



**Plan Commission
Meeting Agenda
Tuesday August 23, 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 July 26, 2016 meeting minutes.
4. Statement of Public Notice.
5. Public Hearing: Consideration of conditional use application for installation of solar panels at residential property 4213 N. Farwell Ave.
6. Public Hearing: Consideration of conditional use application for installation of solar panels at residential property 2417 E. Menlo Blvd.
7. Public Hearing: Consideration of conditional use application for a restaurant drive-through at commercial property 1305 E. Capitol Dr.
8. Schedule next meeting.
9. Adjournment.

Dated at Shorewood, Wisconsin, this 17th day of August, 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

August 17, 2016

To: Plan Commission
Cc: Village Manager Chris Swartz

From: Planning Director Ericka Lang

RE: Conditional Use for Solar Panel 2417 E. Menlo Blvd



Agenda Item #: Consideration of Solar Panel CUP

On July 20, 2016 the village received a conditional use application for installation of solar panels at residential property 2417 E. Menlo Blvd. The property owner is Ronland Schroeder and the applicant is Arch Electric Inc.

Panel Description

The application is for 7 solar modules mounted on the south roof elevation of the house (rear of house). Each panel is 40" x 70" x 2.5"d, with two rows of eight 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:

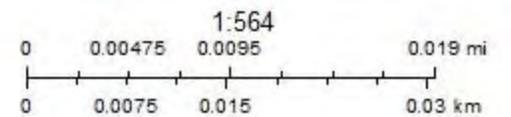
- [1] Serves to preserve or protect the public health or safety.
- [2] Does not significantly increase the cost of the system or significantly decrease its efficiency.
- [3] Allows for an alternative system of comparable cost and efficiency.

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

Letter Landscape



July 25, 2016



Milwaukee County Land Information Office



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

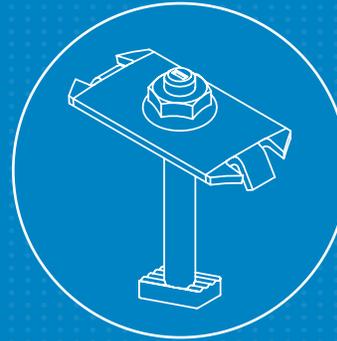
NATIONWIDE NETWORK

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.

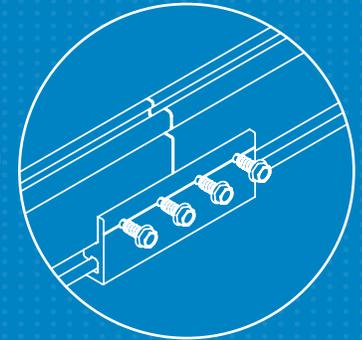
AUTOMATED DESIGN TOOL

DESIGN PLATFORM AT YOUR SERVICE

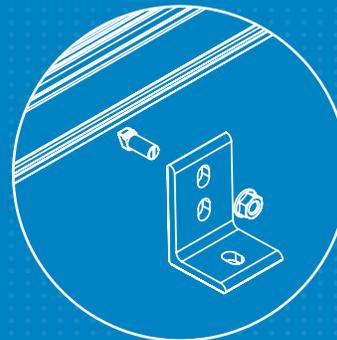
Creating a bill of materials is just a few clicks away with U-Builder, a powerful online tool that streamlines the process of designing a code compliant solar mounting system. Save time by creating a user profile, and recall preferences and projects automatically when you log in. You will enjoy the ability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



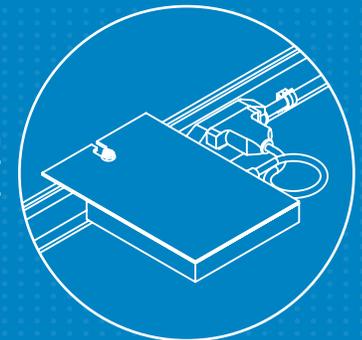
INTEGRATED BONDING MIDCLAMP



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

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.

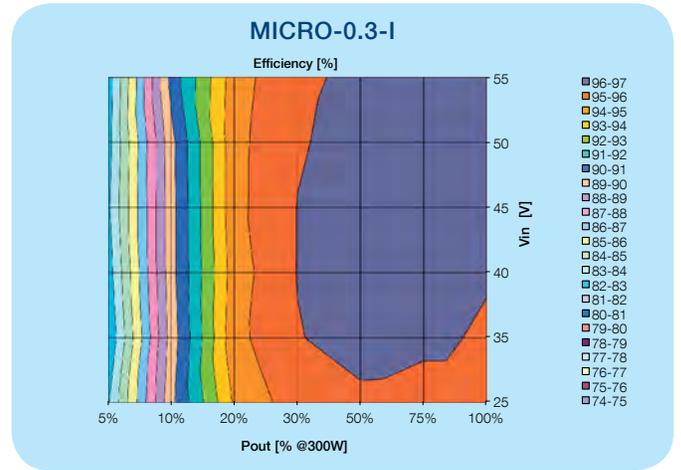
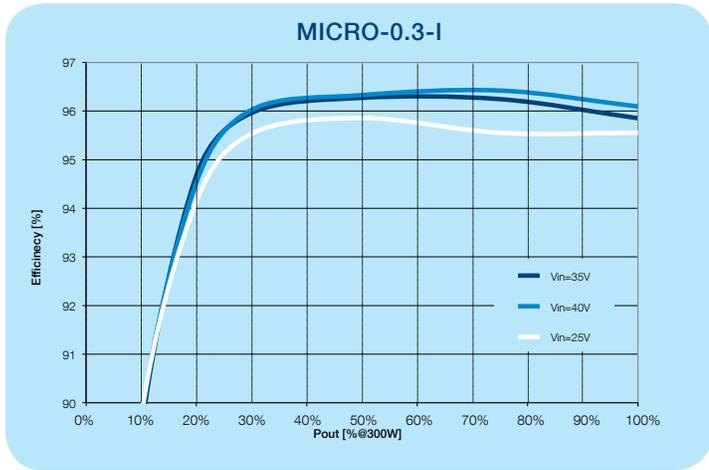
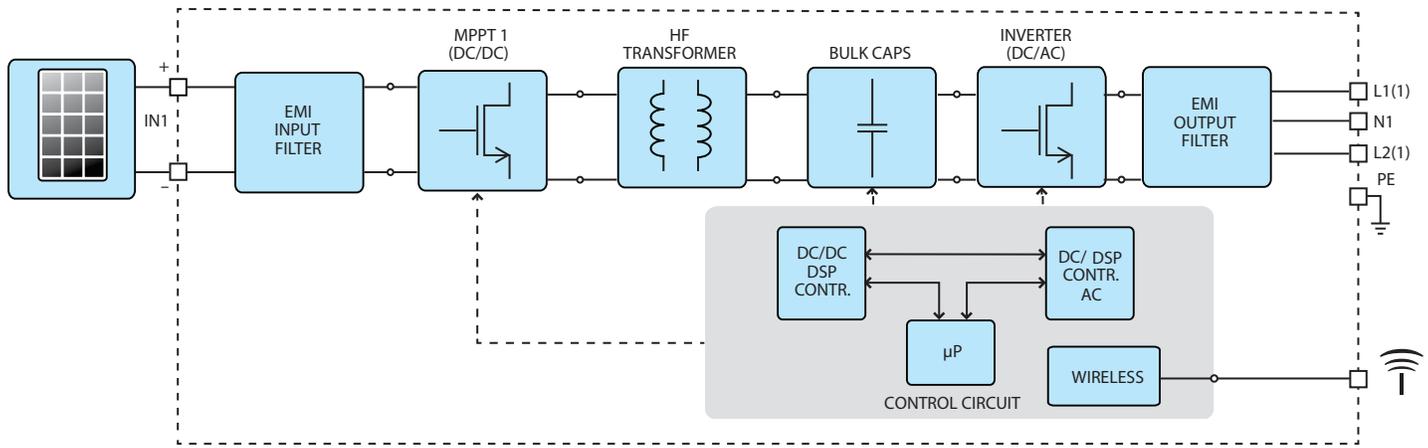
The Maximum Power Point Tracking (MPPT) algorithm maximizes energy and flexibility.

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.

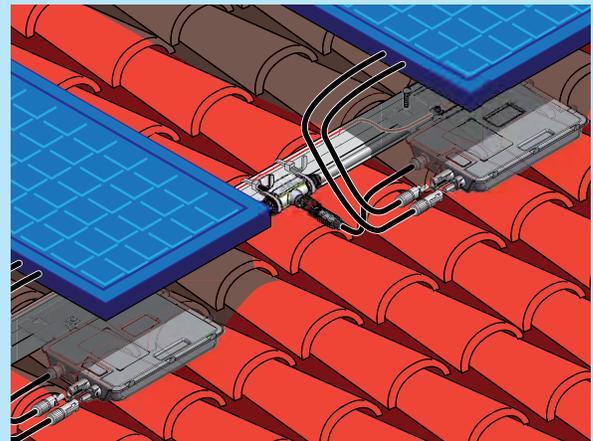
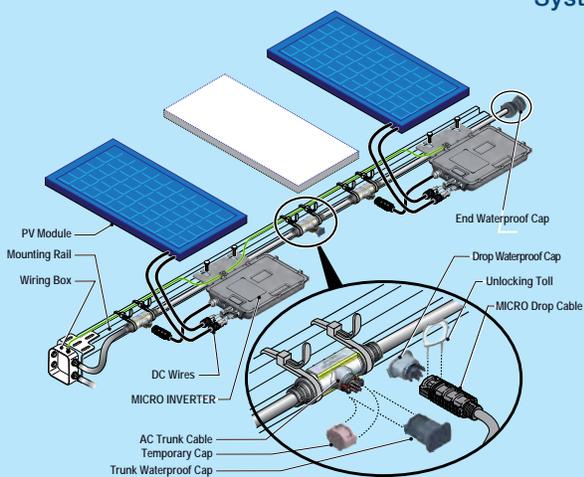
Block diagram of MICRO-0.25/0.3/0.3HV-I-OUTD



MICRO 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 (I _{dcmax})	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	cCSA _{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-0.3HV-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 their own private monitoring portal or share their data with their installer.
- Free panel level monitoring standard on every system.

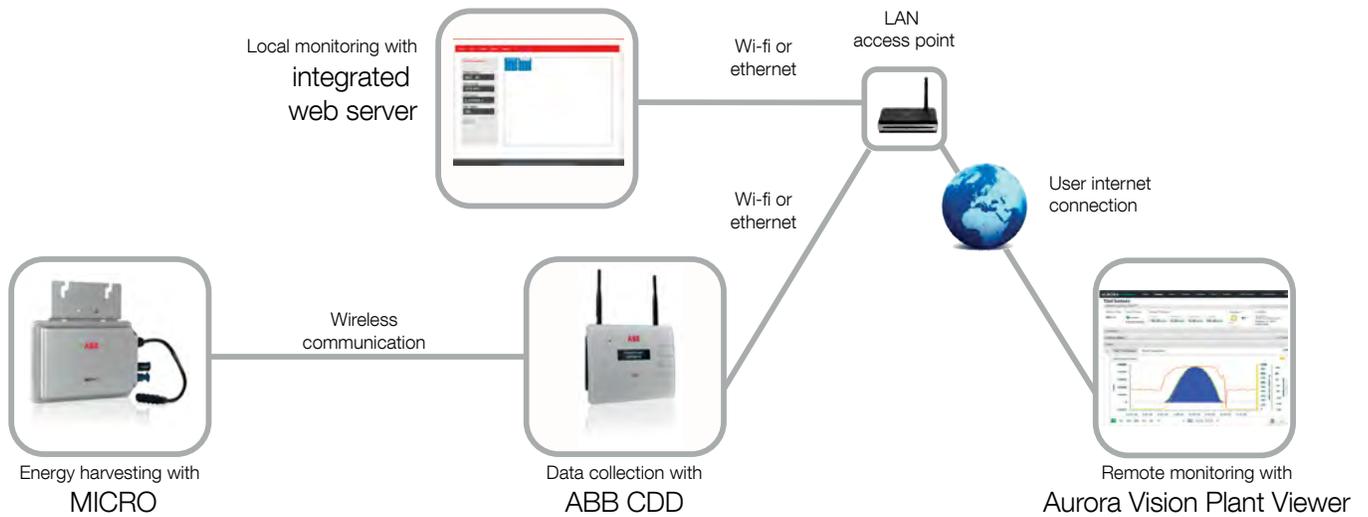


Technical data and types

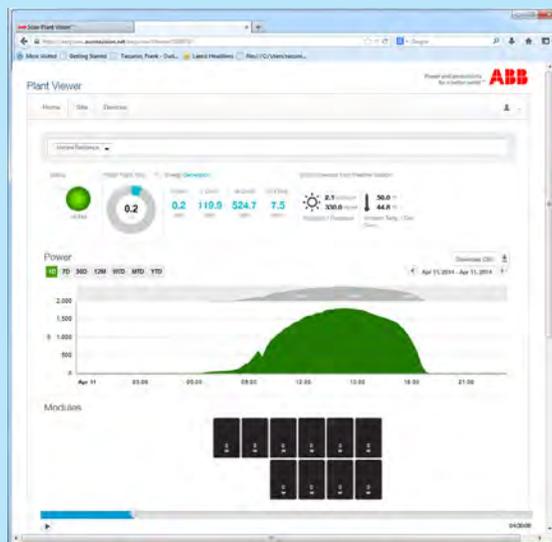
Type code	CDD
Communication to inverter	
Type	Radio IEEE 802.15.4
Sample rate	1 min.
Max. distance (free space)	164ft (50m ¹)
Max. number of devices	30
Communication to modem/PC	
Wireless communication	Radio IEEE 802.11/b - 2.4GHz/10Mbps
Wired communication	Ethernet RJ45 10/100Mbps
Connectivity	
Wired ports	1x RJ45 Ethernet
Features	
Operation	Integrated web server
Power supply	
Type	External plug-in adaptor
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, ^{US} 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.

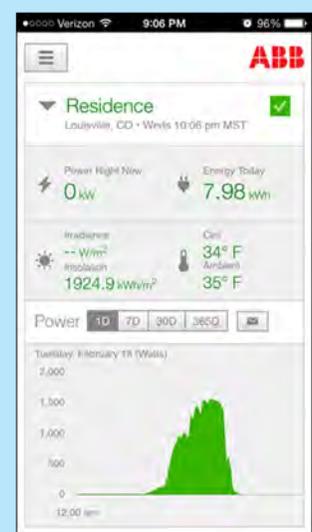
Monitoring solutions



Aurora Vision Plant Viewer



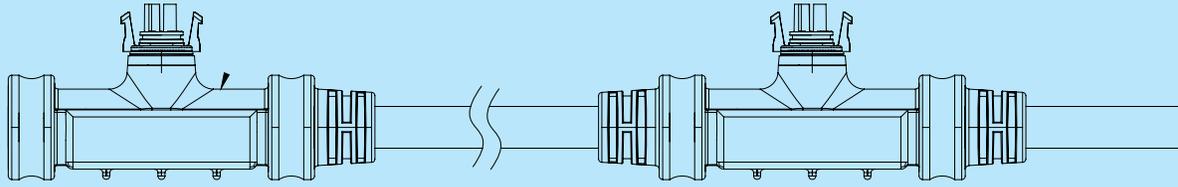
Plant Viewer for mobile



Aurora Vision Plant Viewer:

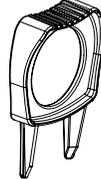
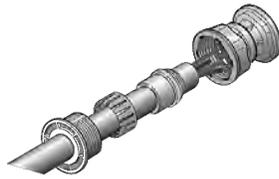
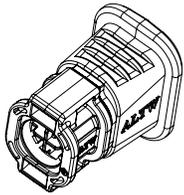
- Easy monitoring solution for homeowners on web or mobile devices.
- Complete reporting, analytics and diagnostic view for installers with complete control of installation process and access security.
- Tightly integrated micro-inverter and monitoring solution.

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)



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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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

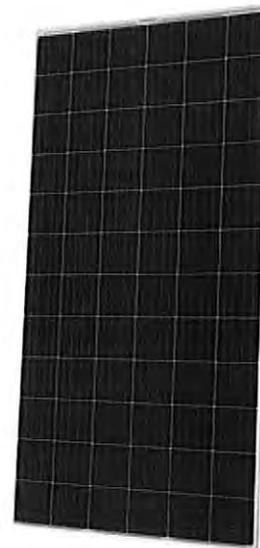
Inclusive 12-year product warranty and 25-year linear performance guarantee².

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

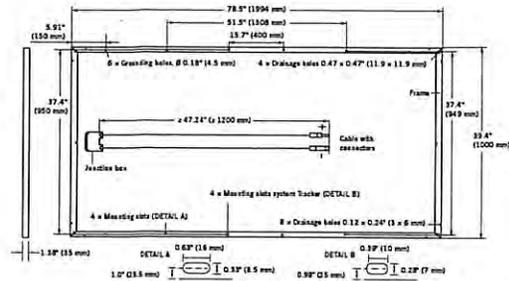
¹ APT test conditions: Cells at -1000V against grounded, with conductive metal foil covered module surface, 25 °C, 168 h

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

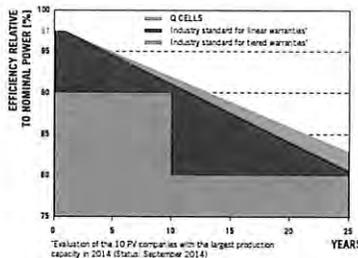


ELECTRICAL CHARACTERISTICS

POWER CLASS			330	335	340
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W / -0 W)					
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

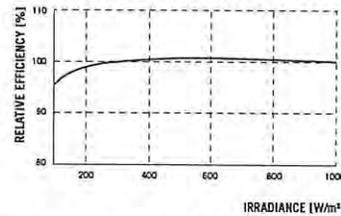
Q CELLS PERFORMANCE WARRANTY



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 | WEB www.q-cells.com

Engineered in Germany



Specifications subject to technical changes © Hanwha Q CELLS Q PLUS L-G4-2_330-340_2015-09_Rev03_NA

MEMORANDUM

August 17, 2016

To: Plan Commission
Cc: Village Manager Chris Swartz

From: Planning Director Ericka Lang

RE: Conditional Use for Solar Panel 4213 N. Farwell Ave



Agenda Item #: Consideration of Solar Panel CUP

On July 26, 2016 the village received a conditional use application for installation of solar panels at residential property 4213 N. Farwell Ave. The property owner is Bill Sweeny and the applicant is Arch Electric Inc.

Panel Description

The application is for 16 solar modules mounted on the south side of the house roof. Each panel is 40" x 70" x 2.5"d, with two rows of eight 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.

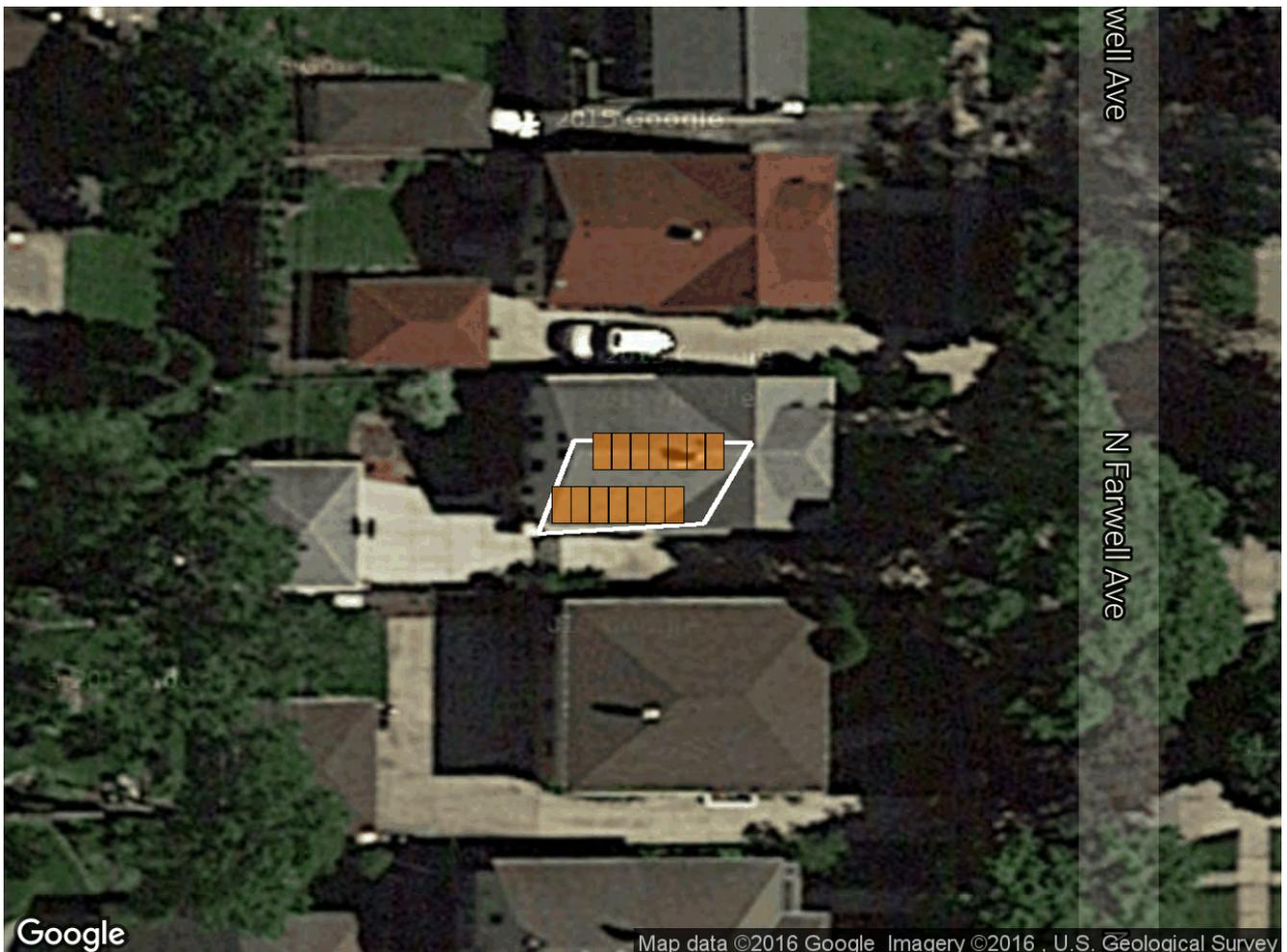
JUL 05, 2016, 03:51 PM

PROJECT TITLE: 4.62KW
PROJECT ID: 592D3705

Name:	Bill Sweeney	Designed by	None
Address:	4213 N Farwell Ave. Shorewood, WI 53211	SOLARMOUNT	
City, State:	Milwaukee, WI, 53211	14 - 330 Watt Panels	
Module:	Hanwha Solar Q-PLUS-G4.2 330	301 Sq Ft.	
	330 Watts	4.6 kW	

INSTALLATION AND DESIGN PLAN

LAYOUT WORKSPACE 1



4213 Farwall

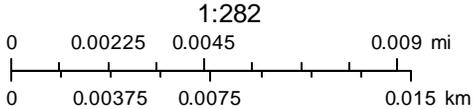


August 17, 2016

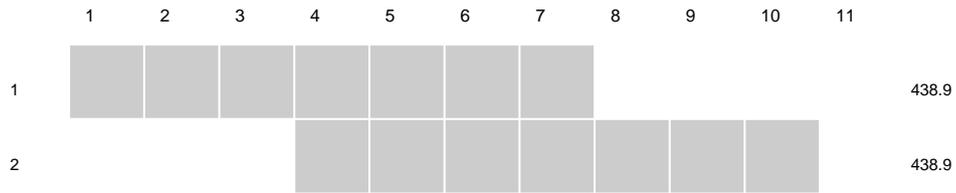
Address Numbers

Parcels

Streets



Milwaukee County Land Information Office



Array vertical dimension: 157.0

Array horizontal dimension: 438.9

Row	Modules	Zone	Rail Type	Splices	Roof Attachments
1	7	Zone 2	SM RAIL 240" MILL 320240M \$101 (4)	2	18
2	7	Zone 2	SM RAIL 240" MILL 320240M \$101 (4)	2	18
Maximum Rail Span (Zone 1*):					79.00"
Selected Rail Span:					36.00"
Maximum Rail Cantilever:					12.00"
Module Orientation:					Portrait
Rail Direction:					EW

*Zone 2 and 3 Rail Spans must be independently verified





JUL 05, 2016, 03:51 PM

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City, State:	Milwaukee, WI, 53211	14 - 330 Watt Panels
Module:	Hanwha Solar Q-PLUS-G4.2 330	301 Sq Ft.
	330 Watts	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:	-109 lbs
Roof Point Load Down:	264 lbs

Total Number of Modules:	14
Total KW:	4.6 KW
Rows/ Columns:	2 / 10 (with gaps)
NS Dimension:	~13.1 ft
EW Dimension:	~36.6 ft

Maximum Rail Span (Zone 1):	79"
Selected Rail Span:	36"
Maximum Rail Cantilever:	12.00 "
Roof Pitch:	1:12



JUL 05, 2016, 03:51 PM

PROJECT TITLE: 4.62KW
PROJECT ID: 592D3705

Name:	Bill Sweeney	Designed by None
Address:	4213 N Farwell Ave. Shorewood, WI 53211	SOLARMOUNT
City, State:	Milwaukee, WI, 53211	14 - 330 Watt Panels
Module:	Hanwha Solar Q-PLUS-G4.2 330	301 Sq Ft.
	330 Watts	4.6 kW

BILL OF MATERIALS

PARTS AND ACCESSORIES

Legend: ● Base System ● Part Accessory

Part Number	Part Type	Description	Quantity	Suggested Quantity	Unit Price (USD)	Total List Price (USD)
320240M	Rail	SM RAIL 240" MILL	8	8	101.10	808.80
303018C	Splice	BND SPLICE BAR SERRATED CLR	4	4	7.85	31.40
302022C	End Clamp	SM ENDCLAMP C CLR AL	8	8	3.55	28.40
302027C	Mid Clamp	SM BND MIDCLAMP BC SS	24	36	4.15	99.60
304001C	Roof Attachment	L-FOOT SERRATED W/ T-BOLT, CLR	36	36	4.35	156.60
008009P	Grounding Lug	ILSCO LAY IN LUG (GBL4DBT)	2	2	8.40	16.80

BASE SYSTEM \$968.20 \$0.21 PER WATT	ACCESSORIES \$173.40 \$0.04 PER WATT	TOTAL PRICE \$1141.60 \$0.25 PER WATT
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This design is to be evaluated to the product appropriate Unirac Code Compliant Installation Manual which references International Building Code 2003, 2006, 2009, 2012 and ASCE 7-02, ASCE 7-05, ASCE 7-10 and California Building Code 2010. The installation of products related to this design is subject to requirements in the above mentioned installation manual.

DETAILED PARTS DESCRIPTIONS

	<p>320240M SM RAIL 240" MILL</p> <p>Structural aluminum extrusion containing slots that accept module and roof attachment hardware, electrical bonding accessories, and splice bars.</p>	<p>Rail 8</p>
	<p>303018C BND SPLICE BAR SERRATED CLR</p> <p>Aluminum extrusion for joining adjacent lengths of rail to one another. Can also function as thermal expansion joint. Includes self drilling screws.</p>	<p>Splice 4</p>
	<p>302022C SM ENDCLAMP C CLR AL</p> <p>Mounts 34-36 mm (1.64-1.42 in) thick PV modules to rail by clamping module frame from above. Includes T bolt and nut. If mounting on short side of module frame, confirm this is acceptable with PV module manufacturer.</p>	<p>End Clamp 8</p>
	<p>302027C SM BND MIDCLAMP BC SS</p> <p>Located between adjacent PV modules, mounts 30-36 mm (1.18-1.42 in) thick modules to rail by clamping module frame from above. Includes T bolt and nut. If mounting on short side of module frame, confirm this is acceptable with PV</p>	<p>Mid Clamp 24</p>
	<p>304001C L-FOOT SERRATED W/ T-BOLT, CLR</p> <p>Angle bracket connecting rail to roof or roof mounting accessory with serration on both mounting surfaces. Lag bolts sold separately.</p>	<p>Roof Attachment 36</p>
	<p>008009P ILSCO LAY IN LUG (GBL4DBT)</p> <p>For electrical bonding of PV modules and rails. Accepts 4-14 AWG copper wires. Tin plated copper body, 1/4" stainless steel fasteners.</p>	<p>Grounding Lug 2</p>

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

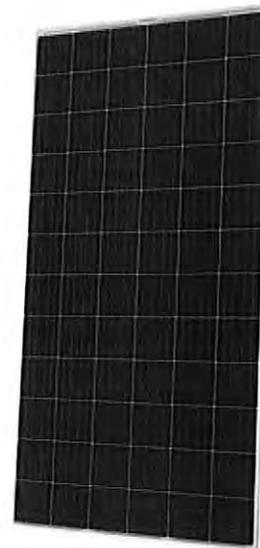
Inclusive 12-year product warranty and 25-year linear performance guarantee².

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

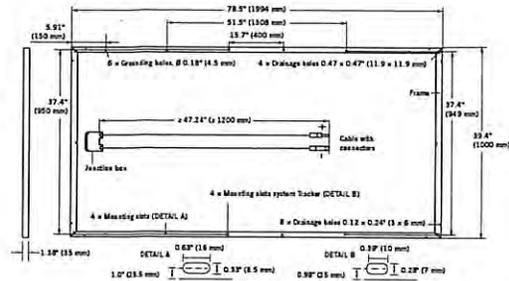
¹ APT test conditions: Cells at -1000V against grounded, with conductive metal foil covered module surface, 25 °C, 168 h

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

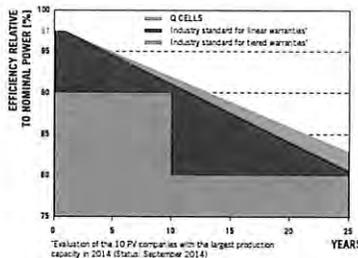


ELECTRICAL CHARACTERISTICS

POWER CLASS			330	335	340
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W / -0 W)					
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

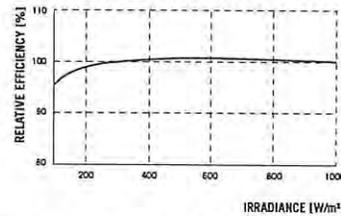
Q CELLS PERFORMANCE WARRANTY



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 | WEB www.q-cells.com

Engineered in Germany



Specifications subject to technical changes © Hanwha Q CELLS Q PLUS L-G4-2_330-340_2015-09_Rev03_NA

MEMORANDUM

August 19, 2016

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



RE: Conditional Use for restaurant drive-through, 1305 Capitol Drive

On August 9, 2016 the Village received a conditional use application for adding a drive-through at 1305 E. Capitol Drive that is currently Bakers Square. The drive-through is for a new restaurant Corner Bakery Cafe and the project includes other improvements to the site:

- 300 SQFT rear addition
- Front patio
- Bicycle parking and bike maintenance station
- Added connection path to Culver's at rear parking lot
- New parking lot light fixtures
- Garbage enclosure at rear of lot
- New parking lot landscape bed
- Designated public parking for Ghost Train

The property is zoned B-3 Mixed-Use Commercial District. Per 535-27L, under conditional uses, "restaurants, drive-in or drive-through, in the B-3 District" are conditional uses.

Drive-Through

No changes are proposed for either of the two vehicle access points. The western entrance is 29 feet wide: a typical vehicle/truck lane width is 11 feet. Once in the parking lot, the drive lane width decreases to 23.5 feet. If the cue line is fully stacked, there could be 12 vehicles and 4 of them would be within an isolated lane. If the cue is fully stacked, it leaves about 13 feet for cars to enter/exit at the western entrance. Staff does not see an issue because of the second exit at the northeast side along Capitol Drive. This scenario is identical to Culver's drive-through at 1325 E. Capitol Drive, adjacent to the site. An enclosed aerial photo shows both parcels.

For reference, Annual Average Daily Traffic Counts were provided in your packet.

Parking Lot

The current lot has 82 spaces. With the improvements, the lot would provide 74 spaces. Staff determined that an exception is not required. As an aside, the 2014 village parking study done over a week in May showed that peak demand during the week was 30 cars at 6:00 p.m. and 19 cars on a Saturday at 10:00 a.m.

Approvals

Your commission is considering a conditional use application for the drive-through.

Staff is working with the architect for various site improvements and integration with the Oak Leaf Trail. If approved, the project will go to the village design review board that will look at the improvements, lighting, landscaping, etc.

Materials

- CUP application
- Project Description
- Site plan
- Aerial photo
- Existing building photos
- Project description
- Code:
 - 535-25 CUP criteria
 - 535-27 CUP uses
 - 535-21 Commercial, mixed use districts



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.	16-1483
Zoning District	B-3
CUP Reason	Drive-through restaurant
Code Reference	535-272
Plan Comm. Meeting	8-23-16
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: 1305 E Capitol Drive, Shorewood WI 53211

PROPERTY OWNER

Owner Name: <u>K. Dimitropoulos</u>	Owner Address: <u>PO Box 11401</u>
Phone Number: <u>414.967.7083</u>	<u>shorewood, WI 53211</u>
Email: <u>dimitropoulos@earthlink.net</u>	

APPLICANT/BUSINESS

Name: <u>Neo Fournu Inc.</u>	Address: <u>PO Box 71320</u>
Phone Number: <u>414.587.7459</u>	<u>Shorewood WI 53211</u>
Email: <u>dimitri@neofournu.com</u>	

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

BUSINESS INFORMATION

Name of Business	<u>TBD</u>	Max # Employees On-site	<u>17</u>
Is a survey attached? (if required)	<u>yes</u>		
Is a parking plan attached? (if required)	<u>yes</u>		

*Provide copy of business plan

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

Drive Through Restaurant

SIGNATURE 

DATE 8-2-16

Capitol Drive Renovation
CUP Narrative
8.19.16

This project is a renovation and expansion of the existing building located at 1305 e Capitol drive. In addition to the building renovations and additions, there will also be site improvements to the property. For the building, and the direct building area, a new walk in cooler/freezer space serving the interior restaurant necessitates a small building addition at the rear of the existing structure. The new cooler/freezer area will be built within the existing trash and refuse area footprint. At the north east corner of the building, a new entry vestibule is planned. An expanded outdoor seating and terrace area is planned for an area adjacent to the North West corner of the building. The existing monument signage will be replaced with new signage at the existing location or, as an alternate it may be relocated to the North West corner of the site.

Regarding the site improvements. Access to the site from Capitol Drive will remain as it is now. There will be no changes to the existing curb cuts or drive widths at Capitol. A new trash enclosure at the rear of the site, with a required screening fence will be provided to replace the existing refuse area. Winter snow collection and storage will be along the property line (within this properties boundaries) at the rear of the site and adjacent to the new trash area. Existing exterior pole site lighting will remain, the existing fixtures will be replaced with new LED fixtures. Exterior building lighting and landscape lighting will also be upgraded.

Bicycle access to the site is provided via existing roadways and sidewalks, additionally there is an access path at the rear of the site that links to an existing bike path. All existing bike access points will remain. A new bike path connector from this property to the adjacent culvers lot will be added at the south west area of the site (this ownership group has rights to both properties). In addition to the bike parking areas a bike maintenance station of some form (Cycle Aid – Rescue Station example shown in package) will be provided on site for public use. As existing site utility locations and other restrictions may allow, a new public drinking fountain and water bottle filling station will be provided on site for the public as well.

New parking striping will be in compliance with local zoning requirements with a minimum 9'x18' size. A portion of on-site parking will be posted for public use for ghost train visitors, a restriction on hours will be posted. Specific time parameters of the restrictions will be tied to the Ghost Train operation times, and are to be determined. A new central green space and landscaped area will be added within the parking lot of the property to reduce the non-porous paved area of the site, also to provide additional landscaped space. Where space allows or it is warranted, existing site landscaping will also be upgraded and improved.

The proposed business use will be a Corner Bakery Café. Proposed hours are 7am to 9 pm, seven days a week. There will be approximately 60-70 staff hired in conjunction with the restaurant; 20-30 of the staff persons will be full time employees. A drive through service for cars will be a part of the renovations. The drive through service will represent approximately 20%-30% of the total business revenues.

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NOT FOR CONSTRUCTION

1305 E Capitol - Renovations



Sheet Number	Current Revision	Sheet Name
Ttl		Title Sheet
CU0.1		Site Photos
CU0.0		Site Plan

600 W. Virginia Street
Suite 102
Milwaukee, WI 53204
o: 414.231.3801
www.solid-state-arch.com

solidstate
architecture

CUP - SD

Neo Gen
Capitol Drive Renovations
1305 E Capitol Drive
Shorewood WI 53211

JOB NO:
16-18-20
DATE:
8.18.16
#/ TITLE:

Title Sheet
Ttl

NOT FOR CONSTRUCTION



existing building as viewed from N/W portion of site looking towards building.



existing building as viewed from existing bike path access.



existing building as viewed from S/E corner of site looking across lot and toward building.



SARIS
CYCLE RESCUE STATION

The Cycle Rescue Station puts the tools where the people need them -- on the trails, near the streets, and in the bikers rooms. Eight tools on retractable braided stainless steel cables brings durable, easy to use tools to the hands of cyclists.

Tools Included:

Model #	Description	Type of Mount	Weight	Height	Width	Depth	Space Requirement
SS200	100lb Indoor Pump	Flange Mount	61 lbs	5.7'	21"	10.7'	10.7' x 40'
SS202	100lb Outdoor Pump	Flange Mount	61 lbs	5.7'	21"	10.7'	10.7' x 40'

Note: Saris Parking Systems representatives can assist with custom layout and spacing to meet your room dimensions and desired bike capacity.



existing building as viewed from capitol drive sidewalk looking south.



existing building trash and refuse area and approximate location of new addition.

1 Public Bike Maintenance Station

nts

Site Photos

CU0.1

Neo Gen
Capitol Drive Renovations
1305 E Capitol Drive
Shorewood WI 53211

JOB NO:

16-18-20

DATE:

8.18.16

/ TITLE:

CUP - SD

solid state
architecture

600 W. Virginia Street
Suite 102
Milwaukee, WI 53204
o: 414.231.3801
www.solid-state-arch.com



1 Site Plan
Site Plan

1" = 40'-0"





01/17/2013





path

Wilson Drive Factoids

Road Description

Wilson Drive is a major arterial road connection from Capitol Drive in Shorewood to Hampton Avenue in Whitefish Bay/Milwaukee. The roadway has a curb to curb width of 56 feet and a right-of way of 100 feet. The segment within Shorewood is 4,650 feet in length.

Different Types of Roadways

The Roadway Functional Classification System is how the State of Wisconsin classifies roadways into four groups: principal arterials, minor arterials, collectors, and local street. Shorewood has no principal arterials. Capitol Drive and Lake Drive are Minor Arterials. Oakland Avenue is the only one collector street. All other roads in Shorewood are considered Local Streets.

Average Annual Daily Traffic Counts

The WIS DOT monitors traffic counts, updating every five or six years.

Location	Year 2004	Year 2007	Year 2013	Year 2016
Wilson at Elmdale Ct	8,800	7,800	8,100	
Wilson at Marlborough	8,000	NA	7,300	7,500
Wilson at Hampton	7,800	6,900	8,600	10,400
Wilson at Kenmore		7,800	8,100	10,800
Hampton, west of Wilson	11,300	11,800	12,400	
Capitol Dr, west of Morris	30,700	27,300	25,900	20,900
Capitol Dr, west of Wilson	31,300	28,200	24,900	24,600
Capitol Dr, east of Oakland	NA	12,600	10,300	
Capitol Dr, at Maryland	9,600	9,700	7,200	
Capitol Dr, at Harcourt		5,400	4,400	4,800
Downer Av at Stratford Ct	5,300	NA	NA	
Downer Ave, north of Capitol	1,100	NA	NA	
Lake Drive, north of Edgewood	14,400	15,500	12,200	
Lake Drive, north of Capitol	12,900	13,500	10,600	
Oakland, south of Kensington	8,600	8,000	8,900	9,600
Oakland, south of Capitol	16,700	14,200	13,900	
Lake Bluff, east of Morris	1,300	NA	NA	
Lake Bluff, east of Murray	1,400			
Kensington, east of Maryland	990			
Kensington, east of Oakland	1,800			
Kensington, east of Morris	1,800			
Kensington, east of Wilson	1,400			

- (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 curbline, 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

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.

Village of Shorewood, WI
Friday, August 19, 2016

Chapter 535. Zoning

Article V. Conditional Uses

§ 535-27. Commercial uses.

[Amended 10-23-2006 by Ord. No. 1917]

The following commercial uses shall be conditional uses and may be permitted as specified:

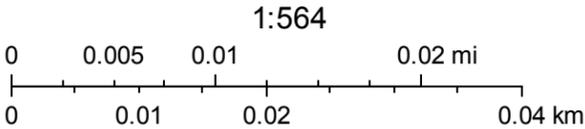
- A. Animal hospitals in the B-3 District.
- B. Bookstores in the B-1, B-2, B-3 and B-5 Districts.
- C. Drive-in or drive-through businesses other than restaurants in the B-1 through B-3 Districts.
- D. Clinics in the B-1, B-2 and B-3 Districts.
- E. Clubs, lodges and other similar meeting places in the B-3 District.
- F. Funeral homes in the B-1, B-2, B-3 and B-5 Districts.
- G. Gasoline service stations in the B-3 District.
- H. Hotels and motels in the B-1 through B-3 Districts, subject to the provisions of Chapter **370** of the Village Code.
- I. Payday loan, currency exchange, or title loan businesses in the B-3 District, subject to all of the requirements of this chapter, including all of the provisions of § **535-25** and the following additional conditions:
 - (1) No other currency exchange, payday loan or title loan business is located within 1,500 feet of the proposed use.
 - (2) The proposed use will not be located within 150 feet of a single-family zoning district, a two-family residential zoning district or a School, Church and Public Building District.
 - (3) The proposed use will not be located within 50 feet of a Planned Development District, unless the Plan Commission specifically finds that the proposed use would be consistent with the uses in that Planned Development District and would not impede the normal and orderly development and improvement of the property in that Planned Development District.
 - (4) No currency exchange, payday loan, or title loan businesses may be open between the hours of 9:00 p.m. and 7:00 a.m.
- J. Resale shops in the B-3 District.
- K. Restaurants, carry-out, in the B-1 through B-3 Districts, subject to the provisions of Chapter **299** of the Village Code.
- L. Restaurants, drive-in or drive-through, in the B-3 District, subject to the provisions of Chapter **299** of the Village Code.
- M. Vehicular washing and repair stations and garages in the B-3 District.

1305 Capitol



August 17, 2016

- Address Numbers
- Parcels
- Streets



Milwaukee County Land Information Office