

**VILLAGE OF WINDSOR  
VILLAGE BOARD RESOLUTION 2019-65**

**RESOLUTION AUTHORIZING THE INSTALLATION OF CROSSWALK SIGNALS  
AT WINDSOR RD BY THE POST OFFICE**

**WHEREAS**, the Windsor Village Board has a high regard for the safety of those pedestrians that walk along and cross Village roads; and

**WHEREAS**, the Public Works Department and the Village of Windsor Deputies have indicated a need for pedestrian crosswalk signals to be added to the existing crosswalk on Windsor Rd by the Post Office; and

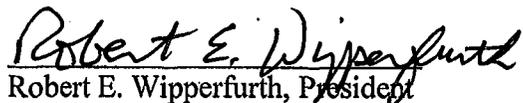
**WHEREAS**, the safety of those pedestrians crossing at this crosswalk will be enhanced by the addition of these signals.

**NOW THEREFORE, BE IT RESOLVED**, by the Village Board of the Village of Windsor that it hereby resolves as follows:

The Village Board concurs with the Public Works Committee, Windsor Deputies, and the Public Works Director's recommendation to add pedestrian crosswalk signals to the existing crosswalk on Windsor Rd by the Post Office.

The above and foregoing Resolution was duly adopted at a regular meeting of the Village Board of the Village of Windsor on June 20, 2019, by a vote of 5 in favor and 0 opposed.

**VILLAGE OF WINDSOR**

  
Robert E. Wipperfurth, President

*Attested by:*

  
Christine Capstran, Clerk

**Incorporated by Reference:**

Exhibit A: Memorandum from Public Works Director dated June 11, 2019

Exhibit B: R920-E Brochure

Exhibit C: Decker Supply quote



# Windsor

Growing Forward

## Memorandum

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To: Windsor Village Board

CC: Tina Butteris, Village Administrator  
Christine Capstran, Clerk

From: Davis Clark, Village Public Works Director

Date: June 11, 2019

Re: Install crosswalk signals on Windsor Rd by Post Office

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In a continuing effort to increase pedestrian safety, we are requesting the installation of crosswalk signals on Windsor Rd at the Post Office to aid in the pedestrian's ability to cross Windsor Rd to and from Fireman's Park safely.

The crosswalk lines are already in place so we would only need to install the rapid flashing crosswalk lights on each side of Windsor Rd. The total cost of the unit is \$6,604.72 and Public Works would do the installation.

The Public Works Director and the Public Works Committee are asking the Village Board to approve the purchase and installation of the crosswalk signals on Windsor Rd by the Post Office.

*Exhibit A*

# R920-E

## RECTANGULAR RAPID FLASHING BEACON



MUTCD-compliant, pedestrian-activated warning beacon for uncontrolled marked crosswalks

- The R920-E is the benchmark for Rectangular Rapid Flashing Beacons (RRFBs)
- Ultra-efficient optics and Energy Management System (EMS)
- Compact design to simplify installation
- Proven technology platform
- Meets and exceeds MUTCD requirements, including IA-21

RRFBs have been found to provide vehicle yielding rates between 72 and 96 percent for crosswalk applications, including 4 lane roadways with average daily traffic (ADT) exceeding 12,000\*.

### Superior Design and Technology

The R920-E utilizes a self-contained solar engine integrating the Energy Management System (EMS) with an on-board user interface, housed in a compact enclosure together with the batteries and solar panel. MUTCD interim approval IA-21 flash pattern and multiple configurations enable the R920-E to handle all crosswalk applications.

### Easy Installation

With its highly efficient and compact design, installation is quick and uncomplicated, dramatically reducing installation costs. Retrofitting can be done where existing sign bases are used to enhance existing marked crosswalks in minutes, and new installations can be completed without the cost of larger poles, new bases, and trenching.

### Advanced User-Interface

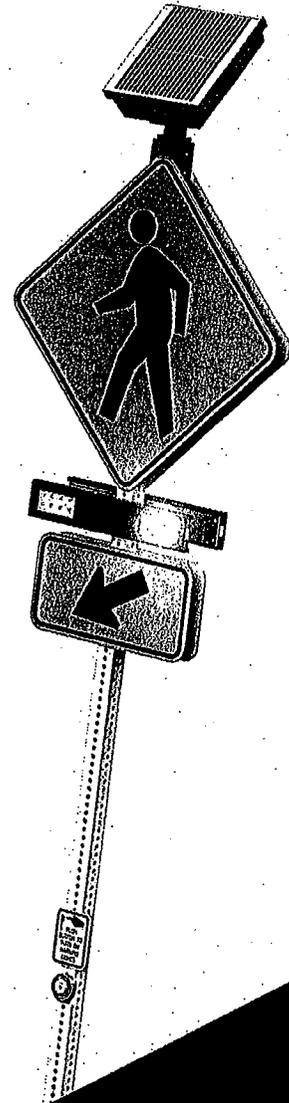
The R920-E comes with an on-board user interface for quick configuration and status monitoring. It allows for simple in-the-field adjustment of flash pattern, duration, intensity, ambient auto adjust, night dimming, and many more. Settings are automatically sent wirelessly to all units in the system.

### Reliable

Designed with Carmanah's industry-leading solar modeling tools to provide dependable year-after-year operation.

### Trusted

With thousands of installations, Carmanah's beacons are the benchmark in traffic applications and other transportation applications worldwide.



### WE SIMPLIFY PLANNING.

Contact us to get your Energy Balance Report and purchase specifications.

☎ 1.844.412.8395

✉ [traffic@carmanah.com](mailto:traffic@carmanah.com)

🌐 [carmanahtraffic.com](http://carmanahtraffic.com)

REPRESENTED IN YOUR REGION BY:

Exhibit B

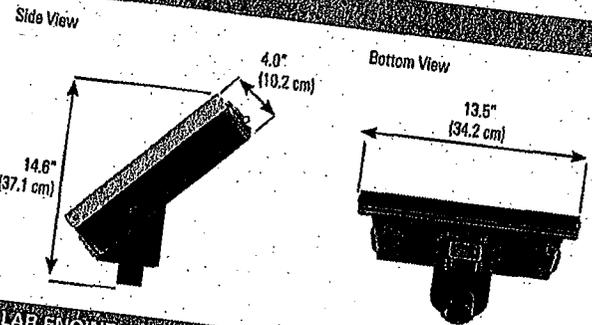
\* U.S. Department of Transportation Federal Highways Administration, Publication No. FHWA-HRT-10-043 - "Effects of Yellow Rectangular Rapid-Flashing Beacons on Yielding at Multilane Uncontrolled Crosswalks"

# R920-E RECTANGULAR RAPID FLASHING BEACON

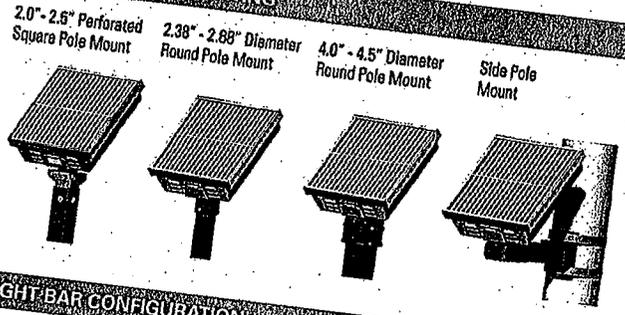
1.844.412.8395 | traffic@carmanah.com | carmanahtraffic.com



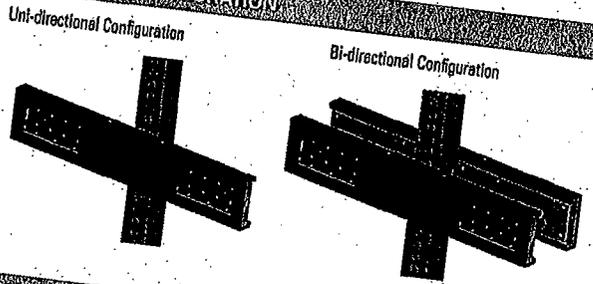
## DIMENSIONS



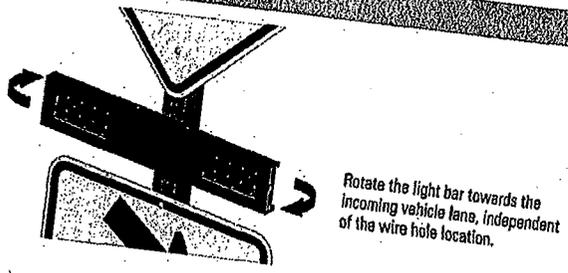
## SOLAR ENGINE MOUNTING



## LIGHT BAR CONFIGURATION



## IN THE FIELD AIMING



Specifications subject to local environmental conditions, and may be subject to change.  
 All Carmanah products are manufactured in facilities that are certified to ISO quality standards.  
 US Patent No 6,573,659, Other patents pending.  
 "Carmanah" and Carmanah logo are trademarks of Carmanah Technologies Corp.  
 © 2018, Carmanah Technologies Corp.  
 Document: SPEC\_TRA\_R920-E\_Rev5

Adjustable system settings with auto-scrolling LED display on our latest EMS
System test, status, and fault detection: battery, solar, button, beacon, radio, day/night
Flash patterns: RFB1 (WV+S), RFB2 (WSDOT), 0.5 sec. alternating (MUTCD), 0.5 sec. unison (MUTCD), 0.1 sec. unison, 0.25 sec. unison, 0.1 sec. x3 quick flashes unison, 0.1 sec. x3 quick flashes alternating
Input: momentary for push button activation, normally open switch, normally closed switch
Flash duration: 5 sec. to 1 hr.
Intensity setting: 20 to 1400 mA for multiple RFBs, circular beacons, or LED enhanced signs
Nighttime dimming: 10 to 100% of daytime intensity
Ambient Auto Adjust: increases intensity during bright daylight
Automatic Light Control: reduces intensity if the battery is extremely low
Temperature correction: yellow or red beacons
Calendar: Internal time clock function
Radio settings: enable/disable, selectable channel from 1 to 14
Output: enabled when beacons flashing daytime and nighttime, or nighttime only
Activation counts and data reporting via OBU, or optional USB connection
MUTCD Interim approval IA-21 and MUTCDC compliant
Purpose-built light bar optics = maximum efficiency and no stray light
Exceeds SAE J595 class 1 intensity by 2.5 to 3x when used as recommended
Meets SAE J578 chromaticity
3 in (76 mm) x 7 in (178 mm) clear, UV-rated polycarbonate lens with yellow LEDs
High-power LEDs: +90% lumen maintenance (L90) based on IES LM-80
Side-emitting pedestrian confirmation LEDs
Independent, stainless steel mounting brackets make back-to-back installation simple and enable in-field aiming for maximum effectiveness
Yellow, black, or green powder coated light bar covers
Encrypted, wireless radio with 2.4 GHz mesh technology
Wireless update of settings from any unit to all systems on the same radio channel
User-selectable multiple channels to group different beacons and ensure a robust wireless signal
Communicates with all other Gen III radio-enabled systems including our R920-E, -F, and -G circular beacons
Instantaneous wireless activation: <150 ms
Wireless range: 1000 ft (305 m)
Integrated, vandal-proof antenna
13 W high-efficiency photovoltaic solar panel
45 deg tilt for optimal energy collection
Maximum Power Point Tracking with Temperature Compensation (MPPT-TC) battery charger for optimal energy collection in all solar and battery conditions
12 V 14 Ahr. battery system
Replaceable, recyclable, sealed, maintenance-free, best-in-class AGM batteries offer the widest temperature range and longest life
Battery design life: +5 yrs.
Tool-less battery change with quick connect terminals and strapping for easy installation
Weatherproof, gasketed enclosure with vents for ambient air transfer (NEMA 3R)
Lockable, hinged lid for access to on-board user interface and batteries
Corrosion-resistant aluminum with stainless steel hardware
Raw aluminum finish or yellow, black, or green powder coated
Prewired to minimize installation time
High-efficiency optics and EMS = the most compact, lightweight system
19 lb (8.6 kg) including batteries, excluding beacons and push button
-40 to 165° F (-40 to 74° C) system operating temperature
-40 to 140° F (-40 to 60° C) battery operating temperature
160 mph (241 kph) wind speed as per AASHTO LTS-8
Push button: ADA-compliant, piezo-driven with visual LED and two-tone audible confirmation
5-year limited warranty

Decker Supply Co Inc.  
 1115 O'Neill Ave  
 PO Box 8008  
 Madison WI 53708

# QUOTATION

Quote Number: 473935  
 Quote Date: 06/06/19  
 Page: 1

Customer Phone: 235-1196  
 Customer Fax: 608-846-2328

**B** VILLAGE OF WINDSOR  
 4084 MUELLER RD  
**I** DEFOREST, WI 53532  
**L**  
**L**

**S** VILLAGE OF WINDSOR  
 4084 MUELLER RD  
**H** DEFOREST, WI 53532  
**I**  
**P** ATTN: DAVIS CLARK

Entered By: JOSH  
 Location:  
 Account Cd: WINDSTWIDN  
 Salesperson: 7250  
 RFQ Number:  
 Ship Via: JOSH DEL  
 Taxable: Y  
 Pmt Terms: NET 30

Line	Order Qty	Part Number	Description	Price	UM	Ext Price	Est Ship
1	2.00	R920-SOLAR	R920-E RRFB SOLAR ENGINE * NATURAL ALUM - 84303 * - EACH PANEL WILL BE POWERING 2 LIGHT BARS AND 1 PUSH BUTTON	\$1,475.0000	EA	\$2,950.00	06/06/19
2	4.00	ET BATTERY	EXTENDED TEMP BATTERY FOR SOLAR ENGINE, 68326 - QTY.2 FOR EACH SOLAR PANEL	\$47.0000	EA	\$188.00	06/06/19
3	2.00	R920-TELTOPMONT	R920 2 3/8" O.D. ROUND POST MOUNT FOR SOLAR PANEL * NATURAL ALUM - 82872 *	\$97.0000	EA	\$194.00	06/06/19
4	4.00	R920 LIGHT BAR	R920 LIGHT BAR W/CONFIRMATION PEDESTRIAN LIGHTS. * BLACK - 76440 * - 2 LIGHT BARS WILL GO ON EACH POLE	\$488.0000	EA	\$1,952.00	06/06/19
5	4.00	LB HARNESS	LIGHT BAR HARNESS, 16', 78227 - 1 REQ'D PER LIGHT BAR	\$62.0000	EA	\$248.00	06/06/19
6	2.00	PB-68319	CARMANAH: POLARA BULLDOG PB, YELLOW	\$143.0000	EA	\$286.00	06/06/19
7	2.00	PB HARNESS	PUSH BUTTON HARNESS, 16', - 1 REQ'D PER PUSH BUTTON	\$57.0000	EA	\$114.00	06/06/19
8	2.00	PB-FRAME-9X12	9 X 12 PUSH BUTTON FRAME KIT, * YELLOW *	\$124.0000	EA	\$248.00	06/06/19
9	2.00	R10-25 S8PW0912	"PUSH BUTTON TO TURN ON"....	\$9.0000	EA	\$18.00	06/06/19

*Exhibit C*

Decker Supply Co Inc.  
 1115 O'Neill Ave  
 PO Box 8008  
 Madison WI 53708

# QUOTATION

Quote Number: 473935

Quote Date: 06/06/19

Page: 2

Customer Phone: 235-1196

Customer Fax: 608-846-2328

**B**  
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**L**

VILLAGE OF WINDSOR  
 4084 MUELLER RD  
 DEFOREST, WI 53532

**S**  
**H**  
**I**  
**P**

VILLAGE OF WINDSOR  
 4084 MUELLER RD  
 DEFOREST, WI 53532  
  
 ATTN: DAVIS CLARK

Entered By: JOSH	RFQ Number:
Location:	Ship Via: JOSH DEL
Account Cd: WINDSTWIDN	Taxable: Y
Salesperson: 7250	Pmt Terms: NET 30

Line	Order Qty	Part Number	Description	Price	UM	Ext Price	Est Ship
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			SIGN PLACED INSIDE 9X12 FRAME 9" X 12" PHI/CS .080 (BLK/WH) * PRISMATIC H.I. *				
10	4.00	W11-2 S8FY30DI	PEDESTRIAN ADVANCE SYMBOL 30" DI DG/CS .080 (BLK/FLYL)	\$52.9300	EA	\$211.72	06/06/19
11	2.00	W16-7R S8FY2412	DIAGONAL ARROW DOWN RIGHT 24" X 12" DG/CS (BLK/FLYL)	\$19.5000	EA	\$39.00	06/06/19
12	2.00	W16-7L S8FY2412	DIAGONAL ARROW DOWN LEFT 24" X 12" DG/CS (BLK/FLYL)	\$19.5000	EA	\$39.00	06/06/19
13	4.00	BB832	BB832 SET 2 SIGN BRACKET	\$9.0000	EA	\$36.00	06/06/19
14	2.00	M3G1613	16' 2-3/8" ROUND POST GALV 13G	\$40.5000	EA	\$81.00	06/06/19

- INSTALLATION BY OTHERS  
 - FREIGHT INCLUDED  
 - JOSH WILL DELIVER  
 - SALESPERSON: JOSH

Decker Supply Co Inc.  
1115 O'Neill Ave  
PO Box 8008  
Madison WI 53708

# QUOTATION

Quote Number: 473935  
Quote Date: 06/06/19  
Page: 3

Customer Phone: 235-1196  
Customer Fax: 608-846-2328

**B**  
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VILLAGE OF WINDSOR  
4084 MUELLER RD  
DEFOREST, WI 53532

**S**  
**H**  
**I**  
**P**

VILLAGE OF WINDSOR  
4084 MUELLER RD  
DEFOREST, WI 53532

ATTN: DAVIS CLARK

Entered By: JOSH  
Location:  
Account Cd: WINDSTWIDN  
Salesperson: 7250

RFQ Number:  
Ship Via: JOSH DEL  
Taxable: Y  
Pmt Terms: NET 30

Line	Order Qty	Part Number	Description	Price	UM	Ext Price	Est Ship
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Thank you for the opportunity  
of quoting.

Prices are good for 45 days  
from quotation date.

Subtotal:	<u>\$6,604.72</u>
Sales Tax:	\$0.00
Freight:	\$0.00
Total:	<u>\$6,604.72</u>