



June 10, 2025

Board of Public Works & Safety  
10 South State Street  
Greenfield, IN 46140

RE: Award pedestrian crossing system for N. Franklin Street

Dear Members,

On May 13, 2025, the Board authorized Staff to solicit quotes for a rectangular rapid flashing beacon (RRFB) system to be installed on N. Franklin Street in the vicinity of McBride Street.

Five vendors were solicited on May 14 and one provided a quote. Carrier and Gable, Inc provided a rectangular rapid flashing beacon (RRFB) system for \$9,400.00.

The redevelopment commission has allocated up to \$30,000 from the Northeast Development Tax Increment Finance district for this issue.

The recommended motion is **to authorize Staff to purchase a rectangular rapid flashing beacon (RRFB) system from Carrier & Gable, Inc. for \$9,400.00 to be installed on N. Franklin Street in the vicinity of McBride Street.**

Sincerely,

A handwritten signature in black ink, appearing to read "Glen E. Morrow".

Glen E. Morrow, P.E.  
City Engineer

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**Greenfield quote for Franklin Pedestrian Crossing**

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**From :** Glen Morrow <gmorrow@greenfieldin.org>  
**Subject :** Greenfield quote for Franklin Pedestrian Crossing  
**To :** rmorgan@tcc1.com, tom chang  
<tom.chang@trafficalm.com>, elizabethbenge  
<elizabethbenge@carriergable.com>, kerry kiefer  
<kerry.kiefer@trafficcon.com>, swhitehouse  
<swhitehouse@midwesternelectricinc.com>  
**Cc :** Tyler Rankins <trankins@greenfieldin.org>

Wed, May 14, 2025 08:33 AM

 1 attachment

**To:** Traffic Equipment Supply Vendors:

- Carrier & Gable
- Midwestern Electric
- Traffic Calm
- Traffic Control Corporation
- Traffic Control Products

**Re:** Franklin Pedestrian Crossing

The City of Greenfield is soliciting quotes for a pedestrian crossing to be placed at the north side of McBride Street crossing N. Franklin Street. City Street staff will install equipment. The City will also construct appropriate ADA ramps on each side of the intersection and paint a crosswalk.

The City is soliciting quotes for equipment that meet or exceed specifications for the products supplied by Traffic Control Corporation itemized on the attached document. Quote shall spell out deviations from the supplied information, if any. City reserves the right to determine specifications that meet or exceed the equipment and function.

Quote shall include product information sheets detailing features, specifications, installation instructions, etc. In cases where multiple products are listed, the relevant product must be apparent and non-relevant products shall be marked out.

Questions concerning this quote shall be directed to Glen Morrow, City Engineer (317) 325-1322 or email [gmorrow@greenfieldin.org](mailto:gmorrow@greenfieldin.org) no later than 4:00 pm Tuesday, May 27.

Quotes shall be submitted to Glen Morrow via email no later than 4:00pm May 30, 2025.

**Glen E. Morrow, PE** (IL, IN, MO & WI)  
Greenfield City Engineer  
10 S. State Street  
Greenfield, IN 46140  
(317) 325-1322

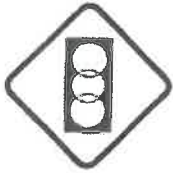
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**TRAFFIC CONTROL  
CORPORATION**

10435 ARGONNE WOODS DRIVE  
WOODRIDGE, IL 60517  
P:574-243-0901 F:630-543-5050

# QUOTATION

**Number 663752**

Page: 1 of 1

**To:** GREENFIELD  
GREENFIELD, CITY OF  
10 S. STATE STREET  
GREENFIELD IN 46140  
USA

**Attn:**  
**Email:**  
**Phone:** **Fax:**

**Quote Date:** 3/27/2025 **Expires:** 5/26/2025  
**Terms:** NET 30 BASED ON APPROVED CREDIT  
**FOB:** DESTINATION-FRT INCLUDED

**Salesperson:**  
**Email:**  
**Phone:**

**Letting Date:****Book / Call / Item:****Contract No:****Location:** GREENFIELD, IN**Description:** RRFB ASSEMBLY WITH 14FT PEDESTAL AND APS**LINE ITEM PRICING INCLUDES FREIGHT**

Part Number / Description	Qty/UM	Unit Price	Net Price
JSF RRFB DUAL	2.00 EA		
JSF RECTANGULAR RAPID FLASHING BEACON WITH APS PUSHBUTTON; 16FT PEDESTAL/BASE/ANCHORS; SIGNS INCLUDED:			
1 - R10-25 9" X 12" HIP : "PUSH BUTTON TO TURN ON WARNING LIGHTS"			
1 - 16-7P(L) 24" X 12" FYG : DOWN ARROW, LEFT			
1 - 16-7P(R) 24" X 12" FYG : DOWN ARROW, RIGHT			
2 - W11-15 36" X 36" FYG : PEDESTRIAN CROSSING			

**Item Total:****Misc Charges and Adjustments:****Quote Total:**

*Pricing does not include applicable sales taxes. If order is to be exempt sales tax, documentation must be provided at time of order.  
Additional terms may apply. Review our full Terms & Conditions of Sale at [www.trafficcontrolcorp.com](http://www.trafficcontrolcorp.com).*



# CARRIER & GABLE, INC.

24110 Research Drive  
Farmington Hills, MI 48335  
(248) 477-8700 (248) 473-0730 • FAX  
[www.carriergable.com](http://www.carriergable.com)

## SALES QUOTE

Page: 1

Sales Quote: 69307  
Sales Quote Date: 5/15/2025  
Expires On: 7/15/2025  
Customer ID: 999991  
SalesPerson: Elizabeth Bengel  
Terms: NET 30 DAYS

### Sell

To: GREENFIELD, CITY OF  
GLENN MORROW (317)325-1322  
, IN 46140

### Ship

To: INDIANA MISC, ONE TIME CUSTOMER  
GLENN MORROW (317)325-1322  
GREENFIELD, CITY OF  
GREENFIELD, IN 46140

### ALL VALUES STATED IN U.S. DOLLARS

Bid Item No.:  
Shipment Within: 8-10 WEEKS  
Shipping Terms:  
Project No.: RRFB WITH APS, POLE ASSMBLY  
Intersection: MCBRIDE & N FRANKLIN CROSSING  
Project City: GREENFIELD  
Project County: HANCOCK  
Sheet:  
Project Misc.:

Item No.	Description	Cross-Reference No.	Qty.	Unit Price	Total Price
513RRFBSOLAR30	FLASH BEACON, RRFB SOLAR 30 WATT		2	4,700.00	9,400.00
513-NS11444	INTELLIGENT CONTROLLER, 30 WATT		1		
513-NS11496	COLLABORATOR, 30 WATT SOLAR		1		
513-NS11412	LIGHTBAR, RRFB, SA328, AMBER		4		
177-NS12743	HARNESS, INX I DETECT, PB 16'		2		
146-NS14585	AUDIBLE AID INX, RRFB 9X12 W/800H-142 SIGN, YLW		2		
144-3037	SIGN, W16-7P 24 X 12 ARROW DWN LEFT, FYG		1		
144-3036	SIGN, W16-7P 24 X 12 ARROW DOWN RT FYG		1		
144-NS11020	SIGN, 36X36 W11-15, BICYCLE & PED, FYG		2		
115-1016	SHAFT 16' SPUN ALUM.		2		
115-1530	BASE, PED, SQUARE ALUM, PLASTIC DOOR		2		
103-1542	CAP, DOME 4.5" SHAFT		2		
157-1010	ANCHOR BOLT 3/4" X 18" X 3" INDIANA		8		

\*\*\*\*\* END of KIT \*\*\*\*\*

### NOTES:

1. QUOTE IS FOR TWO TRAFFICALM RRFB DOUBLE SIDED.  
WITH POLARA APS PUSH BUTTONS.
2. 16FT POLES AND BASES ARE ALUMINUM FINISH.

Amount Subject to Sales Tax: 0  
Amount Exempt from Sales Tax: 9,400.00

**Subtotal:** 9,400.00  
Invoice Discount: 0.00  
Total Sales Tax: 0.00  
**Total:** 9,400.00

# Rectangular Rapid Flashing Beacons (RRFB)

## FLASHING SIGN SYSTEM



## RECTANGULAR RAPID FLASHING BEACONS (RRFB)

TrafficCalm® is working with our customers to reduce the number of crashes at mid-block crossings. By using unprecedented LED Flashing Signs and RRFBs, agencies across the world are seeing justifiable gains in pedestrian safety. In fact, the United States Federal Highway Administration (FHWA) has designated RRFBs as a proven safety countermeasure, and state pedestrian crashes are reduced by up to 47% and yielding rates for motorists increase by up to 98% when RRFBs are utilized.

## FEATURES

### Highly Visible

TrafficCalm® RRFBs utilize 80 LEDs per light bar, 40 LEDs per side, far more than any competitive system, providing the brightest and most visible beacons on the market. This can be critical with the sun behind or in front of the motorist or in foggy conditions. Auto-dimming reduces the brightness at night.

### Ruggedized Electronics

All electronics, radios, and LEDs are fully epoxy-potted and environmentally sealed. The entire pole with the RRFBs, controller or collaborator, solar panels, and batteries can be fully submerged and still operate. Please scan this QR code to watch our short, entertaining video on how hard we have tested our RRFBs.



### 100% MUTCD Compliant

With the latest edition of the 2023 MUTCD, RRFBs are now approved and guidelines have been set. TrafficCalm® RRFB adheres to all the specifications in Chapter 4L: Rectangular Rapid Flashing Beacons. TrafficCalm® RRFBs have been third-party tested to prove conformance.

### Made in the USA

TrafficCalm® Flashing Sign Systems are manufactured in the USA in an ISO 9001:2015 certified facility, meeting and exceeding industry and state testing requirements. TrafficCalm® signs are unmatched in durability, brightness, accuracy, ease of installation, and use. Build America/Buy America Compliant.

TRAFFICCALM.COM





# Rectangular Rapid Flashing Beacons



## SPECIFICATIONS

### Compatibility

RRFBs are compatible with all TrafficCalm® Intelligent Controllers and Collaborators

TrafficCalm® Push-2-Cross Systems and RRFBs are pedestrian or sensor-activated and are compatible with all major manufacturers' piezo push buttons and APS Audible/Talking mid block push buttons. Touchless push-button options are also available

### Illumination

MUTCD and FHWA Compliant

80 Amber LEDs for Redundancy and Uniform Light Distribution

Side-mounted LEDs for pedestrian visual confirmation

Exceeds SAE J595 Class 1 Intensity

Auto Dimming

Meets SAE J578 for chromaticity

Crosswalk Illuminators are available as an option on all

Push-2-Cross Systems

LED rated lifetime of 100,000 hours

### Environmental

NEMA 4X Enclosure

Potted electronics (hermetically sealed)

-29.2° F to 165.2° F operating range(-34° C to +74° C)

## DETAILS

### RRFB Construction

Each of the 80 LEDs have built-in 15 degree UV resistant lens

Mounting brackets accommodate back-to-back mounting

Horizontal aiming adjustment

Dimensions: 24"W x 4.18"H x .85"D

Weight: 3.5 lb (1.59 kg)

LED Array Module Size: 7.10"W x 3.00"H (overall dimension obscured by faceplate)

Potted and Environmentally Sealed Electronics (NEMA 4X rated)

Rugged powder-coated aluminum face plate available in black or yellow

High-Density Poly Ethylene casing for potted electronics

All Wiring is UL 2464 rated

### Configuration

2023 MUTCD Section 4L.03 Compliant

Flashing rate of 75 flashing sequences per minute

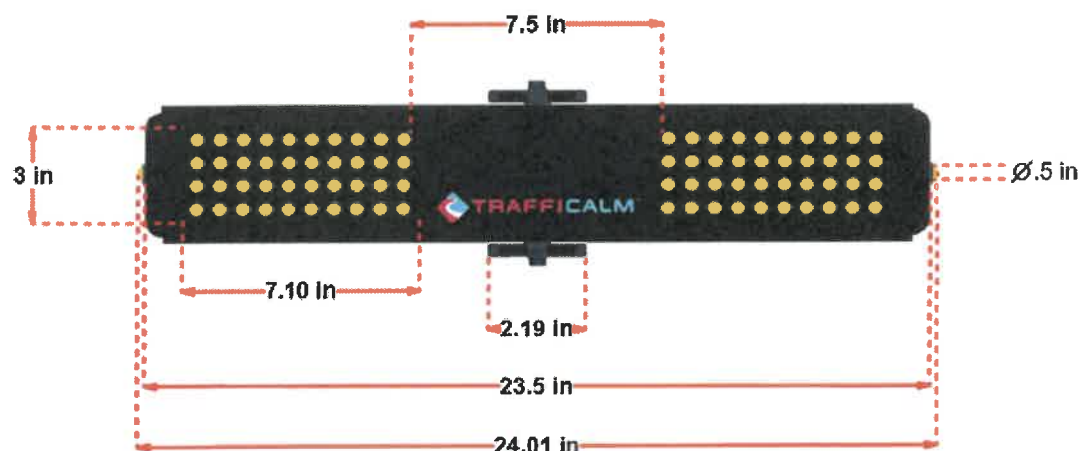
### Warranty and Service

5-year limited warranty

Unlimited technical support from US based factory technicians

Part Number	Color and Type of Housing	Color of LED	Length of cable from RRFB to controller
M75-SA328-0000	Black Aluminum Housing	Amber	15 ft/4.57 m
M75-SA328-0004	Yellow Aluminum Housing	Amber	15 ft/4.57 m
M75-SA328-7500	Black Aluminum Housing	Amber	75 ft/22.86 m
M75-SA328-R000	Black Aluminum Housing	Red*	15 ft/4.57 m

\*For Wrong Way Systems

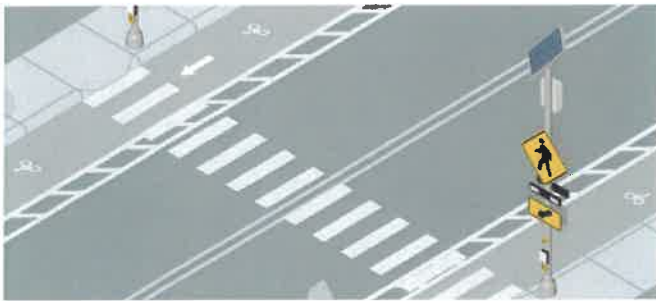


## iNX

### MIDBLOCK CROSSING SOLUTION

Step up accessibility at non-intersection crossings with an MUTCD-compliant, single-unit Audible Information Device (AID).

- Supplies blind and low-vision pedestrians with audible information equivalent to visual signage at unsignalized crosswalks
- Can be used in conjunction with rectangular rapid flashing beacons (RRFBs) and other flashing crosswalk systems
- Self-contained system includes push button, instructional sign, LED light, and speaker
- Easy installation and programming with Polara's Field Service App
- MUTCD and ADA compliant



### ENERGY EFFICIENT & COST-EFFECTIVE

Each iNX is self-contained, with no control boards needed. Low power requirements make the iNX ideal for solar- and battery-powered installations. Combined with secure button-to-button Bluetooth® sync, this can eliminate the need for costly trenching.



▲ Compatible with all major RRFB systems

### DURABLE DESIGN & TECHNOLOGY

With a rugged cast aluminum cover and back plate, wide temperature tolerance, and abuse-resistant low profile, the iNX shrugs off weather and vandalism. With no mechanical switches to fail, the ultra-reliable Hall-effect button has been tested to 20,000,000+ operations.

### SIMPLE WIRELESS PROGRAMMING

The iNX is easily programmed using our industry-leading Field Service App, available for iOS® & Android® – no expensive software or proprietary devices required! The app allows technicians to configure system settings and sounds, as well as access actionable data on button counts, flashing cycles, and more.



**TAKE THE NEXT STEP!**

[sales@polaraent.com](mailto:sales@polaraent.com) | 903.366.0300



## iNX FEATURES

- Instructional 9"x12" retro-reflective sign with tamper-resistant screws.
- ADA-compliant push button with field adjustable directional arrow.
- 10-watt audio amplifier.
- Microphone to automatically adjust sounds to ambient noise level.
- Weather resistant modular speaker, field-replaceable.
- Spanish audio message available.
- Firmware updates, audio, volume, and other configurations set over Bluetooth® with the free Polara Field Service App, (iOS® & Android®).
- Warranty: 3 year limited.

### •FHWA & MUTCD Compliant:

- Meets Audible Information Device requirements.
- One yellow LED that flashes when warning lights are flashing.
- Standard Message: "Warning lights are flashing" (repeats twice).
- Locator Tone.
- No vibrotactile or percussive indications.



## iNX SPECIFICATIONS

### Operating Specifications

Parameter	Rating
Operating Temp. Range	-34°C to +74°C (-30°F to +165°F) <sup>†</sup>
Storage Temp. Range	-45°C to +85°C (-50°F to +185°F)
Operating Force	3.0 lbs max, option of 3 adjustable programmed forces
Switch Operating Life	Greater than 20 million operations
Max. Volume	100 dB @ 1 meter

Notes: Designed to comply with applicable sections of referenced standards All specifications are subject to change without notice. All specifications are typical unless otherwise specified.

### Electrical Properties

DO NOT APPLY AC VOLTAGE TO THIS SYSTEM!	
DC In	10-24 VDC
Button	7-32 VDC
Lights In	7-32 VDC
Idle Current Draw	~15mA @ 12 VDC (Locate Tone With Default Settings)
Peak Current Draw	~500mA with Voice Message at maximum

### Mechanical Properties

Physical	
Enclosure Type	Plastic sealed housing, powdercoated cast aluminum cover and backplate
Installation	3/4" or smaller banding or 2 tapped 1/4-20 holes on 6" centers; 1/2" or larger hole for wire access
Dimensions	
Width	9" (with 9x12" sign) / 5.1 (without sign)
Length	18.2" (with 9x12" sign) / 14" (without sign)
Maximum Height	2.6"

### Design Compliance

Functionality Test Type	Compliance
Functionality	MUTCD 2009-4E
Temperature and Humidity	NEMA TS2
Mechanical Shock and Vibration	NEMA TS2
iNX Enclosure	NEMA 250 Type 4X

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Compliances: ADA, MUTCD, Buy America, ISO 9001:2015 certified  
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