



**Plan Commission
Meeting Agenda
Tuesday October 25, 2016
6:30 p.m. Village Hall Court Room
3930 N. Murray Ave Village of Shorewood, WI 53211**

1. Call to order.
2. Roll call.
3. Approval of September 27, 2016 meeting minutes.
4. Statement of Public Notice.
5. Consent Agenda and Public Hearing:
 - a. Consideration of conditional use application for installation of solar panels at residential property 4221 N. Morris Blvd.
 - b. Consideration of conditional use application for installation of solar panels at residential property 4269 N. Olsen Ave.
 - c. Consideration of conditional use application for installation of solar panels at residential property 3726 N. Morris Blvd
 - d. Consideration of conditional use application for installation of solar panels at residential property 2212 E. Menlo Blvd.
6. Items removed from consent agenda.
7. Public Hearing: Consideration of conditional use application for a temporary holiday tree business at municipal lot 3505 N. Oakland Avenue.
8. Consider recommendation of zoning amendment for Milwaukee River district bluff parcels to parks district P-3.
9. Schedule next meeting.
10. Adjournment.

Dated at Shorewood, Wisconsin, this 20th day of October, 2016

Tanya O'Malley, Village Clerk WCPC

PLEASE BE ADVISED THAT A REPRESENTATIVE OF THE APPLICANT FOR THE AGENDA ITEM MUST BE PRESENT AT THIS MEETING.

Should you have any questions or comments regarding any item on this agenda, please contact Ericka Lang, Planning Director, Planning & Development Department, at (414) 847-2640.

Upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals.

It is possible that members of and possibly a quorum of members of other governmental bodies of the municipality may be in attendance at the above stated meeting to gather information; no action will be taken by any governmental body at the above stated meeting other than the governmental body specifically referred to above in this notice.



Plan Commission Meeting Minutes September 27, 2016

3930 N. Murray Ave Village of Shorewood, WI 53211

1. Call to order.

The meeting was called to order at 6:33 p.m.

2. Roll call.

Members present: Acting Chairman Tr. Michael Maher
Eric Couto
Barbara Kiely Miller
Tim Hansmann
Nate Piotrowski

3. Approval of August 23, 2016 meeting minutes.

Ms. Kiely Miller moved to approve the minutes as presented, seconded by Mr. Couto. Vote 5-0.

4. Statement of Public Notice.

Planning Director Ericka Lang noted that the meeting was published and posted according to state statutes and local regulations.

5. Consent Agenda and Public Hearing:

- a. **Consideration of conditional use application for installation of solar panels at residential property 3541 N. Hackett Ave.**
- b. **Consideration of conditional use application for installation of solar panels at residential property 1828 E. Kenmore Pl.**
- c. **Consideration of conditional use application for installation of solar panels at residential property 3820 N. Downer Ave.**
- d. **Consideration of conditional use application for installation of solar panels at residential property 4113 N. Larkin St.**

Acting Chairman Tr. Maher opened the public hearing at 6:34 p.m. With no public comments the public hearing was closed at 6:35 p.m.

Tr. Maher opened the consent items up for questions from the commissioners. Ms. Kiely Miller asked about a large tree in the parkway at 1828 E. Kenmore Place and if the panels would be shaded by it, asking whether the village tree would need to be removed or trimmed back. Mr. Mike Cornell, Arch Electric, explained that the tree is fine and will not need to be removed or trimmed. The panels being installed will incorporate micro-inverters which allows each panel to produce on its own and not in a string as a whole. The homeowner selected these particular panels because of the tree/shade.

Mr. Couto moved to approve the conditional use applications for the installation of solar panels at residential addresses 3541 N. Hackett Avenue, 1828 E. Kenmore Place, 3820 N. Downer Avenue and 4113 N. Larkin Street after the Plan Commission reviewed the applications against zoning code 535-30D. Seconded by Mr. Piotrowski. Approved 5-0.

6. Items removed from consent agenda.

No items were removed from the consent agenda item.

7. Public Hearing: Consideration of conditional use application for a proposed fitness studio at commercial property 4155 N. Oakland Avenue.

Ms. Lang explained that a conditional use application was received for a proposed fitness center, business owner Kevin Scharnek, at 4155 N. Oakland Avenue. The business is within the new Mosaic mixed use building which is to be completed by February 2017. Commissioners were given an additional document showing the front building elevations of the mixed use building to show the exact interior space of the business. The reason a conditional use application is required is because fitness centers are not expressly listed as permitted, prohibited or by condition, therefore the business defaults to the conditional use category. Under zoning code section 535-21A(c) the most related use is *dance instruction studio*. Staff felt a fitness studio was different. Anytime Fitness was the last fitness studio to open in the village and were required a conditional use application also. The business hours of operation will be daily from 5 a.m. to 9 p.m. Per code section 409-26 businesses must be closed between 1 a.m. and 5 a.m. (except bar/restaurants till 2 a.m. on weekends). The business is in a zoned Planned Development District so there is no parking consideration. An entire floor of the parking structure is dedicated to the businesses in the mixed use building.

Tr. Maher opened the public hearing at 6:40 p.m. With no public comments the public hearing was closed at 6:40 p.m.

Ms. Kiely Miller asked for a description of a client's experience at the business and what type of training is available. Ms. Sarah Hansen was present representing Orangetheory Fitness. Ms. Hansen stated that the business offers personal training but in a group setting. Classes are offered for all fitness levels. The business is not like an open gym where members can just pop in when they would like; members have to sign up for classes. Ms. Hansen explained that all staff are certified trainers.

Ms. Kiely Miller asked about the locker room/changing room layout. Ms. Hansen stated the business has 24 locker cubbies, 2 bathrooms, 2 shower rooms and an area to hang keys if a customer is in for a short period.

Ms. Kiely Miller asked if MOD Pizza is next door to the fitness center. Ms. Lang stated that there is a vacancy between the restaurant and the fitness center. Ms. Kiely Miller asked if any sound proofing would be done for the fitness center. Ms. Hansen could not verify but stated that other locations exist in similar settings and with surrounding businesses as well.

Mr. Couto asked if Orangetheory Fitness was the only business in the building showing an awning. Ms. Lang stated yes at this time and that the signage, including awnings, will be presented to the Design Review Board.

Mr. Piotrowski moved to approve the conditional use application for a proposed fitness studio at 4155 N. Oakland Avenue. Seconded by Mr. Couto. Approved 5-0.

8. Public Hearing: Consideration of conditional use application for a proposed veterinarian clinic at commercial property 4604 N. Wilson Drive.

Tr. Maher opened the public hearing at 6:48 p.m. With no public comments the public hearing was closed at 6:48 p.m.

Ms. Lang explained that the veterinary business will be located at 4604 N. Wilson Drive in the northwest corner of the village. The business is in a building with three other businesses. The business is in a B-5 District which refers to the B-1 district regarding what is permitted. Veterinary clinics are not listed as permitted or not permitted in the B-1 District. Per zoning code 535-27 animal hospitals are permitted by condition in the B-3 District and animal clinics are permitted by condition in the B-1, B-2 and B-3 Districts. Staff determines the business needs a conditional use. The business will occupy the space that is currently occupied by the pet store, Bentley's Pet Stuff, which is relocating.

The business hours are 7:30 a.m. to 5:30 p.m. Monday through Friday; 8 a.m. to 12 p.m. on Saturday. There will be 4 to 5 employees on site at a time. There are 21 onsite parking spaces available to the businesses.

Dr. Noah Arnold, the business owner, was present. Dr. Arnold explained he grew up in the community and that this is a lifelong dream to open his business in the village.

Mr. Hansmann asked if there will be overnight stays for animals. Dr. Arnold stated that yes there may be post-op stays for some animals. Mr. Hansmann asked if there was any soundproofing for the apartment units above. Dr. Arnold stated he did not know but would consider it.

Ms. Kiely Miller asked about what staff would be present. Dr. Arnold will be hiring a certified veterinary technician and he will be the sole doctor at the location.

Tr. Maher asked if there has been any discussion with the landlord about noise from pet overnight stays. Dr. Arnold stated that no discussion has occurred as of yet and that the current tenant encourages pets in the store during business hours. He explained that with a one doctor clinic, the overnight stays would be minimal. The majority of patients are companion animals; dogs and cats. Dr. Arnold also confirmed he will be performing all procedures with minimal referrals for procedures he cannot perform.

Ms. Kiely Miller asked if pets would be euthanized on site. Dr. Arnold stated that yes they would offer the procedure and one of the two exam rooms would be open at all times to accommodate this. The clinic will also have storage for animals until the cremation service can pick them up.

Mr. Couto expressed concern about soundproofing the location and how it would be addressed. Dr. Arnold explained that the contractor doing the buildout is familiar with veterinary clinics and particular soundproofing materials will be used to address these concerns and that it will not be an issue.

Mr. Piotrowski asked where dogs would be let out to go to the bathroom. Dr. Arnold explained that there is a grassy area outside of the business surrounding the parking lot and that clients will be encouraged to clean up after their pets. A bag station may be provided for clean-up also.

Mr. Cuoto moved to approve the conditional use application for a proposed veterinary clinic at commercial property 4604 N. Wilson Drive. Seconded by Ms. Kiely Miller. Approved 5-0.

9. Consider staff recommendation of zoning amendment for commercial discount stores.

Ms. Lang introduced the item by explaining that Shorewood's zoning code lists permitted uses, prohibited uses and uses by condition. Discount stores are not listed at all and staff recommends amending Zoning Chapter 535 Article IV to identify discount stores as a conditional use in the B-3 District. The impetus for this recommendation is the growing number of vacancies in the village and the growing trend of discount stores in the market. Discount stores typically need over 7,000 square feet. Most of the vacancies in the village are 1000-1500 square feet but as vacancies increase the square footage of some sites is increasing. Discount stores are traditionally traffic orientated, high volume stores. When staff was discussing this the outcome was that these stores would be best suited for Capitol Drive at the west end with the four lanes of traffic and very traffic orientated versus the east end of Capitol Drive. The B-3 zoning district is at the tail ends of Capitol Drive and the potential for this type of business is best suited in this district. The B-3 District on the east side of Capitol did not pose much concern as the parcels, buildings and parking lots in this area are smaller and would not support this type of business and typically what it would need.

Attorney Nathan Bayer added that under zoning code 535-21 all business districts are described; B-1 Commercial, B-2 Mixed Use, B-3 Mixed Use and B-4 River District. Each district reflects thoughtful planning over the years in regard to what type of businesses are appropriate in particular areas of the village. Attorney Bayer added that the zoning code is a living document whereas when things change the criteria is often revisited. This proposed change would make discount stores prohibited in the B-1 and B-2 districts and by condition in the B-3 district. A prospective business would not be allowed to bypass the Plan Commission and open a business with this ordinance in place. One issue looked at was this type of business's effect on traffic levels/volumes in the areas. Discount variety stores over 7,500 square feet seem to be the industry standard. Prospective businesses would have to come before the Plan Commission and explain why this is an appropriate use and how it meets all the criteria in zoning code 535-25 along with parking and ingress and egress of a particular location.

Tr. Maher asked if this class of businesses could be outright prohibited in all districts. Attorney Bayer stated that it would be complicated and the motive would be questioned. He added that the more appropriate approach would be allowing the use conditionally versus banning the use all together. A court will scrutinize why there is no area of the village where the use is allowed. Tr. Maher asked if this would ban this type of store from the B-5 district as well. Ms. Lang stated it would not.

Mr. Couto asked for examples of currently prohibited business types in the village. Ms. Lang stated vehicle sales, light manufacturing/industrial businesses and storage businesses are some examples. Mr. Hansmann asked if larger box stores over a particular size are banned. Ms. Lang stated that large box stores are not listed in the code.

Mr. Couto asked if there were any buildings in the village that has 7,500 square feet available now. Ms. Lang stated that possibly the dialysis building or Re-Max building could. Mr. Maher asked about the size of Sunseekers on the east end but Ms. Lang stated it was less than 5000 square feet.

Shorewood Plan Commission Meeting Minutes – September 27, 2016

Mr. Piotrowski asked if prospective discount variety stores of less than 7,500 square feet would have to go before the Plan Commission after this amendment would be passed. Ms. Lang stated that no it would be allowed because passing the amendment specifically would be listing discount variety stores over 7,500 as prohibited; making stores less than 7,500 square feet permitted.

Mr. Piotrowski asked if the commission was establishing a definition for “discount variety store”. Attorney Bayer stated based on research the term being used is intended to capture the full range of discount stores. Mr. Piotrowski questioned the concern regarding these stores and the 7,500 square feet specifically when there are no spaces that large in the village available.

Mr. Couto asked about a lower square footage to make almost all stores by condition.

Ms. Kiely Miller said that what she felt was tricky about this amendment was that the B-3 District was split up into two completely different ends of the village with the west end having 4 lanes of traffic, a boulevard and higher speed limits and the east end having 2 lanes of traffic, lower speed limit, schools, churches, smaller businesses and residential. Trying to make a decision that affects two different areas is hard. Ms. Kiely Miller expressed concerns with the issues that discount variety stores would bring to the area, some of which were summarized by emails from residents.

Mr. Piotrowski understood the goal of being cautious of auto-dependent big box/discount stores but he expressed concern about 7,500 square-footage being the right number.

Ms. Kiely Miller stated as proposed currently she would oppose it.

Ms. Lang explained that if a discount variety type store came in with an occupancy permit there would be nothing restricting it from opening because it would be considered a retail store and not prohibited.

Mr. Couto asked what is needed to be done to lower the square footage. Attorney Bayer stated that can be done it just needs to be decided on and voted out of the Plan Commission to the Village Board to vote on.

Mr. Maher stated there needs to be a better definition of discount variety store.

Mr. Couto expressed his concern with the 7,500 square feet and would like the square footage possibly lowered.

Tr. Maher opened the public hearing at 7:31 p.m.

Elizabeth Beeghly, 2413 Shorewood Blvd., stated that after reading the zoning code notice that businesses like payday loan, currency exchange and title loan businesses are discouraged and strongly suggested that the rules applied to these types of businesses be applied to discount stores. These regulations would help the business to be placed in the right place not near residential with traffic problems and people outside of the area. A regulation limiting the hours of operation was suggested. Ms. Beeghly agreed that the square footage should be lowered and all should be before the Plan Commission.

Shorewood Plan Commission Meeting Minutes – September 27, 2016

Sandra McLellan, 4030 N. Downer Avenue, stated that she wasn't aware that the east end of Capitol was treated the same as the west end of Capitol Drive and that maybe that should be addressed on its own. Ms. McLellan expressed her concern about the issue being discussed and voted on quickly. She felt more time should be spent on the discussion.

Mr. Maher explained that this was the first time the commission was hearing the item and upon recommendation there are two public notices and the item would be considered by the Village Board.

Ms. Kiely Miller asked about the process to rezone the east end of Capitol. Ms. Lang explained that staff would do research and discussions would start with the Plan Commission who then would recommend it to the Village Board. Ms. Lang explained that if more restrictions were placed on the B-3 District many of the existing businesses on the east end would become non-conforming businesses.

Mr. Piotrowski added that making it a conditional use item allows the commission to evaluate all applications and determine if the business makes sense on the east end versus the west end. He requested more review of the definition of "discount variety store" and the proposed square footage.

Mr. Couto asked if the proposal got approved and sent to the Village Board if changes could be made on that level. Attorney Bayer stated that yes amendments could be proposed.

The commission asked staff to further evaluate the definition of discount variety store and the square footage number.

Mr. Couto asked for some comparable data on discount store sizes.

Tr. Maher asked if the Plan Commission should be targeting specific properties or the general policy. Attorney Bayer explained that the commission should be guided by the overarching impact a policy would have on the village in regard to traffic, commerce and effect the business would have on the surrounding neighbors versus on particular retailer. Attorney Bayer stated that if this type of business would be a conditional use the criteria under 535-25 would apply.

Tr. Maher asked for information to be provided at the next meeting.

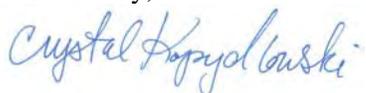
10. Schedule next meeting.

The next meeting is October 25, 2016.

11. Adjournment.

Mr. Couto moved to adjourn the meeting at 7:49 p.m., seconded by Mr. Hansmann. Vote 5-0.

Recorded by,



Crystal Kopydlowski
Planning & Development Administrative Clerk

MEMORANDUM

October 20, 2016

To: Plan Commission
Cc: Village Manager Chris Swartz
Village Attorney Nathan Bayer

From: Planning Director Ericka Lang

RE: Conditional Use for Solar Panel 4221 N. Morris Blvd



On August 25, 2016 the village received a conditional use application for installation of solar panels at residential property 4221 N. Morris Blvd. The property owner is Ben Kemp and the applicant is Arch Electric Inc.

Panel Description

The application is for 12 flat-mounted solar modules to be located on the house roof on the south side. A panel layout was not provided in the packet.

Code

Per 535-30D, installation and use of solar energy systems are a conditional use in all districts. The full code is attached. It also says that your commission shall review the proposed system and may only restrict if one of the following conditions is satisfied:

- [1] Serves to preserve or protect the public health or safety.
- [2] Does not significantly increase the cost of the system or significantly decrease its efficiency.
- [3] Allows for an alternative system of comparable cost and efficiency.

The review and approval criteria in 535-30D apply to solar and wind energy systems.



APPLICATION FOR CONDITIONAL USE PERMIT

Village of Shorewood
Planning & Development Department
3930 N. Murray Avenue
Shorewood, WI 53211
Phone (414) 847-2640
Facsimile (414) 847-2648
www.villageofshorewood.org
PAD@villageofshorewood.org

Office Use Only	
General Fee \$125	Solar Energy Fee \$75
Permit No. 16-1736	
Zoning District	
CUP Reason	
Code Reference	
Plan Comm. Meeting	
Outcome	

CONDITIONAL USE APPLICATIONS ARE CONSIDERED BY THE PLAN COMMISSION. MEETINGS ARE THE 4TH TUESDAY EACH MONTH, AS NEEDED. APPLICATIONS ARE DUE 4 WEEKS BEFORE SCHEDULED MEETINGS AND ADDITIONAL MATERIALS AS IDENTIFIED BY THE PLANNING & DEVELOPMENT DEPARTMENT.

PROPERTY ADDRESS: 4221 N. Morris Blvd.

PROPERTY OWNER

Owner Name:	Ben Kemp	Owner Address:	4221 N. Morris Blvd.
Phone Number:	414-324-8900		Shorewood, WI 53211
Email:			

APPLICANT/BUSINESS

Name:	Arch Electric Inc.	Address:	
Phone Number:	920-893-8388		W4499 Sumac Rd.
Email:	jen@archelec.com		Plymouth, WI 53073

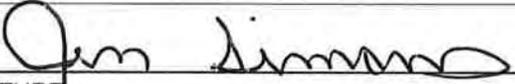
Check if prefer to receive Meeting Agenda by EMAIL: PROPERTY OWNER APPLICANT

BUSINESS INFORMATION

Name of Business	Arch Electric Inc.	Max # Employees On-site	4
Is a survey attached? (if required)			
Is a parking plan attached? (if required)			

*Provide copy of business plan

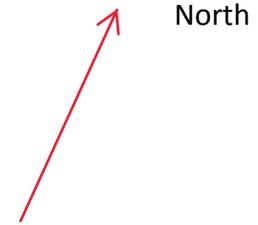
What do you wish to do that will require a Conditional Use Permit?
Install a fixed roof mounted 12 panel 3.96 KW Solar PV System


SIGNATURE

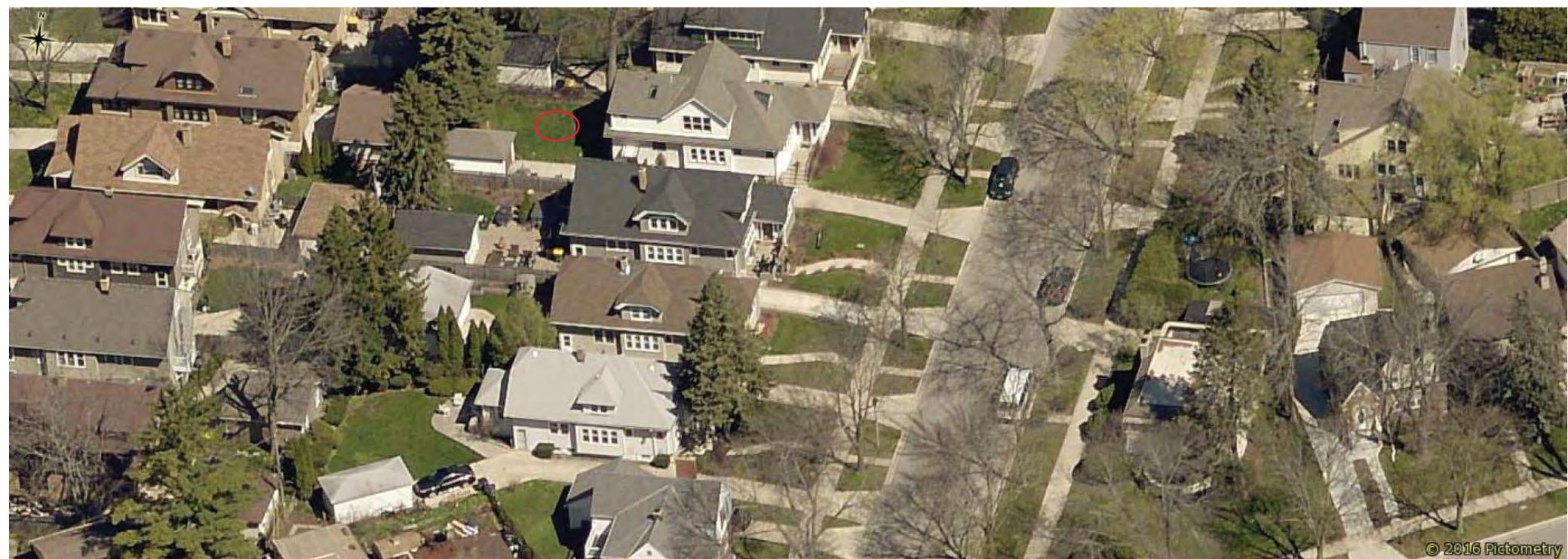
9/8/14
DATE



4221 Morris



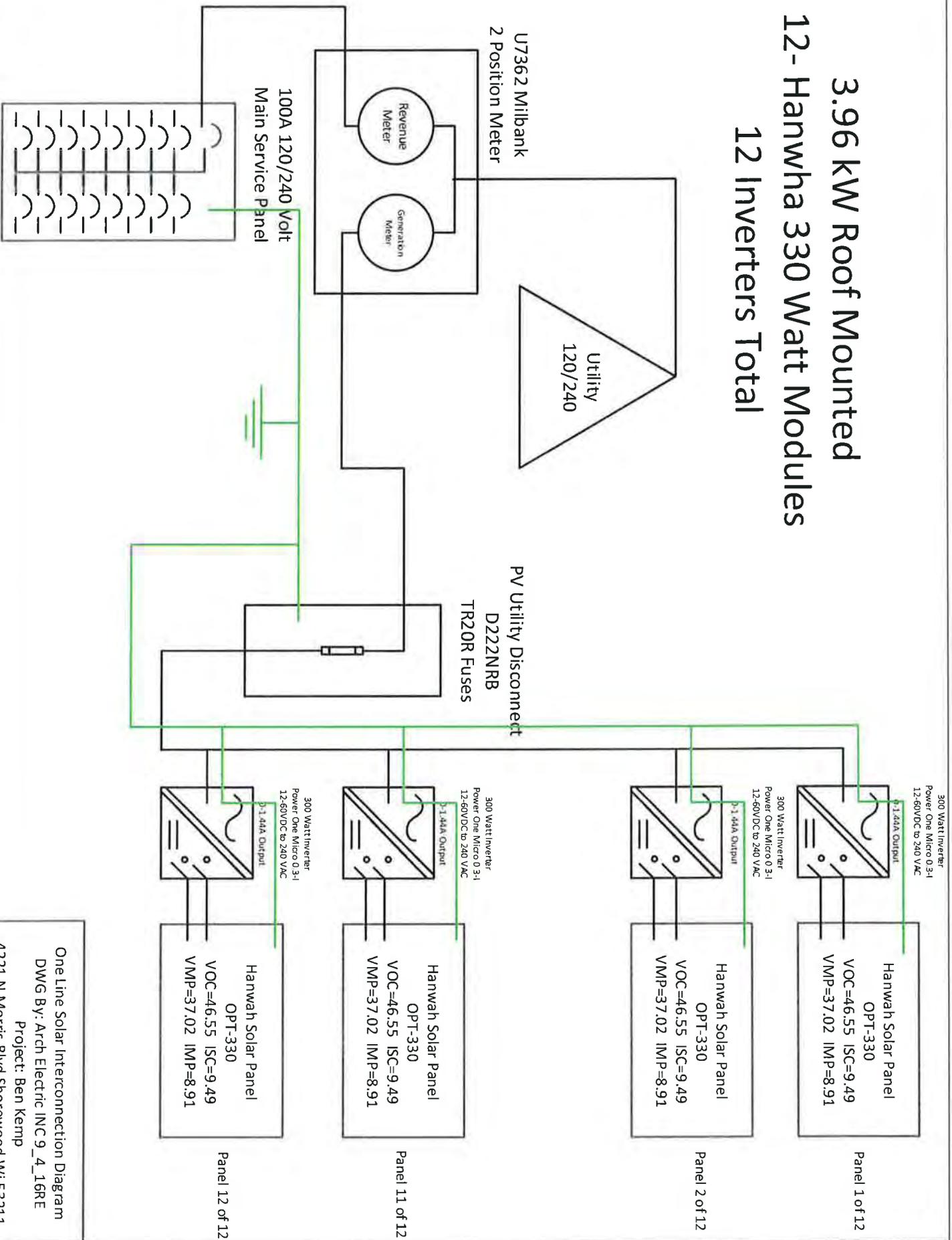
North



© 2016 Pictometry



3.96 kW Roof Mounted 12- Hanwha 330 Watt Modules 12 Inverters Total



One Line Solar Interconnection Diagram
 DWG By: Arch Electric INC 9_4_16RE
 Project: Ben Kemp
 4221 N Morris Blvd Shorewood WI 53211



SEP 04, 2016, 01:37 PM

PROJECT TITLE: BEN KEMP
PROJECT ID: 02B41A08

Name: Ben Kemp
Address: 4221 N Morris Blvd Shorewood WI 53211
City, State: Milwaukee, WI, 53211
Module: Hanwha Solar Q-PLUS-G4.2 330
330 Watts

Designed by
Russel@archelec.com
SOLARMOUNT
12 - 330 Watt Panels
258 Sq Ft.
4.0 kW's

ENGINEERING REPORT

Plan review

Loads Used for Design

- Building Code: ASCE 7-05
- Wind Speed: 90 mph
- Ground Snow Load: 30 psf
- Seismic (Ss): 0.09
- Wind Exposure: B

Loads Determined by Zip

- City, State: Milwaukee, WI
- Wind Speed: 90 mph
- Ground Snow Load: 30 psf

Inspection

Product: SOLARMOUNT
Module Manufacturer: Hanwha Solar
Model: Q-PLUS-G4.2 330
Module Watts: 330 watts
Module Length: 78.50 "
Module Width: 39.40 "
Module Thickness: 1.38 "
Expansion Joints: Every 40'
Rails Direction: EW
Building Height: 30 ft.
Roof Type: Shingle
Total Weight: 634.80 lbs

WORKSPACE 1

Roof Point Load Up: -147 lbs

Roof Point Load Down: 245 lbs

Total Number of Modules: 12

Total KW: 4.0 KW

Rows/ Columns: 2 / 6 (no gaps)

NS Dimension: ~13.1 ft

EW Dimension: ~20.1 ft

Maximum Rail Span (Zone 1): 51"

Selected Rail Span: 48"

Maximum Rail Cantilever: 16.00 "

Roof Pitch: 12:12



SEP 04, 2016, 01:37 PM

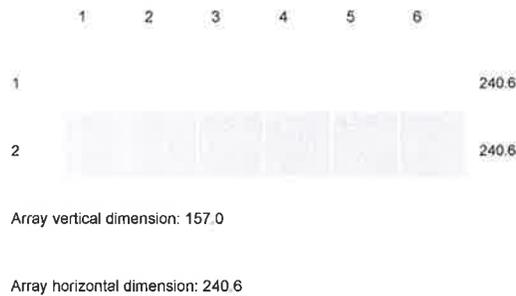
PROJECT TITLE: BEN KEMP
PROJECT ID: 02B41A08

Name: Ben Kemp
Address: 4221 N Morris Blvd Shorewood Wi 53211
City, State: Milwaukee, WI, 53211
Module: Hanwha Solar Q-PLUS-G4.2 330
330 Watts

Designed by
Russel@archelec.com
SOLARMOUNT
12 - 330 Watt Panels
258 Sq Ft.
4.0 kW

INSTALLATION AND DESIGN PLAN

LAYOUT WORKSPACE 1



Row	Modules	Zone	Rail Type	Splices	Roof Attachments
1	6	Zone 1	SM RAIL 168" MILL 320168M \$70 (4)	2	12
2	6	Zone 2	SM RAIL 168" MILL 320168M \$70 (4)	2	24
Maximum Rail Span (Zone 1*):					51.00"
Selected Rail Span:					48.00"
Maximum Rail Cantilever:					16.00"
Module Orientation:					Portrait
Rail Direction:					EW

*Zone 2 and 3 Rail Spans must be independently verified

Q.PLUS L-G4.2 330-340

Q.ANTUM SOLAR MODULE

The Q.ANTUM solar module Q.PLUS L-G4.2 with power classes up to 340 Wp is the strongest module of its type on the market globally. Powered by 72 Q CELLS solar cells Q.PLUS L-G4.2 was specially designed for large solar power plants to reduce BOS costs. Only Q CELLS offers German engineering quality with our unique triple Yield Security.



LOW ELECTRICITY GENERATION COSTS

Higher yield per surface area and lower BOS costs thanks to higher power classes and an efficiency rate of up to 17.4 %.



INNOVATIVE ALL-WEATHER TECHNOLOGY

Optimal yields, whatever the weather with excellent low-light and temperature behavior.



ENDURING HIGH PERFORMANCE

Long-term yield security with Anti-PID Technology¹, Hot-Spot-Protect and Traceable Quality Tra.Q™.



LIGHT WEIGHT QUALITY FRAME

High-tech aluminum alloy frame, certified for high snow (5400 Pa) and wind loads (2400 Pa).



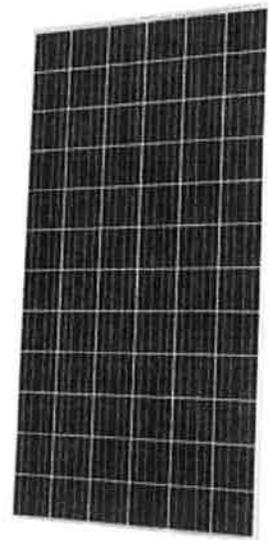
A RELIABLE INVESTMENT

Inclusive 12-year product warranty and 25-year linear performance guarantee².

THE IDEAL SOLUTION FOR:



Ground-mounted solar power plants



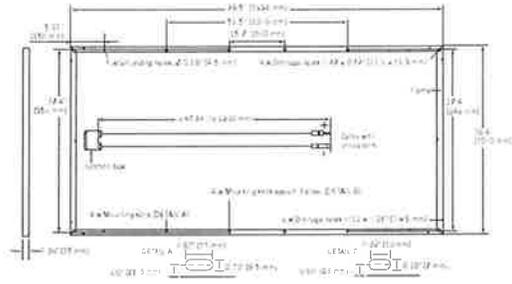
Q CELLS
Best polycrystalline solar module 2013
Q-PRO-42 236
131 world's best

¹ APT test conditions: Cells at -1000 V against grounded, with conductive metal foil covered module surface, 25°C, 168 h

² See data sheet on rear for further information.

MECHANICAL SPECIFICATION

Format	78.5 in × 39.4 in × 1.38 in (including frame) (1994 mm × 1000 mm × 35 mm)
Weight	52.9 lb (24 kg)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Anodised aluminum
Cell	6 × 12 Q.ANTUM solar cells
Junction box	3.35-4.13 in × 2.35-3.15 in × 0.59-0.67 in (85-105 mm × 60-80 mm × 15-17 mm), Protection class ≥ IP67, with bypass diodes
Cable	4 mm ² Solar cable; (+) ± 47.24 in (1200 mm), (-) ± 47.24 in (1200 mm)
Connector	Amphenol H4 UTX, IP68



ELECTRICAL CHARACTERISTICS

POWER CLASS		330	335	340	
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE +5W / -0W)					
Minimum	Power at MPP ²	P_{MPP} [W]	330	335	340
	Short Circuit Current [*]	I_{SC} [A]	9.49	9.54	9.59
	Open Circuit Voltage [*]	V_{OC} [V]	46.55	46.81	47.07
	Current at MPP ²	I_{MPP} [A]	8.91	8.97	9.03
	Voltage at MPP ²	V_{MPP} [V]	37.02	37.33	37.63
	Efficiency ²	η [%]	≥ 16.5	≥ 16.8	≥ 17.1
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC ³					
Minimum	Power at MPP ²	P_{MPP} [W]	244.7	248.4	252.1
	Short Circuit Current [*]	I_{SC} [A]	7.65	7.69	7.73
	Open Circuit Voltage [*]	V_{OC} [V]	43.44	43.68	43.92
	Current at MPP ²	I_{MPP} [A]	6.99	7.04	7.09
Voltage at MPP ²	V_{MPP} [V]	35.01	35.29	35.56	

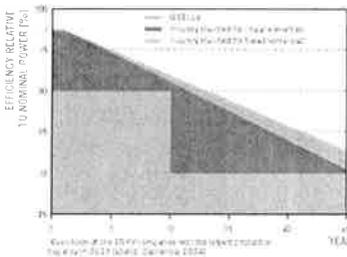
¹ 1000 W/m², 25°C, spectrum AM 1.5 G

² Measurement Tolerances STC = 3%; NOC = 5%

³ 800 W/m², NOCT, spectrum AM 1.5 G

^{*} Typical values, actual values may differ

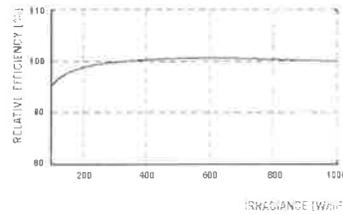
Q CELLS PERFORMANCE WARRANTY



At least 97% of nominal power during first year. Thereafter max. 0.6% degradation per year.
At least 92% of nominal power after 10 years.
At least 83% of nominal power after 25 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Q CELLS sales organisation of your respective country.

PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25°C, 1000 W/m²).

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I _{SC}	α [%/K]	+0.04	Temperature Coefficient of V _{OC}	β [%/K]	-0.29
Temperature Coefficient of P _{MPP}	γ [%/K]	-0.40	Normal Operating Cell Temperature	NOCT [°F]	113 ± 5.4 (45 ± 3°C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V _{sys}	[V]	1500 (IEC) / 1500 (UL)	Safety Class	II
Maximum Series Fuse Rating	[A DC]	15	Fire Rating	C / TYPE 1
Max Load (UL) ²	[lbs/ft ²]	75 (3600 Pa)	Permitted module temperature on continuous duty	-40°F up to +185°F (-40°C up to +85°C)
Load Rating (UL) ²	[lbs/ft ²]	33 (1600 Pa)	² see installation manual	

QUALIFICATIONS AND CERTIFICATES

IEC 61215 (Ed. 2); IEC 61730 (Ed. 1), Application class A
This data sheet complies with DIN EN 50380.



PACKAGING INFORMATION

Number of Modules per Pallet	29
Number of Pallets per 40' Container	22
Pallet Dimensions (L × W × H)	81.3 × 45.3 × 46.9 in (2065 × 1150 × 1190 mm)
Pallet Weight	1671 lbs (758 kg)

NOTE: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.

Hanwha Q CELLS USA Corp.
300 Spectrum Center Drive, Suite 1250, Irvine, CA 92618, USA | TEL: +1 949 748 59 96 | WWW: www.q-cells.com

Engineered in Germany



Specifications subject to technical changes © Hanwha Q CELLS Q-PLUS L-64_2_330-340_2015-09_Rev03_HA

SM SOLAR MOUNT



UNIRAC
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SOLARMOUNT defined the standard in solar racking. New enhancements are designed to get installers off the roof faster than ever before. Components are pre-assembled and optimized to reduce installation steps and save labor time. Our new grounding & bonding process eliminates copper wire and grounding straps to reduce costs. Utilize the microinverter mount with a wire management clip for an easier installation.

ELIMINATE THE GROUNDWIRE FROM YOUR SOLARMOUNT ARRAY
LOSE THE COPPER & LUGS
INTEGRATED GROUNDING [e] **enphase**
ENERGY



UL2703
LISTED

BONDING & GROUNDING
MECHANICAL LOADING
SYSTEM FIRE CLASSIFICATION
CLASS A - TYPE 1, 2, 3 & 10 MODULES



ROOF MOUNT SYSTEMS

GET OFF THE ROOF FASTER THAN EVER BEFORE

OPTIMIZED COMPONENTS • VERSATILITY • AVAILABILITY • DESIGN TOOLS

SM SOLAR MOUNT



UNIRAC®

A HILTI GROUP COMPANY

OPTIMIZED COMPONENTS

INTEGRATED BONDING & PRE-ASSEMBLED PARTS

Components are pre-assembled and optimized to reduce installation steps and save labor time. Our new grounding & bonding process eliminates copper wire and grounding straps or bonding jumpers to reduce costs. Utilize the microinverter mount with a wire management clip for an easier installation.

VERSATILITY

ONE PRODUCT - MANY APPLICATIONS

Quickly set modules flush to the roof or at a desired tilt angle. Change module orientation to portrait or landscape while securing a large variety of framed modules on flat, low sloped or steep pitched roofs. Available in mill, clear and dark anodized finishes to outperform your projects financial and aesthetic aspirations.

AVAILABILITY

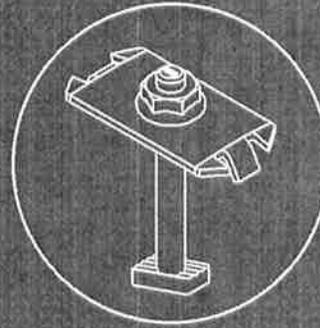
NATIONWIDE NETWORK

Unirac maintains the largest network of stocking distributors for our racking solutions. Our partners have distinguished their level of customer support, availability, and overall value, thereby providing the highest level of service to users of Unirac products. Count on our partners for fast and accurate delivery to meet your project objectives. Visit Unirac.com for a list of distributors.

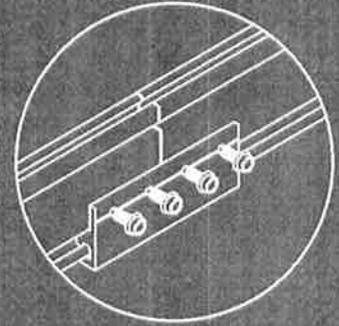
AUTOMATED DESIGN TOOL

DESIGN PLATFORM AT YOUR SERVICE

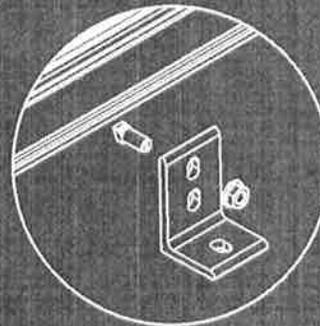
Creating a bill of materials is just a few clicks away with U-Builder, a powerful online tool that streamlines the process of designing a code compliant solar mounting system. Save time by creating a user profile, and recall preferences and projects automatically when you log in. You will enjoy the ability to share projects with customers; there's no need to print results and send to a distributor, just click and share.



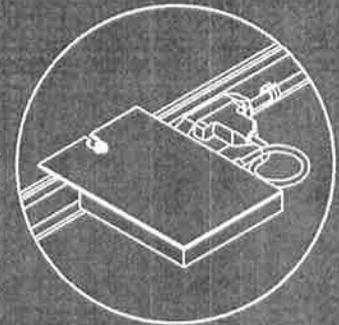
INTEGRATED BONDING MIDCLAMP



INTEGRATED BONDING SPLICE BAR



INTEGRATED BONDING L-FOOT w/ T-BOLT



INTEGRATED BONDING MICROINVERTER MOUNT w/ WIRE MANAGEMENT

UNIRAC CUSTOMER SERVICE MEANS THE HIGHEST LEVEL OF PRODUCT SUPPORT



UNMATCHED EXPERIENCE



CERTIFIED QUALITY



ENGINEERING EXCELLENCE



BANKABLE WARRANTY



DESIGN TOOLS



PERMIT DOCUMENTATION

TECHNICAL SUPPORT

Unirac's technical support team is dedicated to answering questions & addressing issues in real time. An online library of documents including engineering reports, stamped letters and technical data sheets greatly simplifies your permitting and project planning process.

CERTIFIED QUALITY PROVIDER

Unirac is the only PV mounting vendor with ISO certifications for 9001:2008, 14001:2004 and OHSAS 18001:2007, which means we deliver the highest standards for fit, form, and function. These certifications demonstrate our excellence and commitment to first class business practices.

BANKABLE WARRANTY

As a Hilti Group Company, Unirac has the financial strength to back our products and reduce your risk. Have peace of mind knowing you are receiving products of exceptional quality. SOLARMOUNT is covered by a 10-year limited product warranty and a 5-year limited finish warranty.

PROTECT YOUR REPUTATION WITH QUALITY RACKING SOLUTIONS BACKED BY ENGINEERING EXCELLENCE AND A SUPERIOR SUPPLY CHAIN

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Solar inverters

ABB micro inverter system
MICRO-0.25/0.3/0.3HV-I-OUTD
0.25kW to 0.3kW



ABB's MICRO inverter enables individual panel output control when flexibility and modularity are required.

This ABB MICRO inverter enables individual panel output control. Individual panel output control can reduce shading and mismatching effect. ABB's MICRO is the best alternative to the traditional string inverters that ABB is famous for. The individual panels can be installed in different orientations which reduce the efficiency losses in a variety of challenging conditions.

The Maximum Power Point Tracking (MPPT) algorithm maximizes energy and flexibility.

The proprietary MPPT algorithm works at the level of each solar panel in any light condition offering more energy output. This inverter has a maximum efficiency of 96.5%.

The electrolyte-free power converter further increases the life expectancy. The compatible and proprietary wireless communication hub, Concentrator Data Device (CDD), simplifies installation.

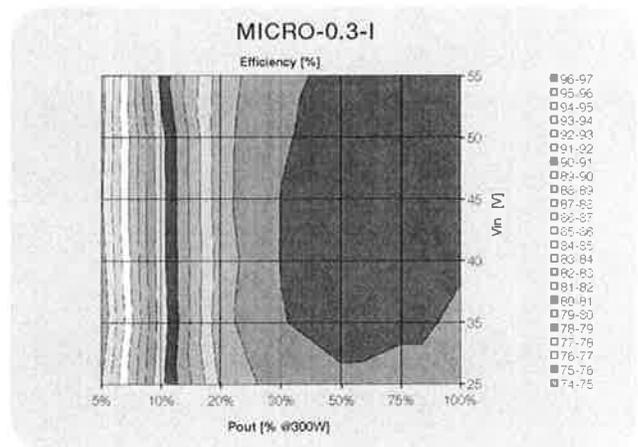
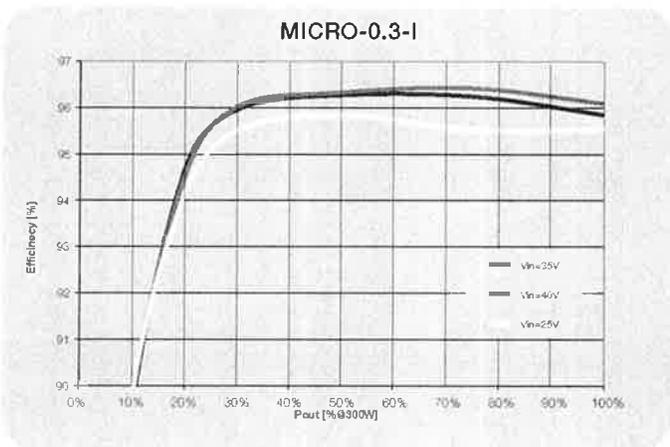
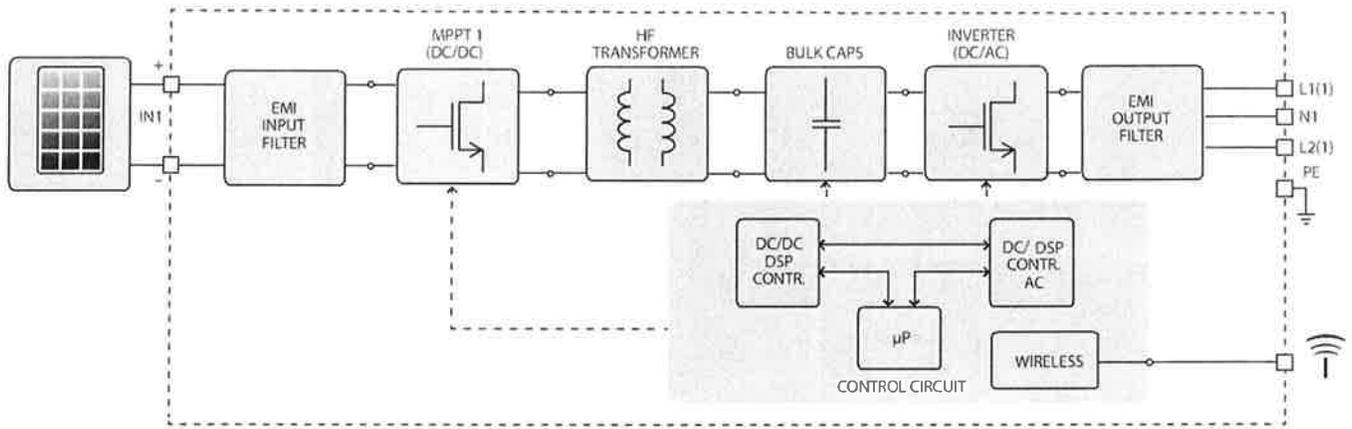
Highlights:

- The high speed and precise MPPT algorithm offers real time power tracking and improved energy harvesting.
- HF isolation to fit any application that requires the positive grounding of DC input terminals
- Reduced susceptibility to fault. In case of a component failure only the energy produced from one PV module will be lost.
- Outdoor enclosure for unrestricted use under any environmental conditions.

Power and productivity
for a better world™



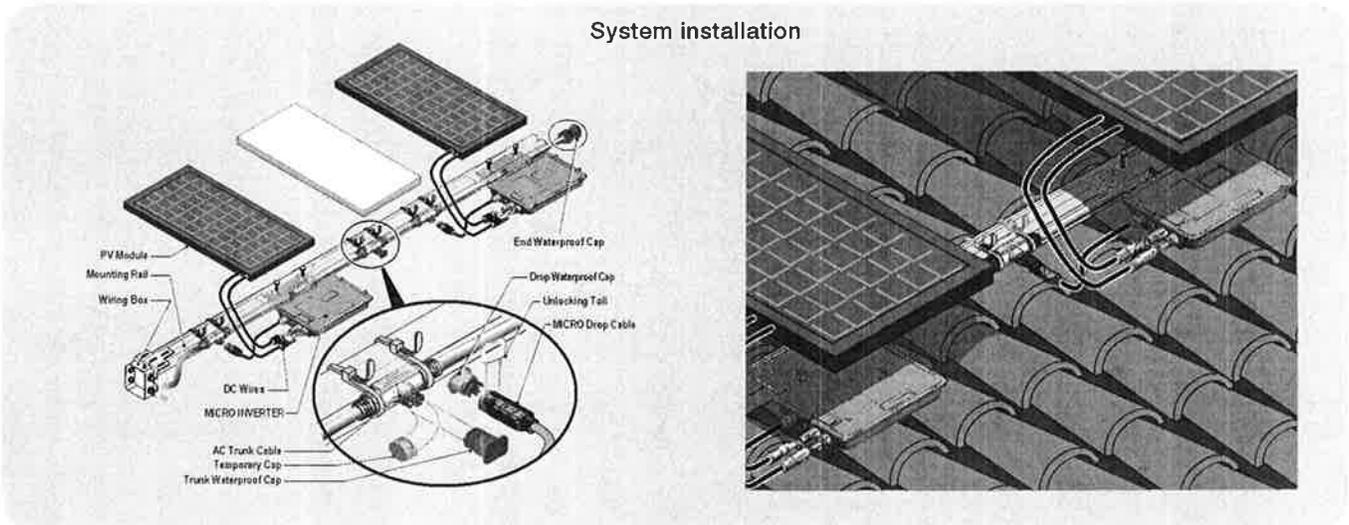
Block diagram of MICRO-0.25/0.3/0.3HV-I-OUTD



MICRO inverter system installation:

- The ABB MICRO inverter offers ease of installation with AC trunk and drop cable configuration.
- The mounting bracket on the MICRO inverter ensures simple and durable mounting on commercially available racking solutions.
- AC cabling compatible with 60, 72 and 96 cell modules in both portrait and landscape orientation.
- Locking connectors and weatherproof accessories ensure long term reliable operation of the plant.

System installation



Additional highlights:

- Used with the ABB Concentrator Data Device (CDD), ABB's MICRO inverter offers proprietary wireless monitoring of real-time system monitoring, troubleshooting and plant feedback.
- Only product in the market compatible with majority of PV modules.
- Comes with a 10-year system warranty covering the entire system, including MICRO, CDD and cabling.



Available models:

- 250W: MICRO-0.25-I
- 300W: MICRO-0.3-I
- 300W: MICRO-0.3HV-I

Technical data and types

Type code	MICRO-0.25-I-OUTD		MICRO-0.3-I-OUTD		MICRO-0.3HV-I-OUTD	
Nominal output power	250W		300W ¹		300W ¹	
Rated grid AC voltage	208V	240V	208V	240V	208V	240V
Maximum output power	260W		310W		310W	
Input side (DC)						
Maximum usable DC input power	265 Wp		320 Wp		320 Wp	
Maximum PV panel rating (STC)	300W		360W		360W	
Absolute maximum voltage (Vmax)	65V		65V		79V	
Start-Up voltage (Vstart)	25V		25V		25V	
Full power MPPT voltage range	25-60V		30-60V		30-75V	
Operating voltage range	12-60V ²		12-60V ²		19-75V ²	
Maximum usable current (Idcmax)	10.5A		10.5A		10.5A	
Maximum short circuit current limit	12.5A ³		12.5A ³		12.5A ³	
DC connection type	Amphenol H4 PV connector		Amphenol H4 PV connector		Amphenol H4 PV connector	
Output side (AC)						
Grid connection type	1Ø/2W	Split-Ø/3W	1Ø/2W	Split-Ø/3W	1Ø/2W	Split-Ø/3W
Adjustable voltage range	183V-228V	211V-264V	183V-228V	211V-264V	183V-228V	211V-264V
Nominal grid frequency	60Hz		60Hz		60Hz	
Adjustable grid frequency range	57-60.5 Hz		57-60.5 Hz		57-60.5 Hz	
Maximum output current	1.20A	1.04A	1.44A	1.25A	1.44A	1.25A
Power factor			>0.95			
Maximum number of inverters per string	13	15	11	12	11	12
Grid wiring termination type	18AWG drop cable from inverter to 10AWG AC trunk cable					
Input protection devices						
Reverse polarity protection	Yes; polarized PV connectors (Amphenol H4)					
Output protection devices						
Anti-islanding protection	Meets UL 1741/IEEE1547 requirements					
Over-voltage protection type	Varistor		Varistor		Varistor	
Maximum AC OCPD rating	20A		20A		20A	
Efficiency						
Maximum efficiency	96.5%		96.5%		96.5%	
CEC efficiency	96%		96%		96%	
Operating performance						
Stand-by consumption	<50mW		<50mW		<50mW	
Communication						
Monitoring system	Wireless and web-based monitoring through AURORA CDD (CDD required for compliance to UL1741)					
Environmental						
Ambient air operating temperature range	-40°F to +167°F (-40°C to +75°C) Derating above +149°F (+65°C)					
Ambient air storage temperature range	-40°F to +167°F (-40°C to +80°C)					
Relative humidity	0-100% RH condensing					
Acoustic noise emission level	< 30 db (A) @1m					
Maximum operating altitude without derating	6560 ft (2000 m)					
Mechanical specifications						
Enclosure rating	NEMA 4X					
Cooling	Natural convection					
Dimensions (H x W x D)	10.5 x 9.7 x 1.37in (266 x 246 x 35mm)					
Weight	<3.5lbs (1.65kg)					
Mounting system	Rack mounting with M8, 1/4" or 5/16" bolt					
Safety						
Isolation level	HF transformer					
Safety and EMC standard	UL1741, CSA C22.2 N. 107.1-01, EN61000-6-2, EN61000-6-3, FCC Part 15					
Safety approval	CSA					
Warranty						
Standard warranty	10 years					
Available models						
Standard	MICRO-0.25-I-OUTD -US-208/240		MICRO-0.3-I-OUTD- US-208/240		MICRO-0.3HV-I-OUTD- US-208/240	

¹ With derating below 200W for 240VAC operation
² This is the maximum input power that the inverter will utilize
³ Only use PV modules that satisfy these parameters under all operating conditions.

Additional highlights:

- Wireless data monitoring.
 - Remote monitoring through Aurora Vision.
 - Easy configuration.
 - Up to 30 MICRO Inverters directly monitored by a single CDD.
 - 24-hours 7-days web-based monitoring on web or mobile devices.
 - Mesh network topology ensures redundancy in communications and the highest design flexibility.
- Homeowners can create their own private monitoring portal or share their data with their installer.
 - Free panel level monitoring standard on every system.

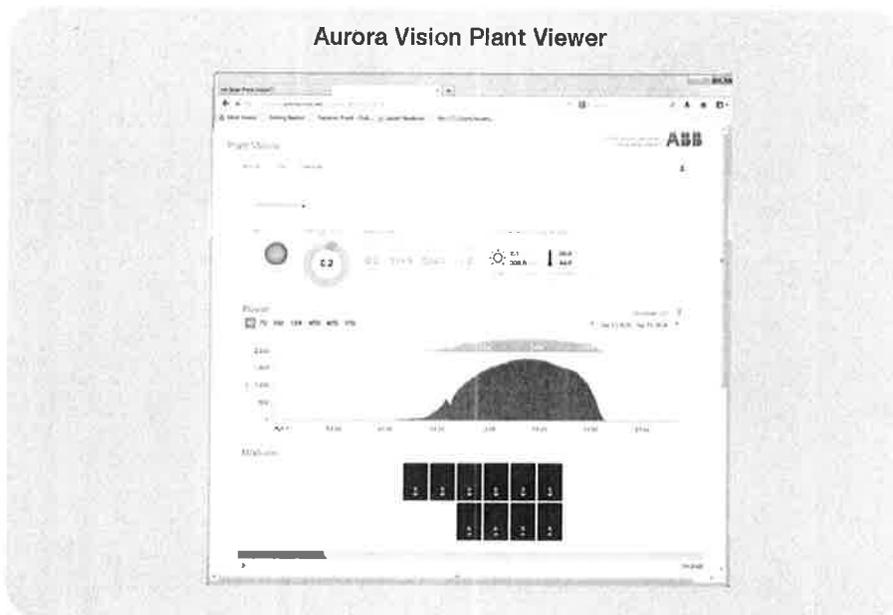
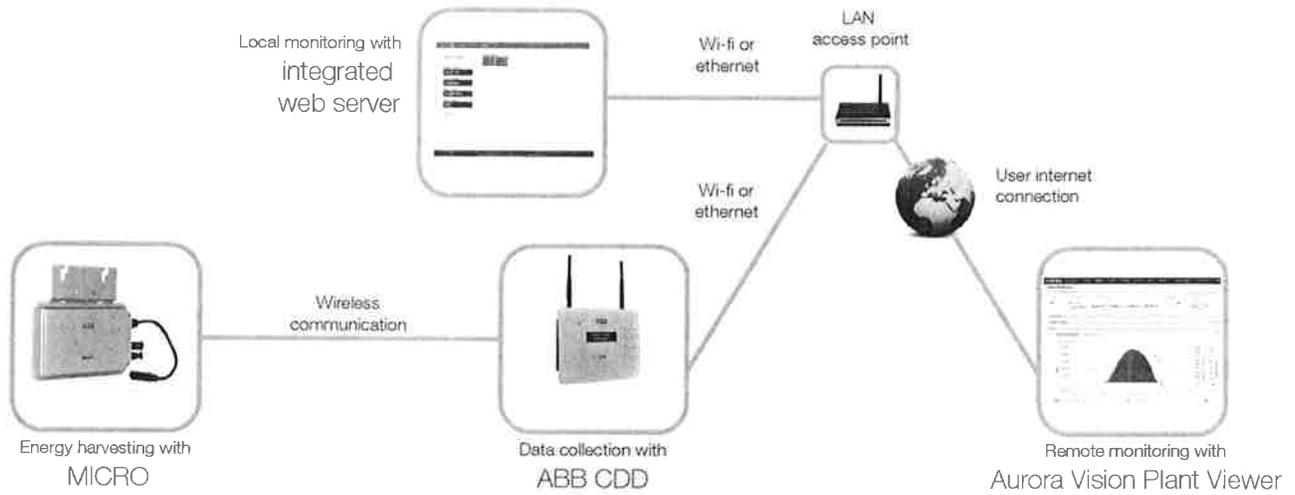


Technical data and types

Type code	CDD
Communication to inverter	
Type	Radio IEEE 802.15.4
Sample rate	1 min.
Max. distance (free space)	164ft (50m ¹⁾
Max. number of devices	30
Communication to modem/PC	
Wireless communication	Radio IEEE 802.11/b - 2.4GHz/10Mbps
Wired communication	Ethernet RJ45 10/100Mbps
Connectivity	
Wired ports	1x RJ45 Ethernet
Features	
Operation	Integrated web server
Power supply	
Type	External plug-in adapter
Adaptor input	100 to 240Vac : 50/60Hz
Adaptor output	5Vdc -1A
Power consumption	typ. 2.5W/max. 5W
Environmental	
IP degree	IP20/NEMA 1
Ambient temperature	-4°F to 131°F (-20°C to +55°C)
Relative humidity	< 90% non condensing
Physical	
Dimensions (H x W x D)	5.9 x 7 x 1in (150 x 180 x 25mm)
Weight	1.32lbs (0.6kg)
Mounting	Wall mounting (screws provided)
Interface	
Display	16 characters x 2 lines OLED
Display language	EN-ES-IT-DE-FR
LED	Bicolor (red and green)
Safety	
Marking	CE, CSA, FCC
Safety and EMC standard	EN 62311, EN60950-1, EN 301489-1 V1.8.1, EN 301489-17 V2.1.1, EN 55022, EN 55024, FCC part 15 Class B/ Class C, RTTE 1999/5/EC
Accessories	
Antenna extension cable	Optional
Plug-in power adaptor	Included

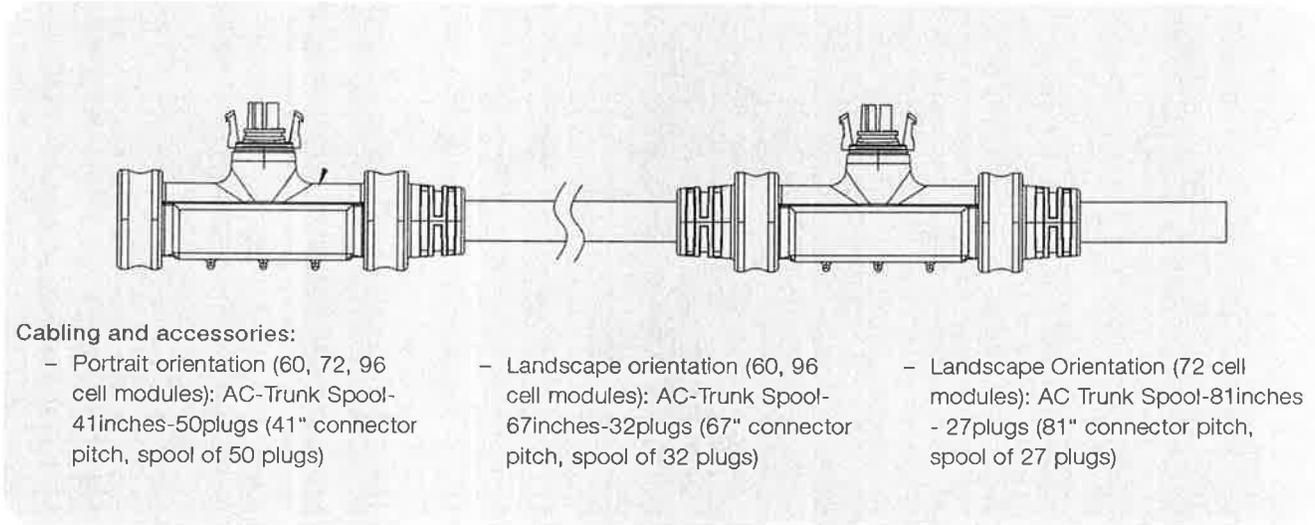
¹ Actual distance is function of environmental condition. Please refer to dedicated technical note for further information.
 Remark: features not specially listed in the present datasheet are not included in the product.

Monitoring solutions

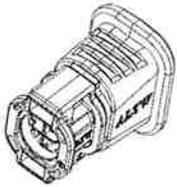


Aurora Vision Plant Viewer:

- Easy monitoring solution for homeowners on web or mobile devices.
- Complete reporting, analytics and diagnostic view for installers with complete control of installation process and access security.
- Tightly integrated micro-inverter and monitoring solution.



3AUA000000xxxxx REV 1.3 EN OS:15.2014 #16634



AC trunk cable plug cap:
- Plug cap to cover and seal unused plugs on AC trunk cable: AC-TRUNK PLUG CAP



AC trunk cable end cap:
- End cap to cover and seal ends of AC trunk cable: AC-TRUNK END CAP



AC trunk cable unlock tool:
- To disconnect MICRO inverter or Junction cap from trunk cable. AC-TRUNK UNLOCK TOOL



AC trunk cable joiner:
- To connect two trunk cables together: AC-TRUNK CABLE JOINER



CDD antenna extension cable 50ft (optional):
- To extend the wireless communication range of the CDD and MICRO inverters: MOBILE MARK CABLE-ASSY-C25-26-15L

Support and service
ABB supports its customers with a dedicated, global service organization in more than 60 countries, with strong regional and national technical partner networks providing a complete range of life cycle services.

For more information please contact your local ABB representative or visit:

www.abb.com/solarinverters

www.abb.com

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MEMORANDUM

October 20, 2016

To: Plan Commission
Cc: Village Manager Chris Swartz
Village Attorney Nathan Bayer

From: Planning Director Ericka Lang

RE: Conditional Use for Solar Panel 4269 N. Olsen Ave.



On August 16, 2016 the village received a conditional use application for installation of solar panels at residential property 4269 N. Olsen Street. The property owners are Michael and Lynn Ewing and the applicant is Arch Electric Inc.

Panel Description

The application is for 13 solar modules mounted on the backside of the house, laid in two rows. Each panel is 40" x 70" x 2.5"d.

Code

Per 535-30D, installation and use of solar energy systems are a conditional use in all districts. The full code is attached. It also says that your commission shall review the proposed system and may only restrict if one of the following conditions is satisfied:

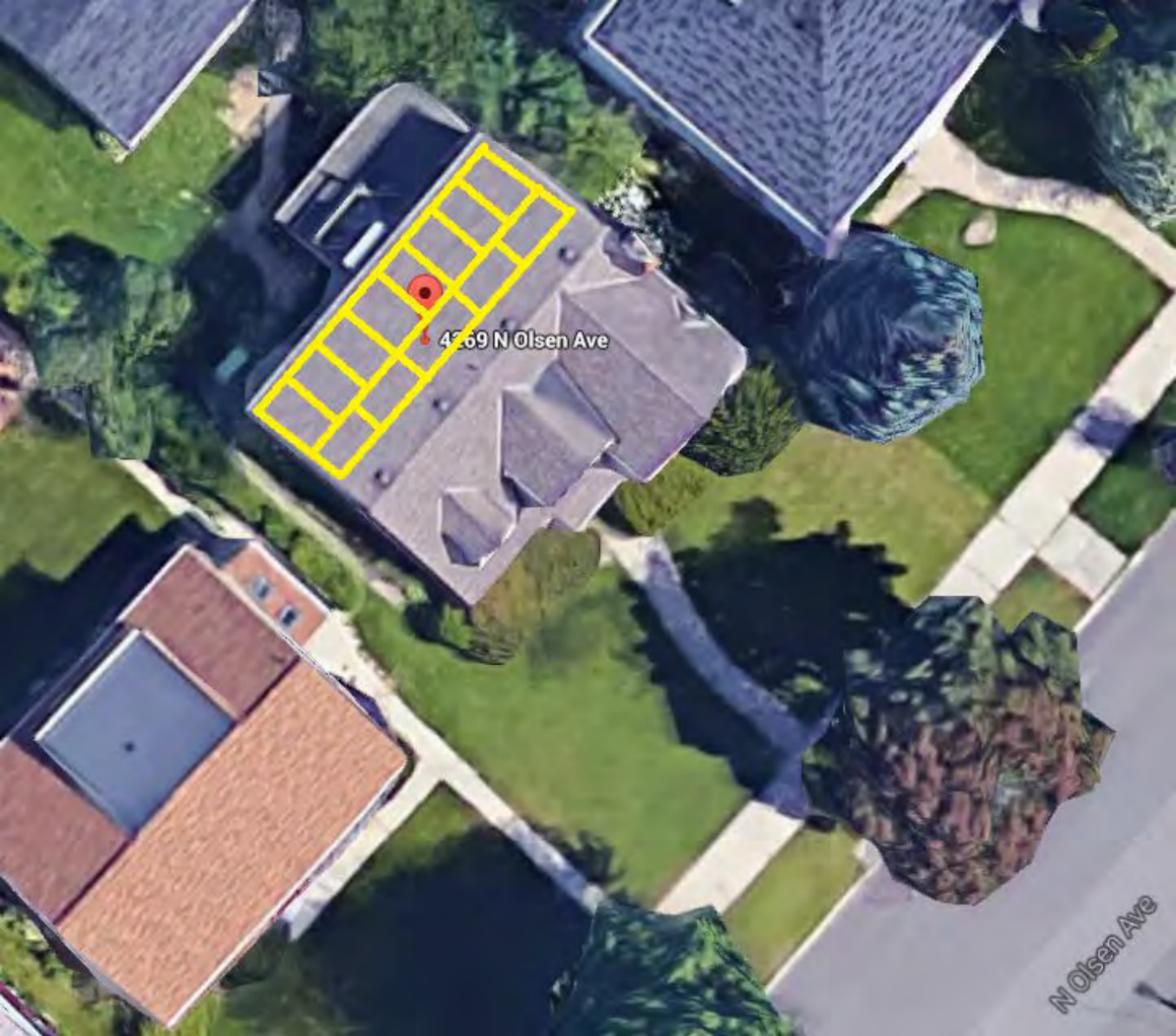
- [1] Serves to preserve or protect the public health or safety.
- [2] Does not significantly increase the cost of the system or significantly decrease its efficiency.
- [3] Allows for an alternative system of comparable cost and efficiency.

The review and approval criteria in 535-30D apply to solar and wind energy systems.



A SHOREWOOD
LEVEL
BEER

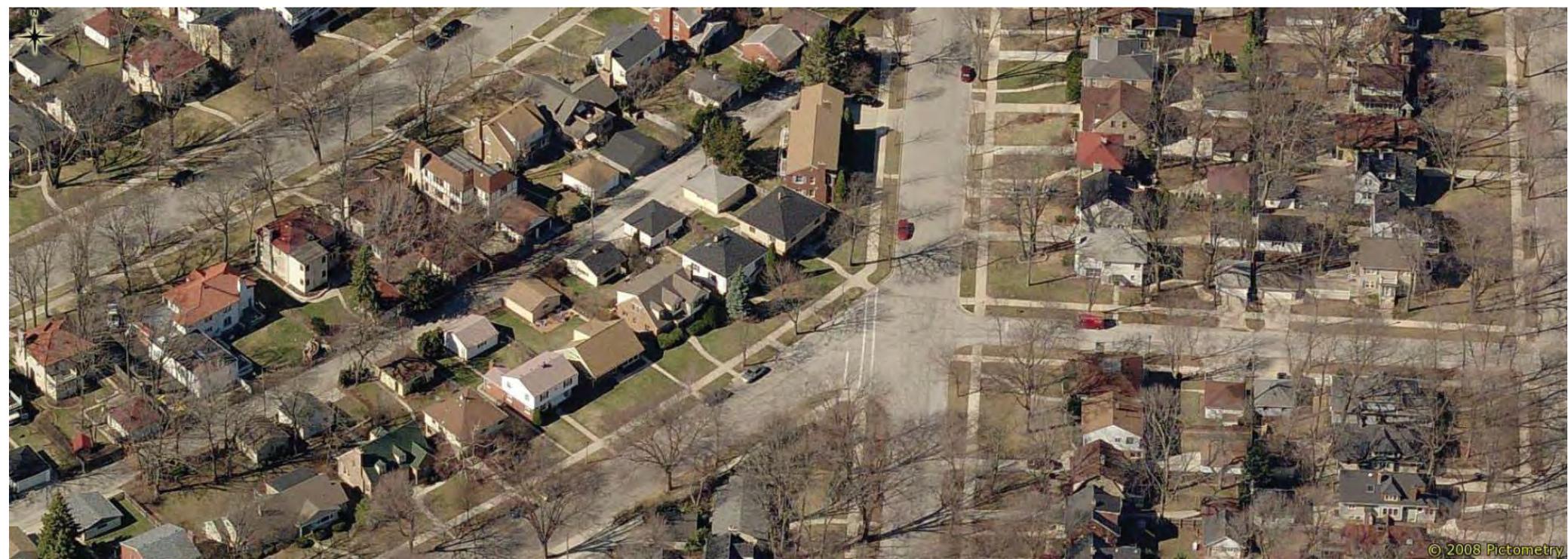
CLINTON
FOR SENATE
FEINGOLD
FOR U.S. SENATE



47.69 N Olsen Ave

N Olsen Ave

4269 Olsen



04/14/2008





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INTEGRATED GROUNDING POWERED BY: **[e] enphase**
E N E R G Y



UL2703
LISTED

**BONDING & GROUNDING
MECHANICAL LOADING
SYSTEM FIRE CLASSIFICATION**
CLASS A - TYPE 1, 2, 3 & 10 MODULES



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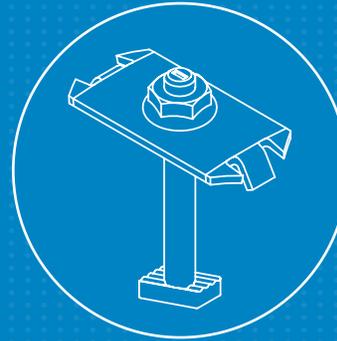
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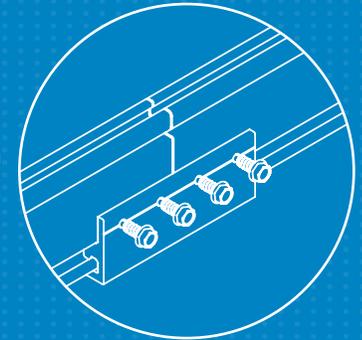
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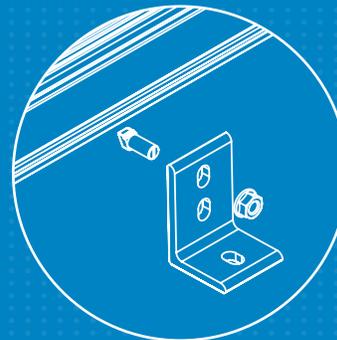
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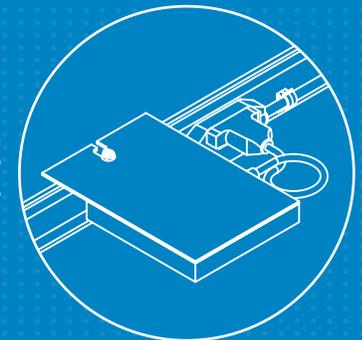
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INTEGRATED BONDING MICROINVERTER MOUNT w/ WIRE MANAGEMENT

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PROTECT YOUR REPUTATION WITH QUALITY RACKING SOLUTIONS BACKED BY ENGINEERING EXCELLENCE AND A SUPERIOR SUPPLY CHAIN

PVI-3.0-TL PVI-3.6-TL PVI-3.8-TL PVI-4.2-TL

GENERAL SPECIFICATIONS

The most common residential inverter is the ideal size for an average-sized family home. This family of single-phase string inverter complements the typical number of rooftop solar panels, allowing home-owners to get the most efficient energy harvesting for the size of the property. This rugged outdoor inverter has been designed as a completely sealed unit to withstand the harshest environmental conditions.

One of the key benefits of the Uno family of single-phase inverters is the dual input section to process two strings with independent MPPT especially useful for rooftop installations with two different orientations (ie East and West). The high speed MPPT offers real-time power tracking and improved energy harvesting.

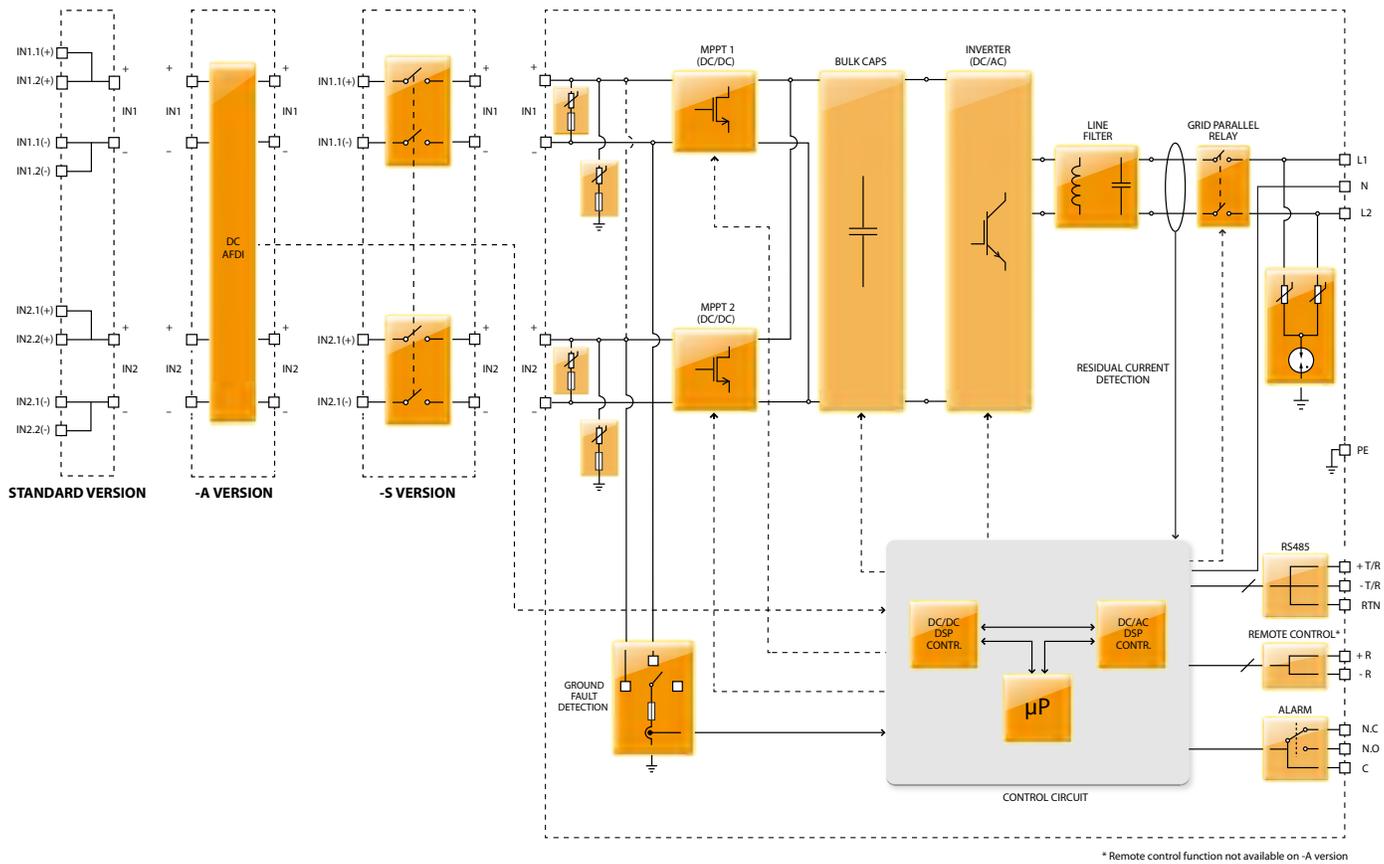
The transformerless operation gives the highest efficiency of up to 97.0%. The wide input voltage range makes the inverter suitable to low power installations with reduced string size.



Features

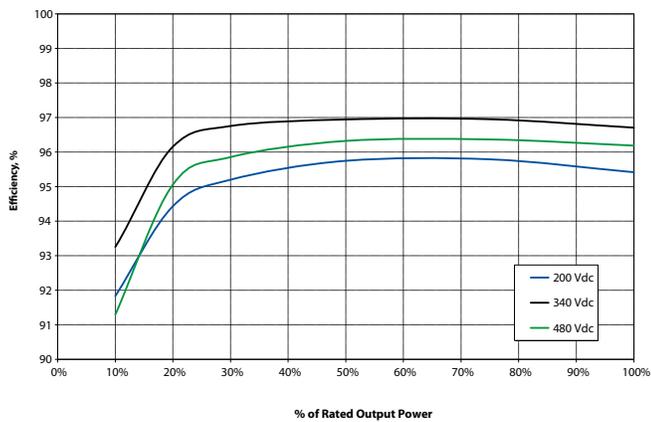
- Each inverter is set on specific grid codes which can be selected in the field
- Single phase output
- Dual input sections with independent MPPT, allows optimal energy harvesting from two sub-arrays oriented in different directions
- Wide input range
- High speed and precise MPPT algorithm for real time power tracking and improved energy harvesting
- Flat efficiency curves ensure high efficiency at all output levels ensuring consistent and stable performance across the entire input voltage and output power range
- Outdoor NEMA 4X rated enclosure for unrestricted use under any environmental conditions
- Integrated DC disconnect switch in compliance with international Standards (-S Version)
- RS-485 communication interface (for connection to laptop or datalogger)
- Compatible with PVI-RADIOMODULE for wireless communication with Aurora PVI-DESKTOP
- Integrated Arc Fault Detection and Interruption (-A Version)

BLOCK DIAGRAM OF PVI-3.0-OUTD, PVI-3.6-OUTD , PVI-3.8-OUTD AND PVI-4.2-OUTD FOR NORTH AMERICA

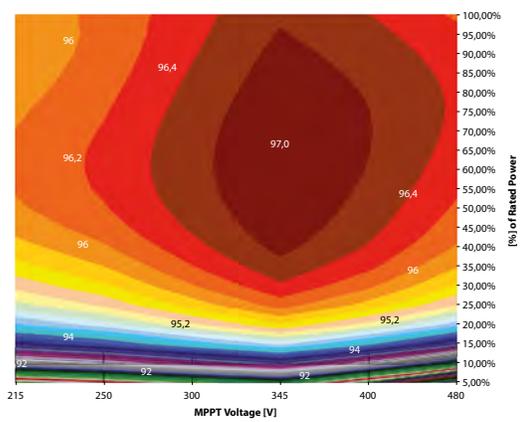


Block Diagram and Efficiency Curves

PVI-4.2-OUTD-US



PVI-4.2-OUTD-US



TECHNICAL DATA	VALUES	PVI-3.0-OUTD-US			PVI-3.6-OUTD-US			PVI-3.8-OUTD-US			PVI-4.2-OUTD-US					
Nominal Output Power	W	3000			3600			3300			3800			4200		
Maximum Output Power	W	3000	3300 ²	3300 ²	3600	4000 ²	4000 ²	3300	4200 ²	4200 ²	4200	4600 ²	4600 ²	4600 ²		
Rated Grid AC Voltage	V	208	240	277	208	240	277	208	240	277	208	240	277			
Input Side (DC)																
Number of Independent MPPT Channels		2			2			2			2					
Maximum Usable Power for Each Channel	W	2000			3000			3000			3000					
Absolute Maximum Voltage (Vmax)	V	600														
Start-Up Voltage (Vstart)	V	200 (adj. 120-350)														
Full Power MPPT Voltage Range	V	160-530			120-530			140-530			140-530					
Operating MPPT Voltage Range	V	0.7xVstart-580 (>= 90V)														
Maximum Current (I _{dcmax}) for both MPPT in Parallel	A	20			32			32			32					
Maximum Usable Current per Channel	A	10			16			16			16					
Maximum Short Circuit Current Limit per Channel	A	12.5			20.0			20.0			20.0					
Number of Wire Landing Terminals Per Channel		2 pairs														
Array Wiring Termination		Terminal block, Pressure Clamp, AWG10-AWG4														
Output Side (AC)																
Grid Connection Type		1Ø/2W	Split-Ø/3W	1Ø/2W	1Ø/2W	Split-Ø/3W	1Ø/2W	1Ø/2W	Split-Ø/3W	1Ø/2W	1Ø/2W	Split-Ø/3W	1Ø/2W			
Adjustable Voltage Range (V _{min} -V _{max})	V	183-228	211-264	244-304	183-228	211-264	244-304	183-228	211-264	244-304	183-228	211-264	244-304			
Grid Frequency	Hz	60														
Adjustable Grid Frequency Range	Hz	57-60.5														
Maximum Current (I _{acmax})	A _{RMS}	14.5	14.5	12.0	17.2	16.0	16.0	16.0	16.0	16.0	16.0	20.0	20.0	20.0		
Power Factor		> 0.995														
Total Harmonic Distortion At Rated Power	%	< 2														
Grid Wiring Termination Type		Terminal block, Pressure Clamp AWG10 - AWG4														
Protection Devices																
Input																
Reverse Polarity Protection		Yes														
Over-Voltage Protection Type		Varistor, 2 for each channel														
PV Array Ground Fault Detection		Pre start-up Riso and dynamic GFDI (Requires Floating Arrays)														
Output																
Anti-Islanding Protection		Meets UL 1741/IEE1547 requirements														
External AC OCPD Rating	A _{RMS}	20	20	15	25	20	20	20	20	20	20	25	25	25		
Over-Voltage Protection Type		Varistor, 2 (L ₁ - L ₂ / L ₁ - G)														
Efficiency																
Maximum Efficiency	%	96.9			97			97			97					
CEC Efficiency	%	96														
Operating Performance																
Night Time Consumption	W _{RMS}	< 0.6														
Stand By Consumption	W _{RMS}	< 8														
Communication																
User-Interface																
Remote Monitoring (1xRS485 incl.)		16 characters x 2 lines LCD display AURORA-UNIVERSAL (opt.)														
Wired Local Monitoring (1xRS485 incl.)		PVI-USB-RS485_232 (opt.), PVI-DESKTOP (opt.)														
Wireless Local Monitoring		PVI-DESKTOP (opt.) with PVI-RADIOMODULE (opt.)														
Environmental																
Ambient Air Operating Temperature Range	°F (°C)	-13 to +140 (-25 to +60) with derating above 122 (50)														
Ambient Air Storage Temperature Range	°F (°C)	-40 to 176 (-40 to +80)														
Relative Humidity	% RH	0-100 condensing														
Acoustic Noise Emission Level	db (A) @1m	< 50														
Maximum Operating Altitude without Derating	ft(m)	6560 (2000)														
Mechanical Specifications																
Enclosure rating		NEMA 4X														
Cooling		Natural Convection														
Dimensions (H x W x D)	in (mm)	33.8 x 12.8 x 8.7 (859 x 325 x 222)														
Weight	lb (kg)	< 47.3 (21.3)														
Shipping Weight	lb (kg)	< 60 (27.0)														
Mounting System		Wall bracket														
Conduit Connections ³		Trade size KOs: (2ea x 1/2") and (2ea x 1-1/4", 3 places side, front, rear) Side: (2) plugged 3/4" openings, (2) Concentric EKOs 3/4", 1" Back: (4) Concentric EKOs 3/4", 1"														
DC Switch Rating (Per Contact)	A/V	25 / 600														
Safety																
Isolation Level		Transformerless (Floating Array)														
Safety and EMC Standard		UL 1741, IEE1547, IEE1547.1, CSA - C22.2 N. 107.1-01, UL1998 UL1699B, FCC Part 15 Class B														
Safety Approval		cCSAus														
Warranty																
Standard Warranty	years	10														
Extended Warranty	years	15 & 20														
Available Models																
Standard - Without DC Switch and Wiring Box		PVI-3.0-OUTD-US			PVI-3.6-OUTD-US			PVI-3.8-OUTD-US			PVI-4.2-OUTD-US					
Standard - With DC Switch and Wiring Box		PVI-3.0-OUTD-S-US			PVI-3.6-OUTD-S-US			PVI-3.8-OUTD-S-US			PVI-4.2-OUTD-S-US					
With DC Switch, Wiring box and Arc Fault Detector and Interrupter		PVI-3.0-OUTD-S-US-A			PVI-3.6-OUTD-S-US-A			PVI-3.8-OUTD-S-US-A			PVI-4.2-OUTD-S-US-A					

¹All data is subject to change without notice

²Capability enabled at nominal AC voltage and with sufficient DC power available

³When equipped with optional DC switch and Wiring Box



www.power-one.com

Power-One Renewable Energy Worldwide Sales Offices

<u>Country</u>	<u>Name/Region</u>	<u>Telephone</u>	<u>Email</u>
Australia	Asia Pacific	+61 2 9735 3111	sales.australia@power-one.com
China (Shenzhen)	Asia Pacific	+86 755 2988 5888	sales.china@power-one.com
China (Shanghai)	Asia Pacific	+86 21 5505 6907	sales.china@power-one.com
India	Asia Pacific	+65 6896 3363	sales.india@power-one.com
Japan	Asia Pacific	03-4580-2714 / +81-3-4580-2714	sales.japan@power-one.com
Singapore	Asia Pacific	+65 6896 3363	sales.singapore@power-one.com
Belgium / The Netherlands / Luxembourg	Europe	+32 2 206 0338	sales.belgium@power-one.com
France	Europe	+33 (0) 141 796 140	sales.france@power-one.com
Germany	Europe	+49 7641 955 2020	sales.germany@power-one.com
Greece	Europe	00 800 00287672	sales.greece@power-one.com
Italy	Europe	00 800 00287672	sales.italy@power-one.com
Spain	Europe	+34 91 879 88 54	sales.spain@power-one.com
United Kingdom	Europe	+44 1903 823 323	sales.uk@power-one.com
Dubai	Middle East	+971 50 100 4142	sales.dubai@power-one.com
Israel	Middle East	+972 0 3 544 8884	sales.israel@power-one.com
Canada	North America	+1 877 261-1374	sales.canada@power-one.com
USA East	North America	+1 877 261-1374	sales.usaeast@power-one.com
USA Central	North America	+1 877 261-1374	sales.usacentral@power-one.com
USA West	North America	+1 877 261-1374	sales.usawest@power-one.com

**4.29 kW Roof Mounted
13- Suniva 330 Watt Modules
1 Inverter Total**

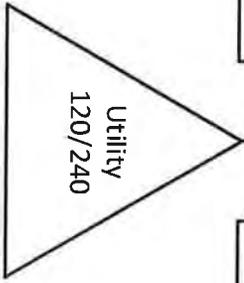
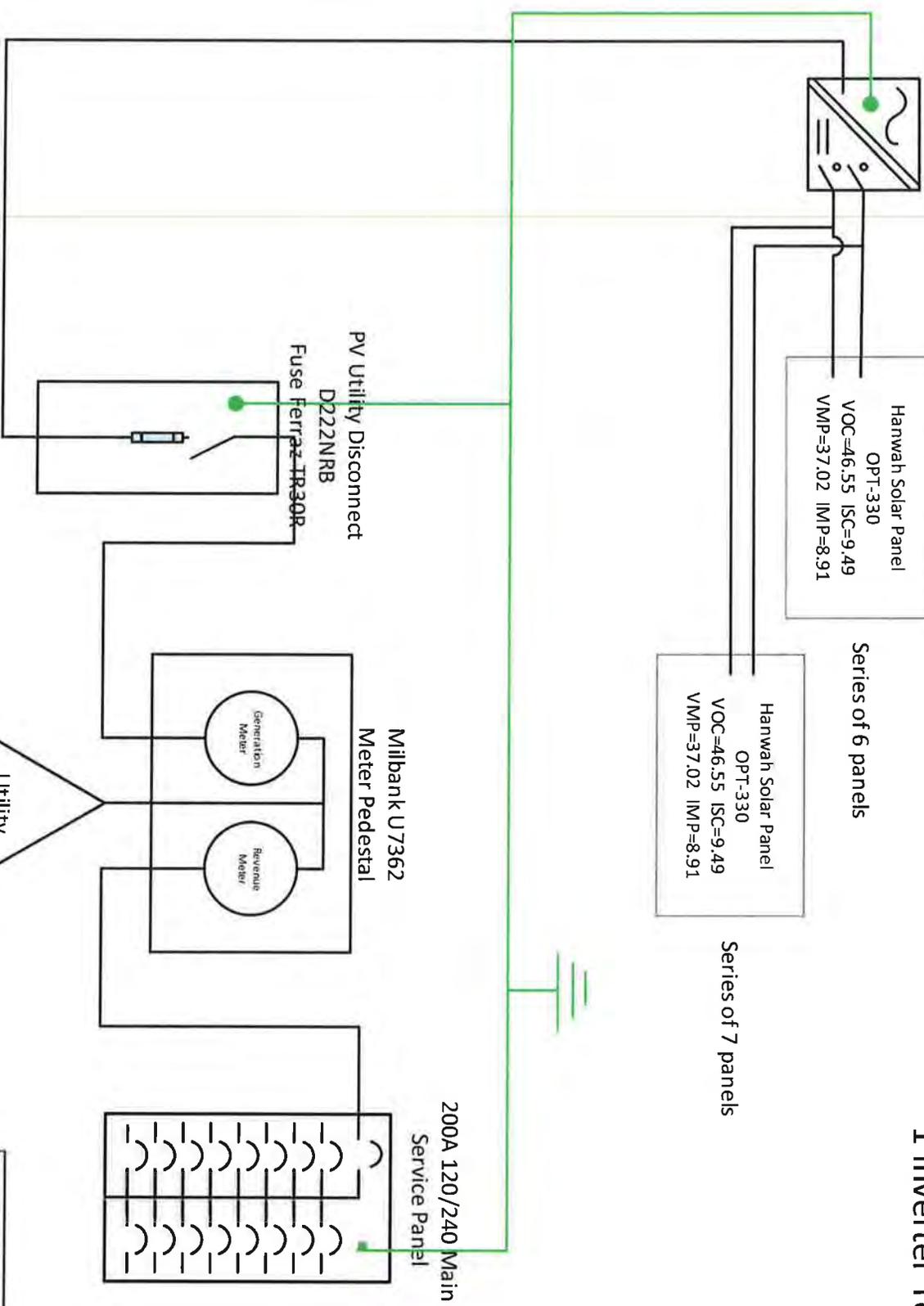
**4.2 kW Inverter
Power One 4.2**

Hanwah Solar Panel
OPT-330
VOC=46.55 ISC=9.49
VMP=37.02 IMP=8.91

Series of 6 panels

Hanwah Solar Panel
OPT-330
VOC=46.55 ISC=9.49
VMP=37.02 IMP=8.91

Series of 7 panels



One Line Solar Interconnection Diagram
DWG By: Arch Electric INC 8_12_16RE
Project: Michael Ewing
4269 N Olsen Ave Shorewood WI 53211

PROJECT TITLE: MICHAEL EWING
PROJECT ID: 14D7BF56

Name:	Michael Ewing	Designed by	Russel@archelec.com
Address:	4269 N Olsen Ave Shorewood Wi 53211	SOLARMOUNT	
City, State:	Milwaukee, WI, 53211	13 - 330 Watt Panels	
Module:	Hanwha Solar Q-PLUS-G4.2 330	279 Sq Ft.	
	330 Watts	4.3 kWs	

ENGINEERING REPORT

Plan review

Loads Used for Design

- Building Code:	ASCE 7-05
- Wind Speed:	90 mph
- Ground Snow Load:	30 psf
- Seismic (Ss):	0.09
- Wind Exposure:	B

Loads Determined by Zip

- City, State:	Milwaukee, WI
- Wind Speed:	90 mph
- Ground Snow Load:	30 psf

Inspection

Product:	SOLARMOUNT
Module Manufacturer:	Hanwha Solar
Model:	Q-PLUS-G4.2 330
Module Watts:	330 watts
Module Length:	78.50 "
Module Width:	39.40 "
Module Thickness:	1.38 "
Expansion Joints:	Every 40'
Rails Direction:	EW
Building Height:	30 ft.
Roof Type:	Shingle
Total Weight:	687.70 lbs

WORKSPACE 1:

Roof Point Load Up: -147 lbs

Roof Point Load Down: 245 lbs

Maximum Rail Span (Zone 1): 51"

Selected Rail Span: 48"

Maximum Rail Cantilever: 16.00 "

Total Number of Modules: 13

Roof Pitch: 12:12

Total KW: 4.3 KW

Rows/ Columns: 2 / 7 (with gaps)

NS Dimension: ~13.1 ft

EW Dimension: ~23.4 ft

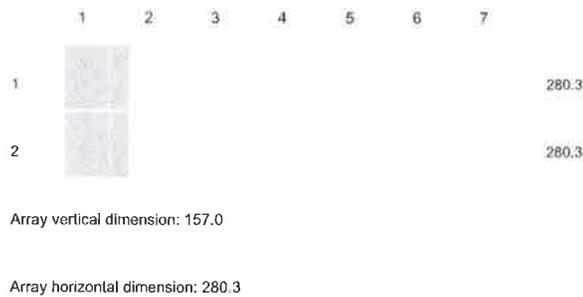
AUG 12, 2016, 01:29 PM

PROJECT TITLE: MICHAEL EWING
PROJECT ID: 14D7BF56

Name:	Michael Ewing	Designed by	Russel@archelec.com
Address:	4269 N Olsen Ave Shorewood Wi 53211	SOLARMOUNT	
City, State:	Milwaukee, WI, 53211	13 - 330 Watt Panels	
Module:	Hanwha Solar Q-PLUS-G4.2 330	279 Sq Ft.	
	330 Watts	4.3 kW	

INSTALLATION AND DESIGN PLAN

LAYOUT WORKSPACE 1



Row	Modules	Zone	Rail Type	Splices	Roof Attachments
1	6	Zone 2	SM RAIL 168" MILL 320168M \$70 (4)	2	12
2	7	Zone 2	SM RAIL 168" MILL 320168M \$70 (4)	2	14
Maximum Rail Span (Zone 1*):					51.00"
Selected Rail Span:					48.00"
Maximum Rail Cantilever:					16.00"
Module Orientation:					Portrait
Rail Direction:					EW

*Zone 2 and 3 Rail Spans must be independently verified



MEMORANDUM

October 20, 2016

To: Plan Commission
Cc: Village Manager Chris Swartz
Village Attorney Nathan Bayer

From: Planning Director Ericka Lang

RE: Conditional Use for Solar Panel 3726 N. Morris Blvd

On August 25, 2016 the village received a conditional use application for installation of solar panels at residential property 3726 N. Morris Blvd. The property owners are Paul and Jackie Muirhead and the applicant is Arch Electric Inc.

Panel Description

The application is for 14 solar modules mounted on the house roof on the south side. A panel layout was not provided in the packet.

Code

Per 535-30D, installation and use of solar energy systems are a conditional use in all districts. The full code is attached. It also says that your commission shall review the proposed system and may only restrict if one of the following conditions is satisfied:

- [1] Serves to preserve or protect the public health or safety.
- [2] Does not significantly increase the cost of the system or significantly decrease its efficiency.
- [3] Allows for an alternative system of comparable cost and efficiency.

The review and approval criteria in 535-30D apply to solar and wind energy systems.



Arch Electric

Solo

CLINTON FILINGOLD



3726 Morris

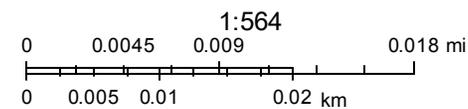


October 19, 2016

Address Numbers

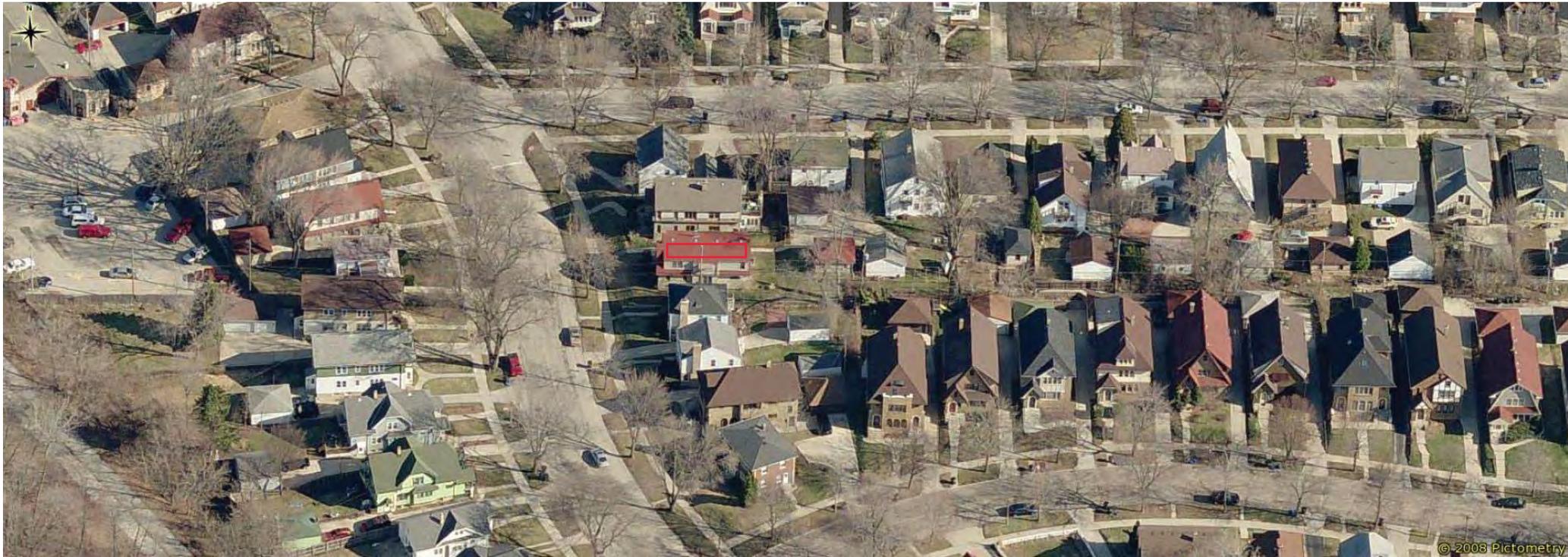
Parcels

Streets



Milwaukee County Land Information Office

3726 Morris



04/14/2008

Q.PLUS L-G4.2 330-340

Q.ANTUM SOLAR MODULE

The Q.ANTUM solar module Q.PLUS L-G4.2 with power classes up to 340 Wp is the strongest module of its type on the market globally. Powered by 72 Q CELLS solar cells Q.PLUS L-G4.2 was specially designed for large solar power plants to reduce BOS costs. Only Q CELLS offers German engineering quality with our unique triple Yield Security.



LOW ELECTRICITY GENERATION COSTS

Higher yield per surface area and lower BOS costs thanks to higher power classes and an efficiency rate of up to 17.4 %.



INNOVATIVE ALL-WEATHER TECHNOLOGY

Optimal yields, whatever the weather with excellent low-light and temperature behavior.



ENDURING HIGH PERFORMANCE

Long-term yield security with Anti-PID Technology¹, Hot-Spot-Protect and Traceable Quality Tra.Q™.



LIGHT-WEIGHT QUALITY FRAME

High-tech aluminum alloy frame, certified for high snow (5400 Pa) and wind loads (2400 Pa).



A RELIABLE INVESTMENT

Inclusive 12-year product warranty and 25-year linear performance guarantee².

THE IDEAL SOLUTION FOR:



Ground-mounted solar power plants

Engineered in **Germany**



Q CELLS
Best polycrystalline solar module 2013
Q.PRO-G2 235
151 modules tested

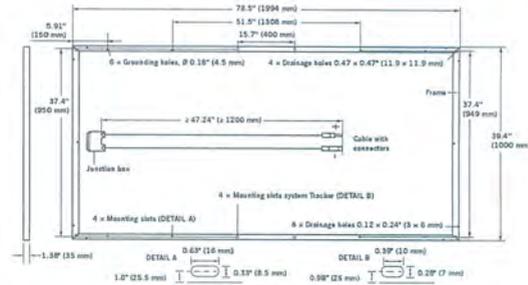
¹ APT test conditions: Cells at -1000V against grounded, with conductive metal foil covered module surface, 25°C, 168 h

² See data sheet on rear for further information.

Q CELLS

MECHANICAL SPECIFICATION

Format	78.5 in × 39.4 in × 1.38 in (including frame) (1994 mm × 1000 mm × 35 mm)
Weight	52.9 lb (24 kg)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Anodised aluminum
Cell	6 × 12 Q.ANTUM solar cells
Junction box	3.35-4.13 in × 2.36-3.15 in × 0.59-0.67 in (85-105 mm × 60-80 mm × 15-17 mm), Protection class ≥ IP67, with bypass diodes
Cable	4 mm ² Solar cable; (+) ≥ 47.24 in (1200 mm), (-) ≥ 47.24 in (1200 mm)
Connector	Amphenol H4 UTX, IP68

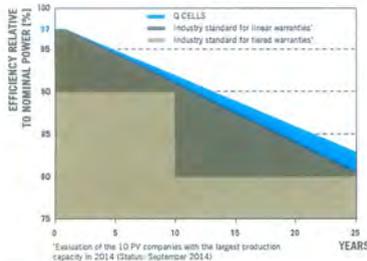


ELECTRICAL CHARACTERISTICS

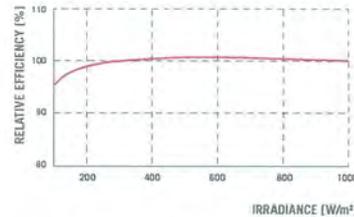
POWER CLASS		330	335	340	
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5W / -0W)					
Minimum	Power at MPP ²	P _{MPP} [W]	330	335	340
	Short Circuit Current [*]	I _{SC} [A]	9.49	9.54	9.59
	Open Circuit Voltage [*]	V _{OC} [V]	46.55	46.81	47.07
	Current at MPP [*]	I _{MPP} [A]	8.91	8.97	9.03
	Voltage at MPP [*]	V _{MPP} [V]	37.02	37.33	37.63
	Efficiency ²	η [%]	≥ 16.5	≥ 16.8	≥ 17.1
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC³					
Minimum	Power at MPP ²	P _{MPP} [W]	244.7	248.4	252.1
	Short Circuit Current [*]	I _{SC} [A]	7.65	7.69	7.73
	Open Circuit Voltage [*]	V _{OC} [V]	43.44	43.68	43.92
	Current at MPP [*]	I _{MPP} [A]	6.99	7.04	7.09
	Voltage at MPP [*]	V _{MPP} [V]	35.01	35.29	35.56

¹1000 W/m², 25°C, spectrum AM 1.5G ²Measurement tolerances STC ± 3%; NOC ± 5% ³800 W/m², NOCT, spectrum AM 1.5G * typical values, actual values may differ

Q CELLS PERFORMANCE WARRANTY



PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25°C, 1000W/m²).

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I _{SC}	α	[%/K]	+0.04	Temperature Coefficient of V _{OC}	β	[%/K]	-0.29
Temperature Coefficient of P _{MPP}	γ	[%/K]	-0.40	Normal Operating Cell Temperature	NOCT	[°F]	113 ± 5.4 (45 ± 3°C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V _{sys}	[V]	1500 (IEC) / 1500 (UL)	Safety Class	II
Maximum Series Fuse Rating	[A DC]	15	Fire Rating	C / TYPE 1
Max Load (UL) ²	[lbs/ft ²]	75 (3600 Pa)	Permitted module temperature on continuous duty	-40°F up to +185°F (-40°C up to +85°C)
Load Rating (UL) ²	[lbs/ft ²]	33 (1600 Pa)	² see installation manual	

QUALIFICATIONS AND CERTIFICATES

IEC 61215 (Ed.2); IEC 61730 (Ed.1), Application class A
This data sheet complies with DIN EN 50380.



PACKAGING INFORMATION

Number of Modules per Pallet	29
Number of Pallets per 40' Container	22
Pallet Dimensions (L × W × H)	81.3 × 45.3 × 46.9 in (2065 × 1150 × 1190 mm)
Pallet Weight	1671 lbs (758 kg)

NOTE: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.

Hanwha Q CELLS USA Corp.
300 Spectrum Center Drive, Suite 1250, Irvine, CA 92618, USA | TEL +1 949 748 59 96 | WEB www.q-cells.com



Engineered in Germany

SM SOLAR MOUNT



UNIRAC
A HILTI GROUP COMPANY

SOLARMOUNT defined the standard in solar racking. New enhancements are designed to get installers off the roof faster than ever before. Components are pre-assembled and optimized to reduce installation steps and save labor time. Our new grounding & bonding process eliminates copper wire and grounding straps to reduce costs. Utilize the microinverter mount with a wire management clip for an easier installation.

ELIMINATE THE GROUNDWIRE FROM YOUR SOLARMOUNT ARRAY
LOSE THE COPPER & LUGS
INTEGRATED GROUNDING POWERED BY: **[e] enphase**
E N E R G Y



UL2703
LISTED

**BONDING & GROUNDING
MECHANICAL LOADING
SYSTEM FIRE CLASSIFICATION**
CLASS A - TYPE 1, 2, 3 & 10 MODULES



ROOF MOUNT SYSTEMS

GET OFF THE ROOF FASTER THAN EVER BEFORE

OPTIMIZED COMPONENTS • VERSATILITY • AVAILABILITY • DESIGN TOOLS

OPTIMIZED COMPONENTS

INTEGRATED BONDING & PRE-ASSEMBLED PARTS

Components are pre-assembled and optimized to reduce installation steps and save labor time. Our new grounding & bonding process eliminates copper wire and grounding straps or bonding jumpers to reduce costs. Utilize the microinverter mount with a wire management clip for an easier installation.

VERSATILITY

ONE PRODUCT - MANY APPLICATIONS

Quickly set modules flush to the roof or at a desired tilt angle. Change module orientation to portrait or landscape while securing a large variety of framed modules on flat, low sloped or steep pitched roofs. Available in mill, clear and dark anodized finishes to outperform your projects financial and aesthetic aspirations.

AVAILABILITY

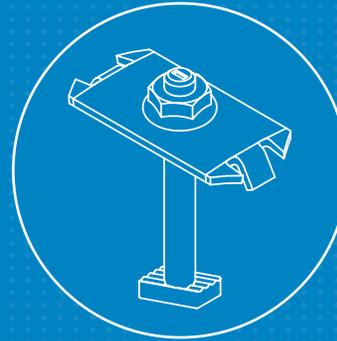
NATIONWIDE NETWORK

Unirac maintains the largest network of stocking distributors for our racking solutions. Our partners have distinguished their level of customer support, availability, and overall value, thereby providing the highest level of service to users of Unirac products. Count on our partners for fast and accurate delivery to meet your project objectives. Visit Unirac.com for a list of distributors.

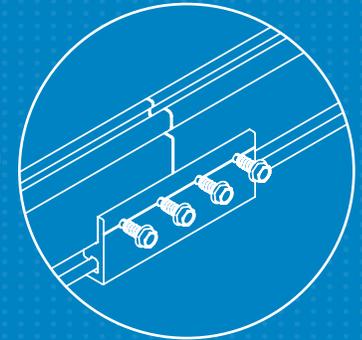
AUTOMATED DESIGN TOOL

DESIGN PLATFORM AT YOUR SERVICE

Creating a bill of materials is just a few clicks away with U-Builder, a powerful online tool that streamlines the process of designing a code compliant solar mounting system. Save time by creating a user profile, and recall preferences and projects automatically when you log in. You will enjoy the ability to share projects with customers; there's no need to print results and send to a distributor, just click and share.



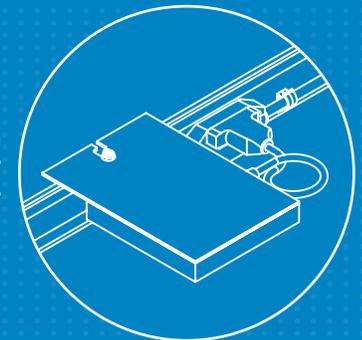
INTEGRATED BONDING MIDCLAMP



INTEGRATED BONDING SPLICE BAR



INTEGRATED BONDING L-FOOT w/ T-BOLT



INTEGRATED BONDING MICROINVERTER MOUNT w/ WIRE MANAGEMENT

UNIRAC CUSTOMER SERVICE MEANS THE HIGHEST LEVEL OF PRODUCT SUPPORT



TECHNICAL SUPPORT

Unirac's technical support team is dedicated to answering questions & addressing issues in real time. An online library of documents including engineering reports, stamped letters and technical data sheets greatly simplifies your permitting and project planning process.

CERTIFIED QUALITY PROVIDER

Unirac is the only PV mounting vendor with ISO certifications for 9001:2008, 14001:2004 and OHSAS 18001:2007, which means we deliver the highest standards for fit, form, and function. These certifications demonstrate our excellence and commitment to first class business practices.

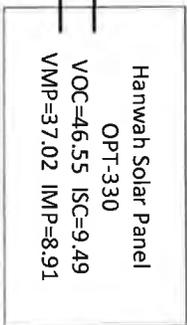
BANKABLE WARRANTY

As a Hilti Group Company, Unirac has the financial strength to back our products and reduce your risk. Have peace of mind knowing you are receiving products of exceptional quality. SOLARMOUNT is covered by a 10-year limited product warranty and a 5-year limited finish warranty.

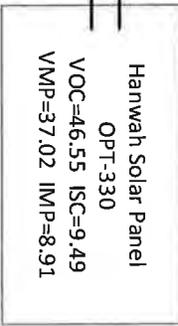
PROTECT YOUR REPUTATION WITH QUALITY RACKING SOLUTIONS BACKED BY ENGINEERING EXCELLENCE AND A SUPERIOR SUPPLY CHAIN

**4.62 kW Roof Mounted
14- Suniva 330 Watt Modules
1 Inverter Total**

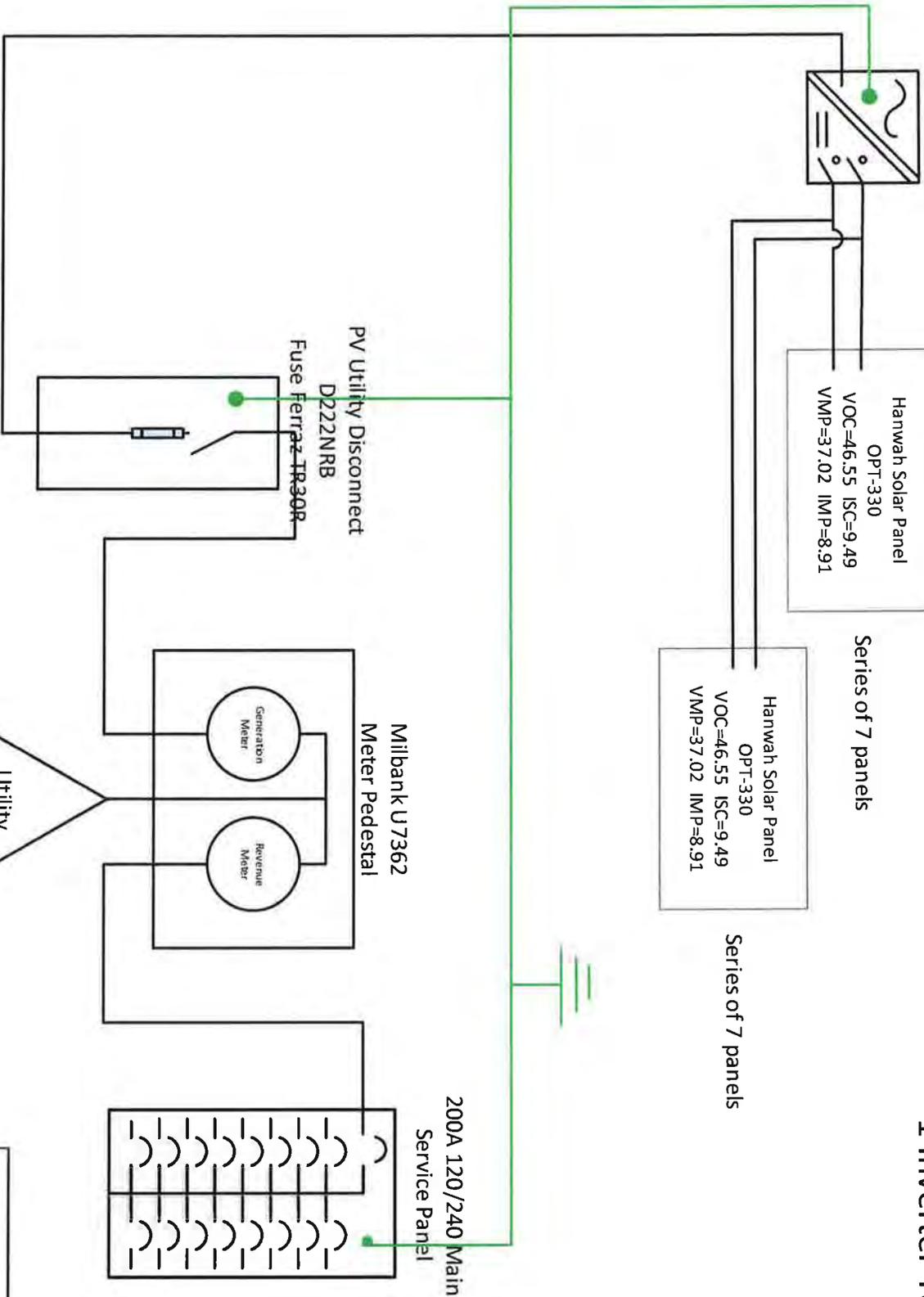
**3.6 kW Inverter
Power One 3.6**



Series of 7 panels



Series of 7 panels



One Line Solar Interconnection Diagram
 DWG By: Arch Electric INC 8_20_16RE
 Project: Jackie Muirhead
 3726 N Morris BLVD Shorewood WI 53211



AUG 20, 2016, 03:42 PM

PROJECT TITLE: JACKIE MUIRHEAD
PROJECT ID: 7EBC77C5

Name: Jackie Muirhead
Address: 3726 N Morris BLVD Shorewood Wi 53211
City, State: Milwaukee, WI, 53211
Module: Hanwha Solar Q-PLUS-G4.2 330
330 Watts

Designed by
Russel@archelec.com
SOLARMOUNT
14 - 330 Watt Panels
301 Sq Ft.
4.6 kWs

ENGINEERING REPORT

Plan review

Loads Used for Design

- **Building Code:** ASCE 7-05
- **Wind Speed:** 90 mph
- **Ground Snow Load:** 30 psf
- **Seismic (Ss):** 0.09
- **Wind Exposure:** B

Loads Determined by Zip

- **City, State:** Milwaukee, WI
- **Wind Speed:** 90 mph
- **Ground Snow Load:** 30 psf

Inspection

Product: SOLARMOUNT
Module Manufacturer: Hanwha Solar
Model: Q-PLUS-G4.2 330
Module Watts: 330 watts
Module Length: 78.50 "
Module Width: 39.40 "
Module Thickness: 1.38 "
Expansion Joints: Every 40'
Rails Direction: EW
Building Height: 30 ft.
Roof Type: Shingle
Total Weight: 740.60 lbs

WORKSPACE 1

Roof Point Load Up: -128 lbs

Roof Point Load Down: 334 lbs

Total Number of Modules: 14

Total KW: 4.6 KW

Rows/ Columns: 2 / 7 (no gaps)

NS Dimension: ~13.1 ft

EW Dimension: ~23.4 ft

Maximum Rail Span (Zone 1): 53"

Selected Rail Span: 48"

Maximum Rail Cantilever: 16.00 "

Roof Pitch: 6:12

AUG 20, 2016, 03:42 PM

PROJECT TITLE: JACKIE MUIRHEAD
PROJECT ID: 7EBC77C5

Name: Jackie Muirhead
Address: 3726 N Morris BLVD Shorewood Wi 53211
City, State: Milwaukee, WI, 53211
Module: Hanwha Solar Q-PLUS-G4.2 330
330 Watts

Designed by
Russel@archelec.com
SOLARMOUNT
14 - 330 Watt Panels
301 Sq Ft
4.6 kW

INSTALLATION AND DESIGN PLAN

LAYOUT WORKSPACE 1



Row	Modules	Zone	Rail Type	Splices	Roof Attachments
1	7	Zone 1	SM RAIL 168" MILL 320168M \$70 (4)	2	14
2	7	Zone 2	SM RAIL 168" MILL 320168M \$70 (4)	2	24
Maximum Rail Span (Zone 1*):					53.00"
Selected Rail Span:					48.00"
Maximum Rail Cantilever:					16.00"
Module Orientation:					Portrait
Rail Direction:					EW

*Zone 2 and 3 Rail Spans must be independently verified

MEMORANDUM

October, 20, 2016

To: Plan Commission
Cc: Village Manager Chris Swartz
Village Attorney Nathan Bayer

From: Planning Director Ericka Lang

RE: Conditional Use for Solar Panel 2212 E. Menlo Blvd



Agenda Item #: Consideration of Solar Panel CUP

On September 27, 2016 the village received a conditional use application for installation of solar panels at residential property 2212 E. Menlo Blvd. The property owner is Dan Wycklendt.

Panel Description

The application is for 12 solar modules mounted on the rear detached garage as shown in the attached materials. The panels will be tilted southward at 30 degrees.

Code

Per 535-30D, installation and use of solar energy systems are a conditional use in all districts. The full code is attached. It also says that your commission shall review the proposed system and may only restrict if one of the following conditions is satisfied:

- [1] Serves to preserve or protect the public health or safety.
- [2] Does not significantly increase the cost of the system or significantly decrease its efficiency.
- [3] Allows for an alternative system of comparable cost and efficiency.

The review and approval criteria in 535-30D apply to solar and wind energy systems.



APPLICATION FOR CONDITIONAL USE PERMIT

Village of Shorewood
Planning & Development Department
3930 N. Murray Avenue
Shorewood, WI 53211
Phone (414) 847-2640
Facsimile (414) 847-2648
www.villageofshorewood.org
PAD@villageofshorewood.org

\$75 Solar	
Office Use Only	
Fee \$125	Tax ID
Permit No.	16-1975
Zoning District	
CUP Reason	
Code Reference	
Plan Comm. Meeting	10-25-16
Outcome	

CONDITIONAL USE APPLICATIONS ARE CONSIDERED BY THE PLAN COMMISSION. MEETINGS ARE THE 4TH TUESDAY EACH MONTH, AS NEEDED. APPLICATIONS ARE DUE 4 WEEKS BEFORE SCHEDULED MEETINGS AND ADDITIONAL MATERIALS AS IDENTIFIED BY THE PLANNING & DEVELOPMENT DEPARTMENT.

PROPERTY ADDRESS: 2212 E. Menlo Blvd

PROPERTY OWNER

Owner Name: Dan Wycklendt Owner Address: 2212 E. Menlo Blvd
Phone Number: 414 915 1617
Email: djwyck@yahoo.com

APPLICANT/BUSINESS

Name: Dan Wycklendt Address: _____
Phone Number: _____
Email: _____

Check if prefer to receive Meeting Agenda by EMAIL: PROPERTY OWNER APPLICANT

BUSINESS INFORMATION

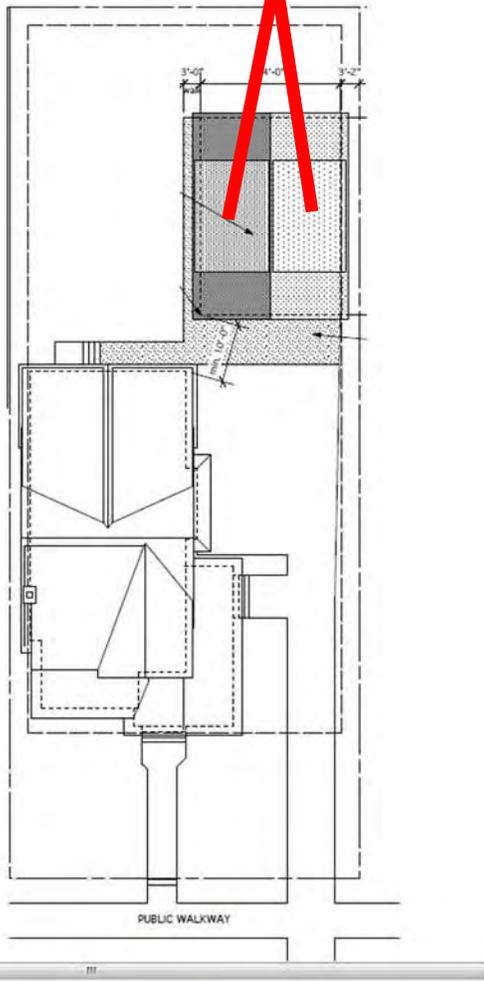
Name of Business _____ Max # Employees On-site _____
Is a survey attached? (if required) _____
Is a parking plan attached? (if required) _____
*Provide copy of business plan _____

What do you wish to do that will require a Conditional Use Permit?

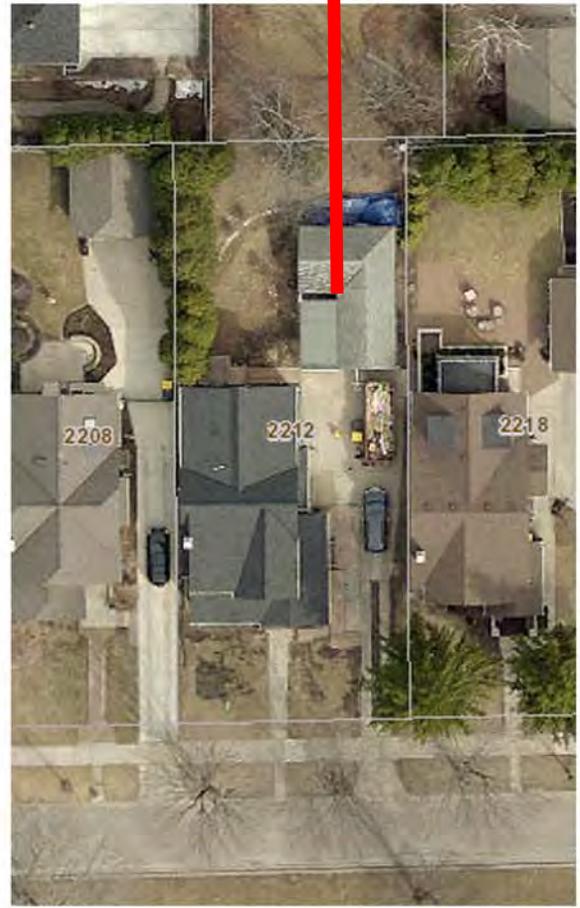
Install solar panels on the roof of a detached garage
12 Panasonic N330 or N32S. 6 on each side tilted south.

SIGNATURE [Signature] DATE 9/27/16

Panel Location



Panel Location

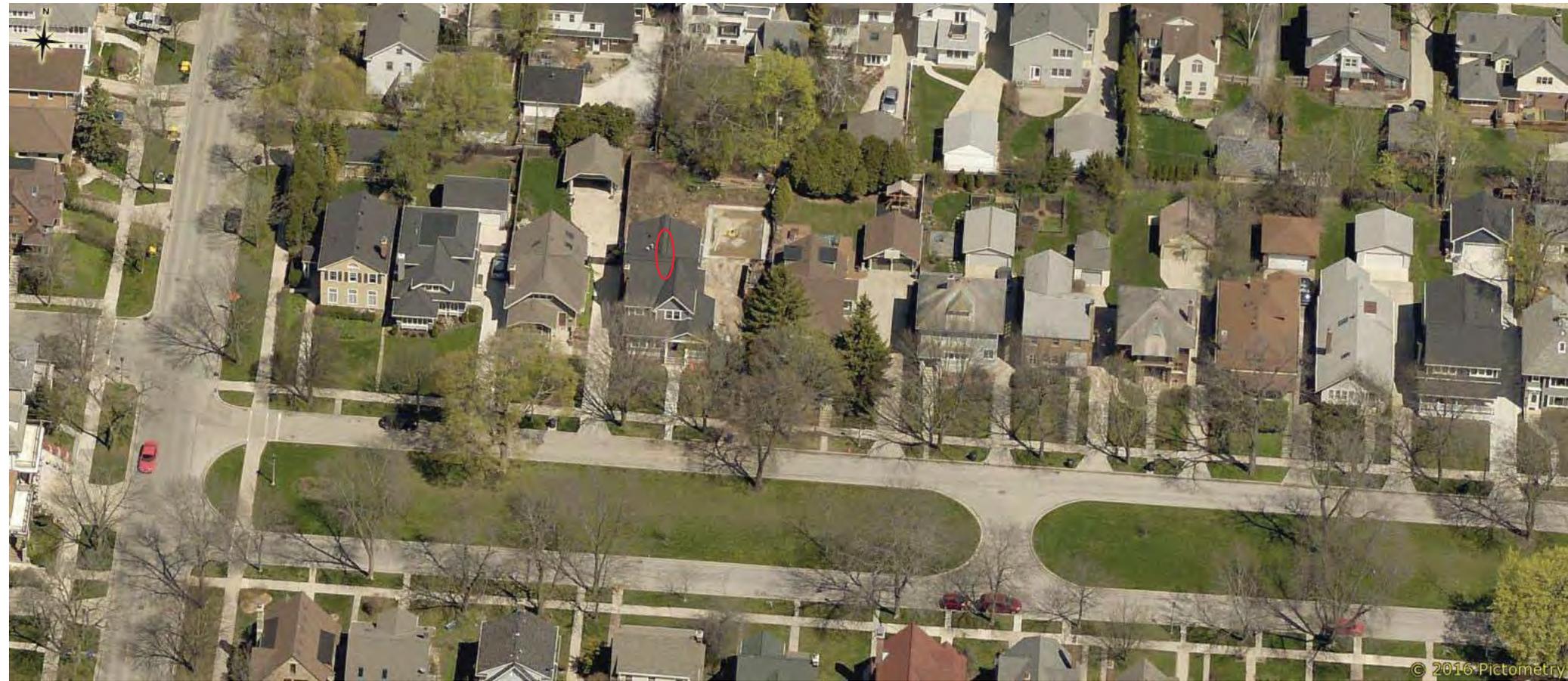




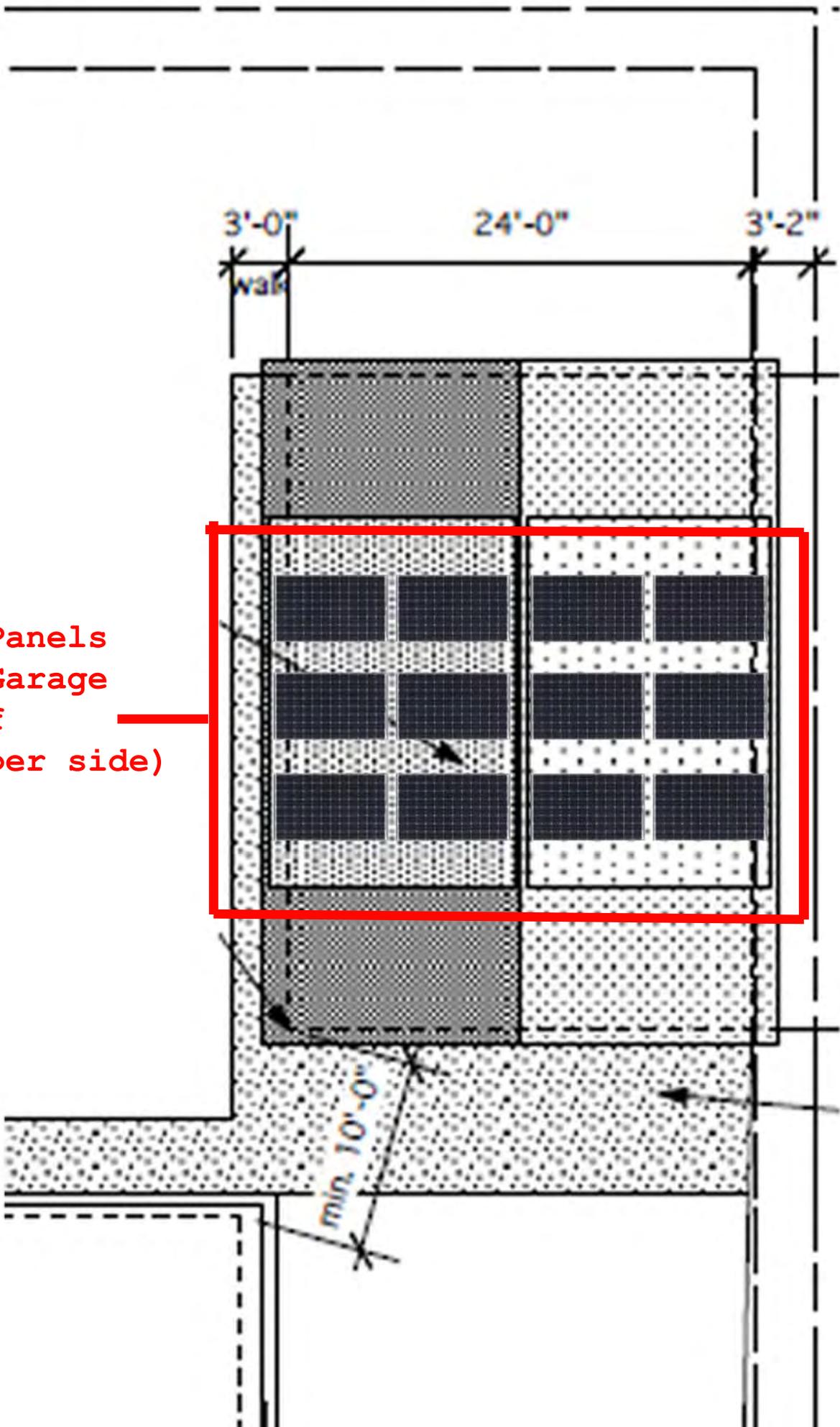
IMPACT

THE NEW GARAGE WILL FIT NICELY WITH THE HOUSE AND THE LOT

oblique 2212



12 Panels
On Garage
Roof
(6 per side)



Subarrays

Columns

2

Rows

3

Orientation



PORTRAIT



LANDSCAPE

Area

95.43 sq ft (EW: 10' 7.6" x NS: 8' 11.7")

× RESET

+ SUBARRAY

SAVE

Tilt Leg Kit

TILT ANGLE

30°

TILT LEG KIT



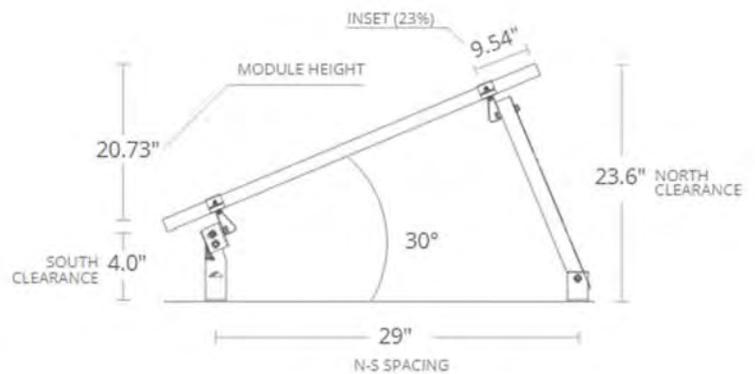
7" South Leg



20" North Leg

PORTRAIT

LANDSCAPE



REACTION FORCES

	DOWN ①	UPLIFT ①
Zone 1	311.00 LBS	-202.00 LBS
Zone 2	311.00 LBS	-246.00 LBS
Zone 3	311.00 LBS	-246.00 LBS

WEIGHT

TOTAL SYSTEM WEIGHT	WEIGHT/ATTACHMENT
316 LBS	17.6 LBS
RACKING WEIGHT	DISTRIBUTED WEIGHT
71.9 LBS	3.3 PSF

Panasonic

High Performance

100%

0.005%

15 years



Over **40** years of experience with all roof types

HIGHER EFFICIENCY

Photovoltaic modules HIT[®] are extremely compact in appearance – just like this brochure. However, their true size is revealed when you look inside. That is where advanced heterojunction technology delivers maximum efficiency and reliability. Panasonic HIT[®] is a solar technology market leader, with a significantly higher energy yield per unit of surface area compared with our competitors' conventional modules.

HIT[®] works harder for you ...

Unlike conventional cells, solar cells used in HIT[®] convert a higher percentage of the sunlight into electrical energy, in other words the conversion efficiency is higher. The reason is that HIT[®], unlike conventional crystalline silicon cells, consists of a combination of monocrystalline and amorphous silicon layers. As a result, fewer electrons are lost on the silicon layers during energy production. That makes them more efficient.

A cell conversion efficiency of

25.6%

brought Panasonic the efficiency world record in 2014.

(at R&D level)

A module conversion efficiency of

19.7%

makes Panasonic HIT[®] a market leader.

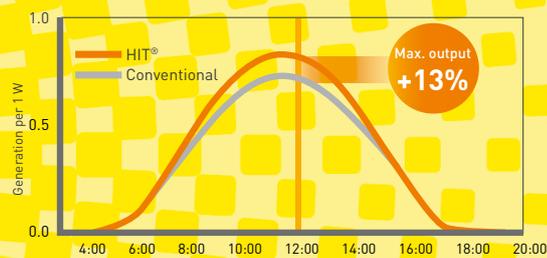
(HIT[®] N330 module)

HIGHER EFFICIENCY

... but never takes a siesta.

In hot temperatures, especially around midday, the performance of conventional modules quickly suffers. The high temperature stability of modules HIT[®] keeps them working flat out long after the others have decided to rest in the shade.

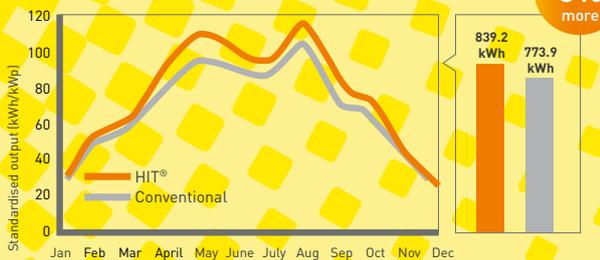
+13%



Total yield with a peak module temperature of 85° C, compared with a conventional crystalline module.

(8 July 2013, Kaizuka City)

+8%



Total yield over a year:

839.2 kWh (N240 module)

773.9 kWh (conventional module)

(Nagano 2012 / orientation west-southwest, inclination 20°)

PLUS GREATER RELIABILITY

Reliability cannot be faked. Reliability has to be proven. And that takes time. No manufacturer has spent more time than Panasonic on solar technology research and development. Panasonic is a pioneer and technology leader with

40 YEARS

of expertise and experience, starting in 1975 with the development and early commercial production of amorphous solar cells for industrial and domestic use. Production facilities in Japan were later joined by sites in the US and Malaysia.

But there is a much longer pedigree of expertise in developing innovative technologies. Panasonic products, systems and services have been improving your quality of life since 1918. All under the company slogan: A Better Life, A Better World.

That makes Panasonic HIT® the brand with the largest number of meaningful long-term studies in solar technologies. And they speak for themselves.

Panasonic in detail

Guaranteed high quality with

100%

original Panasonic cells

15 YEAR

product guarantee

1 BILLION

cells produced

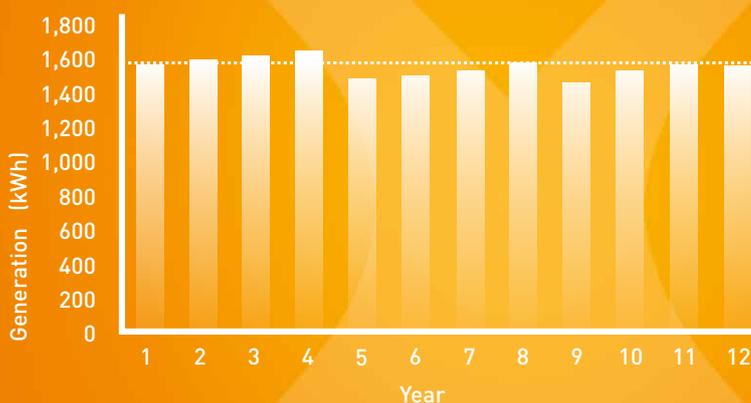
PLUS GREATER RELIABILITY

TÜV Sequential Long-term Tests
by TÜV Rheinland.

No measurable loss of output after

12 YEARS

(test period 2004 to 2016 in Gloucestershire, UK)



The marathon module

Energy output after 25 years in service:
still

80%

guaranteed

Failure rate after more than 10 years in service in Europe:
less than

0.005%

(Date: January 2016)

= MORE ENERGY



More power on any roof

You can see it all here. The energy yield of photovoltaic modules HIT[®] is high. So high that you'd have a hard time finding a higher return on your investment elsewhere. And the best thing is that your profit increases the longer Panasonic HIT[®] is in service. And that is a long, long time thanks to its reliability and efficiency.

Little in. Lots out.

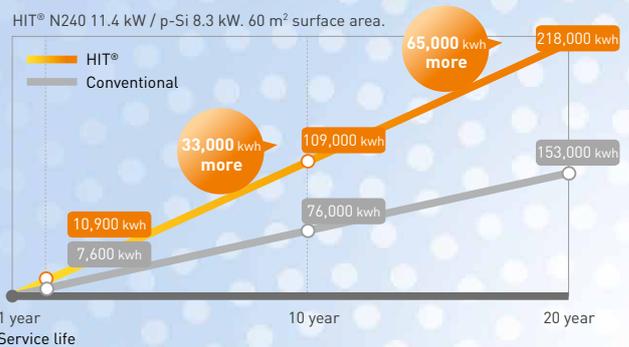
+27% more output for the same roof surface area

With **-24%** lower BoS (balance of system) costs



Increasing energy yield compared with conventional cells:

In 20 years **+42.48%**



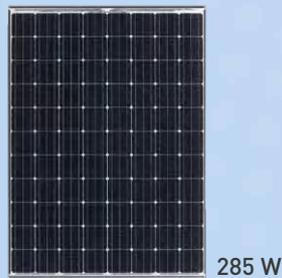
Photovoltaic modules HIT[®]:

Turn your home into a powerhouse.



N245/N240 Slim

This module is very versatile to install and is particularly suited to narrow, awkward roofs. This guarantees maximum energy output per unit of surface area.



N285 Compact

The low height of this module increases the energy yield of your roof, especially when installed in vertical position. The N285 can also extract more energy from flat roofs than conventional modules due to the smaller minimum spacing between rows of modules.

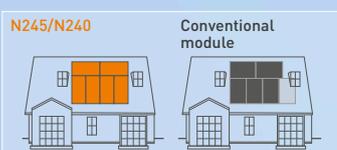


N330/N325 Powerful

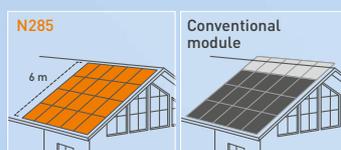
19.7% module efficiency means that these modules are among the most efficient on the market. Installation costs are lower too, and the BoS (balance of system) costs can be 24% less than with conventional modules.

Find out here how much solar energy you can produce on your roof with Panasonic HIT[®] and where to find your local Panasonic HIT[®] dealer:

Go to panasonic.ezzing.com



Output	245 W/240 W
Dimensions	798 x 1580 mm
Surface area	1.26 m ²
Weight	15 kg
Cell efficiency	22.0/21.6%
Module efficiency	19.4/19.0%



Output	285 W
Dimensions	1053 x 1463 mm
Surface area	1.54 m ²
Weight	18 kg
Cell efficiency	20.9%
Module efficiency	18.5%



Output	330 W/325 W
Dimensions	1053 x 1590 mm
Surface area	1.67 m ²
Weight	19 kg
Cell efficiency	22.2/21.9%
Module efficiency	19.7/19.4%

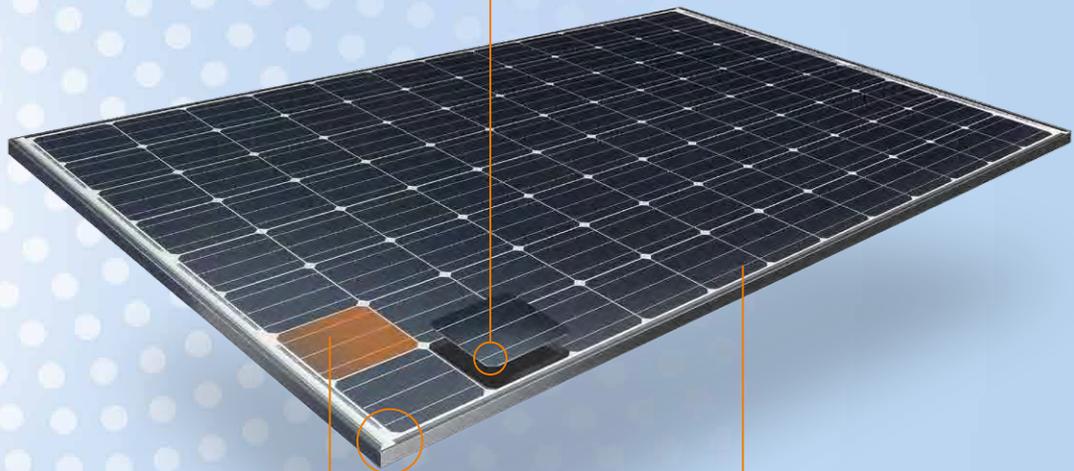
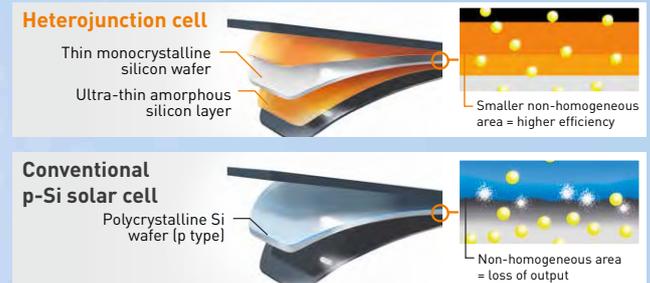


The smartest cells since brain cells

Panasonic HIT® has some clever technology to thank for its above-average efficiency and reliability, ensuring that as much as possible of the sun's energy reaching the module is converted into usable electrical energy.

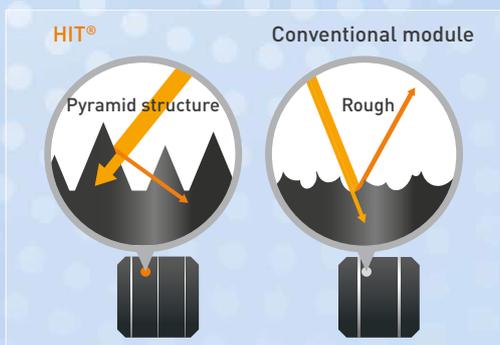
Photovoltaic modules HIT® are based on heterojunction technology, the leading technology on the market. It allows solar modules to be produced that are more efficient than ever before. Unlike conventional cells, Panasonic HIT® has an amorphous layer which significantly reduces the electrons lost on the surface. Losses during energy production are much lower.

Heterojunction technology



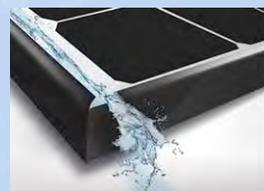
Innovative surface treatment

Compared with the rough surface of conventional solar panels, Panasonic HIT® has a pyramid structure that directs light inside the cells instead of reflecting it. And more light can only mean more energy.



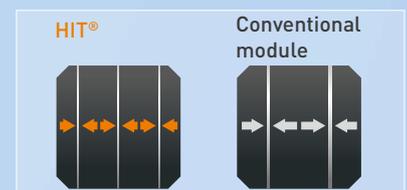
Drainage in the frame

Constant drainage, no moisture in the module, no drying borders, self-cleaning even with a small inclination.



Three busbars instead of two

The metal busbars carry the produced energy out of the module. With three busbars, the energy has a shorter distance to travel. And less is lost.



Environment

It goes without saying that all photovoltaic module HIT® consist of non-toxic components.

Recognised excellence

The Panasonic research team and development team is internationally recognised for its ground-breaking work to improve cell conversion efficiency.



IEC61215
IEC61730-1
IEC61730-2



Sustainable and smart: Fujisawa Sustainable Smart Town in Japan



Working with Fujisawa City and 11 partners, Panasonic is building the ultimate vision of modern living. It is a community of 1,000 households based on the latest technology working in harmony with the lifestyle habits of residents and with the environment.

To find out more go to

fujisawasst.com/EN/project



Dealer's stamp

Panasonic Eco Solutions Europe
Panasonic Electric Works Europe AG
Robert-Koch-Straße 100
85521 Ottobrunn · Germany
Tel. +49 89 45354-1000 · Fax +49 89 45354-2111
info.solar@eu.panasonic.com

www.eu-solar.panasonic.net

MEMORANDUM

October 20, 2016



To: Plan Commissioners
Cc: Village Attorney Nathan Bayer
Village Manager Chris Swartz
From: Planning Director Ericka Lang

RE: Holiday Tree Lot 3505 Oakland Avenue

Rick Dassow, owner of Ideal Property Management, requested to use the Village municipal parking lot B (map attached) at 3505 N. Oakland to sell holiday trees and outdoor accessories from approximately November 12th to December 28th. For the past six years a conditional use permit was approved and the Village Board approved use of the lot. The Village Board approved use of the lot through 2017.

The applicant requested if the conditional use permit may be approved for three years, for years 2016 through 2018.

Village staff concluded that a conditional use permit is required. Per the Zoning Code, uses not listed are by condition (§535-10B) as well as atypical temporary uses (535-10C).

Details of the operation include:

- Hours of operation Monday – Friday 4P.M- 9P.M., Saturday & Sunday 9A.M.- 9P.M. (may be shortened)
- Business set up Nov. 12th, tear down Dec 26th-28th
- Merchandise: Fraser Fir and Balsam trees, garlands, and wreaths
- Lot B will be enclosed with snow fencing and trees leaned against wood A-frames on the outer perimeter and free standing in the center.
- No vehicles will be allowed within lot B
- Adding incandescent holiday lighting powered by a generator
- Trees secured and locked together with steel cable when business closed
- Small trailer to store wreaths and garlands when business closed
- Lock box for cash and will have remote device for debit/credit purchases, minimizing cash on hand
- Entrance along River Park Court, west side of lot B, denoted with arbor entrance
- Signage only allowed directly in front of lot.

Currently, the village sells 50 overnight parking permits for all lots. Lot B has 22 spaces and Lot A 26 spaces. The request is to use the full area of Lot B. Overnight parking passes are sold for all lots and Lot C has no time limits for daytime parking.

LOTS	NUMBER OF SPACES
Lot A	26 spaces
Lot B	22 spaces
Lot C	50 spaces (50 overnight permits sold)





APPLICATION FOR CONDITIONAL USE PERMIT

Village of Shorewood
Date 10/19/2016 1:15:08 PM
Ref 00027758
Receipt 125123
Amount \$125.00

27158

Village of Shorewood
Planning & Development Department
3930 N. Murray Avenue
Shorewood, WI 53211
Phone (414) 847-2640
Facsimile (414) 847-2648
www.villageofshorewood.org
PAD@villageofshorewood.org

Office Use Only	
General Fee \$125	Solar Energy Fee \$75
Permit No.	10-2139
Zoning District	B-1
CUP Reason	Temporary Use
Code Reference	535 & 10
Plan Comm. Meeting	10-25-16
Outcome	

CONDITIONAL USE APPLICATIONS ARE CONSIDERED BY THE PLAN COMMISSION. MEETINGS ARE THE 4TH TUESDAY EACH MONTH, AS NEEDED. APPLICATIONS ARE DUE 4 WEEKS BEFORE SCHEDULED MEETINGS AND ADDITIONAL MATERIALS AS IDENTIFIED BY THE PLANNING & DEVELOPMENT DEPARTMENT.

PROPERTY ADDRESS: 3505 NORTH OAKLAND AVE.

PROPERTY OWNER

Owner Name: _____ Owner Address: _____
Phone Number: _____
Email: _____

APPLICANT/BUSINESS

Name: IDEAL PROPERTY MANAGEMENT Address: _____
Phone Number: (414) 550-8108
Email: IDEAL.LANDSCAPING@HOTMAIL.COM

Check if prefer to receive Meeting Agenda by EMAIL: PROPERTY OWNER APPLICANT

BUSINESS INFORMATION

Name of Business ON FILE Max # Employees On-site _____
Is a survey attached? (if required) _____
Is a parking plan attached? (if required) _____
*Provide copy of business plan _____

What do you wish to do that will require a Conditional Use Permit?
holiday free lot

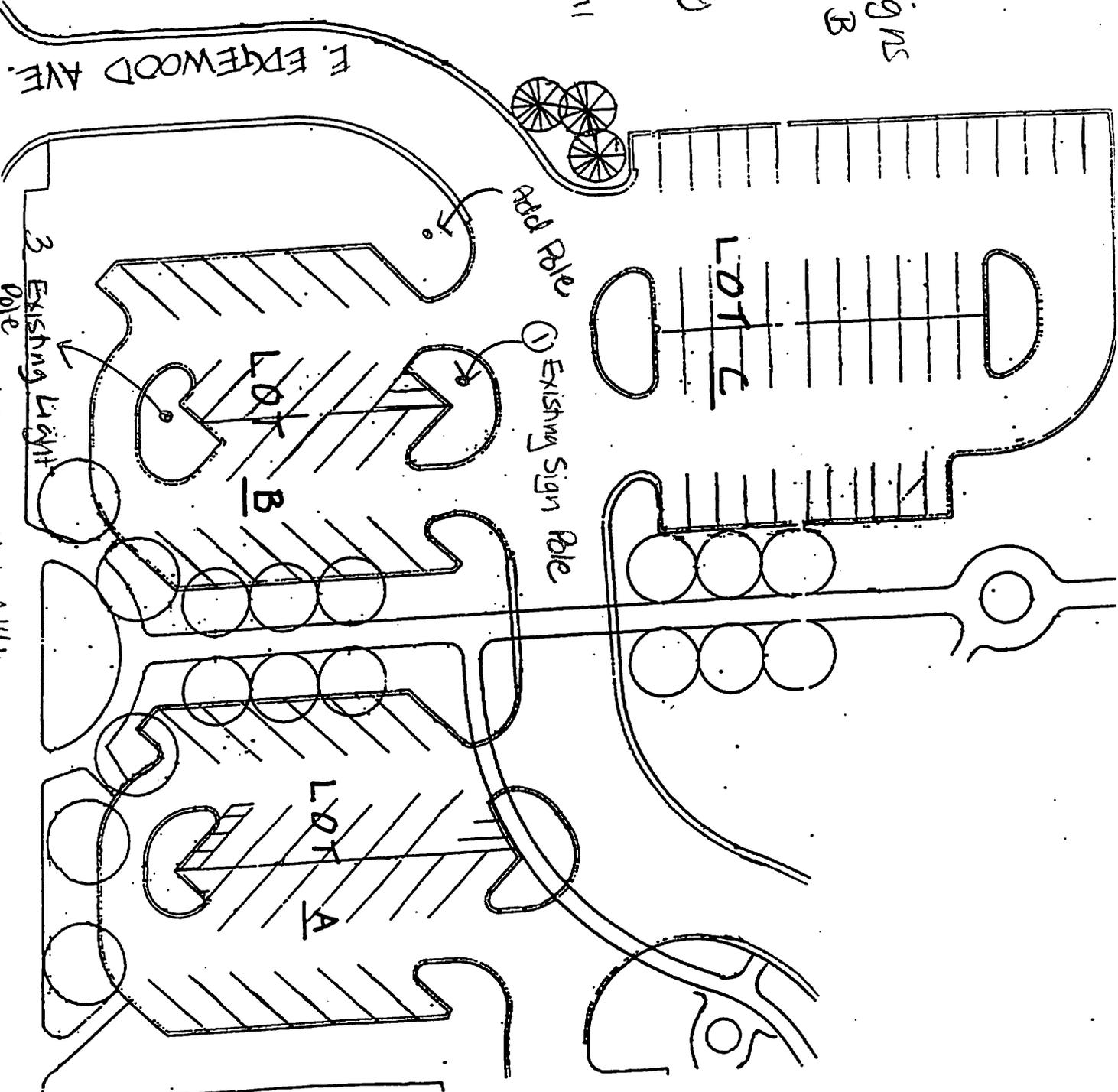

SIGNATURE

10-17-2016
DATE

RIVER PARK

Add 4 Signs
TO LOT B

"Temporary
NO Parking
LOT B -
NOV 13 -
DEC 28 "



Add Pole

① Existing Sign Pole

3 Existing Light Pole

- Add Sign facing SW + NW

N. OAKLAND AVE.

F. EDGEWOOD AVE.

CONDITIONAL USE CRITERIA

535-25 CUP Review and Approval

The Village Plan Commission shall review the site, existing and proposed structures, architectural plans, neighboring uses, parking areas, driveway locations, highway access, traffic generation and circulation, drainage, sewerage and water systems, and the proposed operation.

A. Conditions, such as landscaping, architectural design, type of construction, construction commencement and completion dates, sureties, lighting, fencing, planting screens, operational control, hours of operation, improved traffic circulation, deed restrictions, highway access restrictions, increased yards, or parking requirements, may be required by the Village Plan Commission upon its finding that these are necessary to fulfill the purpose and intent of this chapter.

B. Compliance with all other provisions of this chapter, such as lot width and area, yards, height, parking, loading, traffic, highway access, and performance standards, shall be required of all conditional uses. Variances shall only be granted as provided in Article X.

C. No conditional use permit shall be authorized by the Plan Commission unless such Commission shall find that:

(1) The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety, morals, comfort or general welfare.

(2) The conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted nor substantially diminish or impair property values within the neighborhood.

(3) The establishment of the conditional use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district or have a negative impact on the diversity of the type of businesses located in the district.

[Amended 3-18-1991 by Ord. No. 1599]

(4) Adequate utilities, access roads, drainage and/or necessary facilities have been or are being provided.

(5) Adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

(6) The conditional use shall, in all other respects, conform to the applicable regulations of the district in which it is located, except as such regulations may, in each instance, be modified by the Board of Trustees pursuant to the recommendations of the Plan Commission.

(7) The conditional use is in accordance with and subject to all other applicable laws and regulations.

D. In addition to the foregoing provisions of this section, special and specific criteria and requirements as set forth in this chapter shall be considered before a conditional use permit is issued. The provisions of § 535-22 and the provisions of §§ 535-26 through 535-28 of this article, when they specifically create the basis upon which a conditional use may be granted, shall supersede and take precedence over the provisions of §§ 535-23 through 535-25 of this article in case of conflict or duplication.

MEMORANDUM

October 20, 2016



To: Plan Commissioners
Cc: Village Attorney Nathan Bayer
Village Manager Chris Swartz

From: Planning Director Ericka Lang

RE: **River District proposed zoning amendment**

Background

The River District zoned area in Shorewood consists of several parcels located along the Milwaukee River, immediately south of Capitol Drive. Refer to the attached maps for clarification. Harbor Chase Assisted Living at 1111 E. Capitol Drive purchased two parcels and combined them in 2014. A vacant restaurant was the northern parcel and two vacant apartment buildings on the other parcel. The developer officially dedicated the bluff parcel to the Village of Shorewood as shown in the Certified Survey Map. An independent senior apartment development is scheduled to start construction spring 2017 at the back River District parcel, 3900 N. Estabrook Parkway. They also recently dedicated the bluff section of the parcel to the village, shown in the CSM.

In 2009 the village adopted a River Riparian Plan identifying improvements along the bluff to improve accessibility and restore native plantings. It has always been the intention of the village to have the bluff dedicated to the village as part of a redevelopment project. This past year the village received a Knowles-Stewardship grant for those improvements and cannot start work until the parcels were dedicated.

Last February Milwaukee County sent a letter dated February 19th (see attached) asking Shorewood to rezone the small triangle parcel to P-3, Parks Preservation District. Now that all bluff lands have been dedicated, the village can go forward with amending the zoning to P-3.

Analysis

The attached maps show three parcels in the River District with two different zoning districts:

1. B-4 River District, allowing multifamily uses or encouraging Planned Development District
2. Planned Development District is a district that adopts the proposed projects zoning for any bulk and uses proposed. For example, if the building is set back 20 feet from the front border, then the front set back will be 20 feet.

Parcel Descriptions:

- Parcel 1: Tax ID 274-9000-000 is a small triangular parcel owned by Milwaukee County

-
- Currently zoned B-4 River District
 - Parcel 2: Tax ID 275-8993-004 is Harbor Chase Assisted Living
 - Currently zoned Planned Development District (PDD). The parcels were previously zoned B-4 but was amended for the redevelopment
 - Parcel 3: 275-8993-003 is the bluff parallel to Harbor Chase
 - Currently zoned PDD
 - Parcel 4: ID 275-8991 for the future senior apartments
 - Currently zoned B-4
 - Parcel 5: A new parcel ID will be created for the bluff section parallel with this development. The CSM is in the process of being recorded and having a tax number assigned.

Staff Request

Staff is seeking a zoning amendment for Parcels 1, 3 and 5 to P-3, Parks Preservation District. Staff is not seeking to combine parcels 3 and 5.

Per Zoning Section 535-20B, the P-3 District is to preserve the zone for scenic, scientific, historic and recreational uses and encourage the preservation of undeveloped areas along the Milwaukee River.

Per Zoning Chapter 535, Article 4 Changes and Amendments, village-initiated zoning amendments go to the Plan Commission for review and recommendation to the Village Board who holds a public hearing. The zoning map and zoning code is amended and approved at the same time.

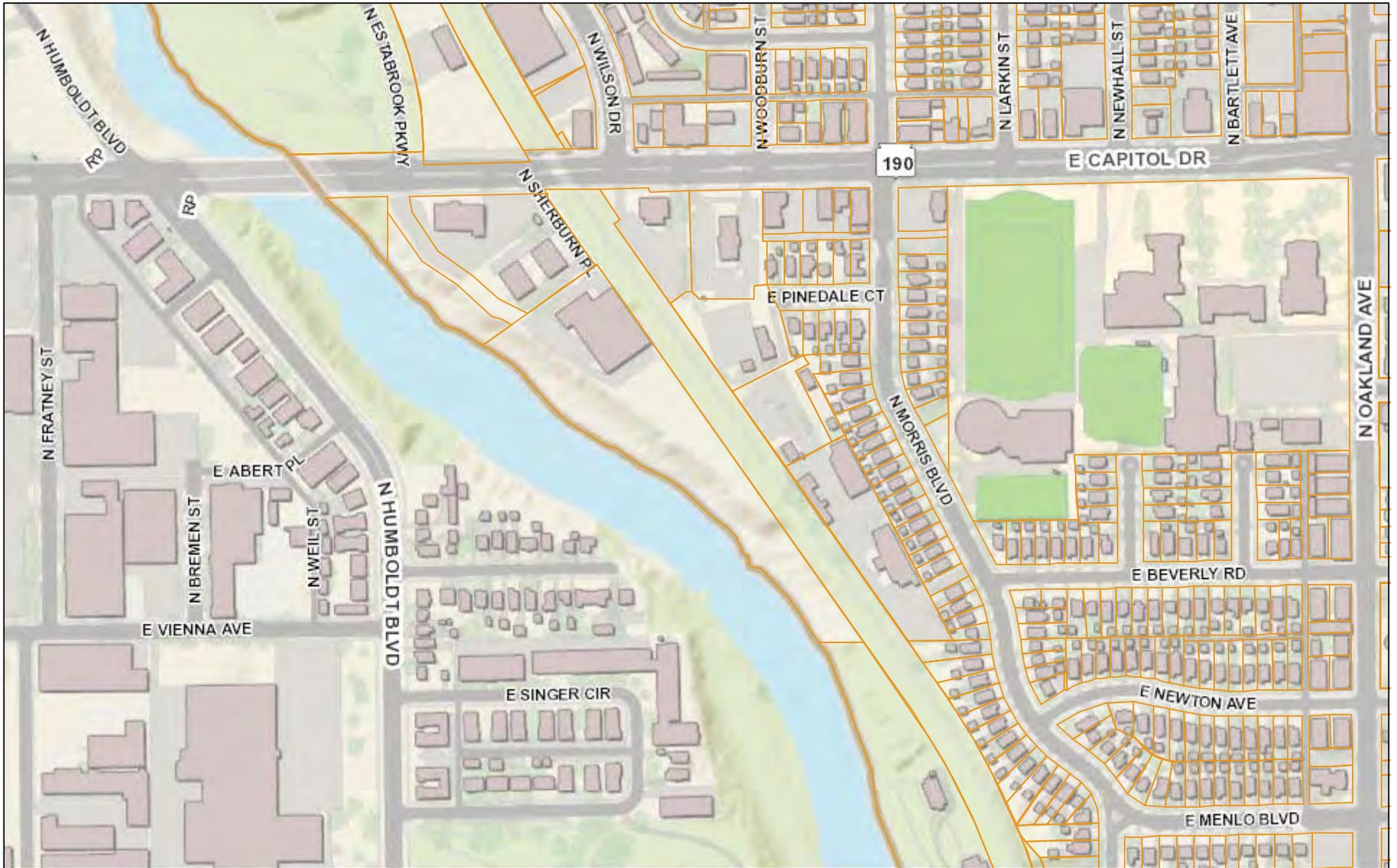
Suggested Motion

Move to recommend to the Village Board the proposed zoning amendments to P-3 Parks Preservation District as presented in the materials for bluff land along the Milwaukee River.

Materials:

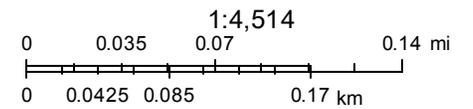
1. Zoning code 535-20, 535-21
2. Maps
 - a. Zoning (2)
 - b. Aerial and oblique
 - c. Base maps- one clean, one marked
 - d. Letter from Milwaukee County dated 2/29/16
 - e. Certified Survey Map 1111 E. Capitol
 - f. Certified Survey Map 3900 Estabrook Parkway

River District



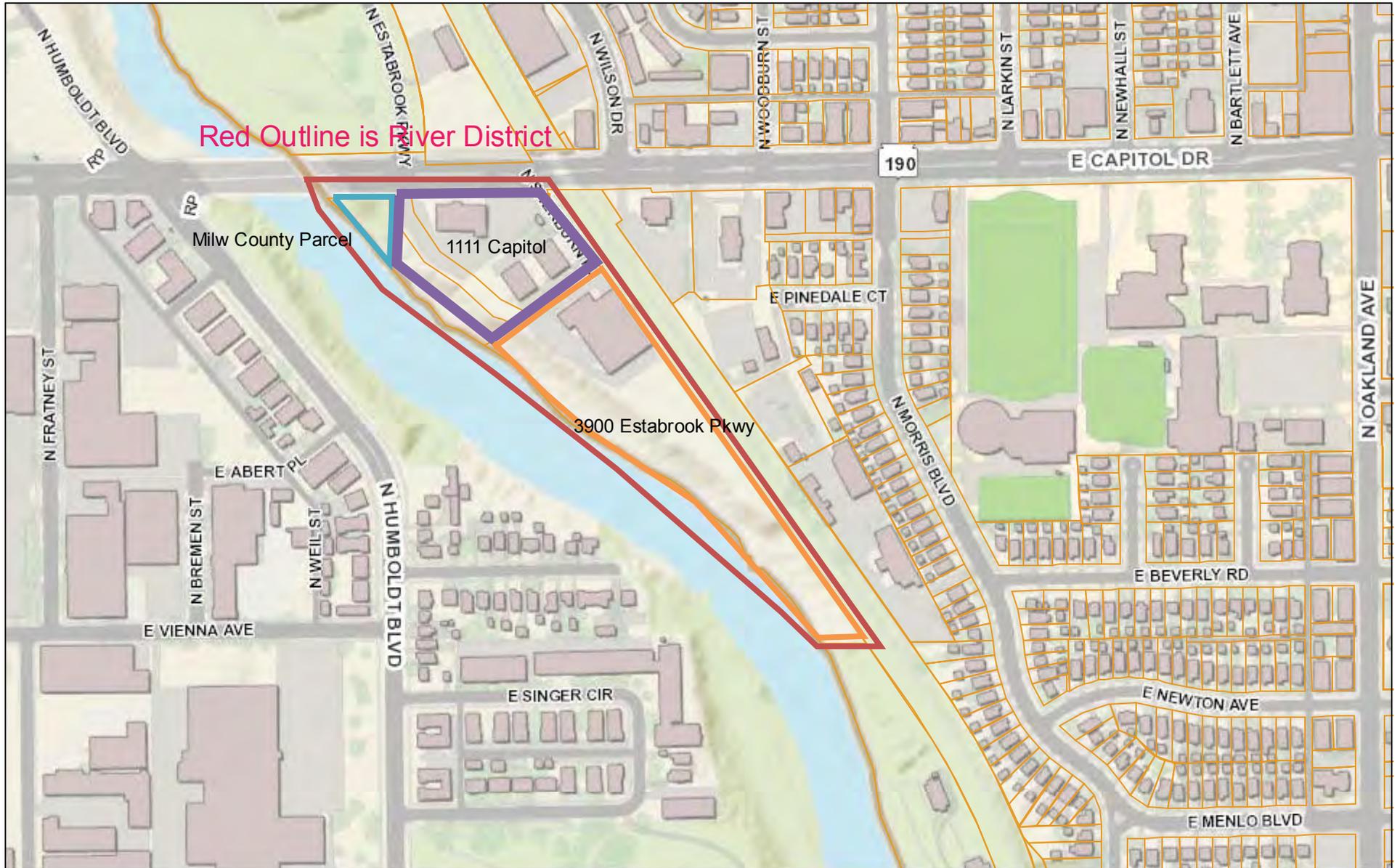
October 19, 2016

-  Parcels
-  Streets



Milwaukee County Land Information Office

River District



Red Outline is River District

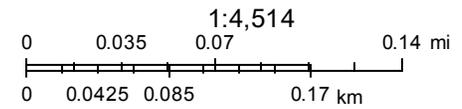
Milw County Parcel

1111 Capitol

3900 Estabrook Pkwy

October 19, 2016

- Parcels
- Streets

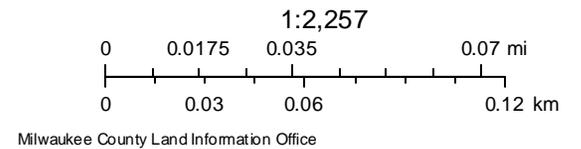


Milwaukee County Land Information Office

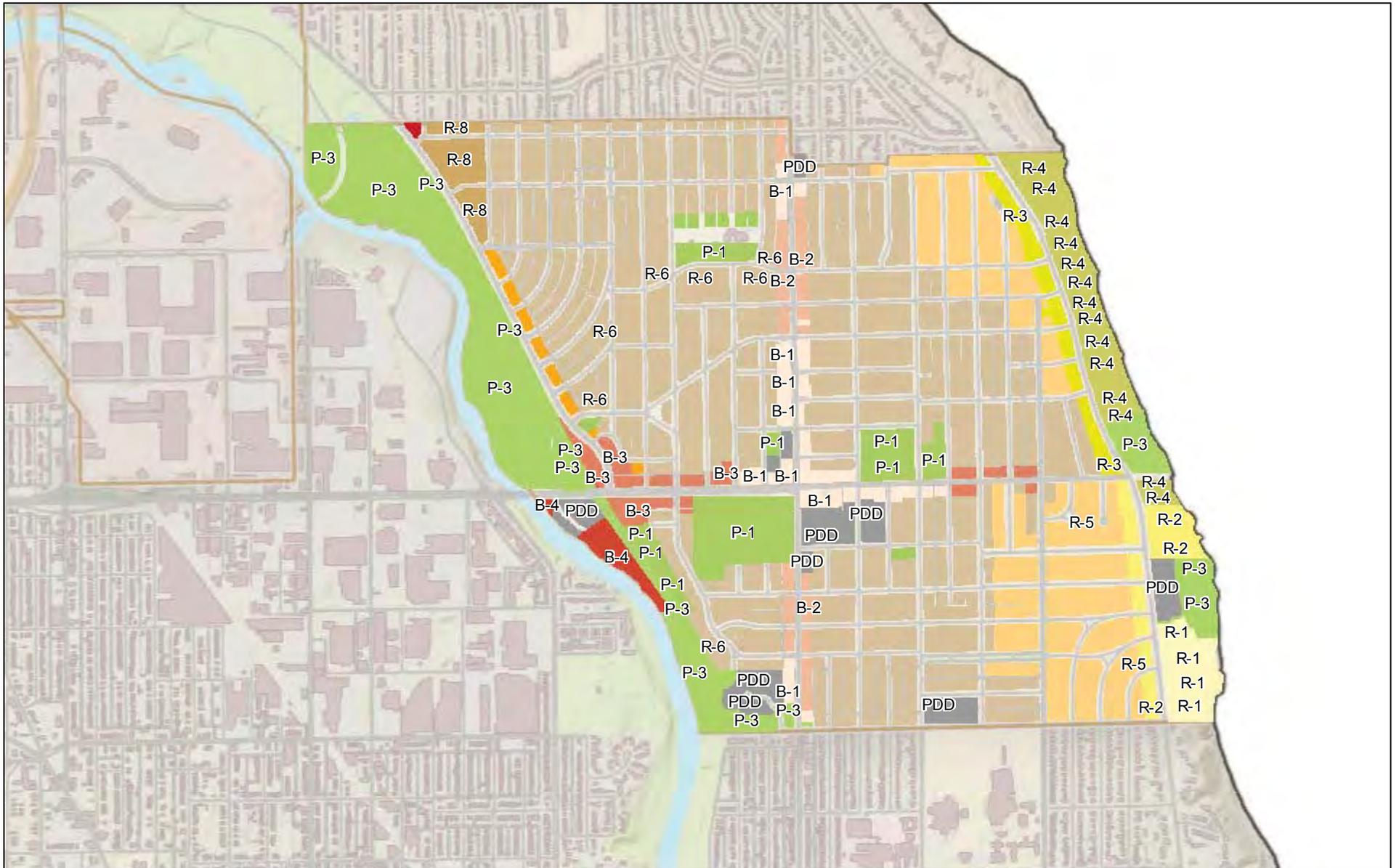
Rezone P-3



August 16, 2016

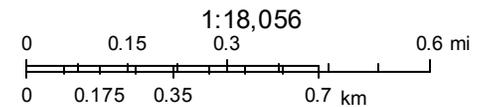


Zoning Map



October 19, 2016

Zoning	B-3	P-1	R-1	R-4	R-8
	B-1	P-3 <td>R-2 <td>R-5 <td>R-9</td> </td></td>	R-2 <td>R-5 <td>R-9</td> </td>	R-5 <td>R-9</td>	R-9
	B-2	B-5	PDD <td>R-3</td> <td>R-6</td>	R-3	R-6
					XXX



Milwaukee County Land Information Office



OFFICE OF THE COUNTY EXECUTIVE
Milwaukee County
CHRIS ABELE • COUNTY EXECUTIVE

February 29, 2016

Village President Guy Johnson
Village of Shorewood
3930 N. Murray Ave.
Shorewood, WI 53211

President Johnson,

Milwaukee County has undergone an extensive review of the zoning of its properties. The first review was of Milwaukee County Parks and was completed on January 25, 2016. That review determined that any Milwaukee County Park in your community was already appropriately zoned.

Our staff has completed the second phase of its review and has reviewed the remaining inventory of land that is owned by Milwaukee County and maintained by our Department of Parks, Recreation and Culture. This list of parcels includes land that is used for parkways, trails and environmental management.

After reviewing this list, and your community's zoning code, we believe it is appropriate to have these parcels rezoned. Consequently, Milwaukee County formally requests that the attached parcels be rezoned as P-3.

Our staff is happy to submit any follow up materials necessary to complete the rezoning. If you have any questions, please do not hesitate to contact Teig Whaley-Smith, Director, Department of Administrative Services at 414-278-4808, teig.whaley-smith@milwaukeecountywi.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Abele".

Chris Abele
Milwaukee County Executive

Attachment

Parcel # **Parcel is Adjacent to or Part of the Following Parkway:**
2749000000 Milwaukee River Parkway

Change to P-3

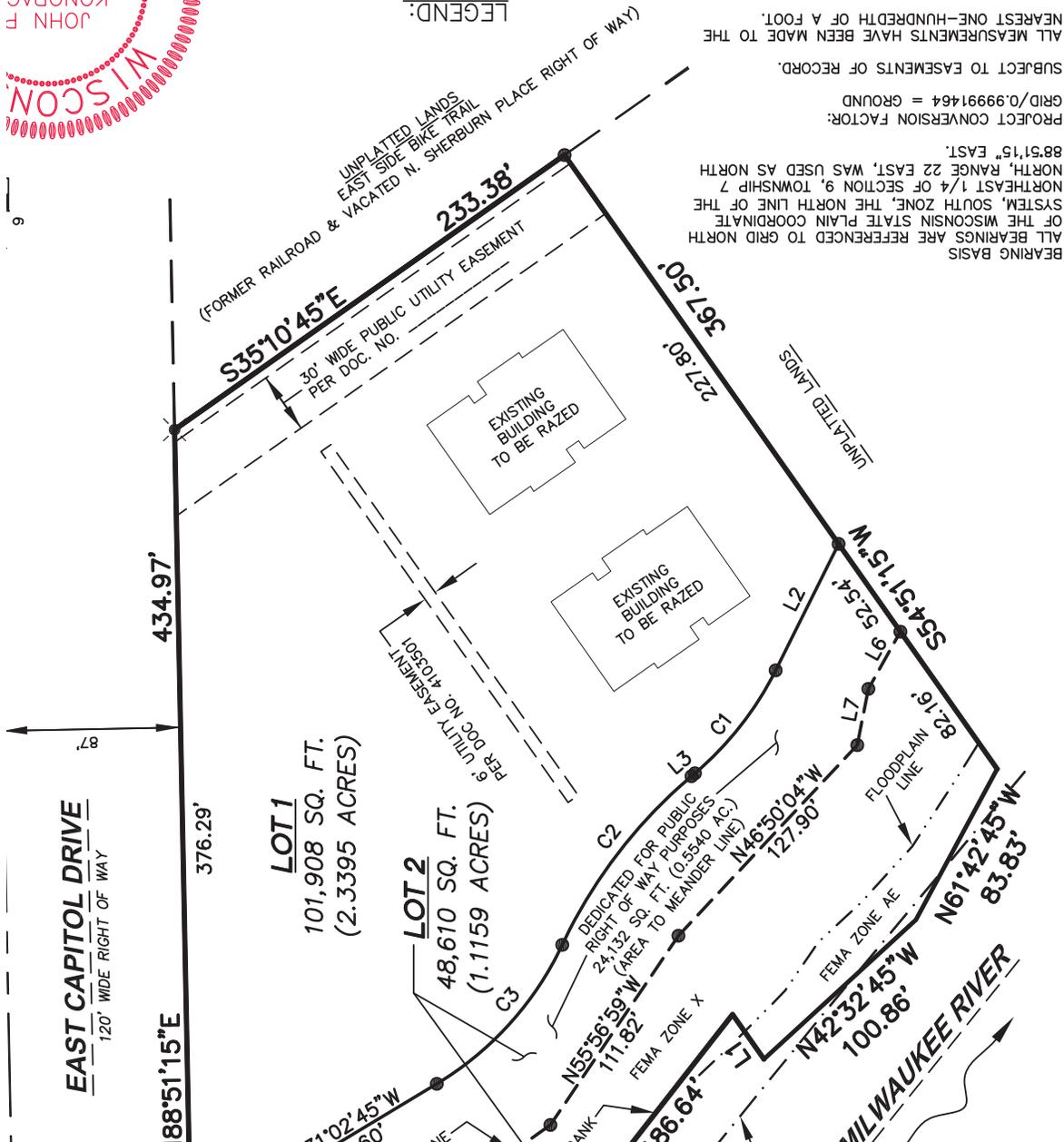
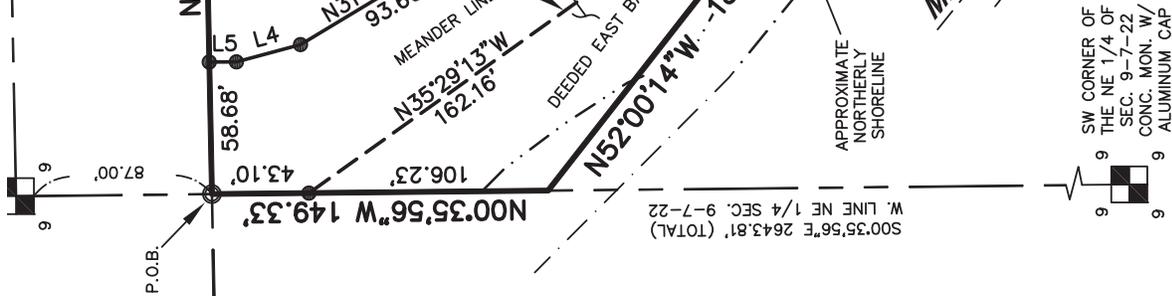
CERTIFIED SURVEY MAP No.

BEING A PART OF GOVERNMENT LOT 1 IN THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SEC. 9-7-22, TOWNSHIP 7 NORTH, RANGE 22 EAST, VILLAGE OF SHOREWOOD, MILWAUKEE COUNTY, WISCONSIN

PREPARED FOR:
 CHP SHOREWOOD WI OWNER
 450 SOUTH ORANGE AVENUE
 ORLANDO, FL 32801

JSD
 Professional Services, Inc.
 Engineers & Planners

MILWAUKEE REGIONAL OFFICE
 N22 W2931 NANCY'S COURT SUITE 3
 WAUKESHA, WISCONSIN 53186
 262.513.0666 PHONE | 262.513.1232 FAX



ALL BEARINGS ARE REFERENCED TO GRID NORTH OF THE WISCONSIN STATE PLAIN COORDINATE SYSTEM, SOUTH ZONE, THE NORTH LINE OF THE NORTHEAST 1/4 OF SECTION 9, TOWNSHIP 7 NORTH, RANGE 22 EAST, WAS USED AS NORTH. 88°51'15" EAST.

PROJECT CONVERSION FACTOR:
 GRID/0.99991464 = GROUND.

SUBJECT TO EASEMENTS OF RECORD.

ALL MEASUREMENTS HAVE BEEN MADE TO THE NEAREST ONE-HUNDREDTH OF A FOOT.

ALL ANGULAR MEASUREMENTS HAVE BEEN MADE TO THE NEAREST ONE SECOND.

THIS SUBJECT PROPERTY IS LOCATED WITHIN ZONE AE (BASE FLOOD ELEVATIONS DETERMINED) AND ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), PER FEMA MAP NUMBER 55079C0048E WITH AN EFFECTIVE DATE OF SEPTEMBER 26, 2008.

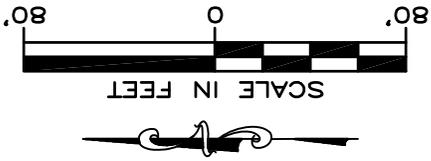
- LEGEND:**
- 1" IRON PIPE FOUND & ACCEPTED
 - ⊗ CHISELED CROSS SET
 - 3/4" X 18" REBAR SET WEIGHING 1.50 LBS/FT



CERTIFIED SURVEY MAP NO.

BEING A PART OF GOVERNMENT LOT 1 IN THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 9, TOWNSHIP 7 NORTH, RANGE 22 EAST, VILLAGE OF SHOREWOOD, MILWAUKEE COUNTY, WISCONSIN.

PREPARED FOR:
JSD Professional Services, Inc.
 450 SOUTH ORANGE AVENUE
 ORLANDO, FL 32801
 MILWAUKEE REGIONAL OFFICE
 N22 W22931 NANCY'S COURT SUITE 3
 WAUKESHA, WISCONSIN 53186
 262.513.0666 PHONE | 262.513.1232 FAX



NW CORNER OF THE NE 1/4 OF SEC. 9-7-22 CONC. MON. W/ BRASS CAP
 N: 404,059.74
 E: 2,561,628.46 } GRID

SW CORNER OF THE NE 1/4 OF SEC. 9-7-22 CONC. MON. W/ ALUMINUM CAP

N. LINE NE 1/4 SEC. 9-7-22 N88°51'15"E 2649.84'
 120' WIDE RIGHT OF WAY
EAST CAPITOL DRIVE

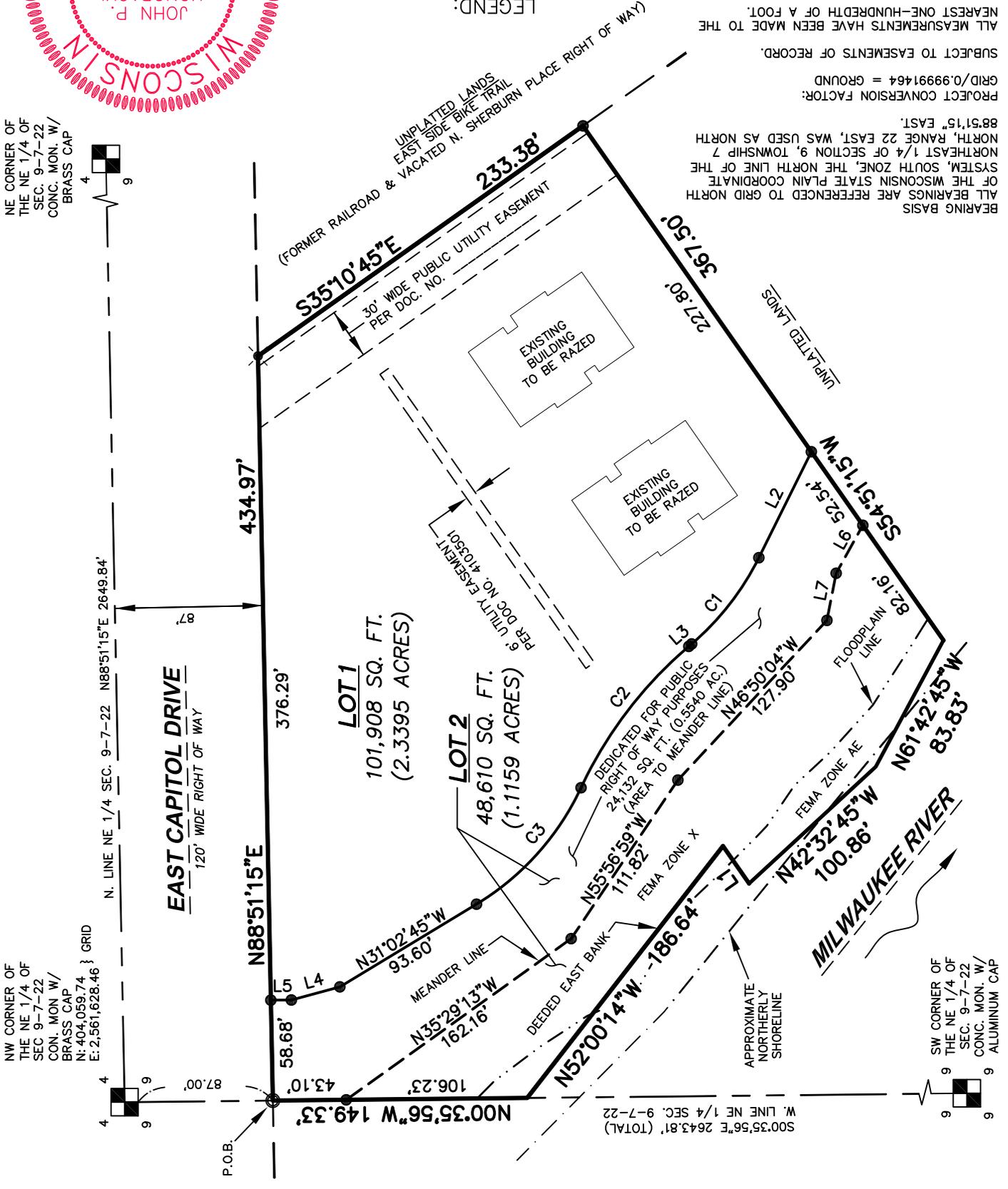
W. LINE NE 1/4 SEC. 9-7-22 (TOTAL)
 S00°35'56"E 2643.81'

NE CORNER OF THE NE 1/4 OF SEC. 9-7-22 CONC. MON. W/ BRASS CAP



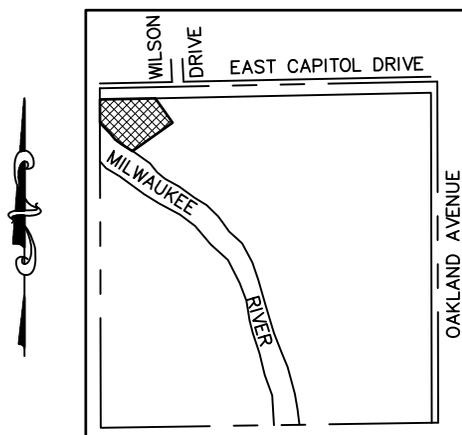
- LEGEND:**
- 1" IRON PIPE
 - FOUND & ACCEPTED
 - ✕ CHISELED CROSS SET
 - 3/4" X 18" REBAR SET WEIGHING 1.50 LBS/FT

PROJECT CONVERSION FACTOR: GRID/0.99991464 = GROUND
 ALL MEASUREMENTS HAVE BEEN MADE TO THE NEAREST ONE-HUNDREDTH OF A FOOT.
 ALL ANGULAR MEASUREMENTS HAVE BEEN MADE TO THE NEAREST ONE SECOND.
 THIS SUBJECT PROPERTY IS LOCATED WITHIN ZONE AE (BASE FLOOD ELEVATIONS DETERMINED) AND ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), PER FEMA MAP NUMBER 55079C0048E WITH AN EFFECTIVE DATE OF SEPTEMBER 26, 2008.
 DATED THIS DAY OF FEBRUARY, 2015 THIS INSTRUMENT WAS DRAFTED BY JOHN P. KONOPACKI, S-2461



CERTIFIED SURVEY MAP No. _____

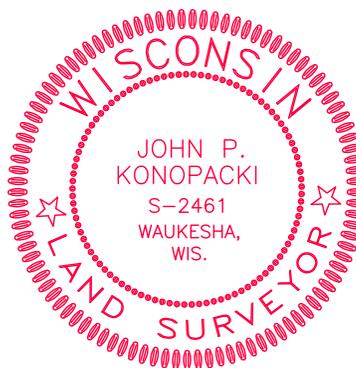
BEING A PART OF GOVERNMENT LOT 1 IN THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 9,
TOWNSHIP 7 NORTH, RANGE 22 EAST, VILLAGE OF SHOREWOOD, MILWAUKEE COUNTY, WISCONSIN.



LOCATION MAP
NE 1/4 SEC. 9, T7N, R22E
SCALE: 1" = 1000'

LINE TABLE		
LINE NO.	BEARING	DISTANCE
L1	N54°51'15"E	26.68'
L2	N63°33'18"W	69.12'
L3	N40°17'10"W	2.20'
L4	N15°07'36"W	29.47'
L5	N00°24'44"W	12.07'
L6	N60°46'43"W	32.06'
L7	N78°50'41"W	28.06'

CURVE TABLE					
CURVE NO.	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD DISTANCE
C1	64.44'	158.67'	23°16'08"	N51°55'14"W	64.00'
C2	104.79'	244.65'	24°32'29"	N52°33'24.5"W	103.99'
C3	92.96'	157.67'	33°46'54"	N47°56'12"W	91.62'



CERTIFIED SURVEY MAP No. _____

BEING A PART OF GOVERNMENT LOT 1 IN THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 9,
TOWNSHIP 7 NORTH, RANGE 22 EAST, VILLAGE OF SHOREWOOD, MILWAUKEE COUNTY, WISCONSIN.

SURVEYOR'S CERTIFICATE

State of Wisconsin)
) SS
County of Milwaukee)

I, John P. Konopacki, Professional Land Surveyor, do hereby certify that I have surveyed, divided, dedicated and mapped a part of Government Lot 1 in the Northwest 1/4 of the Northeast 1/4 of Section 9, Township 7 North, Range 22 East, Village of Shorewood, Milwaukee County, Wisconsin, bounded and described as follows:

Commencing at the northwest corner of the Northeast 1/4 of said Section 9; thence South 00°35'56" East along the west line of said Northeast 1/4, 87.00 feet to the south right of way line of East Capitol Drive and the point of beginning;

Thence North 88°51'15" East along said south right of way line, 434.97 feet the southwest line of the East Side Bike Trail (former railroad right of way); thence South 35°10'45" East along said southwest line, 233.38 feet; thence South 54°51'15" West, 367.50 feet to the deeded Milwaukee River as recorded in Reel 2260 of Quit Claim Deeds on Image 420 as Document No. 6214725 in the Milwaukee County Register of Deeds Office; thence North 61°42'45" West along said river, 83.83 feet; thence North 42°32'45" West along said river, 100.86 feet; thence North 54°51'15" East, 26.68 feet to the deeded east bank of the Milwaukee River as recorded in Reel 3338 of Warranty Deeds on Image 214 as Document No. 6981826 in the Milwaukee County Register of Deeds Office; thence North 52°00'14" West along said deeded east bank, 186.64 feet to the west line of said Northeast 1/4; thence North 00°35'56" West along said west line, 149.33 feet to the point of beginning.

Containing in all 126,041 square feet (2.8935 acres) to the meander line of land, more or less, including all lands lying between said meander line and the southerly property lines (as extended southerly) to the Milwaukee River.

All subject to easements and restrictions of record and potential future road widening and government restrictions, if any.

That I have made such survey, land division and map by the direction of CHP SHOREWOOD WI OWNER, LLC, a Delaware Limited Liability Company, owner of said land.

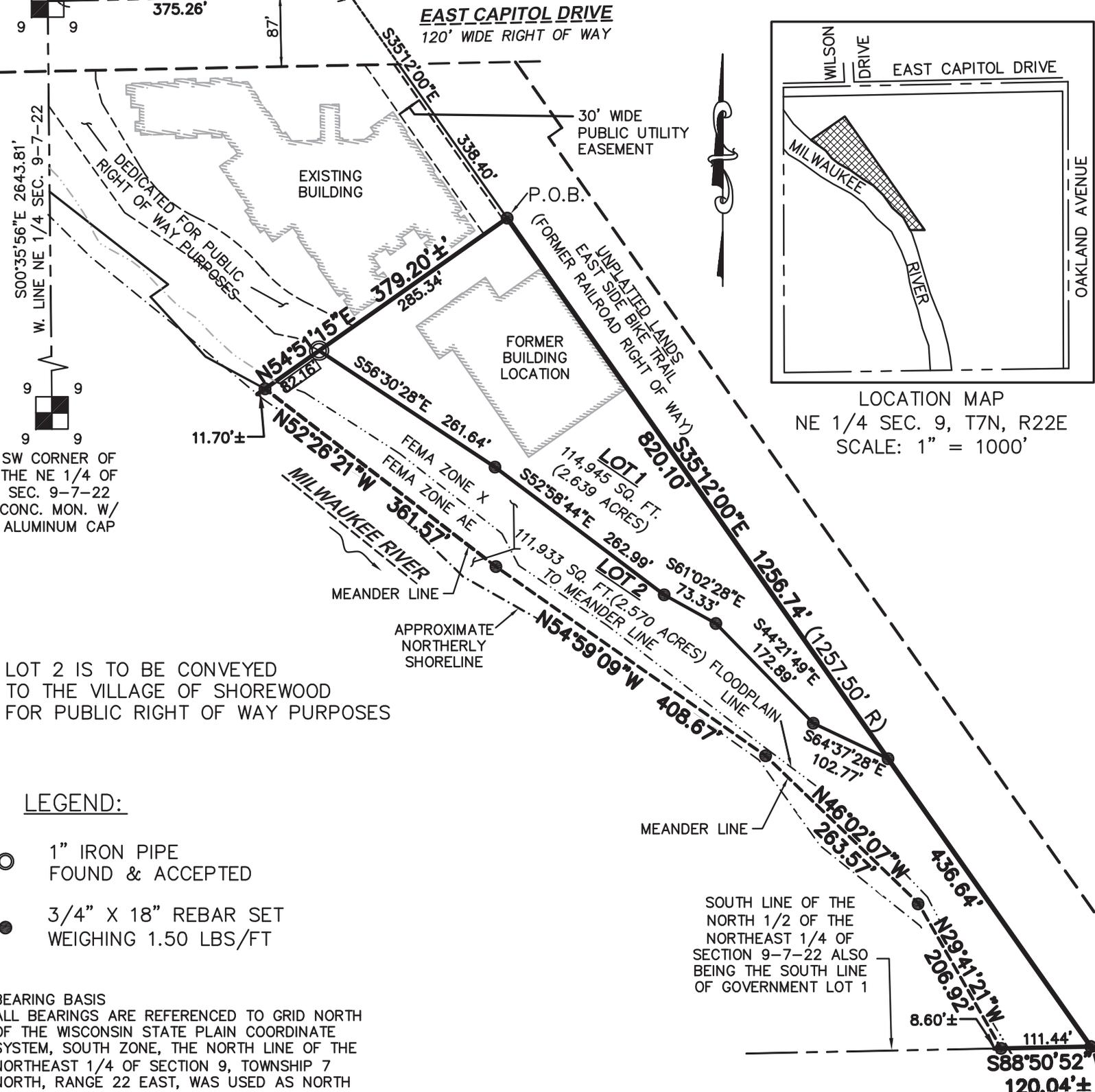
That such map is a correct representation of all exterior boundaries and the land surveyed and the land division thereof made.

That I have fully complied with the provisions of Chapter 236 of the Wisconsin Statutes and the Village of Shorewood Land Division and Development Control Ordinance in surveying, dividing, dedicating and mapping the same.

DATED THIS _____ DAY OF FEBRUARY, 2015

John P. Konopacki, P.L.S.
Professional Land Surveyor, S-2461





SW CORNER OF THE NE 1/4 OF SEC. 9-7-22 CONC. MON. W/ ALUMINUM CAP

LOT 2 IS TO BE CONVEYED TO THE VILLAGE OF SHOREWOOD FOR PUBLIC RIGHT OF WAY PURPOSES

LEGEND:

- 1" IRON PIPE FOUND & ACCEPTED
- 3/4" X 18" REBAR SET WEIGHING 1.50 LBS/FT

BEARING BASIS
ALL BEARINGS ARE REFERENCED TO GRID NORTH OF THE WISCONSIN STATE PLAIN COORDINATE SYSTEM, SOUTH ZONE, THE NORTH LINE OF THE NORTHEAST 1/4 OF SECTION 9, TOWNSHIP 7 NORTH, RANGE 22 EAST, WAS USED AS NORTH 88°51'15" EAST.

SOUTH LINE OF THE NORTH 1/2 OF THE NORTHEAST 1/4 OF SECTION 9-7-22 ALSO BEING THE SOUTH LINE OF GOVERNMENT LOT 1

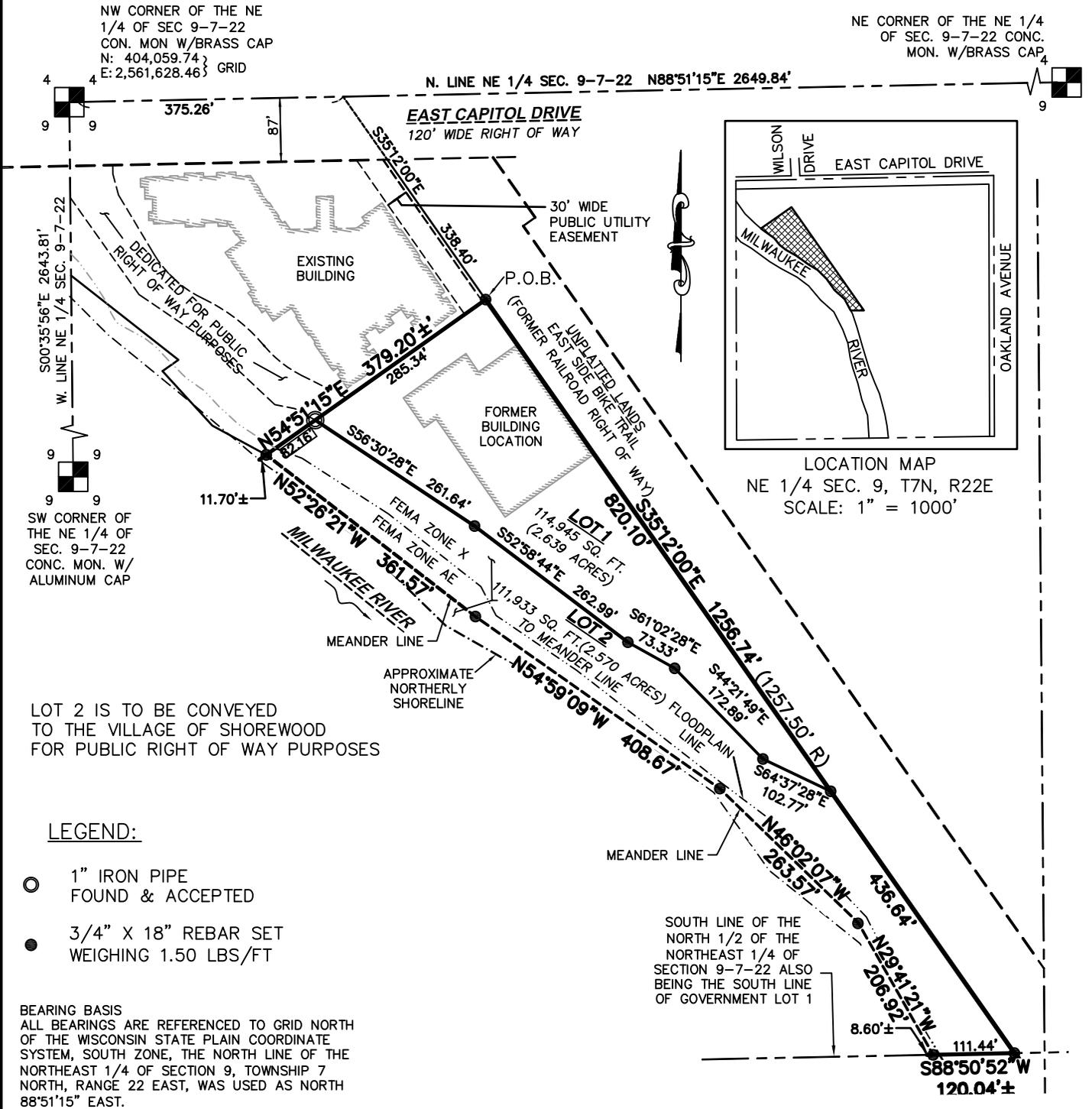
CERTIFIED SURVEY MAP No. _____

BEING A PART OF GOVERNMENT LOT 1 IN THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 9,
TOWNSHIP 7 NORTH, RANGE 22 EAST, VILLAGE OF SHOREWOOD, MILWAUKEE COUNTY, WISCONSIN.



MILWAUKEE REGIONAL OFFICE
N22 W22931 NANCY'S COURT SUITE 3
WAUKESHA, WISCONSIN 53186
262.513.0666 PHONE | 262.513.1232 FAX

PREPARED FOR:
SHOREWOOD SENIOR APARTMENTS LLC
233 PARK AVENUE SOUTH, SUITE 201
MINNEAPOLIS, MN 55415



LOT 2 IS TO BE CONVEYED TO THE VILLAGE OF SHOREWOOD FOR PUBLIC RIGHT OF WAY PURPOSES

LEGEND:

- 1" IRON PIPE FOUND & ACCEPTED
- 3/4" X 18" REBAR SET WEIGHING 1.50 LBS/FT

BEARING BASIS
ALL BEARINGS ARE REFERENCED TO GRID NORTH OF THE WISCONSIN STATE PLAIN COORDINATE SYSTEM, SOUTH ZONE, THE NORTH LINE OF THE NORTHEAST 1/4 OF SECTION 9, TOWNSHIP 7 NORTH, RANGE 22 EAST, WAS USED AS NORTH 88°51'15" EAST.

PROJECT CONVERSION FACTOR:
GRID/0.999991464 = GROUND

SUBJECT TO EASEMENTS OF RECORD.

ALL MEASUREMENTS HAVE BEEN MADE TO THE NEAREST ONE-HUNDREDTH OF A FOOT.

ALL ANGULAR MEASUREMENTS HAVE BEEN MADE TO THE NEAREST ONE SECOND.

THIS SUBJECT PROPERTY IS LOCATED WITHIN ZONE AE (BASE FLOOD ELEVATIONS DETERMINED) AND ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), PER FEMA MAP NUMBER 55079C0048E WITH AN EFFECTIVE DATE OF SEPTEMBER 26, 2008.

CERTIFIED SURVEY MAP No. _____

BEING A PART OF GOVERNMENT LOT 1 IN THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 9,
TOWNSHIP 7 NORTH, RANGE 22 EAST, VILLAGE OF SHOREWOOD, MILWAUKEE COUNTY, WISCONSIN.

SURVEYOR'S CERTIFICATE

State of Wisconsin)
) SS
County of Milwaukee)

I, Michael J. Piering, Professional Land Surveyor, do hereby certify that I have surveyed, divided, dedicated and mapped a part of Government Lot 1 in the Northwest 1/4 of the Northeast 1/4 of Section 9, Township 7 North, Range 22 East, Village of Shorewood, Milwaukee County, Wisconsin, bounded and described as follows:

Commencing at the northwest corner of the Northeast 1/4 of said Section 9; thence North 88°51'15" East along the north line of said Northeast 1/4, 375.26 feet to the southwest line of the East Side Bike Trail (former railroad right of way); thence South 35°12'00" East along said southwest line, 338.40 feet to the point of beginning;

Thence South 35°12'00" East along said southwest line, 1256.74 feet to the south line of the North 1/2 of the Northeast 1/4 of the aforesaid Section 9; thence South 88°50'52" West, 111.44 feet to meander line along the Milwaukee River; thence North 29°41'21" West along said meander line, 206.92 feet; thence North 46°02'07" West along said meander line, 263.57 feet; thence North 54°59'09" West along said meander line, 408.67 feet; thence North 52°26'21" West along said meander line, 361.57 feet; thence North 54°51'15" East, 367.50 feet to the point of beginning.

Containing in all 226,881 square feet (5.2085 acres) to the meander line of land, more or less, and 248,927 square feet (5.7146 acres) including all lands lying between said meander line and the easterly bank of the Milwaukee River.

All subject to easements and restrictions of record and government restrictions, if any.

That I have made such survey, land division and map by the direction of SHOREWOOD SENIOR APARTMENTS LLC, owner of said land.

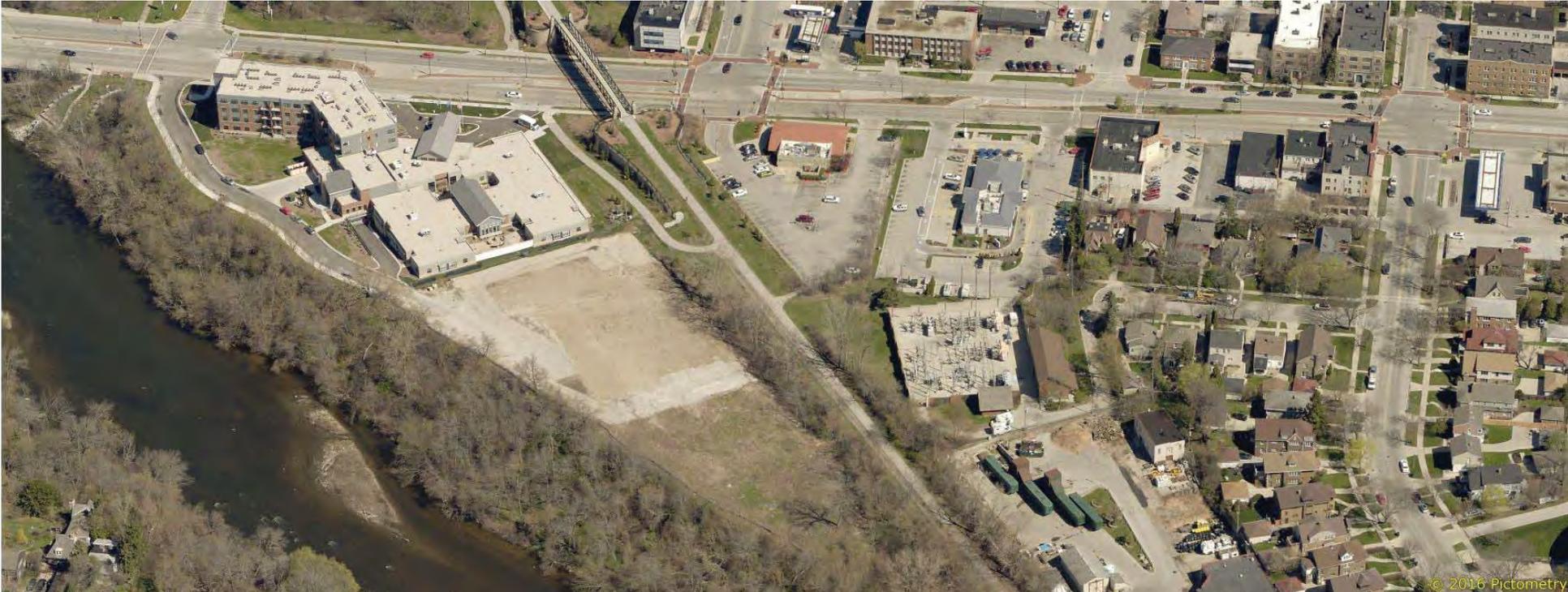
That such map is a correct representation of all exterior boundaries and the land surveyed and the land division thereof made.

That I have fully complied with the provisions of Chapter 236 of the Wisconsin Statutes and the Village of Shorewood Land Division and Development Control Ordinance in surveying, dividing, dedicating and mapping the same.

DATED THIS 7th DAY OF MARCH, 2016

Michael J. Piering, P.L.S.
Professional Land Surveyor, S-2521

River District



River District WEST VIEW



Village of Shorewood, WI
Wednesday, October 19, 2016

Chapter 535. Zoning

Article IV. Zoning Districts

§ 535-20. Public and semipublic districts.

- A. P-1 School, Church and Public Building District. The P-1 District is comprised mainly of long-standing public and semipublic buildings in areas throughout the Village. Beyond municipal buildings and public schools, additional permitted uses include private schools, churches and accessory buildings, and facilities devoted to public recreational purposes.
- (1) Principal use: public and private schools, including accessory uses and buildings; children's nurseries; churches and accessory rectories; and municipal buildings and facilities, including those devoted to recreational purposes.
 - (2) Conditional uses: see Article V.
 - (3) Building:
 - (a) Area, maximum: 30% of lot coverage.
 - (b) Height, maximum: 50 feet.
 - (4) Setback:
 - (a) Front, minimum: 25 feet.
 - (b) Rear, minimum: 15 feet.
 - (c) Side:
 - [1] Interior, minimum: 10 feet.
 - [2] Street side, minimum: 15 feet.^[1]
 - [1] *Editor's Note: Original § 8-304D(2), P-2 Hospital Zone District, which immediately followed this subsection, was repealed 6-5-2006 by Ord. No. 1911.*
- B. P-3 Park Preservation District. The aim of the P-3 District is to preserve this zone for scenic, scientific, historic and recreational uses in this zone and to encourage the preservation of undeveloped areas along the Milwaukee River and Lake Michigan.
- (1) Principal use: preserve for scenic, historic, scientific and recreational uses.
 - (2) Lot:

- (a) Width: no minimum.
- (b) Area: no minimum.
- (3) Building:
 - (a) Area: no minimum.
 - (b) Height, maximum: 30 feet.
- (4) Setback:
 - (a) Front, minimum: 15 feet from all lot lines.
 - (b) Rear, minimum: 15 feet from all lot lines.
 - (c) Side, minimum: 15 feet from all lot lines.

§ 535-21. Commercial, mixed-use and river districts.

[Amended 2-21-1994 by Ord. No. 1678; 6-5-2006 by Ord. No. 1911; 10-23-2006 by Ord. No. 1917]

A. B-1 Commercial Use District. The B-1 Commercial Use District is intended to provide the Village with a mix of retail, service, restaurant, office, and residential uses in a pedestrian-friendly, active shopping environment. Building massing, scale and appearance and the general character of this district should be oriented toward a "small town," "Main Street," pedestrian character. To encourage further retail development within the district, especially in the core blocks extending from the Capitol and Oakland intersection, first-floor commercial is required.

- (1) Permitted uses.
 - (a) Principal use:
 - [1] Commercial use only on first floor (ground level).
 - [2] Commercial use or apartment use above first floor.
 - [3] Selling and storing only within the premises (within the building).
 - (b) The following uses are permitted provided that they shall be retail establishments and primarily selling and storing new merchandise, and except that the sale or display of firearms or ammunition suitable for use in a firearm is prohibited:
 - Permitted Retail Uses**
 - Appliance stores
 - Bakeries employing not over 7 employees
 - Candy and ice cream shops
 - China, glassware and crockery stores
 - Clothing stores
 - Delicatessens
 - Department stores
 - Drugstores
 - Electronics stores

- Florists
- Food stores
- Furniture stores
- Gift stores
- Hardware and home improvement stores
- Hobby shops
- Jewelry stores
- Medical equipment stores
- Music stores
- Office supplies
- Optical stores
- Packaged beverage stores and wine shops
- Paint stores
- Pet shops
- Photographic supply stores
- Specialty grocery stores
- Specialty retail stores
- Sporting goods stores
- Supermarkets

- (c) In addition to the uses permitted above, the following service-oriented uses shall also be permitted:

Service-Oriented Permitted Uses

- Barbershops
- Beauty shops
- Business offices
- Caterers
- Clothing repair and tailoring
- Dance instruction studios
- Financial institutions
- Fine arts studios and galleries
- Furniture upholstery shops
- Newspaper offices
- Printing shops
- Private schools
- Professional offices
- Restaurants, other than carry-out, drive-in or drive-through
- Self-service and pickup laundry and dry-cleaning establishments employing not over 7 employees

- (2) Uses prohibited.

- (a) Buildings that are solely residential in use.

[1] Any land or lot on which there is located a residence of four families or fewer shall not be subdivided for business purposes.

[2] Any building used as a residence of four families or fewer shall not be added to, altered or converted for business purposes.

- (b)

Manufacturing, repairing, processing or storing of goods, wares, merchandise, machinery, equipment or materials, except such manufacturing, repairing, processing, or storing of said goods, wares, merchandise, machinery, equipment or materials as is customarily incidental to the principal use of the property that is conducted solely within the building and in such manner that is not in conflict with the requirements of Article **VIII** of this chapter.

- (c) Vehicular sales, service and detailing.
- (d) Gasoline service stations.
- (e) Parking lots with total parking spaces in excess of 100 spaces, except as allowed in § **535-46A(3)**.
[Added 10-20-2008 by Ord. No. 1944]
- (3) Conditional uses: see Article **V**.
[Amended 2-25-2008 by Ord. No. 1935]
- (4) Building:
 - (a) Height, maximum: see Subsection **F**, Building height overlay, of this section.
 - (b) Area: no minimum.
- (5) Lot:
 - (a) Width, minimum: 40 feet.
 - (b) Area, minimum: 4,500 square feet.
- (6) Setback:
 - (a) Front: build-to line of 15 feet from the street curblin, unless the lot line is at a distance greater than 15 feet from the curblin, then the build-to line shall be the lot line.
[Amended 2-25-2008 by Ord. No. 1935]
 - (b) Rear: minimum of 5 feet from rear lot line or alley; except that where the rear lot line is adjacent to a residential district, the setback is 10 feet. The Plan Commission may grant a special exception from the rear setback for underground parking garage entrances, not to exceed 15 feet in height, pursuant to the provisions of § **535-51**; except that, in lieu of the criteria in § **535-51B**, the Plan Commission shall consider the following criteria in an application for a special exception from the rear setback for an underground parking garage entrance:
[Amended 6-16-2008 by Ord. No. 1939]
 - [1] Safety concerns related to vehicular traffic.
 - [2] Distance of the entrance relative to the other property lines.
 - [3] Aesthetics of the entrance.
 - [4] Such other matters as the Plan Commission deems relevant and material.

- (c) Side:
 - [1] Zero, unless applicable Building Code requirements for dwelling units require a greater distance and except that it shall be 10 feet for a lot that borders a single- or two-family residential district.
 - [2] Corner lots: a build-to line of 20 feet from the street curblin, except that the side yard setback on corner lots shall be reviewed by the Plan Commission to determine whether a twenty-foot build-to line or another corner lot side yard build-to line is appropriate due to parking considerations and the layout of the intersection, provided further that the corner lot side yard build-to line at the intersection of Capitol Drive and Oakland Avenue is 15 feet.
[Amended 2-25-2008 by Ord. No. 1935]
- (7) Design guidelines. Central District Design Guidelines (see Subsection **G**) shall apply to construction of new buildings, the structural alteration of or additions to existing building, and any substantial modifications to the exterior of any buildings in this district.
- B. B-2 Mixed-Use Residential District. The B-2 Mixed-Use Residential District is intended to provide opportunities for mixed-use development while encouraging residential development. The district allows buildings of exclusively residential use as well as mixed-use buildings with residential uses on upper floors and retail, office, service, or restaurant uses on the first floor. Buildings of exclusively commercial use are not permitted. This district will allow additional shopping opportunities while adding residents and vitality to the Village.
 - (1) Permitted uses:
 - (a) All uses permitted in the B-1 District.
 - (b) Multifamily residential use on all floors.
 - (c) Mixed-use building, commercial first floor only.
 - (2) Uses prohibited:
 - (a) Commercial use on all floors.
 - (b) One- and two-family dwellings.
 - [1] Any land or lot on which there is located a residence of four families or fewer shall not be subdivided for business purposes.
 - [2] Any building used as a residence of four families or fewer shall not be added to, altered or converted for business purposes.
 - (c) Manufacturing, repairing, processing or storing of goods, wares, merchandise, machinery, equipment or materials, except such manufacturing, repairing, processing, or storing of said goods, wares, merchandise, machinery, equipment or materials as is customarily incidental to the principal use of the property that is conducted solely within the building and in such manner that is not in conflict with the requirements of Article **VIII** of this chapter.
 - (d) Vehicular sales, service and detailing.

- (e) Gasoline service stations.
- (f) Parking lots with total parking spaces in excess of 100 spaces, except as allowed in § **535-46A(3)**.
[Added 10-20-2008 by Ord. No. 1944]
- (3) Conditional uses: see Article **V**.
[Amended 2-25-2008 by Ord. No. 1935]
- (4) Building:
 - (a) Height: see Subsection **F**, Building height overlay, of this section.
 - (b) Area: no minimum.
- (5) Lot:
 - (a) Width, minimum: 40 feet.
 - (b) Area, minimum: 4,500 square feet.
- (6) Setback:
 - (a) Front: build-to line of 15 feet from the street curblin, unless the lot line is at a distance greater than 15 feet from the curblin, then the build-to line shall be the lot line.
[Amended 2-25-2008 by Ord. No. 1935]
 - (b) Rear: minimum of 5 feet from rear lot line or alley; except that where the rear lot line is adjacent to a residential district, the setback is 10 feet. The Plan Commission may grant a special exception from the rear setback for underground parking garage entrances, not to exceed 15 feet in height, pursuant to the provisions of § **535-51**; except that, in lieu of the criteria in § **535-51B**, the Plan Commission shall consider the following criteria in an application for a special exception from the rear setback for an underground parking garage entrance:
[Amended 6-16-2008 by Ord. No. 1939]
 - [1] Safety concerns related to vehicular traffic.
 - [2] Distance of the entrance relative to the other property lines.
 - [3] Aesthetics of the entrance.
 - [4] Such other matters as the Plan Commission deems relevant and material.
 - (c) Side:
 - [1] Zero, unless applicable Building Code requirements for dwelling units require a greater distance and except that it shall be 10 feet for a lot that borders a single- or two-family residential district.
 - [2] Corner lots: a build-to line of 20 feet from the street curblin, except that the side yard setback on corner lots shall be reviewed by the Plan Commission to determine whether a twenty-foot build-to line or another corner lot side yard build-to line is appropriate due to parking considerations and the layout of the intersection.

[Amended 2-25-2008 by Ord. No. 1935]

- (7) Design guidelines: Central District Design Guidelines (see Subsection **G**) shall apply to construction of new buildings, the structural alteration of or additions to existing building and any substantial modifications to the exterior of any buildings in this district.
- C. B-3 Mixed-Use Commercial District. The B-3 Mixed-Use Commercial District is intended to provide opportunities for mixed-use development while encouraging commercial development. This district provides maximum flexibility by allowing buildings with exclusively commercial uses, buildings with exclusively residential uses, and mixed-use buildings with commercial on the first floor.
- (1) Permitted uses:
 - (a) All uses permitted in the B-1 District.
 - (b) Multifamily or commercial use on all floors.
 - (c) Mixed-use building, commercial first floor only.
 - (2) Uses prohibited:
 - (a) One- and two-family dwellings.
 - [1] Any land or lot on which there is located a residence of four families or fewer shall not be subdivided for business purposes.
 - [2] Any building used as a residence of four families or fewer shall not be added to, altered or converted for business purposes.
 - (b) Manufacturing, repairing, processing or storing of goods, wares, merchandise, machinery, equipment or materials, except such manufacturing, repairing, processing, or storing of said goods, wares, merchandise, machinery, equipment or materials as is customarily incidental to the principal use of the property that is conducted solely within the building and in such manner that is not in conflict with the requirements of Article **VIII** of this chapter.
 - (c) Parking lots with total parking spaces in excess of 100 spaces, except as allowed in § **535-46A(3)**.
[Added 10-20-2008 by Ord. No. 1944]
 - (3) Conditional uses: see Article **V**.
[Amended 2-25-2008 by Ord. No. 1935]
 - (4) Building:
 - (a) Height: see Subsection **F**, Building height overlay, of this section.
 - (b) Area: no minimum.
 - (5) Lot:
 - (a) Width, minimum: 40 feet.
 - (b) Area, minimum: 4,500 square feet.
 - (6) Setback:

- (a) Front: build-to line of 15 feet from the street curblin, unless the lot line is at a distance greater than 15 feet from the curblin, then the build-to line shall be the lot line.

[Amended 2-25-2008 by Ord. No. 1935]

- (b) Rear: minimum of 5 feet from rear lot line or alley; except that where the rear lot line is adjacent to a residential district, the setback is 10 feet. The Plan Commission may grant a special exception from the rear setback for underground parking garage entrances, not to exceed 15 feet in height, pursuant to the provisions of § **535-51**; except that, in lieu of the criteria in § **535-51B**, the Plan Commission shall consider the following criteria in an application for a special exception from the rear setback for an underground parking garage entrance:

[Amended 6-16-2008 by Ord. No. 1939]

[1] Safety concerns related to vehicular traffic.

[2] Distance of the entrance relative to the other property lines.

[3] Aesthetics of the entrance.

[4] Such other matters as the Plan Commission deems relevant and material.

- (c) Side:

[1] Zero, unless applicable Building Code requirements for dwelling units require a greater distance, and except that it shall be 10 feet for a lot that borders a single- or two-family residential district.

[2] Corner lots: a build-to line of 20 feet from the street curblin, except that the side yard setback on corner lots shall be reviewed by the Plan Commission to determine whether a twenty-foot build-to line or another corner lot side yard build-to line is appropriate due to parking considerations and the layout of the intersection.

[Amended 2-25-2008 by Ord. No. 1935]

- (7) Design guidelines. Central District Design Guidelines (see Subsection **G**) shall apply to construction of new buildings, the structural alteration of or additions to existing building and any substantial modifications to the exterior of any buildings in this district.

- D. B-4 River District. The B-4 River District is intended to be a multifamily residential district. However, the Village also seeks to encourage a high-quality planned development that incorporates views of the Milwaukee River and a sensitive design approach toward the natural features of the river corridor. These Village objectives can be implemented by means of a Planned Development District (§ **535-22**). In the absence of a Planned Development District, the provisions of this subsection are applicable. No lots in the B-4 District may be divided or subdivided unless the property is rezoned Planned Development District.

- (1) To promote coordination and connectivity between land uses, development sites, and buildings, an area plan should be submitted to the Village in addition to the specific site plan that is being proposed for actual development. This area plan should be a diagram that indicates the following general features on land surrounding the subject development site:

- (a) Existing land uses.
 - (b) Potential land uses.
 - (c) Existing densities.
 - (d) Potential densities.
 - (e) Major easements (existing and proposed).
 - (f) Parks and open space.
 - (g) Regional/Village trails and greenways.
 - (h) Broad floodplains and large wetlands.
 - (i) Bluffline.
 - (j) Large water features (lakes, creeks, ponds and rivers).
 - (k) Proposed site plan.
- (2) Site plans should maintain or enhance a green, wooded appearance from the Milwaukee River, with lower building heights nearer to the river and taller building heights away from the river and nearer the Oak Leaf Trail. Access points, driveways, and streets should be planned for the entire River District so that they are consolidated and shared with all properties within the district. Such points, driveways, and streets shall be indicated on both the area plan and site plan and coordinated between sites. Parking shall be predominately underground or within a structure. At a minimum, 20% of the buildable area (i.e., not including setback area) shall be maintained as landscaped green space.
- (3) Permitted uses: multifamily residential dwellings with at least two floors.
- (4) Uses prohibited: one- and two-family dwellings.
- (5) Conditional uses: no conditional uses except as authorized by the Plan Commission; see § **535-10B** and Article **V**.
- (6) Building:
- (a) Height: see Subsection **F**, Building height overlay, of this section.
 - (b) Area: no minimum.
- (7) Lot:
- (a) Width, minimum: 40 feet.
 - (b) Area, minimum: 4,500 square feet.
- (8) Setback:
- (a) Front, minimum: 15 feet.
[Amended 2-25-2008 by Ord. No. 1935]
 - (b) River and/or bluffline: per § **535-9H(8)**.
 - (c) Oak Leaf Trail (right-of-way) minimum: five feet.
 - (d) Property line minimum: 15 feet.

- E. B-5 Estabrook Homes Business District. The B-5 Business District zone is designed to allow for all of the uses permitted in the B-1 Commercial District. The intent for this district is to allow for development patterns consistent with the B-2 District. The B-2 District allows for apartment use on the first floor, as areas under this classification are characterized by a high concentration of established apartment buildings. This zone differs only in the building bulk and setback requirements meant to preserve the characteristics of this area.
- (1) Principal uses:
 - (a) Commercial or apartment use on all floors.
 - (b) All uses permitted in the B-1 District; apartments constructed shall comply with the R-10 District.
 - (2) Uses prohibited:
 - (a) No building or land shall be used and no building shall be erected or structurally altered except for business purposes or for apartment houses designed for and used by more than four families.
 - (b) Manufacturing, repairing, processing or storing of goods, wares, merchandise, machinery, equipment or materials, except such manufacturing, repairing, processing, or storing of said goods, wares, merchandise, machinery, equipment or materials as is customarily incidental to the principal use of the property that is conducted solely within the building and in such manner that is not in conflict with the requirements of Article **VIII** of this chapter.
 - (c) Vehicular sales, service and detailing.
 - (3) Conditional uses: see Article **V**.
 - (4) Building:
 - (a) Height, maximum: 25 feet.
 - (b) Area: no minimum.
 - (5) Lot:
 - (a) Width: 40 feet.
 - (b) Area: 4,500 square feet.
 - (6) Setback, minimum:
 - (a) Fifteen feet on Idlewild.
 - (b) Three feet on Wilson.
 - (c) Three feet all others.
- F. Building height overlay. The maximum and minimum building heights in the B-1 through B-4 Districts shall be as follows:
- (1) In the B-1 through B-3 Districts, a maximum of 70 feet not to exceed five stories along:

- (a) Wilson Drive.
 - (b) Capitol Drive between the Oak Leaf Trail and Frederick Avenue.
 - (c) Oakland Avenue between 120 feet north of Capitol Drive and 120 south of Capitol Drive.
 - (d) Oakland Avenue between Edgewood Avenue and Menlo Boulevard.
- (2) In the B-1 through B-3 Districts, a maximum of 60 feet not to exceed four stories along:
 - (a) Oakland Avenue between the border with Whitefish Bay and 120 feet north of Capitol Drive.
 - (b) Oakland Avenue between 120 feet south of Capitol Drive and Menlo Boulevard.
 - (c) Capitol Drive between Frederick Avenue and Downer Avenue.
 - (3) In the B-4 District (area bordered by Capitol Drive, Oak Leaf Trail, Hubbard Park and Milwaukee River) different building heights will apply depending upon the distance the buildings will be located from the river or bluffline setback under § **535-9H(8)**:
 - (a) The maximum shall be 60 feet not to exceed four stories in the buildable area between the setback line under § **535-9H(8)** and a line that runs parallel to and 70 feet from the setback line under § **535-9H(8)**.
 - (b) The maximum shall be 84 feet not to exceed six stories in the buildable area not included in Subsection **F(3)(a)** immediately above.
 - (4) A minimum of two stories for B-1, B-2, B-3 and B-4 Districts.
- G. Central District Design Guidelines. The Central District Master Plan Design Guidelines, dated October 17, 2006, approved by the Village Board of the Village of Shorewood on October 23, 2006, are hereby incorporated by reference as part of this chapter as if fully set forth herein and are adopted and created as the Central District Design Guidelines, subject to the following provisions:
- (1) The Central District Design Guidelines shall be applicable in the B-1 through B-4 Zoning Districts to:
 - (a) Any construction, additions and structural alterations of buildings or parking facilities in the B-1 through B-4 Districts.
 - (b) Alteration of the exterior surface materials, color or design of existing buildings.
 - (c) The location and appearance of exterior lighting and signage.
 - (d) Landscaping related to the activities of Subsection **G(1)(a)** immediately above and any material modifications to existing landscaping.
 - (2) Compliance with the design guidelines.
 - (a) No permits, including building permits under Chapter **225** of the Village Code, shall be issued for any use of property until it has been determined

by the Design Review Board that the building and/or property is in compliance with the Design Guidelines.

- (b) The Village Manager or the Village Manager's designee is authorized to enforce the Design Guidelines and to direct the Building Inspector to issue citations for violations pursuant to the provisions of Article **III** of this chapter.
- (3) Design Review Board oversight.
- (a) In the event that there is a dispute over the applicability or interpretation of the Design Guidelines, the matter shall be referred to the Design Review Board for review and a determination of the applicability and interpretation of the guidelines to the proposed building or use of property.
 - (b) Any person aggrieved by a decision of the Design Review Board under this subsection may appeal to the Plan Commission. Decisions made hereunder by the Plan Commission may be appealed to the Board of Appeals in accordance with the provisions of § **535-56** and **535-57**. The Board of Appeals, after a hearing, may affirm, reverse or remand with recommendations any order, requirement, decision or determination of the Plan Commission made under this subsection. The Board of Appeals shall decide all appeals under this subsection within 30 days after final hearing and shall transmit a signed copy of the Board's decision to the appellant and to the Planning and Development Department.