



354-RFB-24-10

REQUEST FOR BIDS

for

Solar Powered School Zone Flashing Beacons and Rectangular Rapid Flashing Beacons

To be opened 11:00 AM (ET), January 4, 2024

Pursuant to General Statutes of North Carolina, as amended, sealed bids, subject to the conditions and specifications herein, are invited for furnishing the following apparatus, supplies, materials, equipment. All bids will be received by the Town of Cary Purchasing Division electronically until the date and time stated above, at which time the sealed bids will be publicly opened virtually and read.

BY: Ryan O'Dell, Assistant Manager of Procurement & Contracts

DATE: December 8, 2023

POSITIVELY NO BIDS CONSIDERED UNLESS SUBMITTED ON THIS DOCUMENT WITH THE ITEMIZED ATTACHMENT 2

MATERIALS TOTAL (AS LISTED IN ATTACHMENT 2)	\$
TOTAL SHIPPING & FEES (if applicable)	\$
GRAND TOTAL (ALL GOOD, SHIPPING, & FEES)	\$

ESTIMATED DATE ALL GOODS DELIVERED

Do the products submitted for bid meet the exact specifications listed herein?

☐ YES

☐ NO

This company is a certified Historically Underutilized Business (HUB) by the North Carolina Department of Administration HUB Office.

☐ YES

☐ NO

COMPANY: _____

DATE: _____

AUTHORIZED SIGNATURE: _____

TITLE: _____

DATE: _____

NOTICE TO BIDDERS: Do not include taxes in your bid proposal pricing. Any and all tax imposed upon any article on which you are bidding are only to be shown as separate line items on invoices, and in no case are taxes to be included with your bid price. Failure to comply with these conditions will be considered grounds for rejection.

In compliance with the above request for bids and subject to all the conditions thereof, the undersigned offers and agrees, if this bid be accepted within _____ days from the date of the opening, to furnish any or all of the items upon which prices are quoted at the price set opposite each item within _____ days after receipt of order, unless otherwise specified.

COMPANY: _____ ADDRESS: _____

TOWN: _____ STATE: _____ ZIP CODE: _____

AUTHORIZED SIGNATURE: _____ TITLE: _____

NAME PRINTED OR TYPED: _____

CONTACT NAME (if different than above): _____

TELEPHONE NO.: _____ EMAIL: _____

BIDDER'S CHECKLIST

- ☐ Be aware of the virtual bid opening date and time as indicated on the first page of this proposal.
- ☐ You must submit **bids in electronic format via eVP**. No hard copy bids will be accepted.
- ☐ All signatures must be by a company officer or agent who is authorized to enter and sign bid documents.
- ☐ Have you read and understood the "Terms and Conditions" and the "Instructions to Bidders" for submitting a bid to the Town?
- ☐ Have you read and do you completely understand all the specifications of this bid proposal?
- ☐ If an addendum to the specifications was issued, has it been returned with this bid proposal (indicating acceptance of the information contained within)? Failure to do so may result in your submittal being deemed unresponsive.
- ☐ Have you enclosed statements explaining any exceptions made to the specifications? (If applicable)
- ☐ Have you included the Itemized Price Sheet (Attachment 2)?

INSTRUCTIONS TO BIDDERS

1. **PURPOSE:**

The purpose of this document is to provide general and specific information for the use by suppliers in submitting a bid to supply the Town of Cary with apparatus, supplies, material and equipment, and/or services listed above. All bids and contracts are governed by Town policy, and /or by Section 143-129 of the North Carolina General Statutes.

2. **BID SCHEDULE:**

Listed below are the dates and times by which stated actions must be taken or completed. The Town may determine, in its sole discretion, that it is necessary to change any of these dates and times. All listed times are Eastern standard times.

Action	Time	Date
Bid issued	----	December 8, 2023
Deadline for Questions & Approved Equals	3:00 PM	Wednesday, December 20, 2023
Bids Due	2:00 PM	Thursday, January 4, 2024
Anticipated Award	----	January 2024

3. **BIDDER QUESTIONS:**

The Town is not liable for interpretations/misinterpretations or other errors or omissions made by the Bidder in responding to this bid. The Bidder shall examine this bid to determine if the Town's requirements and terms and conditions are clearly stated. If, after examination of the various requirements and terms and conditions of this bid, the Bidder believes there are any requirements or terms and conditions which remain unclear or which restrict competition, the Bidder may request, in writing, that the Town clarify the requirement(s) and terms(s) and condition(s) specified by the Bidder. The Bidder must provide the Section(s), Subsection(s), Paragraph(s), and page number(s) that identify the requirements or conditions questioned by the Bidder.

Requests for clarification, technical questions and approval of alternate products to this bid must be received by the Town no later than the date shown above in Section 2, entitled "Bid Schedule", under *Deadline for Questions*. The Bidders' failure to request clarification and submit questions by the date in the bid schedule above shall be considered to constitute the Bidders' acceptance of all Town's requirements and terms and conditions. The Town shall issue addenda reflecting questions and answers to this bid, if any, and shall be posted to the eVP website at [North Carolina electronic Vendor Portal](#).

4. **BID CONTACT:**

Any and all questions, concerns, request for additional information, and alternate product considerations shall be directed to the Town of Cary, Procurement Division to the attention of the Assistant Manager of Purchasing & Contracts:

Ryan O'Dell

Ryan.O'Dell@carync.gov

5. **HOW TO PREPARE BID PROPOSALS:**

Bidders are encouraged to carefully review all provisions and attachments of this document prior to completion. Each bid constitutes an offer and may not be withdrawn except as provided herein. Also, prices are to remain firm for the period stated herein.

- a) **PROPOSAL FORM:** Submit prices and offers on the **BID PROPOSAL FORM(s)** provided herein. All bid proposals must be submitted and signed by the supplier or their authorized representative with all erasures or corrections initialed and dated by the authorized representative of the proposal.
 - i. The bidder shall indicate an approximate delivery date for each line item detail listed on Attachment 1.

- ii. The bidder shall submit the subtotal of all goods on the bid proposal form and attach a quote with the line item details for each line listed on Attachment 1.
- iii. The bidder shall submit the subtotal of all goods on the bid proposal form and attach a quote with the line item details for each line listed on Attachment 1.
- b) **SIGNATURE**: All bids must be signed by an authorized official of the company on the **Bidders Signature Page**. A bid may be rejected if it shows omissions, alterations of form, additions not called for, conditional bid, or any irregularities.
- c) **TAXES**: Do not include taxes in your bid prices. Taxes must be itemized and added to invoices separately when invoicing the Town. The Town is required to pay sales tax. The Town is exempt from Federal Excise Tax and has a Federal Tax number.
- d) **MINORITY WOMEN BUSINESS ENTERPRISES (MWBE) POLICY**: The Town invites and encourages participation in this procurement process by certified Minority and Women-Owned Business Enterprises (MWBE) in accordance with North Carolina General Statute 143-129.
- e) **SUSTAINABILITY**: As stated in the 2017 Cary Community Plan, the Town has a commitment to promoting green practices that will promote an environmentally safe and desirable community for future generations. As such, we recognize our responsibility to minimize negative impacts on human health and the environment while supporting a diverse, equitable, and vibrant community and economy. The Town recognizes that the types of products and services the Town buys have inherent social, human health, environmental and economic impacts, and asks that all vendors and bidders providing and proposing products and services to the Town, be mindful of the Town's commitment to sustainability and provide and propose products and services that embody this commitment whenever possible.
- f) **NONDISCRIMINATION POLICY**: It is the policy of the Town of Cary to promote the fair treatment of all individuals and provide them freedom from discrimination. No member of a protected class shall be excluded from participation in, be denied the benefits of, or be otherwise subject to discrimination under any program or activity administered by Cary, including programs or activities that are funded in whole or in part with State or Federal funds, such as Coronavirus State and Local Fiscal Recovery Funds.

6. **HOW TO SUBMIT BID PROPOSALS:**

- a) Upload a complete set of your bid on the **BID PROPOSAL FORM** provided herein to the NC eVP website at [North Carolina electronic Vendor Portal](#).
- b) **NO PHYSICAL, EMAIL OR FAX BIDS WILL BE ACCEPTED.**

7. **BID OPENING:**

- a) The bid opening shall be held virtually via Webex. The meeting is scheduled for 1:55 PM EST (5 minutes prior to the bid opening). If planning to attend, please join the meeting early in case you have trouble connecting.
- b) All bidders are welcome to attend the bid opening virtually and can be accessed via the following credentials:

Meeting link:

[354-RFB-24-10 Bid Opening](#)

Meeting number:

2331 033 9720

Password:

utMi4WdN3K2

More ways to join

Join by video system

Dial 23310339720@carync.webex.com

You can also dial 173.243.2.68 and enter your meeting number.

Join by phone

+1-408-418-9388 United States Toll

Access code: 23310339720

- c) All bids will be opened and read at the time shown on the enclosed Bid Proposal Form. No official award will be made during the Bid Opening. **LATE BIDS WILL NOT BE OPENED OR ACCEPTED.**
- d) Bidders may not review or request copies of bids at the Bid Opening. A request must be submitted to the purchasing supervisor via email.
- e) If you have difficulty joining or trouble with sound contact Webex and provide them the Meeting number.
- f) Bids will be examined by the Purchasing Supervisor and/or Bid Agent of the using department promptly after the opening and an award made as early as possible. No bids may be withdrawn after bid opening.

8. AWARD OF BID:

- a) Standard of Bid Award Acceptance: The Town reserves the right to reject any or all bids and to waive any irregularities or technicalities in bids received whenever such rejection or waiver is in the best interest of the Town of Cary. The award shall be made to the lowest, responsive, responsible bidder, or bidders, taking into consideration quality, performance and the time specified in the bid for the performance of the contract.
 - i. Bids prices received will be viewed per option (a group of materials outlined in Attachment 1) total. The lowest price package that is received by a responsive, responsible bidder, as outlined by North Carolina State Statute, will be awarded the bid.
- b) Bid Prices: All items and products proposed in response to this Bid are to be new, in un-used condition unless otherwise noted in the Minimum Specifications. All prices proposed in response to this Bid are to include all transport, freight, fuel surcharges and other fees if applicable and be delivered **FOB destination, freight prepaid and allowed** to the location provided on the Town Purchase Order if not otherwise instructed within the specifications section. All items are to be packaged, and shipped or delivered safely in a protective carton, fully assembled and serviced, ready for use and operation where applicable or otherwise described within the specifications. All supplies, equipment, and apparatus must meet all Federal, State, and Local safety regulations, requirements, and guidelines, such as OSHA, EPA, US DOT, NC-DOT, NFPA, UL, etc., if so regulated.
- c) Order of Precedence: In cases of conflict between sections and provisions within the Bid document, the Order of Precedence will be 1) the Special Conditions section specific to the Bid (if present); 2) the Minimum Specifications section specific to the Bid, 3) the Town of Cary Terms and Conditions;

and 4) the Instructions to Bidders section of the Bid document.

- d) Payment Terms: Payment terms of Net 30 days from the date of receipt of correct invoice, or upon acceptance of goods whichever is later, will apply to all invoices. Payment term discounts will be allowed for prompt payments but will not be a consideration for award. All invoices are to be emailed to or delivered to **Town of Cary, Accounts Payable Division, PO Box 8049, Cary, NC 27512.**
- e) Bid Award Approval: The Town Manager has delegated authority from the Town Council to award bids for supplies, equipment, and apparatus greater than \$90,000. Bids will be approved and awarded by the Town Manager or designee upon the recommendation by the Procurement Department.

9. OBJECTION TO THE SPECIFICATIONS:

It is not the intent of the bid specifications to exclude or limit competition or favor any supplier. If there is an objection to any of the specifications or requirements listed herein, the bidder must notify the Town of Cary Purchasing Supervisor, in writing, stating and listing the specifications and objections, no later than five (5) working days prior to the bid opening date. If a pre-bid meeting has been scheduled, any objections must be presented in writing at that time. The objections stated must pertain both to form and substance of the bid document. Failure to object in accordance with the above procedure shall constitute a waiver on the part of the bidder to protest the solicitation. All concerns, questions, clarifications, or other correspondence must be directed only to the Town of Cary Assistant Manager of Purchasing & Contracts. Information obtained from other sources will not be considered in the evaluation and award of this bid.

10. ERRORS IN BIDS:

Bidders or their authorized representatives are expected to understand the conditions, requirements and specifications before submitting bids. Failure to do so will be at the bidders' own risk. In case of an error in the extension of prices on the bid, the unit price shall govern.

11. BID OPTIONS:

The Town reserves the right to request pricing on optional equipment or additional items along with the pricing for the main or primary product or items when applicable. At the discretion of the Town, some or all the options requested may or may not be added and purchased based upon necessity and the availability of budgeted funds. The Bid Award will be made to the lowest, responsive, responsible bidder for the main or primary product or items listed on the Bid Proposal Form. Pricing for any additional options will be requested in a separate section of the bid and will not be included in the determination of the Bid Award.

12. QUANTITIES:

The Town of Cary reserves the right to adjust quantities as needed, and to add additional items and/or products as needed, as determined to be in the best interest of the Town. The quantities stated herein, for term or multi-year contracts are estimated, and may change to be more or less over the term of the contract.

13. PRICE ADJUSTMENTS:

For Bids with fixed price contract periods, it is the Town's intent to contract at a fixed price for a period of six (6) months, with an option to extend the contract for seven (7) additional six (6) month periods. The price proposed by the Bidder is to remain fixed for the first sixty (60) day period of the contract. Prices for additional extension term periods may be subject to a price increase or decrease if the price adjustment mirrors and reflects a previous industry wide adjustment for the product or item(s) specified in the Bid.

Any price increase or decrease will be adjusted to the latest yearly percentage increase in the All Urban Consumers Price Index (CPI-U) (National) as published by the Bureau of Labor Statistics, U.S. Dept. of Labor, or other appropriate agreed upon price index. The amount of the increase or decrease will be determined by the difference between the latest price index available ninety (90) days prior to the end of the current contract year in effect, and the price index for the same month one year prior.

Any requested price increase must be fully documented and submitted to the Procurement Department at least sixty (60) days prior to the Bid contract anniversary date. Any approved price adjustment (increase or

decrease) will then become effective upon the anniversary date of the contract at the start of the next term period.

The Town reserves the right to accept or to refuse any documented price adjustment submitted by the vendor/contractor for any reason as determined to be in the best interest of the Town. In the event the Town does not accept the proposed price adjustment for the extended term, the Bid contract will not be renewed, and the Town will rebid the product or item(s). Any Bid contract extension is subject to the continuation of need and usage by the Town and the appropriation of funds.

14. CONTRACT EXTENSIONS:

The Town reserves the right to extend all bid contracts for up to seven (7) additional six (6) month periods from the date of the award of the original bid, if agreed upon in writing by the contracted vendor. The contract extension(s) may be for additional quantities or for an additional time period as agreed.

15. TRADE SECRETS:

This Bid document and all Bidders' responses and proposals received are considered public information, except for trade secrets specifically identified in writing by the Bidder, which will be handled according to State Statute or other laws. Any section of the bidder's response package that is deemed to be a trade secret by the bidder shall be submitted in an envelope clearly marked "**TRADE SECRET INFORMATION- DO NOT DISCLOSE.**" The Town shall make a good faith effort to protect such confidential information.

16. BID TABULATIONS:

Bidders wishing to obtain a bid tabulation prior to the award of the bid may view and download tabulations from the North Carolina electronic Vendor Portal (eVP) website at [eVP](#). Tabulations should be posted within 48 hours (two workdays) after the public bid opening. From the Town's homepage, select the following in order to view bid tabulations: Business and Development, Bids and Proposals, select the link to the North Carolina Interactive Purchasing System, Search Bid Number, enter the desired bid number, and select Search. Bid tabulations only reflect the bids as read at the time of the bid opening and should not be considered an award. It is the Town's policy to furnish bid tabulations to all bidders.

17. INVOICING:

For prompt payment all invoices must include an accurate Purchase Order Number. Please submit invoices to TOWN OF CARY, PO BOX 3052, OREM, UT 84057 or electronically to TownOfCaryAP@Payables.com as a PDF attachment. Invoices not submitted following these instructions will result in delayed payment.

18. TERMS AND CONDITIONS:

Acceptance of the Town's Purchase Order includes acceptance of all applicable Terms and Conditions. The Town's Purchase Order Terms & Conditions are provided below for your information.

TOWN OF CARY PURCHASE ORDER TERMS & CONDITIONS

1. **Vendor quotes or proposals are referenced for scope and pricing only.** These Town of Cary Purchase Order Terms & Conditions exclusively govern this transaction.
2. Cary may, at any time, insist upon strict compliance with these terms & conditions, notwithstanding any previous customer, practice, or course of dealing to the contrary. Acceptance of this order includes acceptance of all Cary terms, conditions, prices, delivery instructions, and specifications as shown on this order or attached to and made part of this order.
3. The conditions of this order cannot be modified except by written amendment in the form of a "Purchase Order Change" which has been approved by Cary's Purchasing Department.
4. All invoices are to be sent by email to: TownOfCaryAP@IPayables.com; or mailed to the following address: Town of Cary, PO Box 3052, Orem, UT 84057.
5. **All invoices must include a unique invoice number and this Purchase Order number.** Invoices submitted without unique invoice number or without the correct purchase order number will result in delayed payment.
6. The Vendor must provide separate invoices for each Purchase Order number.
7. Cary is not exempt from North Carolina State Sales Tax of Wake County Sales Tax. These taxes must be correctly itemized on the invoice for payment. Taxes are not listed on the Purchase Order.
8. Cary is exempt from Federal Excise Tax. If any form of such tax is billed on the invoice, it must be shown as a separate item from other taxes. Tax Exemption Certificates will be furnished upon request.
9. **Net purchases will be paid 30 days from the date of submitted invoice or upon acceptance of goods, whichever is later.** Payment term discounts will be deducted as provided for on the front of this Purchase Order or in accordance with the terms of your official quotation or bid.
10. **All packages must bear the correct Purchase Order number on the outside of each package or shipping container.**
11. All prices must be F.O.B. Destination and delivered to the destination indicated on the front of the Purchase Order. The Vendor is to prepay the shipping charges and add them to the invoice.
12. The risk of loss and damage to goods which are the subject of this order shall be the Vendor's responsibility until the goods are delivered to the destination set out in the order and accepted by Cary or its representative.
13. Cary shall not be responsible for any goods delivered without a Purchase Order having been issued.
14. Any rejected materials will be returned to the Vendor at the Vendor's risk and expense.
15. In the event of the Vendor's failure to deliver or perform as specified, Cary reserves the right to cancel the order or any part thereof, without prejudice to its other rights. The Vendor agrees that Cary may return part or all of any shipment and may charge the vendor with all reasonable losses or expenses sustained as a result of such failure to deliver or perform.
16. In case of default of the Vendor, Cary may procure the articles or services from other sources and charge the Vendor damages for any excess costs or other damages caused by the default.
17. It is agreed that the goods, materials, equipment, or services provided shall comply with all Federal, State or local laws, and that the Vendor shall defend actions or claims brought, and hold harmless, Cary, and/or its officials or employees, from loss, cost or damage by reason of actual or alleged failure to comply with such laws.
18. The Vendor acknowledges that it is the policy of Cary to avoid commercial promotion of products used by Cary or the vendors of such products. The Vendor accordingly agrees not to solicit, use, or disseminate commercial advertisement founded upon Cary's purchase and/or use of the goods which are the subject of this order, and specifically agrees not to seek or use for advertising purposes the endorsement of goods or products by Cary officers or employees.
19. All matters relating to this Purchase Order shall be governed by the laws of the State of North Carolina, without regard to its choice of law provisions, and venue for any action relating to this Contract shall exclusively be Wake County Civil Superior Court or the United States District Court for the Eastern District of North Carolina, Western Division.
20. Notwithstanding any other provisions of this Purchase Order, this Purchase Order and all materials submitted to Cary by the Vendor are subject to the public records laws of the State of North Carolina and it is the responsibility of the Vendor to properly designate materials that may be protected from disclosure as trade secrets under North Carolina law as such and in the form required by law prior to the submission of such materials to Cary. The Vendor understands and agrees that Cary may take any and all actions

necessary to comply with federal, state, and local laws and/or judicial orders and such actions will not constitute a breach of the terms of this Purchase Order. To the extent that any other provisions of this Purchase Order conflict with this paragraph, the provisions of this section shall control.

21. **Nondiscrimination.** To the extent permitted by law, the Vendor, its officers, employees, contractors, agents, successors, or permitted assigns, shall not discriminate against any member of a protected class as defined by federal, state, or local law, including Wake County Code of Ordinances Section 34.01.
22. **Indemnity.** To the fullest extent permitted by law, except to the extent caused by the sole negligence or willful misconduct of Cary, the Vendor shall indemnify and hold and save Cary, its officers, agents, and employees harmless from liability of any kind, including all claims, costs (including defense) and losses accruing or resulting to any other person or firm or corporation furnishing or supplying work, services, materials, or supplies in connection with the performance of this Purchase Order, and from any and all claims, costs (including defense) and losses accruing or resulting to any person, firm, or corporation that may be injured or damaged by the Vendor in the performance of this Purchase Order. This representation and warranty shall survive the termination or expiration of this Purchase Order. The Vendor shall indemnify and hold and save Cary, its officers, agents, and employees harmless from liability of any kind, including all claims, costs (including defense) and expenses, on account of the use of any copyrighted material, patented or unpatented invention, articles, device or appliance manufactured or used in the performance of this Purchase Order.
23. **Force Majeure.** Except as otherwise provided in any environmental laws, rules, regulations or ordinances applicable to the parties and the services performed under this Purchase Order, neither party shall be deemed to be in default of its obligations hereunder if and so long as it is prevented from performing such obligations by an act of war, hostile foreign actions, nuclear explosion, earthquake, hurricane, tornado, or other catastrophic natural event or act of God. Either party to the Purchase Order must take reasonable measures and implement reasonable protections when a weather event otherwise defined as a force majeure event is forecast to be eligible to be excused from the performance otherwise required under this Purchase Order by this provision. Either party must resume performance of this Purchase Order as soon as is practicable after the end of a Force Majeure event.
24. **Cancellation.** Cary may terminate this Purchase Order at any time by providing written notice to the Vendor. The Vendor shall cease performance immediately upon receipt of such notice. In the event of early termination, the Vendor shall be entitled to receive just and equitable compensation for costs incurred prior to receipt of notice of termination and for the satisfactory work completed as of the date of termination and delivered to Cary. Notwithstanding the foregoing, in no event will the total amount due to the Vendor under this section exceed the total amount due to the Vendor under this Purchase Order.
25. **Miscellaneous.** The Vendor shall be responsible for the proper custody and care of any property furnished or purchased by Cary for use in connection with the performance of this Purchase Order, and will reimburse the Town for the replacement value of its loss or damage.
26. **E-Verify.** The Vendor understands that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law in accordance with NCGS §64-25 et seq. The Vendor is aware of and in compliance with the requirements of E-Verify and Article 2 of Chapter 64 of the North Carolina General Statutes. To the best of the Vendor's knowledge, any subcontractors employed by the Vendor as a part of this Purchase Order are in compliance with the requirements of E-Verify and Article 2 of Chapter 64 of the North Carolina General Statutes.
27. **Performance of Government Functions.** Nothing contained in this Purchase Order shall be deemed or construed so as to restrict or inhibit Cary's police powers or regulatory authority.
28. **No Waiver of Immunity.** Nothing in this Agreement shall be construed to mandate purchase of insurance by Cary pursuant to N.C.G.S. § 160A-485 or to in any way waive Cary's defense of governmental immunity from any cause of action alleged or brought against any party for any reason if otherwise available as a matter of law. No officer, agent, or employee of Cary shall be subject to any personal liability by reason of the execution of this Purchase Order or any other documents related to the transactions contemplated hereby.

MINIMUM SPECIFICATIONS

1. GENERAL:

These specifications have been written to establish term contract pricing for school beacons and flashers in support of projects led by Cary's Traffic Operations Division, with the initial purchase of (67) Carmanah R829-F Solar Powered School Zone Flashing Beacons and (10) Carmanah R920-F Solar Powered Rectangular Rapid Flashing Beacons (Collectively referred to as MATERIAL). The selected MATERIAL shall adhere to all the following minimum specifications.

- a) Any discrepancy falling below these specifications must be approved in advance during the Question and Answer Period. (see schedule on page 2)
 - The bidder shall send their question(s) to the bid contact where it will be reviewed and answered in the form of an addendum at the conclusion of the Q&A Period.
- b) The specifications were not written to intentionally eliminate any one bidder. These minimum specifications were written to accommodate Cary's standard operating procedures, program standardization, internal controls, and future operations.
- c) Shipping, handling, and any other applicable fees shall be submitted separately on the Bid Submittal Form.
 - Any price discrepancies outside of the submitted bid will be at the bidders' expense.

2. MATERIAL SPECIFICATION

MATERIALS submitted for review shall conform to the following specifications as well as the MATERIALs Data Sheets included in Attachment 1. Price quotes given in accordance with this bid award shall be honored as described in Section 14 of the Bid Instructions.

- MATERIALS shall be capable of integrating with Applied Information's cloud-based intelligent transportation system "GLANCE". Connectivity to cloud-based platform should allow for two-way communication and control.
 - a. If additional parts not specifically identified in this bid are required to connect with Applied Information's software, please email the bid contact during the Q&A period for clarification.
 - b. MATERIALS shall be able to communicate through the latest cellular broadband networks
- MATERIALS shall be manufactured in the USA and shall be Buy American compliant.
- All MATERIALS shall be FCC certified to comply with all 47 CFR FCC Part 15 Subpart B Emission requirements.
- MATERIALS shall be rated to a minimum of NEMA 3R.
- MATERIALS pre-wired to the maximum extent possible.
- Poles and Pole bases are excluded from this bid.

Solar-Powered School Zone Flashing Beacon Specifications (SZB)

Each unit shall consist of a self-contained solar engine that houses the charge controller, flash controller, on-board user interface, optional wireless communications, batteries, solar panel and a monitoring unit which includes GPS and cellular modem with optional ethernet connection and RS-232 port.

- System should consist of 12V 36 Ahr battery.

- Batteries shall be designed for a demonstrable service life of five (5) years.
- The system shall continue to operate for a minimum of five days in the absence of solar charging.
- The unit shall conform to all applicable provisions of the MUTCD Chapter 4L, including flash pattern.
- The system shall also have the capability of meeting the ITE intensity requirement for vehicle traffic signals.
- The solar engine shall be capable of mounting to the top of a round 3.5 – 4.5” diameter pole.
- The solar engine and junction box shall be in a vented, weatherproof box that includes a lockable hinged lid for access to on-board user interface and batteries. The vents shall be screened to prevent ingress by insects and debris.
- Junction Box shall include manual override switch and any connection cable necessary for testing equipment in the field.
- Solar engine shall be black or yellow powder coated and should include an integrated solar panel.
- The solar engine mounting hardware shall come in black or yellow powder coat.
- The monitoring unit shall be connected-vehicle ready and capable of communicating safety messages to motorists via cellular infrastructure and a smartphone app. The monitoring unit shall support the SAE J2735 standard for connected vehicle messages. The monitoring unit shall support both cellular and optional DSRC technology.
- Monitoring unit shall be capable of being programmed locally via a laptop interface & ethernet. Additionally, the unit shall be capable of receiving software and security updates via cellular communications. Physical trips shall not be required for software and security updates.
- Beacons shall conform to requirements of the Manual of Uniform Traffic Control Devices 2009 and shall comply with the intensity and beam shape requirements of the ITE Vehicle Traffic Control Signal Heads, Light Emitting Diode (LED) Circular Signal Supplement.
- The beacon and signal head shall be single mounted and should be able to move independently from the solar engine or bracket for lens alignment.
- The beacon and signal heads shall be constructed with UV-resistant polycarbonate.
- The SZB shall include a 12” LED beacon in yellow.
- Signal heads shall be available in yellow and black.
- Signal head shall brackets shall be constructed for easy removal in the field
- The SZB Enclosure shall include an auto-scrolling LED on-board user interface that provides on-site configuration adjustments, system status, and fault notification, built-in system test, and programming or optional calendar settings.
- The system shall provide configurable nighttime intensity settings ranging from 10% to 100% of daytime intensity.
- The beacons will flash when activated either by an optional internal calendar within the controller or

by contact closure provided by a third-party device. Flashing will continue until either the internal calendar discontinues or contact closure from the monitoring unit or third-party device is removed.

- Contact closure control by third-party devices shall be offered as “Normally Open” or “Normally Closed”.
- The User Interface shall provide viewing and/or programming access for the following:
 - a. Digital output that is active during the flashing cycle that allows the notification or control of external devices such as overhead illumination. Digital output shall be configurable for night operation only or operation day or night
 - b. 6 Flash Patterns
 - c. Radio Channel (Choice of 1 to 14) if equipped
 - d. Radio Status if equipped
 - e. Calendar On/Off Control
 - f. Calendar Master/Slave control of calendar broadcast via radio if equipped
 - g. Night Intensity Setting
 - h. Adjustment for Ambient Daytime Brightness
 - i. Intensity (20 mA to 1400 mA)
 - j. Self-Test / BIST (Built-In Self-Test) including the detection of shorts or open circuits in the fixture outputs
 - k. Battery Status – General description and actual battery voltage
 - l. Day or Night Status (as determined by dedicated photosensor not solar panel output)
 - m. Solar Panel Voltage
 - n. Automatic Light Control. If this safety feature is enabled, it allows the SZB to temporarily reduce the intensity of the beacons to maintain energy equilibrium. The user interface shall report the amount of dimming being applied in the range of 10% to 100%
 - o. Firmware Version number
- Settings and configurations shall be automatically broadcast to all radio-equipped SZBs in the system when changed in one radio-equipped SZB.

Rapid Flashing Beacon Specifications (RRFB)

Each RRFB shall have the capability to remotely connect to a cloud-based platform allowing for two-way communication and control. Each RRFB shall consist of a self-contained solar engine that houses the charge controller, flash controller, on-board user interface, wireless communications, batteries, solar panel and a monitoring unit which includes GPS and cellular modem.

- Units should consist of 12V 36 Ahr battery system.
- Batteries shall be designed for a demonstrable service life of five (5) years.
- The system shall continue to operate for a minimum of five days in the absence of solar charging.

- The solar engine shall be constructed of aluminum with an integrated solar panel. All batteries and electronics shall be mounted in the solar engine, with no external control cabinet or battery cabinet required.
- Access to the interior of the solar engine shall be provided by a lid that is hinged on the bottom edge and is fitted with a foam gasket. The lid shall have a lockable latch.
- The solar engine shall be vented to provide cooling of the battery and electronic system. The vents shall be screened to prevent ingress by insects and debris.
- The solar engine shall be finished in black powder coat and should include mounting hardware in a matching finish.
- The solar engine shall be capable of mounting to the top of a 3.5" – 4.5" pole.
- The internally mounted monitoring unit shall be a single piece of equipment and not require any peripheral attachments except for, the GSM and GPS antenna lead wires for the externally mounted antenna.
- The externally mounted integrated GSM/GPS antenna shall be a suitable weather-resistant design and shall mount directly to the top surface of the control cabinet without the requirement for additional hardware.
- The monitoring unit shall be capable of being programmed locally via a laptop interface and ethernet.
- The monitoring unit shall be capable of receiving over-the-air software and security updates via cellular communication. Physical trips to the monitoring unit shall not be required for updates.
- Light bars shall be current-driven LED strings without active electronics. The LEDs shall be driven by pulse-width modulated fixed current.
- The light bar assembly shall open to access the wiring connections for the LED modules.
- The light bar housing shall be constructed black powder coated.
- The light bar shall be mounted to the post or pole using a separate bracket assembly to facilitate mounting two light bars back-to-back (bi-directional) and to allow the light bar(s) to rotate horizontally for aiming.
- Pedestrian pushbuttons should be ADA compliant and should come in black powder coating. Pushbutton wiring harnesses shall be included.
- Push Button signs should be standard 5"x7".
- All RRFBs in the system shall initiate activation within 150ms of activation. If additional activation occurs while the system is activated, the flash duration all reset.
- The passive detection system shall use a short-range microwave sensor providing the necessary range at a low power consumption. The passive detection system shall provide pedestrian presence detection within the targeted area of a crosswalk or trail crossing. A solar simulation shall be provided to verify the microwave sensor load can be supported by the RRFB for reliable year-round operation

- The controller shall be able to support up to 1.4 amps combined current through the light bar fixtures simultaneously.
- The solar engine shall house an auto-scrolling LED on-board user interface that provides on-site configuration adjustment, system status and fault notification.
- The flash duration shall be adjustable in-the-field from 5 to 60 seconds in one second increments, 60 to 1,200 seconds in 60-second steps, and 3,600 seconds. Default flash duration shall be 20 seconds.
- The system shall provide configurable nighttime intensity settings ranging from 10% to 100% of daytime intensity.
- The system shall be capable of enabling or disabling ambient brightness auto-adjustment. This feature allows the system to provide optimal output brightness in relation to ambient light levels while always maintaining adherence to SAE J595 Class I specifications. If enabled, the ambient brightness auto-adjustment shall adjust output to a range between 50% and 100% of daytime intensity.
 - a. The User Interface shall provide viewing and/or programming access for the following:
 - b. Activation Duration (5 to 60, 60 to 1200, or 3600 seconds)
 - c. Digital output that is active during the flashing cycle that allows the control of external devices such as crosswalk illumination. Digital output shall be configurable for night operation only or operation day or night
 - d. Radio Channel (Choice of 1 to 14)
 - e. Radio Status
 - f. Night Intensity Setting
 - g. Adjustment for Ambient Daytime Brightness
 - h. Self-Test / BIST (Built-In Self-Test) including the detection of shorts or open circuits in the fixture outputs
 - i. Battery Status – General description and actual battery voltage
 - j. Day or Night Status (as determined by dedicated photosensor not solar panel output)
 - k. Solar Panel Voltage
 - l. Automatic Light Control. If this safety feature is enabled, it allows the RRFB to temporarily reduce the intensity of the light bars to maintain energy equilibrium. The user interface shall report the amount of dimming being applied in the range of 10% to 100%
 - m. Daily activations averaged over 90 days
 - n. Pushbutton detection
 - o. Firmware Version number
- Any changes in configurations shall be automatically broadcast to all RRFBs in the system when changed on one unit.
- The radio system shall operate at 2.4GHz
- Upon detection of a pushbutton press, a unit will broadcast an activation to all other nearby units

sharing the same channel.

- The unit shall have the capability to activate other units by wireless communications within 1,000 feet (304 meters).
- The system shall have a minimum of 14 unique channels that can be configured on-site to avoid inadvertent activation of nearby systems.
- The antenna shall be a low-profile “button” shape that cannot be bent or broken by vandals.

3. CONNECTIVITY AND SMART APP

The MATERIALS shall integrate with our current connected vehicle software supplied by Applied Information to provide remote monitoring. The software interface should include the following features

Connectivity

- The software user interface shall include a scrollable, zoom-able map display, with the SZB & RRFB shown as a representative dynamic icon on the map. The map display must have the option of satellite view or standard street view. The map shall include the ability to see the SZB & RRFB icons using Google Streetview.
- The icons shall be able to identify if there is an alert status or if the SZB & RRFB is offline.
- The map display shall allow the operator to turn on layers which can display all SZB & RRFB designations. Operators shall also be able to overlay Google traffic information so they can see traffic together with the SZBs & RRFBs.
- HTTP and HTTPS protocols and XML data structures for communications shall be utilized.
- The software is cloud-based and shall meet NEMA TS 8 requirements for Cyber and Physical Security for Intelligent Transportation Systems.
- The software shall display the alert/fault status, last communication with the device, real-time, minimum and maximum values for battery voltage, solar panel voltage, on/off status, door open/closed, or local manual override control. These parameters can be viewed in graphical form.
- When a fault occurs, real-time alerts shall be published via SMS and/or email. The alert will be immediately sent to the response personnel.
- Key performance indicators shall be recorded by the software and reported on a weekly or daily basis. The report shall include details on the health condition of the batteries, solar panels and LED modules. The following types of reports shall be available: Alerts, User-Activity, SZB & RRFB Operation, Fault Repair Response Time.
- Alerts shall be displayed by color codes to indicate priority and critical nature of the alert.
- Raw data, error logs, and communication logs shall be available for diagnostics. The logs shall be print-ready or downloadable to spreadsheet.
- SZB schedules, events, holidays, and program delays shall be set-up and downloaded remotely via the software. The schedule shall be published to one or more SZBs

simultaneously.

- The software shall be capable of immediate manual override of individual or networks of SZBs in the event of early release or other unexpected school events.
- Up to 20 unique schedules, unlimited holidays, exceptions, and overrides shall be available.
- The interface shall show the current, min, max, and average system activations as recorded within 15-minute intervals over a 24-hour period for RRFBs. A monthly summary of activations shall be available and viewable in graphical form.
- Monitoring units shall ping the cellular system every 30 minutes to ensure online connectivity.
- If cell service is interrupted or unavailable, events shall be stored in internal memory, and automatically forwarded when cell service is restored.
- The system should be capable of integrating with the smart phone application to provide alerts to users on active school zones and speeds.

4. PRODUCT DELIVERY

The MATERIAL shall be delivered between the hours of 7:00 AM and 3:00 PM Monday through Friday, excluding holidays. Should constraints prevent delivery within 72 hours of the original scheduled delivery date, the supplier shall contact the Town's primary contact and coordinate delivery as applicable.

- All MATERIAL shipped by the awarded bidder will be shipped to:

ATTN: Robert McDougald
420 James Jackson Ave
Cary, NC 27513

- Winning bidder shall coordinate all deliveries with Andy Ellis, Warehouse Coordinator, via email at Warren.Ellis@carync.gov.

5. REJECTION

The Town reserves the right to analyze delivered material upon arrival at the destination and reject such material for failing to meet one or more of the above-mentioned specifications or quality standards. All freight charges on rejected material shall be paid for by the successful bidder.

6. WARRANTY

- a) MATERIALS warranty shall be for five (5) years with w one (1) year limited warranty on batteries.
- b) CONTRACTOR shall identify with their bid any additional warranties that apply.

7. BID SPECIFICATION COMPLETION INSTRUCTIONS:

All text fields or blanks must be responded to in the returned bid submittal form (page 1). **Failure to complete this information will indicate a non-responsive bid.**

8. MEETS OR EXCEEDS SPECIFICATIONS:

Please check the appropriate "YES" ☐ or "NO" ☐ box on the bid submittal form, indicating that the items being bid does meet or does not meet the specification as written. Checking the "NO" field indicates that the

bidder does not meet the specification as requested and is taking an exception. All exceptions must be explained in detail as per below.

9. EXCEPTIONS TAKEN TO SPECIFICATIONS:

Any exceptions to the original bid specifications must be submitted in writing during the question and answer period and will be approved or denied via addendum. Bidders must note clearly any and all approved exceptions taken to the specifications as an attachment within their submitted bid. The specifications were not written to intentionally eliminate any one bidder. Bidders must note differences as an "Exception" and attach detail information explaining how the exception is "equal to" or "exceeds" the intent of the specification. All exceptions and items submitted as an equal will be evaluated. The Town reserves the right to reject any and all bids and to waive any irregularities or technicalities in bids received whenever such rejection or waiver is in the best interest of the Town of Cary. All Exceptions taken to the specifications must be indicated by checking the "NO" field on the bid submittal form (page 1) and be explained individually in detail on an attached sheet and submitted with your bid. If there is an objection to any of the specifications or requirements listed herein, the bidder must notify the Town of Cary Purchasing Supervisor, in writing, stating and listing the specifications and objections, no later than five (5) working days prior to the bid opening (as per Page 5 – Sec. 9- "Instructions to Bidders").



ATTACHMENT 1

DATA SHEETS

The rest of this page left intentionally blank



ATTACHMENT 2

Itemized Quote

Qty	Description	Lead Time	Unit Price	Line Total
56	R829-F School Zone Beacon, Solar Engine, LED only, solar engine & top mounting hardware in yellow, no signal head included, including AI Harness AI-900-050-02		\$	
11	R829-F School Zone Beacon, Solar Engine, LED & Signal Head Included, black powder coat on all pieces and solar engine top mounting hardware, including AI Harness AI-900-050-02		\$	
10	R920-F Rectangular Rapid Flashing Beacon, Solar Engine, Bi-directional dual light bars, push button, standard 5x7 sign, black powder coat on all pieces and solar engine top mounting hardware		\$	
Total (to be entered on Page 1)				\$

Optional Equipment Pricing (Do not include on page 1)		
Description	Average Lead Time	Unit Price
R829-F Signal Head - Yellow		\$
R829-F Signal Head- Black		\$
R829-F 12" LED		\$