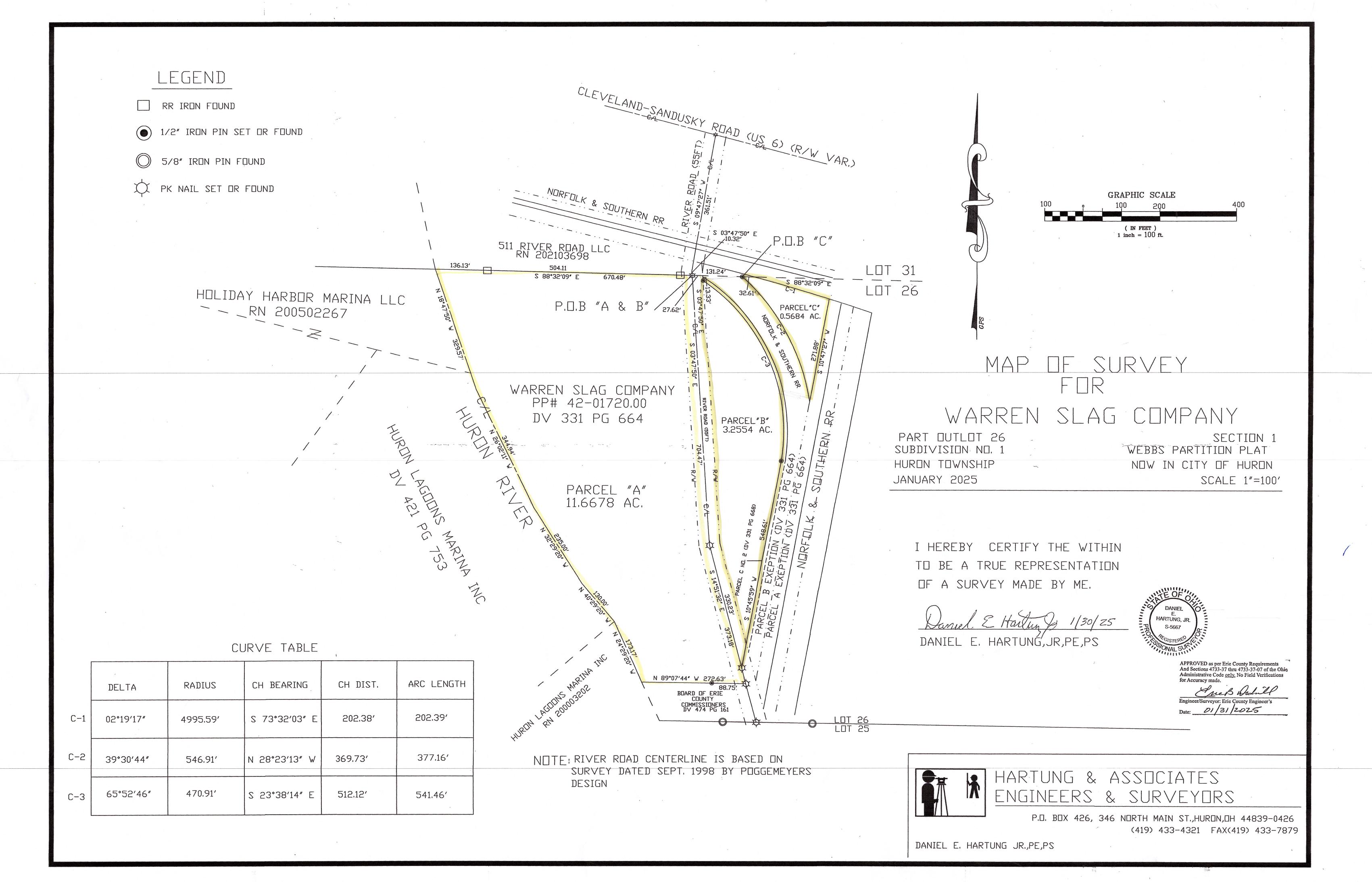
Planning & Zoning Department 417 Main Street Huron, OH 44839 419-433-5000



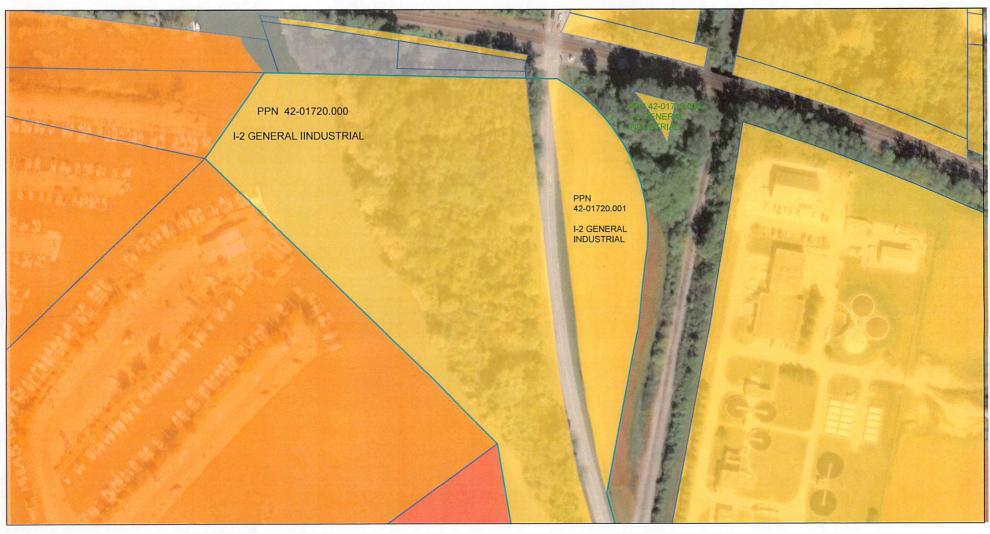
CITY OF HURON APPLICATION TO RE-DISTRICT PROPERTY

Date: 5 19 25
Property Owner: 0) P Holdings LLC
Address: 3/3 KINDUIS AVE
City State 7: 1/1 / ///228
City, State, Zip: HURSN OH 44839 Email Address: DMES dike - 2000 @ Yahoo. Com
Email Address: DMES dike - 2000 & Yakor. Com
Address of Property to be Rezoned:
Normal Love River Rad Parcel Number: 42-01719,000 + 42-01779,001 + 42-01720.00
Parcel Number: 42-0/7/9, 000 4 92-0/4/9
Applicant: (Name & Address - if different from the property owner)
Current Zoning District of Subject Property:
R-1 R-2 R-3 B-1 B-2 B-3
I-1 I-2 Other:
Explain the reason that re-districting/re-zoning is being requested: Plans to devalop pacel into businesses.
Proposed Zoning District of Subject Property:
R-1 R-2 R-3 B-1 B-2 B-3
I-1
Was a re-zoning request ever submitted for this property? No Yes Date
Is the applicant represented by legal counsel? Yes No
If Yes, Counsel's Name and Address:
Contact Number and Email 419 602 6352 presclike - 2000

The following must be attached to this application: 1. A survey and legal description of the property. 2. A map of the subject property (maximum size 11" x17") 3. A map of the subject property in relation to the adjoining properties. (max size 11" x 4 A complete list of the names and current addresses of all property owners within 150' of the exterior boundaries of the subject property. 5. A PDF of the completed application packet with all the above to be submitted via email to zoning@huronohio.us 6. A \$250.00 non-refundable application fee, made payable to the City of Huron. (Section 1321.12 (c)) APPLICANT SIGNATURE: PROPERTY OWNER NAME (Print): DO NOT WRITE BELOW THIS LINE



OJD Holdings LLC - 3 Parcels - River Road



May 20, 2025