

# *City of West Branch*

~ A Heritage for Success ~

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110 N. Poplar St. • P.O. Box 218 • West Branch, Iowa 52358  
Ph. 319-643-5888 • Fax 319-643-2305 • [www.westbranchiowa.org](http://www.westbranchiowa.org) • [wbcity@lcom.net](mailto:wbcity@lcom.net)

**CITY COUNCIL WORK SESSION**  
**Wednesday, July 31, 2013 • 7:00 p.m.**  
**City Council Chambers, 110 North Poplar Street**

1. Call to order
2. Roll call
3. Main & Oliphant Traffic Control Plan
4. Adjourn

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**Mayor:** Mark Worrell • **Council Members:** Jordan Ellyson, Colton Miller, Jim Oaks, Mary Beth Stevenson, Dick Stoolman  
**City Administrator/Clerk:** Matt Muckler • **Fire Chief:** Kevin Stoolman • **Library Director:** Nick Shimmin  
**Parks & Rec Director:** Melissa Russell • **Police Chief:** Mike Horihan • **Public Works Director:** Matt Goodale

CITY OF WEST BRANCH  
COUNCIL ACTION REPORT

MEETING DATE: July 31, 2013 AGENDA ITEM: 3

DATE PREPARED: July 26, 2013

STAFF LIAISON: Matt Muckler, City Administrator

ACTION TITLE: Main & Oliphant Traffic Control Plan

☒ WORKSHOP ☐ SPECIAL ☐ CONSENT ☐ NON-CONSENT ☐ PUBLIC HEARING

**RECOMMENDATIONS:**

Council should have discussion on how to ensure safety at the intersection of Main and Oliphant for children walking to school. A five-point plan is proposed below for Council review.

**PROJECT DESCRIPTION:**

- 1) Install permanent stop signs for eastbound and westbound traffic on Main Street at Oliphant. State Law Stop to Pedestrians in Crosswalk signs would be mounted on each stop sign. Stop Ahead signs would be installed in advance of the intersection in both directions. Flags would be placed on the new stop signs to alert drivers of the new stop signs. All signage would be installed per the Manual on Uniform Traffic Control Devices (MUTCD). Installation of signage would take place on August 9<sup>th</sup>.
- 2) School zone beacons and control box would be ordered on August 6, 2013 and installed as soon as they arrive. The beacons would operate twenty-five minutes before and after the times that school starts and finishes. The system is programmable and could be scheduled appropriately for early-outs, holidays, etc. This would mean that the signs would designate the area as a school zone for 300 hours (twenty-five minutes before and after school start and finish times for 180 days) per year. School zone speed limit while flashing would be 20 miles per hour. We would remove the 20 mph regular speed limit signs to allow 25 mph through this area outside of school zone hours.
- 3) We would contact Liberty and Alliant on August 6<sup>th</sup> to request relocation of the utilities on the southwest corner of the intersection. After this is completed, Public Works staff would cut curbs and install new approaches with ADA truncated dome caps for the north-south crossing located on the west side of this intersection.
- 4) Except for the relocation of the utilities, the north-west crossing on the west side of the intersection is a relatively basic project in terms of the grade. This would not be the case with the east-west crossing. City Council would consider whether or not improvements to the east-west crossing on the north side of the intersection could be included in the fiscal year 2015 annual or any future budget.
- 5) City Council and School Board would discuss whether or not a crossing guard would be appropriate for this intersection.

**ATTACHMENTS:**

Brown Traffic Products, Inc. School Zone Beacon Invoice

Carmanah School Zone Beacon Specification Sheet

Brown Traffic Products, Inc. Control Box Invoice

Carmanah Control Box Specification Sheet

V&K Stop Sign Main Street Plan – Being Updated to remove north-south crossing on the east side of the intersection and add the location of school zone beacon signs

V&K Stop Sign Placement Letter, Dated July 11, 2013

**CURRENT FISCAL YEAR TOTAL COST:** \$8,767 for Brown Traffic Products School Zone Beacon and Control Box, plus installation, plus intersection improvements and signage.



MERGING INNOVATION, TECHNOLOGY & SERVICE

## Quote

Quote Number: Q033176

736 Federal Street Suite 2312 | Davenport, IA 52803 | 1(563) 323-0009

**To:** West Branch Police Dept, City of  
105 South 2nd Street  
West Branch, IA 52358

**Date:** 07/16/2013  
**Prepared By:** Cathy Jorgensen

**Contact:** Mike Horham  
**Phone:** 319.325.9551 c  
**Fax:**  
**Email:** mike@westbranchiowa.org

**RFQ #:**  
**Description:** Carmanah Solar Beacon

Part #	Description	Quantity	Price	Extended
CAR-R829C-YEL HOUSING	School Zone Beacon - Compact Solar Engine - Yellow Housing	2	\$2,995.00	\$5,990.00
CAR-2SQ-RED LED/YEL HOUSING	2" Square Telespar Pole Mount w/wedge, Single Yellow Beacon - Red LED	2	\$0.00	\$0.00
CAR-CPK	Calendar Programming Kit for School Zone Beacons - 829C	1	\$495.00	\$495.00
			<b>Total:</b>	<b>\$6,485.00</b>

**Notes:**  
QUOTATION DOES INCLUDE FREIGHT.

NOTE: You can only use the Red LED with the stop sign. If you just want to use it as a school crossing then you will have to have the amber LED.

**Terms:**  
THIS QUOTE IS BASED ON THE ENTIRE VALUE AND VOLUME OF ALL LINE ITEMS - Prices listed on this quote are valid only in the event of purchase of all line items in the quantities listed, in their entirety. Purchases of individual line items will require a new quote prior to acceptance of any purchase orders.

Shipment of the material will be approximately 90 days after receipt of both an acceptable purchase order and approved submittal data if required. PAYMENT TERMS ARE NET 30 DAYS with prior approved credit. Brown Traffic Products, Inc. retains title to material until paid in full. A service charge of 1.5% per month (18% annual rate) will be assessed against all past due accounts. Prices and delivery quoted are firm for 30 days from the date of bid. The above quote does not include installation of the products quoted. On-Site technical assistance is available and will be quoted upon request.

Quotation does not include sales tax. Sales tax will be added at time of invoice unless a valid Sales Tax Exempt certificate has been provided. Sales tax exempt certificate should accompany customer Purchase Order.

Limited Warranty: Brown Traffic Products only obligations shall be to replace such quantity of the product proven to be defective.

Warranty Period: The length of warranty manufacturers have conveyed to the seller and which can be passed on to the buyer.

Additional terms and conditions apply - See Brown Traffic Products Terms & Conditions document at our website: [www.browntraffic.com](http://www.browntraffic.com).

Thank you for the opportunity to provide this quote.

# R829 SERIES

SOLAR LED SCHOOL ZONE FLASHING BEACON

## Typical Applications:

- School zones

## Improves Safety

- Research shows flashing beacons decrease vehicle speeds by five to seven miles per hour in school zones
- Improves driver awareness by increasing sign visibility

## Reliability Assured

- Core energy management system ensures operation; even during periods of cloud cover
- Turn-key system custom configured for optimum performance based on location, solar insolation and desired operation
- Safe from vandalism and extreme weather

## Cost-Effective Solution

- No trenching, wiring or digging required
- "Plug-and-play" installation for reduced disruption to traffic
- Cabinet-free, sturdy design inhibits vandalism
- Zero operational costs

## Easy Installation and Operation

- Controlled via a Windows-based calendar software program capable of turning systems on and off several times per day
- Pre-set for up to 500 days of operation, based on school calendar
- Beacon schedule easily copied to multiple beacons
- Installs to existing sign posts within thirty minutes
- Easy to relocate and repurpose to other locations

## Quality Ensured

- Manufactured in accordance with ISO 9001:2008
- Designed and assembled in North America
- Backed by a 3-year limited warranty



## INSTALLATIONS AND APPLICATIONS



SCHOOL ZONE WARNING -  
COLUMBIA, SC



SCHOOL ZONE WARNING -  
NEW ORLEANS, LA

Carmanah is backed by a worldwide network of distribution partners.

To find a representative in your region:

- visit us at [www.carmanah.com](http://www.carmanah.com)
- or call +1.250.380.0052 (toll-free US & Canada 1.877.722.8877)

REPRESENTED IN YOUR REGION BY:

Submitted by:



*MERGING INNOVATION, TECHNOLOGY & SERVICE*

736 Federal Street, Suite 2312 • Davenport, Iowa 52803  
p: (563) 323.0009 • f: (563) 323.8256 • [browntraffic.com](http://browntraffic.com)

## MOUNTING EXAMPLES

### SINGLE BEACON (C-Compact)

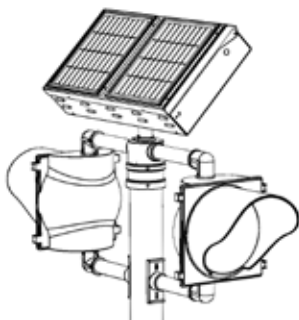
Single - Pole Mount (Square/Round)



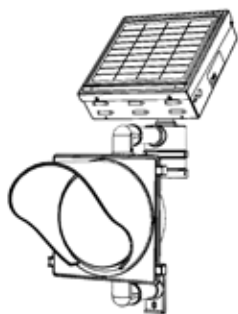
Single - Top of Pole Mount

### DUAL BEACON

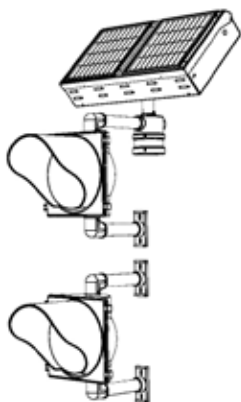
Dual - Horizontal Top Pole Mount



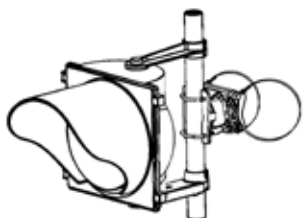
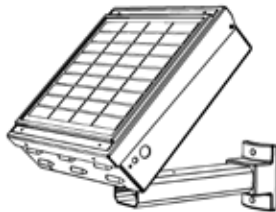
Dual - Vertical Top Pole Mount



Single or Dual - Side of Pole Mount



Single or Dual - Mast Arm Mount



\* OTHER MOUNTING OPTIONS AVAILABLE  
PRODUCT MAY NOT BE EXACTLY AS SHOWN

COMPONENT	DIMENSION		
	Length	Width	Height
Single Beacon	25.0" (635 mm)	15.0" (381 mm)	33.5" (851 mm)
10 W Engine	15.0" (381 mm)	14.8" (376 mm)	4.8" (121 mm)
20 W Engine	15.75" (401 mm)	29.3" (743 mm)	6.0" (151 mm)

\* Dimensions may vary based on pole selection, 45° tilt and beacon configuration



Carmanah is a Canadian public corporation - TSX:CMH  
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Document: TRAF\_R829\_SpecSheet\_RevH

US Patent No 6,573,659, Other patents pending. "Carmanah" and Carmanah logo are trademarks of Carmanah Technologies Corp.

## MODEL

# R829<sub>SERIES</sub>

SOLAR LED SCHOOL ZONE FLASHING BEACON

### OPERATION

Flash pattern	MUTCD* compliant Alternate, unison, and quick-flash
Control	Embedded calendar, override switch box

### LED SIGNAL MODULE

Standard	ITE VTCSH LED circular signal supplement
Size and LED colour	12" (305 mm) diameter amber or red 8" (203 mm) diameter amber

### ENVIRONMENTAL

Operating temperature range	5 to 122° F (-15 to 50° C)
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### ENERGY MANAGEMENT SYSTEM

Battery lifespan	3 - 5 years (field replaceable)
Capacity without solar charging	Up to 30 days typical (location dependent)
Daily operation profile	Up to 12 hours per day (configuration dependent)
Automatic light control (ALC)	Systems continue to provide useful light during extreme conditions that prevent charging over an extended period of time

### PROGRAMMING

Activation	Upload activation schedule for up to 500 days. Download schedule for verification.
Duration	Schedule event times

### MOUNTING HARDWARE

Bracket options for standard sign posts	1.75" (45 mm) square telspar, 2 3/8" (60 mm) round, 4 1/2" (114 mm) round Pelco traffic signal mounting hardware
Colour	Black, yellow or green

### COMPONENTS

Solar Panel	High-efficiency 10 W (C-Compact) or 20 W panel
Battery	Replaceable, recyclable best-in-class battery pack. Sealed, maintenance-free.
Light Source	Ultra-bright LEDs featuring innovative optic and lens design for optimum light divergence
Construction	Fully self-contained weather, corrosion and vandal-resistant unit with premium-grade UV-resistant head

### QUALITY STANDARDS

Quality certification	ISO 9001:2008 Certified Manufacturer
Certification	NCHRP 350, FDOT, system compliant with Buy American Act

### WARRANTY

Term	3-year limited warranty (including batteries)
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\* Meets all requirements for design, illumination, and colour of signal sections required by MUTCD, chapter 4D.18. MUTCD: Manual on Uniform Traffic Control.

Performance is tied to solar availability and geographic location.  
All specifications are subject to change without notice.



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## Quote

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**Date:** 07/16/2013  
**Prepared By:** Cathy Jorgensen

**Contact:** Mike Horham  
**Phone:** 319.325.9551 c  
**Fax:**  
**Email:** mike@westbranchiowa.org

**RFQ #:**  
**Description:** Flashing Beacons - Hardwired

Part #	Description	Quantity	Price	Extended
FC-NEMA-AP21-NC-HOA	Flasher Cabinet with RTC AP21/Natural Finish - HOA switch	1	\$790.00	\$790.00
SA101A1C11YBB(XL) -SUP	12" Single Section w/Red LED & Support Kit	2	\$125.00	\$250.00
MV-4041-NC	1-Way side of pole mtg hardware (Alum. Natural)	2	\$76.00	\$152.00
PEL-PB-5102-10-NC	10 Ft. Sch 80 Aluminum Pole - Natural	2	\$545.00	\$1,090.00
PEL-PB-5335-NC	Square aluminum base, plastic door	2	\$0.00	\$0.00
PEL-PB-5402-PNC	Pole cap dome type, alodine	2	\$0.00	\$0.00
AHK075C210015HGE	3/4-10x21 anchor bolt w/ hardened washer std, galv	8	\$0.00	\$0.00
<b>Total:</b>				<b>\$2,282.00</b>

**Notes:**  
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NOTE: You can only use the Red LED with the stop sign. If you just want to use it as a school crossing then you will have to have the amber LED.

NOTE: We do not have the way to mount the signals on the 2" telespar so I have quoted the 4.5" aluminum pole assemblies.

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# NEMA FLASHER CABINET

## FC-NEMA

Standard NEMA flasher cabinet provides 24/7 continuous flash for dual circuit operation

### Other options include:

- AP21, -AP21T, or -AP41 : cabinet with timeclock option. Allows programming of dual circuit flashing for TOD, calendar, special events, etc.
- PB ACT : cabinet with timer and pushbutton activation. Allows for remote activation of timed flashing



*(cabinet shown is unwired)*

*Hybrid or Special designed cabinets available*

### Cabinet Paint Color Options :


- NC Natural Finish
- P01 Yellow
- P02 Black
- SP Special Paint

Signals and LED's available in different colors







DATE		REVISIONS		SCALE AS NOTED		VERIFY SCALE				MAIN STREET STOP SIGN CITY OF WEST BRANCH		STOP SIGN MAIN STREET		DWG. NO.	
				DRAWN EDG CHECKED DRS APPROVED DRS DATE 7/11/13 ISSUED FOR ####		BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.		VEENSTRA & KIMM, INC. 860 22nd Avenue • Suite 4 • Coralville, Iowa 52241-1565 319-466-1000 • 319-466-1008(FAX) • 888-241-8001(WATS)		A.01					
														PROJECT ####	



July 11, 2013

Matt Muckler  
City Administrator  
City of West Branch  
PO Box 218 110 N. Poplar St.  
West Branch, IA 52358

1. Exact correct placement of stop signs.

- a) Mutcd Manual Sect 2A.16 figure 2A.2 section C page 38 states that minimum distance from edge of road way to edge of sign will be 2 feet and maximum of 50 feet.
- b) The minimum height vertically measured from the bottom of the sign to the top of curb or to the edge of roadway edge is to be 7 feet.
- c) Stop sign should be place 4 feet from pedestrian marked crossing.

2. Mounting Post

- a) Mounting Post MUTCD 2A.21 page 44 shall be constructed to hold the sign in a proper and permanent position, and to resist swaying in the wind or displacement by vandalism.

3. Advance warning signs

- a) Warning signs MUTCD 2A.16 Figure 2A.4 page 40 warning sign shall be placed at 200 ft minimum.
- b) Check braking distance per AASHTO STANDARDS  
Page 111

$$d = 1.075 \frac{v^2}{a}$$

d = distance (feet)

v = velocity

a = deceleration  $ft/s^2$  (14.8  $ft/s^2$ )

d = 89 feet

since D is less than 200 feet we use the 200 feet for placement of warning signs,  
distance from street and height are the same as the stop sign.