Plan Commission
Meeting Agenda
Tuesday September 27, 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 August 23, 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 3541 N. Hackett.
    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.
6. Items removed from consent agenda.
7. Public Hearing: Consideration of conditional use application for a proposed fitness studio at 4155 N. Oakland Avenue.
8. Public Hearing: Consideration of conditional use application for a proposed veterinarian clinic at commercial property 4604 N. Wilson Drive.
9. Consider staff recommendation of zoning amendment for commercial discount stores.
10. Schedule next meeting.
11. Adjournment.

Dated at Shorewood, Wisconsin, this 21st day of September, 2016

Village of Shorewood
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.

MEMORANDUM

September 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 3541 N. Hackett

Agenda Item #: Consideration of Solar Panel CUP

On August 24, 2016 the village received a conditional use application for installation of solar panels at residential property 3541 N. Hackett Ave. The property owner is Thad Nation and the applicant is Arch Electric Inc.

Panel Description
The application is for 12 solar modules mounted on the south roof elevation of the house, at the back section. Each panel is 40" x 70" x 2.5"d, with three rows of four as shown in the attached aerial photographs.

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. 16-1640	
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: 3541 N. Hackett Ave.

PROPERTY OWNER

Owner Name: Thad Nation
Phone Number: 414-412-7814
Email:
Owner Address: 3541 N. Hackett Ave.
Shorewood, WI 53211

APPLICANT/BUSINESS

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

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

Jen Simon
SIGNATURE

8/24/16
DATE

3541 North
Hackett Avenue
N Hackett Ave
N Hackett Ave

SM SOLAR MOUNT

NEW ENHANCEMENTS

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 ENERGY

UL2703 LISTED

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

TÜVRheinland US

ROOF MOUNT SYSTEMS

GET OFF THE ROOF FASTER THAN EVER BEFORE

OPTIMIZED COMPONENTS • VERSATILITY • AVAILABILITY • DESIGN TOOLS

SM SOLAR MOUNT

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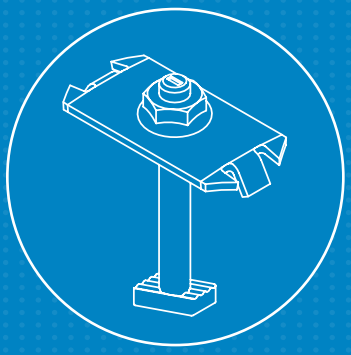
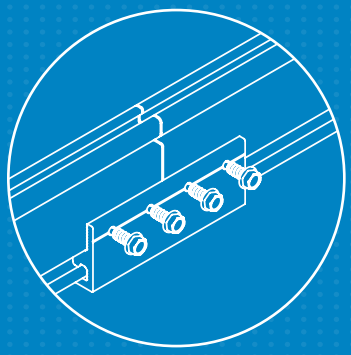


INTEGRATED BONDING MIDCLAMP

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.



INTEGRATED BONDING SPLICE BAR

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INTEGRATED BONDING L-FOOT w/ T-BOLT

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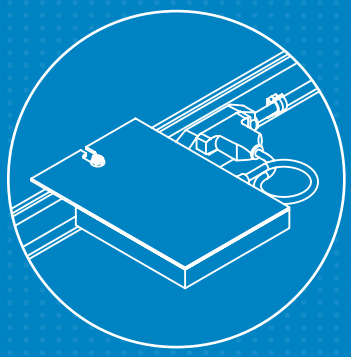


INTEGRATED BONDING MICROINVERTER MOUNT w/ WIRE MANAGEMENT

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

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 Technology[1], 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 guarantee[2].

EUPD RESEARCH
TOP BRAND PV
MODULES
EUROPE
2015

Q CELLS
YIELD SECURITY
- ANTI PID TECHNOLOGY (APT)
- HOT-SPOT PROTECT (HSP)
- TRACEABLE QUALITY (TRA.Q™)

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

THE IDEAL SOLUTION FOR:

Ground-mounted solar power plants

Engineered in **Germany**

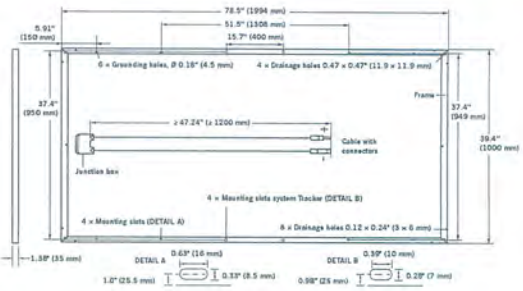
[1] APT test conditions: Cells at -1000 V against grounded, with conductive metal foil covered module surface, 25 °C, 168 h

[2] See data sheet on rear for further information.

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 mm² Solar cable; (+) ≥ 47.24 in (1200 mm), (-) ≥ 47.24 in (1200 mm)
Connector	Amphenol H4 UTX, IP68

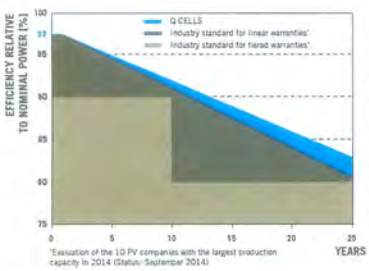


ELECTRICAL CHARACTERISTICS

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

[1] 1000 W/m², 25°C, spectrum AM 1.5G [2] Measurement tolerances STC ±3%; NOC ±5% [3] 800 W/m², NOCT, spectrum AM 1.5G * typical values, actual values may differ

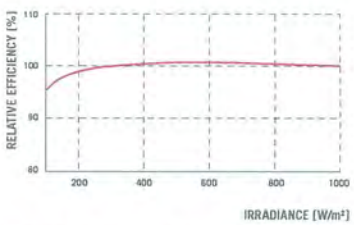
Q CELLS PERFORMANCE WARRANTY



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/ft²]	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/ft²]	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 I TEL +1 949 748 59 96 I WEB www.q-cells.com

Engineered in **Germany**

UNIRAC

U-BUILDER PROJECT REPORT
VERSION: 1.3.2

AUG 20, 2016, 02:41 PM

PROJECT TITLE: THAD NATION
PROJECT ID: 8C3038CE

Name:	Thad Nation	Designed by Russel@archelec.com
Address:	3541 N Hackett Ave Shorewood Wi 53211	SOLARMOUNT
City, State:	Milwaukee, WI, 53211	12 - 330 Watt Panels
Module:	Hanwha Solar Q-PLUS-G4.2 330	258 Sq Ft.
	330 Watts	4.0 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:	634.80 lbs

WORKSPACE 1

Roof Point Load Up:	-147 lbs	**Maximum Rail Span (Zone 1):**	51"
Roof Point Load Down:	245 lbs	**Selected Rail Span:**	48"
		Maximum Rail Cantilever:	16.00 "
Total Number of Modules:	12	**Roof Pitch:**	12:12
Total KW:	4.0 KW		
Rows/ Columns:	2 / 6 (no gaps)		
NS Dimension:	~13.1 ft		
EW Dimension:	~20.1 ft		

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Module:	Hanwha Solar Q-PLUS-G4.2 330	258 Sq Ft.
	330 Watts	4.0 kWs

INSTALLATION AND DESIGN PLAN

LAYOUT WORKSPACE 1

Array vertical dimension: 157.0

Array horizontal dimension: 240.6

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

3541 Hackett

September 19, 2016

Address Numbers

Parcels

Streets

1:564

0 0.0045 0.009 0.018 mi

0 0.005 0.01 0.02 km

Milwaukee County Land Information Office

Web AppBuilder for ArcGIS

Milwaukee County Land Information Office |

MEMORANDUM

September 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 1828 E. Kenmore Pl

Agenda Item #: Consideration of Solar Panel CUP

On August 24, 2016 the village received a conditional use application for installation of solar panels at residential property 1828 E. Kenmore Pl. The property owner is Daniel Burkholder and the applicant is Arch Electric Inc.

Panel Description
The application is for 10 solar modules mounted on the south roof elevation of the house, which is the front of the house. Each panel is 40" x 70" x 2.5"d, with two rows of five as shown in the attached aerial photographs.

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:

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APPLICATION FOR CONDITIONAL USE PERMIT

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General Fee $125	Solar Energy Fee $75
Permit No. 16-1639	
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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: 1828 E Kenmore Pl

PROPERTY OWNER

Owner Name: Daniel Burkholder
Phone Number: 414-897-7206
Email: DBURKHOLDER21@GMAIL.COM
Owner Address: 1828 E Kenmore Pl
Shorewood, WI 53211

APPLICANT/BUSINESS

Name: Arch Electric Inc.
Phone Number: 920-893-8388
Email: jen@archelec.com
Address: W4499 Sumac Rd.
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Check if prefer to receive Meeting Agenda by EMAIL: X PROPERTY OWNER X 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 10 panel 3.30 KW Solar PV System

SIGNATURE Jen Simons DATE 8/24/16

Kenmore

September 19, 2016

Address Numbers

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Streets

1:564

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0 0.005 0.01 0.02 km

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1828 E Kenmore
E Kenmore Pl

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TÜVRheinland US

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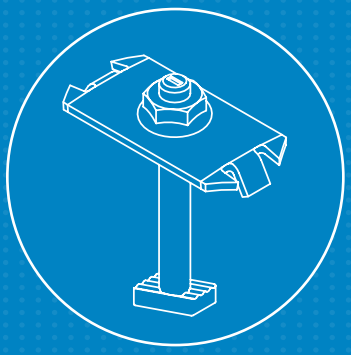

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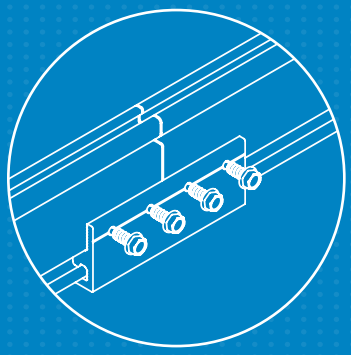

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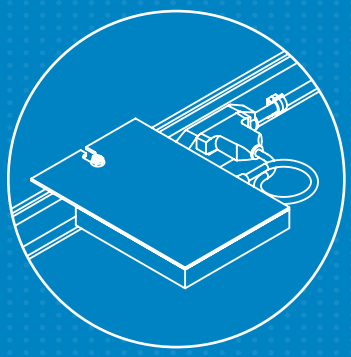

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Unirac is the only PV mounting vendor with ISO certifications for 9001:2008, 14001:2004 and OHSAS 18001:2007, which means we deliver the highest standards for fit, form, and function. These certifications demonstrate our excellence and commitment to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

Solar inverters

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

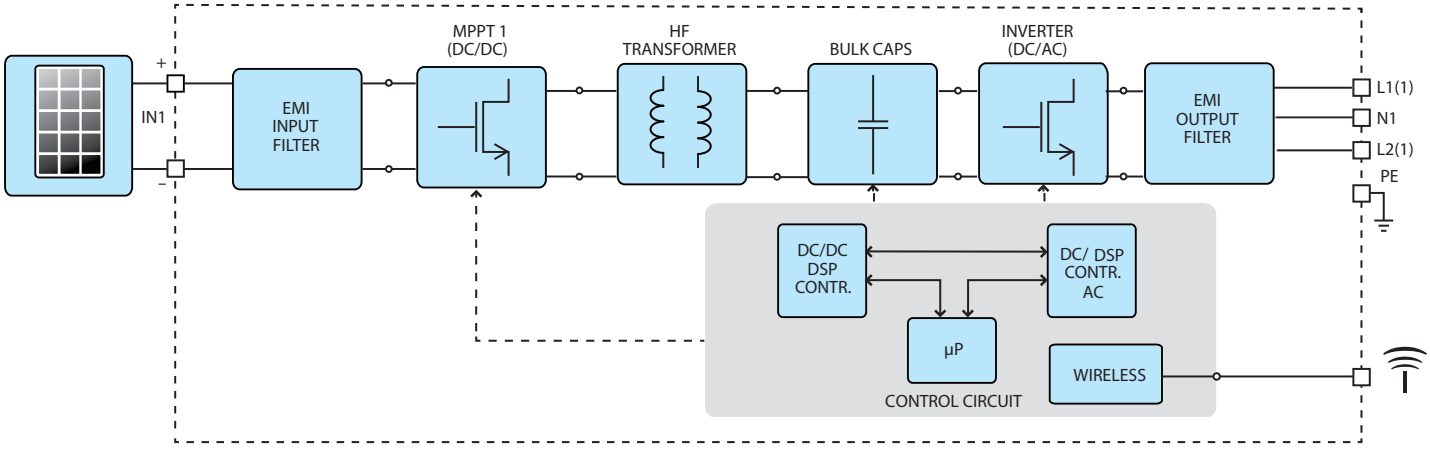
ABB's MICRO inverter enables individual panel output control when flexibility and modularity are required.

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.

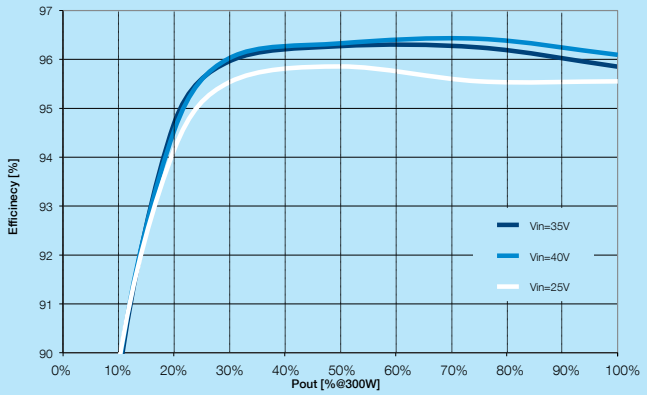
The Maximum Power Point Tracking (MPPT) algorithm maximizes energy and flexibility.
The proprietary MPPT algorithm works at the level of each solar panel in any light condition offering more energy output. This inverter has a maximum efficiency of 96.5%.
The electrolyte-free power converter further increases 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.

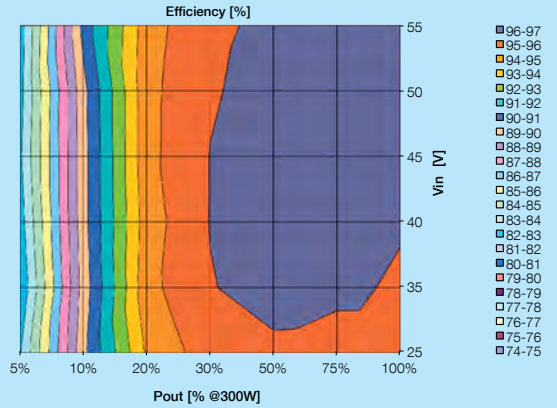
Block diagram of MICRO-0.25/0.3/0.3HV-I-OUTD



MICRO-0.3-I



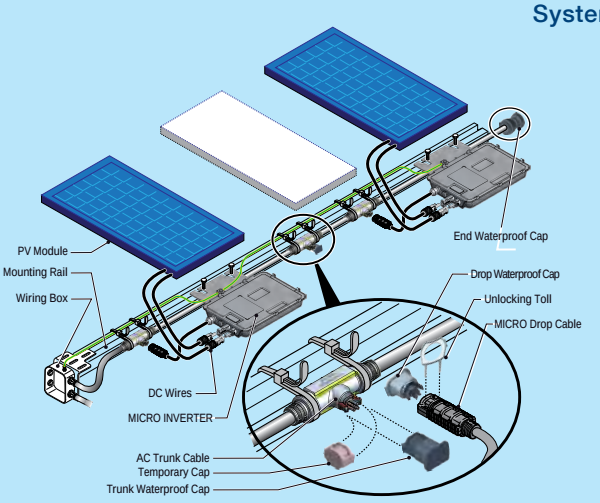
MICRO-0.3-I

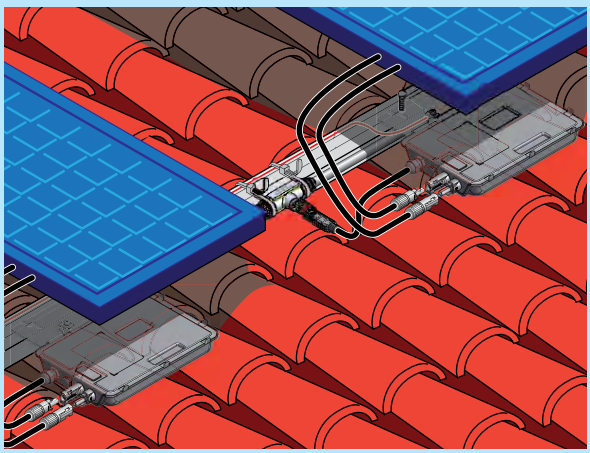


MICRO inverter system installation:

- 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[2]Wp		320[2]Wp		320[2]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[3]		12-60V[3]		19-75V[3]	
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 compppliance 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 altitutde 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	$_{c}CSA_{US}$					
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.HV-I-OUTD-US-208/240	

1. With derating below 200V for 208Vac 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:

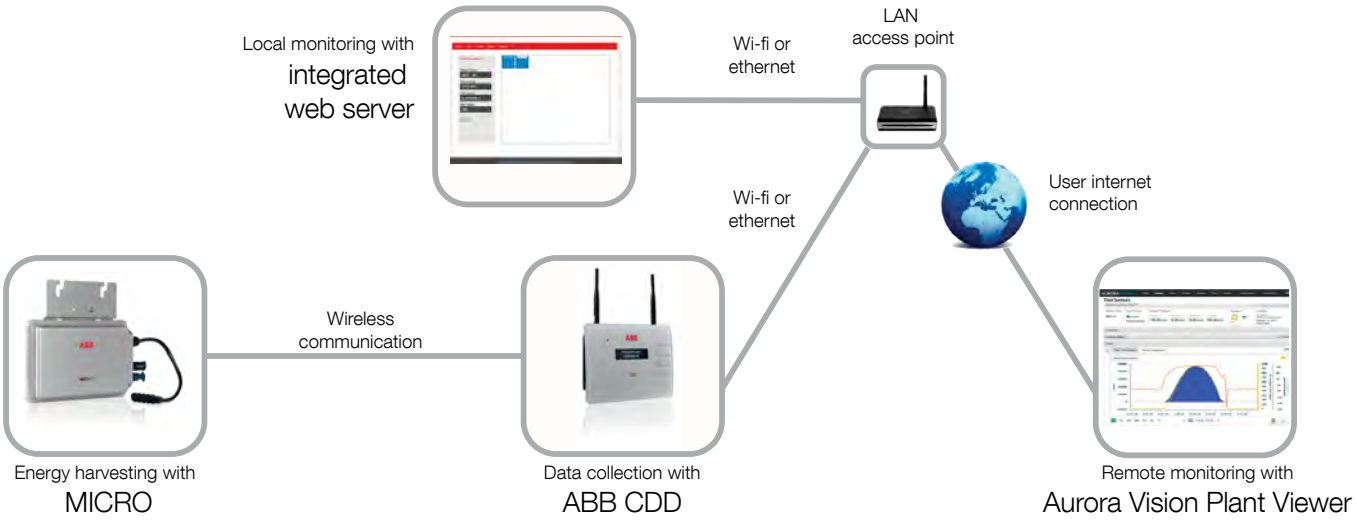
- Wireless data monitoring.
- Remote monitoring through Aurora Vision.
- Easy configuration.
- Up to 30 MICRO Inverters directly monitored by a single CDD.
- 24-hours 7-days web-based monitoring on web or mobile devices.
- Mesh network topology ensures redundancy in communications and the highest design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

Technical data and types

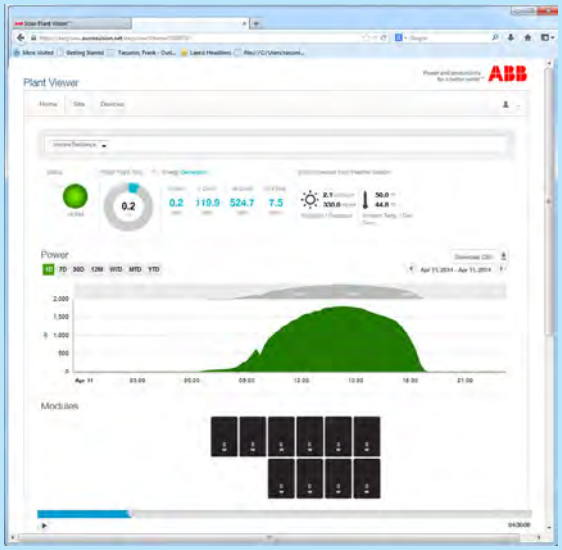
Type code	CDD
Communication to inverter	
Type	Radio IEEE 802.15.4
Sample rate	1 min.
Max. distance (free space)	164ft (50m[1)])
Max. number of devices	30
Communication to modem/PC	
Wireless communication	Radio IEEE 802.11/b - 2.4GHz/10Mbps
Wired communication	Ethernet RJ45 10/100Mbps
Connectivity	
Wired 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, $_{C}$CSA$_{US}$, 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 specicially listed in the present datasheet are not included in the product.

Monitoring solutions



Aurora Vision Plant Viewer

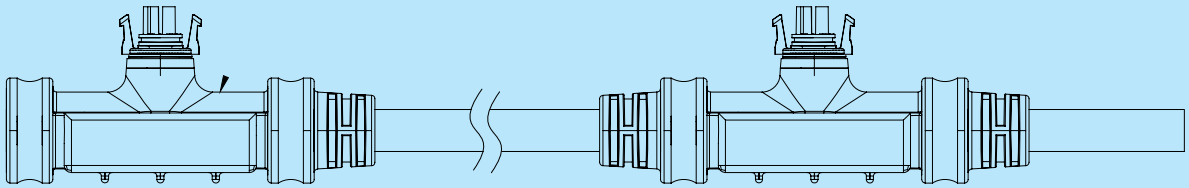


Plant Viewer for mobile

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 acccess security.
- Tightly integrated micro-inverter and monitoring solution.

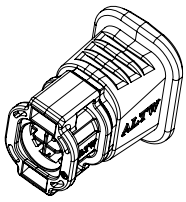
System components for MICRO 0.25/0.3/0.3HV-I-OUTD



Cabling and accessories:

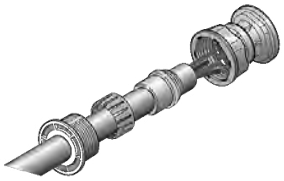
- Portrait orientation (60, 72, 96 cell modules): AC-Trunk Spool-41inches-50plugs (41“ connector pitch, spool of 50 plugs)
- Landscape orientation (60, 96 cell modules): AC-Trunk Spool-67inches-32plugs (67“ connector pitch, spool of 32 plugs)
- Landscape Orientation (72 cell modules): AC Trunk Spool-81inches - 27plugs (81“ connector pitch, spool of 27 plugs)

3AUA00000xxxx REV 1.3 EN 05.15.2014 #16634



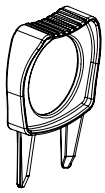
AC trunk cable plug cap:

- 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

Power and productivity for a better world™

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 Technology[1], 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 guarantee[2].

EUPD RESEARCH
TOP BRAND PV
MODULES
EUROPE
2015

Q CELLS
YIELD SECURITY
- ANTI PID TECHNOLOGY (APT)
- HOT-SPOT PROTECT (HSP)
- TRACEABLE QUALITY (TRA.Q™)

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

THE IDEAL SOLUTION FOR:

Ground-mounted solar power plants

Engineered in **Germany**

[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.

Q CELLS

UNIRAC

U-BUILDER PROJECT REPORT
VERSION: 1.3.2

AUG 20, 2016, 04:27 PM

PROJECT TITLE: DAN BURKHOLDER
PROJECT ID: AF7DD469

Name:	Dan Burkholder	Designed by Russel@archelec.com
Address:	1828 E Kenmore Pl Shorewood Wi 53211	SOLARMOUNT
City, State:	Milwaukee, WI, 53211	10 - 330 Watt Panels
Module:	Hanwha Solar Q-PLUS-G4.2 330	215 Sq Ft.
	330 Watts	3.3 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:	529.00 lbs

WORKSPACE 1

Roof Point Load Up:	-128 lbs	**Maximum Rail Span (Zone 1):**	53"
Roof Point Load Down:	334 lbs	**Selected Rail Span:**	48"
		Maximum Rail Cantilever:	16.00 "
Total Number of Modules:	10	**Roof Pitch:**	6:12
Total KW:	3.3 KW		
Rows/ Columns:	2 / 5 (no gaps)		
NS Dimension:	~13.1 ft		
EW Dimension:	~16.8 ft		

UNIRAC

U-BUILDER PROJECT REPORT
VERSION: 1.3.2

AUG 20, 2016, 04:27 PM

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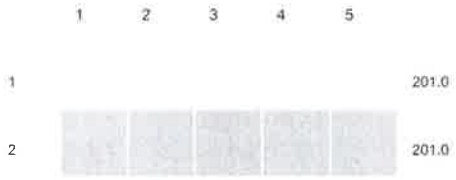
City, State:	Milwaukee, WI, 53211	10 - 330 Watt Panels
Module:	Hanwha Solar Q-PLUS-G4.2 330	215 Sq Ft.
	330 Watts	3.3 kWs

INSTALLATION AND DESIGN PLAN

LAYOUT WORKSPACE 1



Array vertical dimension: 157.0

Array horizontal dimension: 201.0

Row	Modules	Zone	Rail Type	Splices	Roof Attachments
1	5	Zone 1	SM RAIL 240" MILL | 320240M | $101 (2)	0	10
2	5	Zone 2	SM RAIL 240" MILL | 320240M | $101 (2)	0	20

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

September 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 3820 N. Downer Ave

Agenda Item #: Consideration of Solar Panel CUP

On August 24, 2016 the village received a conditional use application for installation of solar panels at residential property 3820 N. Downer Ave. The property owner is Mark Stodder and the applicant is Arch Electric Inc.

Panel Description
The application is for 6 solar modules mounted on the south roof elevation of the house, which is the side of the house. Each panel is 40" x 70" x 2.5"d, with three rows as shown in the attached aerial photographs.

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.


04/23/2013

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. 16-1641	
Zoning District R-5	
CUP Reason solar panels	
Code Reference 535-30D	
Plan Comm. Meeting 9/27/16	
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: 3820 N. Downer Ave.

PROPERTY OWNER

Owner Name: Muna Sill
Phone Number: 414-763-5641
Email: MUNASSILL@GMAIL.COM
Owner Address: 3820 N. Downer Ave.
Milwaukee, WI 53211

APPLICANT/BUSINESS

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

Check if prefer to receive Meeting Agenda by EMAIL: X PROPERTY OWNER X 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 6 panel 1.98 KW Solar PV System

SIGNATURE

DATE 8/24/16

UNIRAC

U-BUILDER PROJECT REPORT
VERSION: 1.3.2

AUG 20, 2016, 03:03 PM

PROJECT TITLE: MUNA SILL
PROJECT ID: 64F8D4E6

		Designed by
Name:	Muna Sill	Russel@archelec.com
Address:	3820 N Downer Ave Milwaukee Wi 53211	SOLARMOUNT
City, State:	Milwaukee, WI, 53211	6 - 330 Watt Panels
Module:	Hanwha Solar Q-PLUS-G4.2 330	129 Sq Ft.
	330 Watts	2.0 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:	317.40 lbs

3820 Downer

September 19, 2016

Address Numbers

Parcels

Streets

1:1,128

0 0.0075 0.015 0.03 mi

0 0.01 0.02 0.04 km

Milwaukee County Land Information Office

Web AppBuilder for ArcGIS

Milwaukee County Land Information Office |

North
N Downer Ave
N Downer Ave

WORKSPACE 1

Roof Point Load Up:	-147 lbs	**Maximum Rail Span (Zone 1):**	51"
Roof Point Load Down:	245 lbs	**Selected Rail Span:**	48"
		Maximum Rail Cantilever:	16.00 "
Total Number of Modules:	6	**Roof Pitch:**	12:12
Total KW:	2.0 KW		
Rows/ Columns:	2 / 4 (with gaps)		
NS Dimension:	~13.1 ft		
EW Dimension:	~13.4 ft		

UNIRAC

U-BUILDER PROJECT REPORT
VERSION: 1.3.2

AUG 20, 2016, 03:03 PM

PROJECT TITLE: MUNA SILL
PROJECT ID: 64F8D4E6

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Address:	3820 N Downer Ave Milwaukee Wi 53211	SOLARMOUNT
City, State:	Milwaukee, WI, 53211	6 - 330 Watt Panels
Module:	Hanwha Solar Q-PLUS-G4.2 330	129 Sq Ft.
	330 Watts	2.0 kWs

INSTALLATION AND DESIGN PLAN

LAYOUT WORKSPACE 1

Array vertical dimension: 157.0

Array horizontal dimension: 161.3

Row	Modules	Zone	Rail Type	Splices	Roof Attachments
1	2	Zone 1	SM RAIL 168" MILL | 320168M | $70 (2)	0	6
2	4	Zone 2	SM RAIL 168" MILL | 320168M | $70 (2)	0	16

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

SM SOLAR MOUNT

NEW ENHANCEMENTS

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 ENERGY

UL2703 LISTED

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

TÜVRheinland US

ROOF MOUNT SYSTEMS

GET OFF THE ROOF FASTER THAN EVER BEFORE

OPTIMIZED COMPONENTS • VERSATILITY • AVAILABILITY • DESIGN TOOLS

SM SOLAR MOUNT

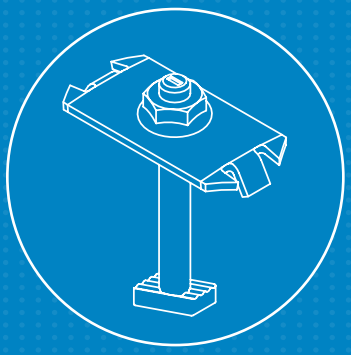
NEW ENHANCEMENTS

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.

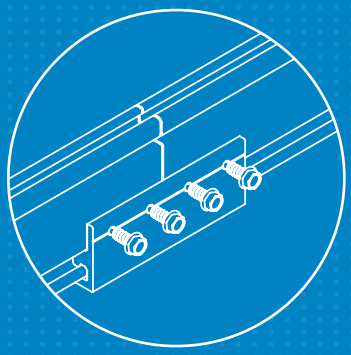


INTEGRATED BONDING MIDCLAMP

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.



INTEGRATED BONDING SPLICE BAR

AVAILABILITY

NATIONWIDE NETWORK

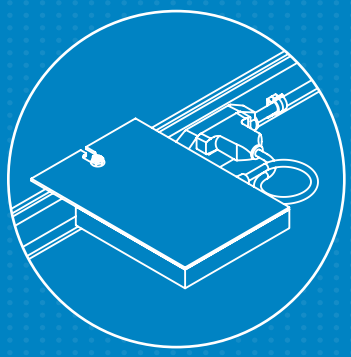
Unirac maintains the largest network of stocking distributors for our racking solutions. Our partners have distinguished their level of customer support, availability, and overall value, thereby providing the highest level of service to users of Unirac products. Count on our partners for fast and accurate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

INTEGRATED BONDING L-FOOT w/ T-BOLT

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 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

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 Technology[1], 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 guarantee[2].

EUPD RESEARCH
TOP BRAND PV
MODULES
EUROPE
2015

Q CELLS
YIELD SECURITY
- ANTI PID TECHNOLOGY (APT)
- HOT-SPOT PROTECT (HSP)
- TRACEABLE QUALITY (TRA.Q™)

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

THE IDEAL SOLUTION FOR:

Ground-mounted solar power plants

Engineered in **Germany**

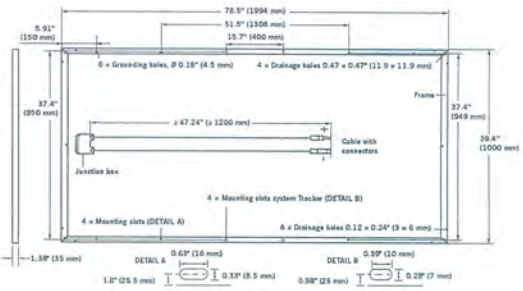
[1] APT test conditions: Cells at -1000 V against grounded, with conductive metal foil covered module surface, 25 °C, 168 h

[2] See data sheet on rear for further information.

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 mm² Solar cable; (+) ≥ 47.24 in (1200 mm), (-) ≥ 47.24 in (1200 mm)
Connector	Amphenol H4 UTX, IP68

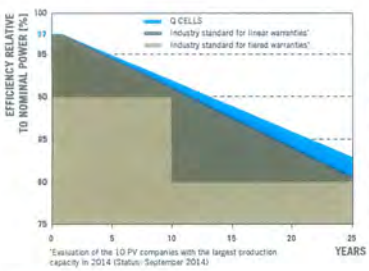


ELECTRICAL CHARACTERISTICS

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

[1] 1000 W/m², 25°C, spectrum AM 1.5G [2] Measurement tolerances STC ±3%; NOC ±5% [3] 800 W/m², NOCT, spectrum AM 1.5G * typical values, actual values may differ

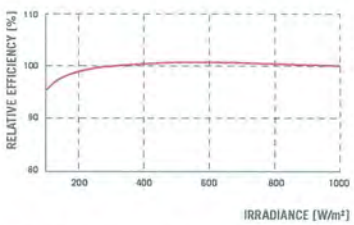
Q CELLS PERFORMANCE WARRANTY



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/ft²]	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/ft²]	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 I TEL +1 949 748 59 96 I WEB www.q-cells.com

Engineered in **Germany**

MEMORANDUM

September 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 4113 Larkin St

Agenda Item #: Consideration of Solar Panel CUP

On August 24, 2016 the village received a conditional use application for installation of solar panels at residential property 4113 N. Larkin St. The property owner is Paul Dix and the applicant is Arch Electric Inc.

Panel Description
The application is for 10 solar modules mounted on the backside of the south roof elevation of the house. Each panel is 40" x 70" x 2.5"d, with four rows as shown in the attached aerial photographs.

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.


4115 N Larkin St
Shorewood, Wisconsin
Street View - Oct 2015

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. 16-1695	
Zoning District R-6	
CUP Reason solar panels	
Code Reference 535-30D	
Plan Comm. Meeting 9/27/2016	
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: 4113 N. Larkin

PROPERTY OWNER

Owner Name: Paul Dix
Phone Number: 414-510-7564
Email: PAULDORISDIX@GMAIL.COM
Owner Address: 4113 N. Larkin
Shorewood, WI 53211

APPLICANT/BUSINESS

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

Check if prefer to receive Meeting Agenda by EMAIL: X PROPERTY OWNER X 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 10 panel 3.3 KW Solar PV System

SIGNATURE

DATE 9/1/16

4113 Larkin

September 19, 2016

Address Numbers

Parcels

Streets

1:564

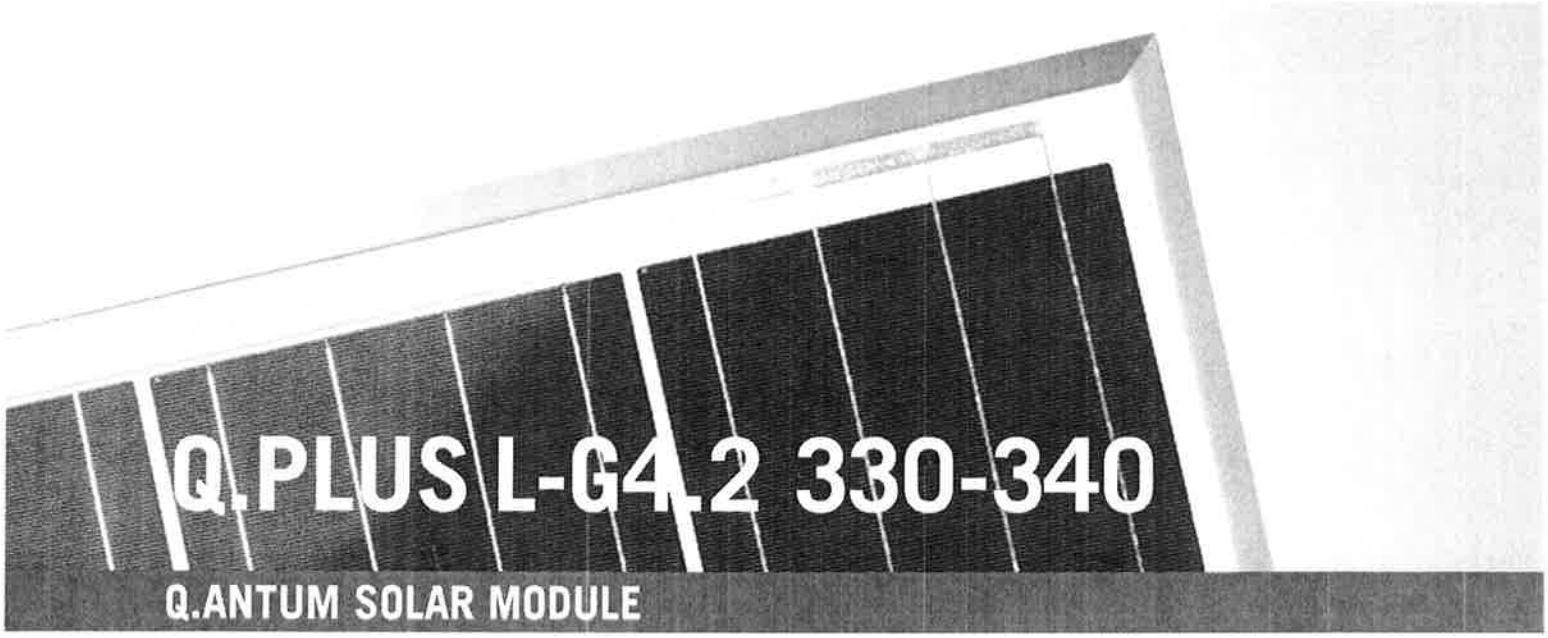
0 0.0045 0.009 0.018 mi

0 0.005 0.01 0.02 km

Milwaukee County Land Information Office

Web AppBuilder for ArcGIS
Milwaukee County Land Information Office |

N Larkin St
N Larkin St
4113 North Larkin Street



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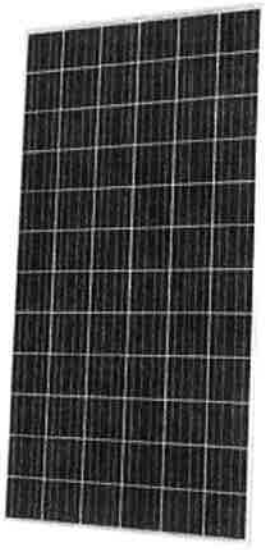

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Optimal yields, whatever the weather with excellent low-light and temperature behavior.

ENDURING HIGH PERFORMANCE

Long-term yield security with Anti-PID Technology[1], 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 guarantee[2].

EUPD RESEARCH TOP BRAND PV MODULES 2015

Q CELLS YIELD SECURITY
ANTI PID TECHNOLOGY (APT)
HOT-SPOT PROTECT (HSP)
TRACEABLE QUALITY (TRA.Q™)

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

[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.

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Ground-mounted solar power plants

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Q CELLS

MECHANICAL SPECIFICATION

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Weight	52.9 lb (24 kg)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
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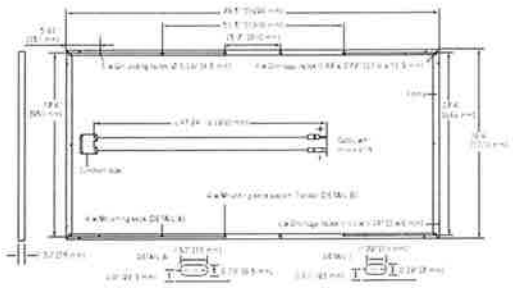
Cell	6 × 12 Q.ANTUM solar cells
Junction box	3.35-4.13 in × 2.36-3.15 in × 0.59-0.67 in (85-105 mm × 60-80 mm × 15-17 mm), Protection class ≥ IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) ≥ 47.24 in (1200 mm), (-) ≥ 47.24 in (1200 mm)
Connector	Amphenol H4 UTX, IP68



ELECTRICAL CHARACTERISTICS

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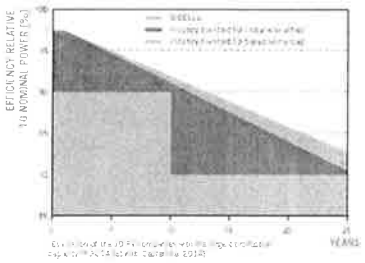
Minimum	Power at MPP[2]	P_{MPP}	[W]	330	335	340
	Short Circuit Current[*]	I_{SC}	[A]	9.49	9.54	9.59
	Open Circuit Voltage[*]	V_{OC}	[V]	46.55	46.81	47.07
	Current at MPP[*]	I_{MPP}	[A]	8.91	8.97	9.03
	Voltage at MPP[*]	V_{MPP}	[V]	37.02	37.33	37.63
	Efficiency[2]	η	[%]	≥ 16.5	≥ 16.8	≥ 17.1
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, 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[*]	I_{MPP}	[A]	6.99	7.04	7.09
	Voltage at MPP[*]	V_{MPP}	[V]	35.01	35.29	35.56

[1] 1000 W/m², 25 °C, spectrum AM 1.5G [2] Measurement tolerances STC ± 3%; NOC ± 5% [3] 800 W/m², NOCT, spectrum AM 1.5G [*] typical values, actual values may differ

Q CELLS PERFORMANCE WARRANTY



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At least 92 % of nominal power after 10 years.
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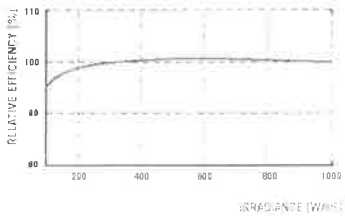
PERFORMANCE AT LOW IRRADIANCE



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/ft²]	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/ft²]	33 (1600 Pa)	- see installation manual	

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

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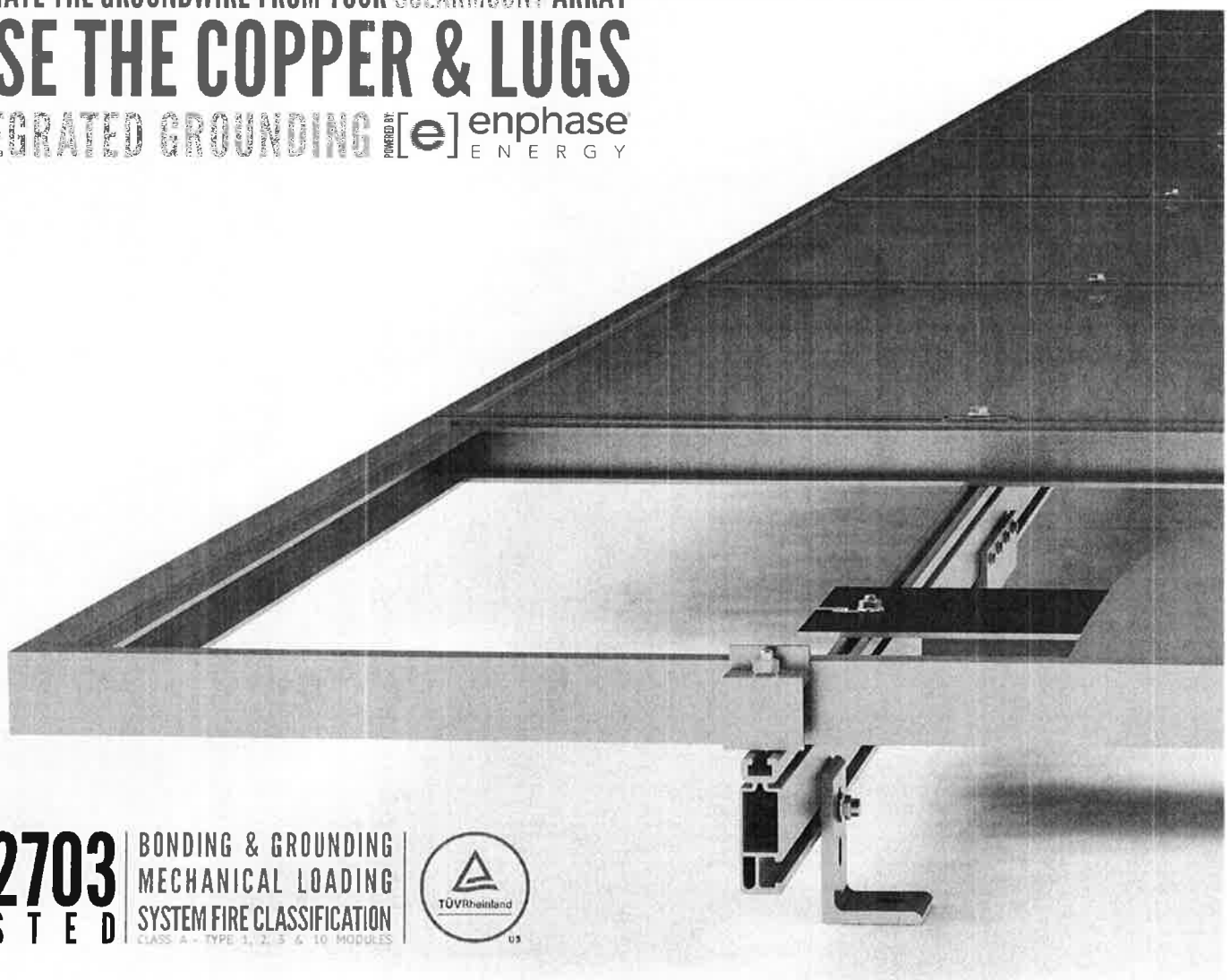
A HILTI GROUP COMPANY

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 ENERGY



UL2703 LISTED | BONDING & GROUNDING
MECHANICAL LOADING
SYSTEM FIRE CLASSIFICATION
CLASS A - TYPE 1, 2, 3 & 10 MODULES

TÜVRheinland US

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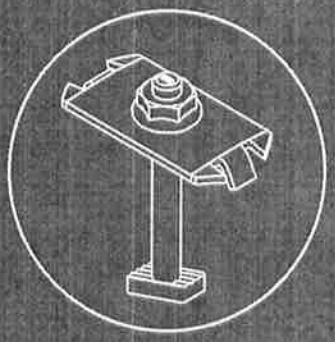

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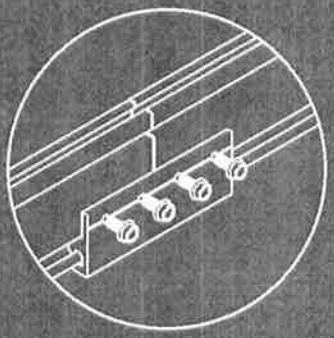

INTEGRATED BONDING SPLICE BAR

AVAILABILITY

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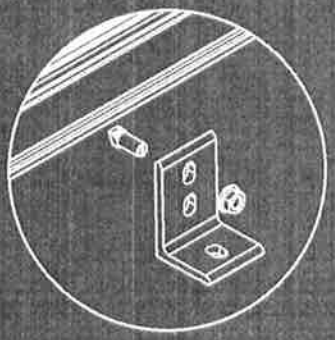

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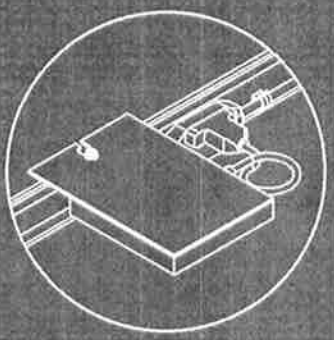

INTEGRATED BONDING MICROINVERTER MOUNT w/ WIRE MANAGEMENT

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

UNIRAC

U-BUILDER PROJECT REPORT
VERSION: 1.3.3

AUG 24, 2016, 05:53 PM

PROJECT TITLE: PAUL DIX
PROJECT ID: 6D941709

Name:	Paul Dix	Designed by Russel@archelec.com
Address:	4113 N Larkin St Shorewood Wi 53211	SOLARMOUNT
City, State:	Milwaukee, WI, 53211	10 - 330 Watt Panels
Module:	Hanwha Solar Q-PLUS-G4.2 330	215 Sq Ft.
	330 Watts	3.3 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:	529.00 lbs

WORKSPACE 1

Roof Point Load Up:	-147 lbs	**Maximum Rail Span (Zone 1):**	51"
Roof Point Load Down:	245 lbs	**Selected Rail Span:**	48"
		Maximum Rail Cantilever:	16.00 "
Total Number of Modules:	10	**Roof Pitch:**	12:12
Total KW:	3.3 KW		
Rows/ Columns:	2 / 5 (no gaps)		
NS Dimension:	~13.1 ft		
EW Dimension:	~16.8 ft		

UNIRAC

U-BUILDER PROJECT REPORT
VERSION: 1.3.3

AUG 24, 2016, 05:53 PM

PROJECT TITLE: PAUL DIX
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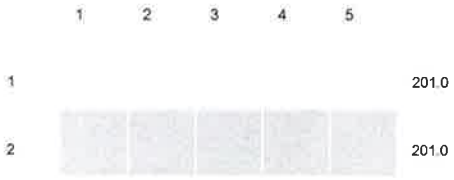
City, State:	Milwaukee, WI, 53211	10 - 330 Watt Panels
Module:	Hanwha Solar Q-PLUS-G4.2 330	215 Sq Ft.
	330 Watts	3.3 kWs

INSTALLATION AND DESIGN PLAN

LAYOUT WORKSPACE 1



Array vertical dimension: 157.0

Array horizontal dimension: 201.0

Row	Modules	Zone	Rail Type	Splices	Roof Attachments
1	5	Zone 1	SM RAIL 240" MILL | 320240M | $101 (2)	0	10
2	5	Zone 2	SM RAIL 240" MILL | 320240M | $101 (2)	0	20

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

September 20, 2016

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

RE: **Conditional Use Application 4155 Oakland Ave- Orangetheory Fitness**

A Conditional Use Permit application was received by prospective business tenant Kevin Scharnek, to establish a fitness center at 4155 N. Oakland Avenue known as Orangetheory Fitness. Fitness centers are not expressly listed as permitted, prohibited or by conditional use, therefore fall into a conditional use category. Zoning code Section 535-21A(c) most related use is *dance instruction studios.*

The fitness center is 3,372 square feet and will be available to members during permitted operation hours. Per code §409-26 business operations are not allowed between 1:00 a.m. and 5:00 a.m. (except bar/restaurants till 2:00 a.m. weekends). The business will open at 5:00 a.m. and close at 9:00 p.m.

Mod Pizza is the other known tenant in the new mixed-use, multi-tenant building.

The parcel is zoned Planned Development District. On-site parking was approved as part of the PDD, including additional spaces in the southern/adjacent parking structure.

Full building occupancy is expected February 2017. First floor commercial occupancies are expected before the end of 2016.

Materials enclosed

- CUP application
- Business description
- Floor plan & elevation
- CUP criteria 535-25

Due 9.7

Shorewood

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

Fee $125	**Tax ID**
Permit No. 16-1717	
Zoning District	Planned Development District
CUP Reason	non listed business
Code	535-
Plan Comm. Meeting	09-27-16

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: 4151 N. OAKLAND AVE. SHOREWOOD

PROPERTY OWNER

Owner Name: GENERAL CAPITAL
Owner Address: 6938 N. SANTA MONICA BLVD
Phone Number: 414. 228. 3519
FOX POINT, WI 53217
Email: JEFF@generalcapitalgroup.com

APPLICANT/BUSINESS

Owner Name: Kevin SCHARNEK
Owner Address: 1701 PEARL ST #4
Phone Number: 414. 467. 3640
WAUKESHA, WI 53186
Email: KSCHARNEK@ORANGETHEORYFITNESS.COM

BUSINESS INFORMATION

Name of Business: ORANGE THEORY FITNESS
Number of employees: 10 TOTAL BUT ONLY 4-5 ON SITE AT ONE TIME
Is a survey attached? (if required)
Is a parking plan attached? (if required)

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

see attached biz plan

Kevin J. Scharnek
SIGNATURE

9.7.16
DATE

KEVIN SCHARNEK
PRINT NAME

REV-11-2012

To: Village of Shorewood

From: Kevin Scharnek

Re: Orangetheory Fitness

Date: 9.1.16

Orangetheory Fitness is a national franchise business with over 500 open studios across the US. It's the fastest growing fitness franchise in the country. There are 200 more studios that will open across the US during 2016.

Orangetheory Fitness offers personal training in a group environment. All classes are conducted by professionally trained and certified instructors inside our studio and there is no outside fitness that takes place.

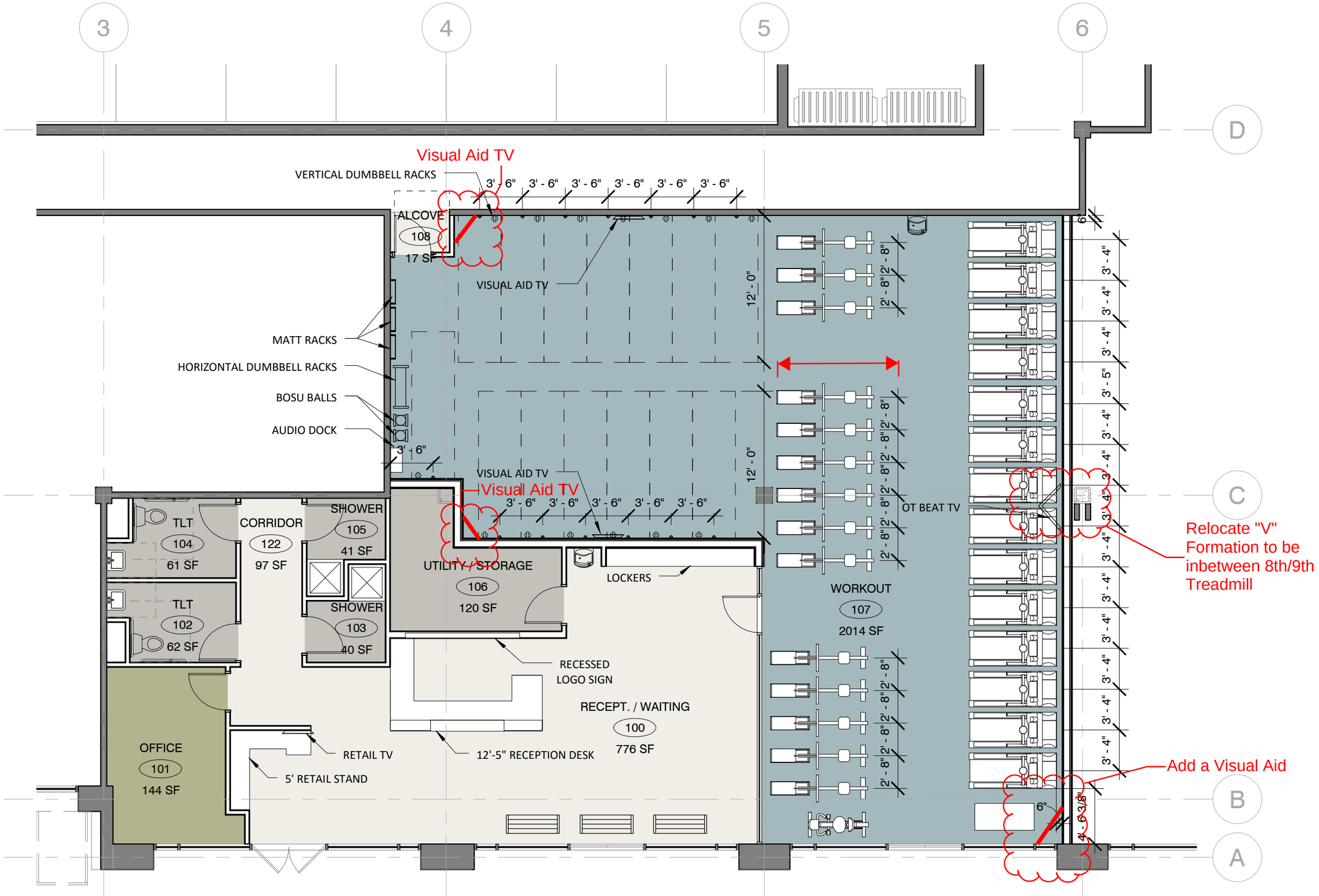
All of our members wear heartrate monitors that allow them to track their success and intensity while taking the one hour class.

Classes begin at 5am and run throughout the day until 8 or 9pm.

All classes are led by professionally trained and licensed coaches.

Orangetheory Fitness welcomes all fitness levels.

Our memberships are sold on a month to month basis with no long term commitments.



GROTH DESIGN GROUP

PROPOSED FLOOR PLAN

1/8" = 1'-0"

OTF - SHOREWOOD

08.11.2016

Miller Architectural Group

OAKLAND AT OLIVE

MIXED-USE COMMERCIAL & RESIDENTIAL

SHOREWOOD, WISCONSIN

DD 4.1

EAST ELEVATION

MEMORANDUM

September 20, 2016

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

From: Planning Director Ericka Lang

RE: Conditional Use for Veterinarian Clinic 4604 N. Wilson Drive.

The Village received a Conditional Use Permit application by Dr. Noah Arnold for a proposed business at 4604 N. Wilson Drive, dba Dr. Noah's Ark Veterinary Clinic. The proposed business is a small animal veterinary practice.

The hours of operation will be: 7:30 am to 5:30 pm Monday through Friday and 8am to 12pm Saturday. There will up to four to five employees on site. There are three other businesses in the mixed-use building and 21 on-site parking spaces.

The business will be located in the B-5 District, which refers to the B-1 District for permitted uses. Shorewood's zoning code does not list veterinarian clinics as permitted or prohibited uses. Per zoning section 535-27 Conditional Uses, animal hospitals in the B-3 district are conditional uses and clinics in the B-1, B-2 and B-3 Districts are conditional uses.

Per 535-25C- *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.

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

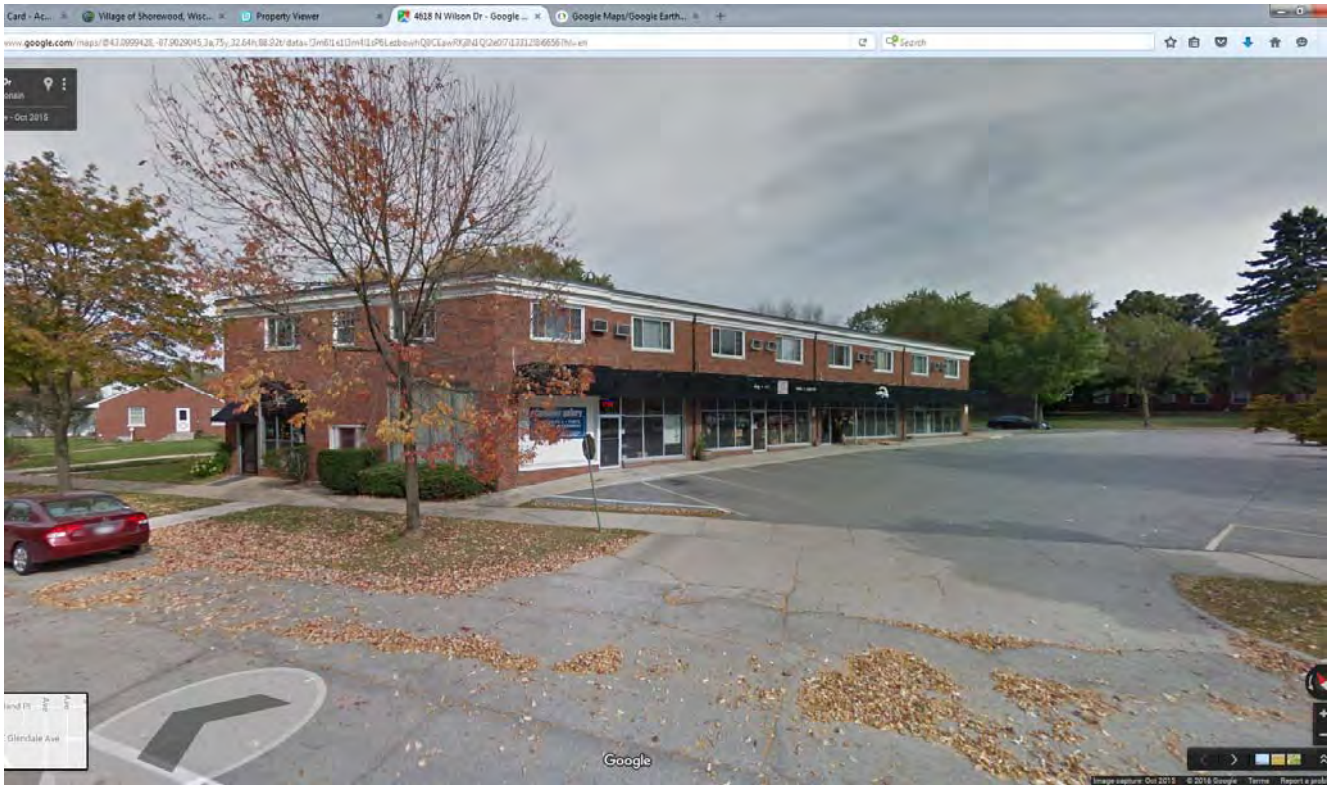
(5) Adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

(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.

Materials enclosed:

- CUP application
- Floor plan
- Façade picture
- Business description
- B-5 zoning chapter



27354

Shorewood

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.	16-1706
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: 4600 N. Wilson Drive, Shorewood

PROPERTY OWNER

Owner Name: Esta Brook Village, LLC
Phone Number: 414-349-0959
Email: david.karademas@gmail.com
Owner Address: 4532 N. Wilson Drive
Attn: David Karademas
Shorewood, WI 53211

APPLICANT/BUSINESS

Name: Noah Arnold. Dr Noah's Ark Veterinary Clinic
Phone Number: (414) 364-3825
Email: noahdvet@gmail.com
Address: Primary: 7912 N. Green Bay Rd. 53217
Business: 4604 N Wilson Dr
Shorewood, WI 53211

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

BUSINESS INFORMATION

Name of Business Dr Noah's Ark Veterinary clinic Max # Employees On-site 6
Is a survey attached? (if required) NO
Is a parking plan attached? (if required) NO
*Provide copy of business plan

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

Operation of a vet clinic

NJA
SIGNATURE

9/6/2016
DATE

City of Shorewood Building and Development,

I am a local veterinarian employed at The Thiensville-Mequon Small Animal Clinic. I began this position in June of 2013, following 3 years working as a veterinarian in Madison, WI.

I hope to start my own small animal veterinary practice at 4604 N Wilson Dr, this coming spring.

"Dr Noah's Ark Veterinary Clinic" will be a friendly, family owned small animal hospital, offering high quality medical care. I want to create a clinic that doesn't feel like a hospital-- more like an upscale, laid back, living room than a medical facility. Think Colectivo but smaller and warmer.

The clinic will be family owned and operated. My mom will be the office manager and receptionist, and my father and brother will help with vet care. My older brother Daniel is a Brooklyn photographer with a huge social media presence. He'll help with design and PR. My family has lived in Milwaukee for over 30 years and we're excited to contribute positively to the community.

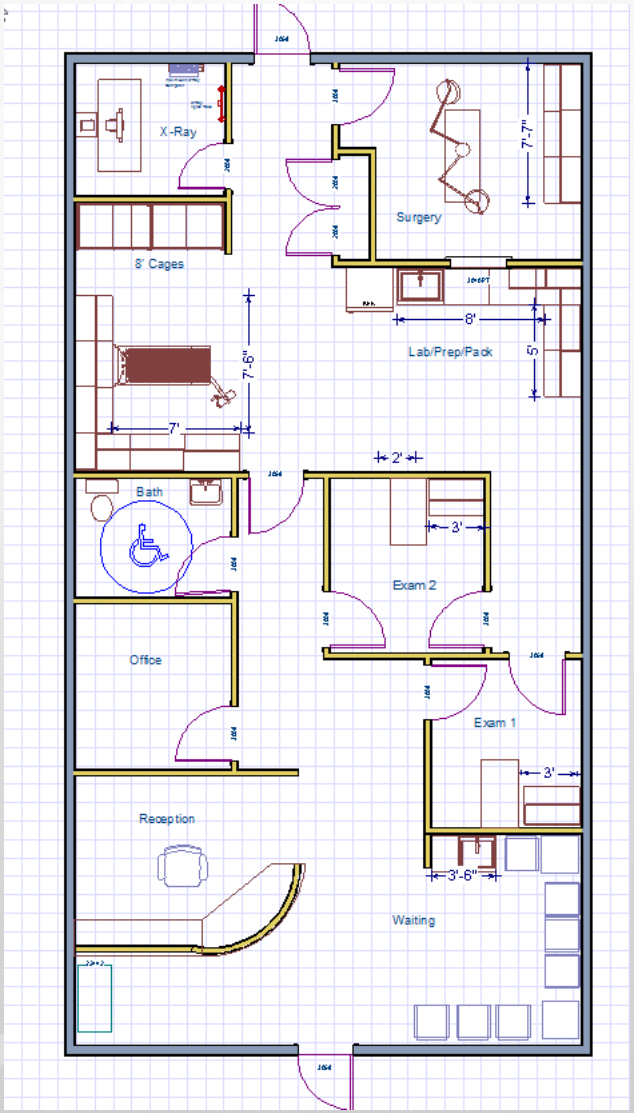
I have a large client base and a loyal following in the area. The location of Dr Noah's Ark, at the northwest edge of Shorewood, will serve local pets and draw clients from the surrounding communities. I know that given the opportunity, I will be a positive addition to Shorewood.

Thank you for your consideration.

Kindly,

Dr. Noah Arnold

Floor plan


X-Ray
8' Cages
Surgery
7'-7"
8'
Lab/Prep/Pack
5'
7'-6"
7'
2'
Bath
3'
Exam 2
Office
Exam 1
3'
Reception
3'-6"
Waiting

Overview

MEMORANDUM

September 21, 2016

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

From: Planning Director Ericka Lang

RE: **Recommended zoning amendment: discount stores**

Shorewood's zoning codes list permitted business uses, prohibited uses and uses by condition. Village Staff recommends amending Zoning Chapter 535 Article IV. Zoning Districts to identify discount stores as a conditional use in the B-3 District.

Shorewood's zoning code identifies five business districts. See the attached code section 535-21 for a list of all the business districts. The B-1 Commercial Use District, B-2 Mixed-Use Residential District and the B-3 Mixed-Use Commercial District are located along Oakland Avenue and Capitol Drive and comprise the majority of the commercial corridors. The B-4 River District and B-5 Estabrook Homes Business District are small areas located at the far west and far northwest section of the Village. Refer to the zoning map (attachment).

At a Commercial Association of Realtors Retail Conference this year, discount stores and value-added stores were identified as one of the most attractive categories for growth. Fast food/fast casual restaurants are also on the rise.

The attached ordinance defines Discount Stores "discount variety stores over 7,500 square feet" and prohibits them except by conditional use in the B-3 District. The B-3 District is at each end of the Village on Capitol Drive. The district section west of the high school is along a four-lane highway with high traffic volumes (>24,000 Annual Average Daily Traffic) and supports auto-oriented businesses with on-site surface parking lots. Culver's, Baker's Square, gas stations are some examples of businesses in this corridor. The Oakland Avenue district is zoned and most suited for smaller retail, high pedestrian traffic and walkability.

Staff recommends the zoning amendment to enhance and ensure future use compatibility most fitting within each districts character and Shorewood's Central District Master Plan vision.

STATE OF WISCONSIN : MILWAUKEE COUNTY : VILLAGE OF SHOREWOOD

ORDINANCE NO.

An Ordinance to Amend Prohibited and Conditional Uses in the B-1 through B-3 Zoning Districts

WHEREAS after public hearing duly had before the Village Board of the Village of Shorewood on the ____ day of _____, 2016, upon notice and after consideration by the Shorewood Plan Commission, it is hereby determined that the general health, safety and welfare will be promoted and preserved by amending the zoning code as here and after described.

NOW THEREFORE, at a regular meeting of the Village Board of the Village of Shorewood, Milwaukee County, Wisconsin, held on the ___ day of _____, 2016, a quorum being present and a majority of the Board voting therefore, said Board does ordain as follows:

SECTION 1:

That Subsection (2): Uses prohibited, of Subsection A.: B-1 Commercial Use District, of Section 535-21: Commercial, mixed-use and river districts, of Article IV: Zoning Districts, of Chapter 535: Zoning, is hereby amended by adding new section A.(2)(f) as follows:

§ **535-21A.(2)(f)**

Discount variety stores over 7,500 square feet.

SECTION 2:

That Subsection (2): Uses prohibited, of Subsection B.: B-2 Mixed-Use Residential District, of Section 535-21: Commercial, mixed-use and river districts, of Article IV: Zoning Districts, of Chapter 535: Zoning, is hereby amended by adding new section B.(2)(g) as follows:

§ **535-21A.(2)(g)**

Discount variety stores over 7,500 square feet.

SECTION 3:

That Section 535-27: Commercial Uses, of Article V: Conditional Uses, of Chapter 535: Zoning, is hereby amended by adding a new subsection “N” as follows:

§ **535-27N.**

Discount variety stores over 7,500 square feet in the B-3 District.

SECTION 4:

That if any subsection, section, or portions of this ordinance or the application thereof to any persons as enacted hereunder is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portions shall be deemed a separate, distinct and independent provision and such holdings shall not affect the validity of the remaining portions hereof and the validity of the ordinance in all other respects shall not be affected thereby.

SECTION 5:

That all ordinances or parts of ordinances conflicting with the provisions of this ordinance are hereby to such extent repealed.

SECTION 6:

This ordinance shall be in full force and effect after its passage and posting as provided by law.

PASSED AND ADOPTED by the Village Board of Village of Shorewood, Milwaukee, County, Wisconsin, this ____ day of _____, 2016.

_____

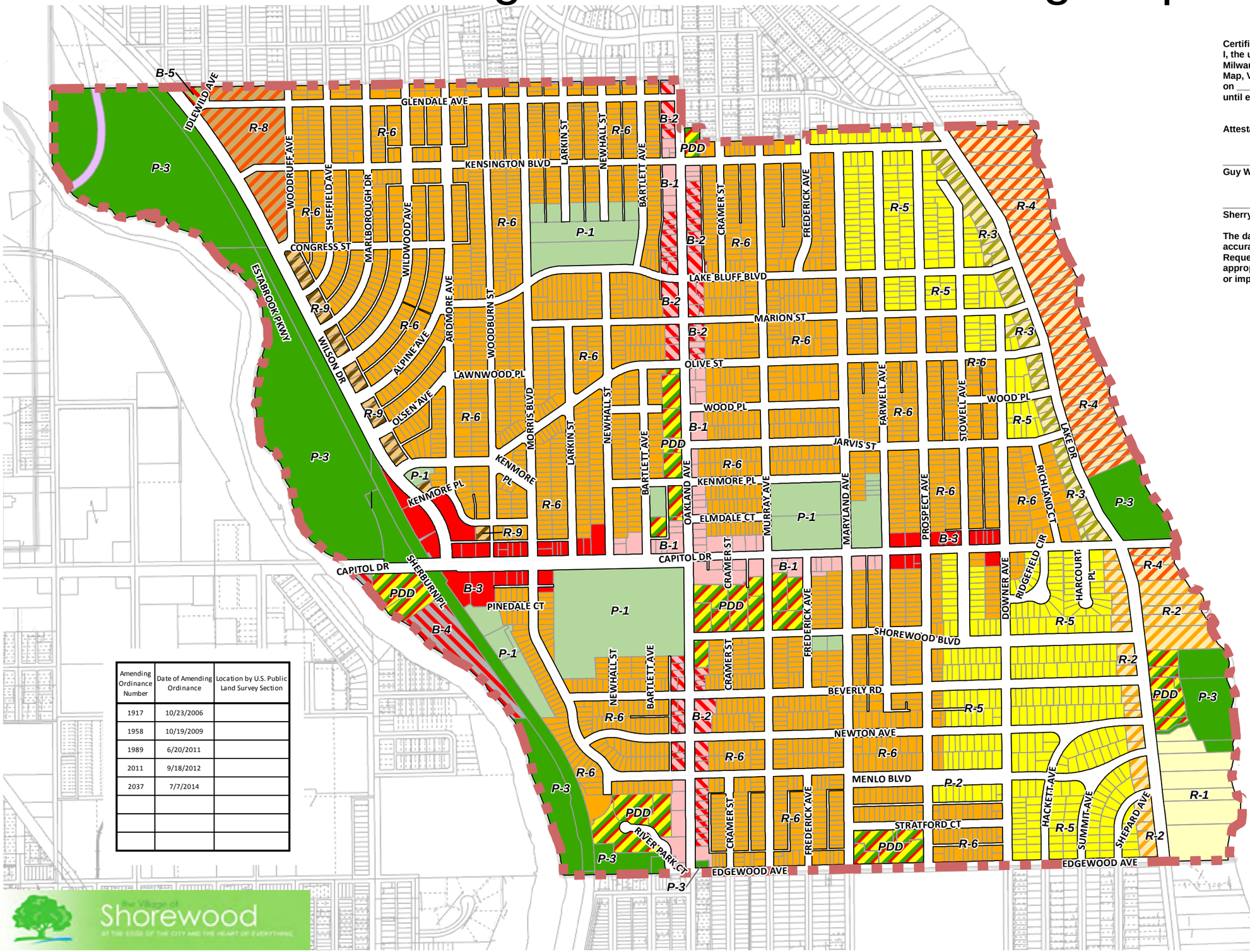
Guy Johnson, Village President

Countersigned:

_____

Tonya O'Malley, Village Clerk

Village of Shorewood Zoning Map



Amending Ordinance Number	Date of Amending Ordinance	Location by U.S. Public Land Survey Section
1917	10/23/2006	
1958	10/19/2009	
1989	6/20/2011	
2011	9/18/2012	
2037	7/7/2014	

Certification:
I, the undersigned, Village President of the Village of Shorewood, Milwaukee County, Wisconsin, do hereby certify that the Zoning Map, Village of Shorewood, Milwaukee County, Wisconsin on _____. Changes therafter shall not be effective until entered and attested on the certified copy.

Attestation:

_____ _____
Guy W. Johnson, Village President — Date

_____ _____
Sherry Grant, Village Clerk — Date

The data is provided without warranty of any representation of accuracy, timeliness, or completeness. It is the responsibility of the Requester to determine accuracy, timeliness, completeness, and appropriateness of its use. The Village makes no warrant, expressed or implied to the use of the mapped data.

Legend

B-1	R-1
B-2	R-2
B-3	R-3
B-4	R-4
B-5	R-5
P-1	R-6
P-2	R-8
P-3	R-9
PDD	XXX

N
W E
S

0 400 800 1,600
Feet

1 inch = 800 feet

the Village of Shorewood
AT THE EDGE OF THE CITY AND THE HEART OF EVERYTHING

MSA PROFESSIONAL SERVICES
More ideas. Better solutions.