

**TOWN OF JAMESTOWN, RHODE ISLAND
93 NARRAGANSETT AVE
JAMESTOWN, RI 02835**

INVITATION TO BID

BID NUMBER – JTN-21-500
STREET LIGHT MAINTENANCE AND LED CONVERSION

SPECIFICATIONS AND INSTRUCTIONS



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INVITATION TO BID

Bid Number – JTN-21-500 Street Light Maintenance and LED Conversion

Notice is hereby given that separate sealed bids will be received by the Town of Jamestown, Rhode Island (hereinafter “the Town”) at the Town of Jamestown’s Finance Office, until Friday January 29, 2021 at 10:00am, local time, for furnishing all labor, materials and equipment, and performing all work necessary and incidental to: Streetlight Maintenance and LED Conversion Project in accordance with the specifications and contract documents within.

Contract documents may be obtained the Town of Jamestown website and on the City of Newport – Online Bidding System

All bidders must register at: eprocurement.cityofnewport.com, you can access the RFP document and any future information or changes to be released by the Town on this RFP.

THERE IS A MANDATORY VIRTUAL PRE BID CONFERENCE AT 10:00 am, on Tuesday JANUARY 5, 2021. NO BIDS WILL BE ACCEPTED FROM FIRMS THAT DO NOT ATTEND THIS PRE-BID CONFERENCE. Please email Michael Gray, Public Works Director at mgray@jamestownri.net for the virtual meeting invitation.

The Submittal Deadline is 10:00 a.m., Friday January 29, 2021. Bids must arrive in the Finance Office, Town of Jamestown, prior to this Submittal Deadline. The receiving time in the Finance Office will be the governing time for acceptability of bids.

Bids shall be submitted on the bid form(s) provided and in accordance with the bid submittal requirements herein. Bids shall be delivered and addressed to the Jamestown Finance Director, 93 Narragansett Ave, Jamestown, RI 02835. They will be opened and read aloud at The Jamestown Town Hall Council Chambers. Any Bidder who wishes their bid to be considered is responsible for making certain that their bid is received in the Town of Jamestown’s Finance Office by the proper time.

Bids should be clearly labeled and submitted in a sealed envelope or box bearing the name of the Bidder, the name of the Town, the ITB number, and Submittal Deadline. Bidder’s authorized representative must properly initial any erasures or alterations of any kind. Bids that contain omissions or improper erasures or irregularities may be rejected.

- a. Bidders must submit one (1) printed Master original, clearly labeled “MASTER”, one (1) copy, and one (1) electronic version on a thumb drive.
- b. The Price Proposal form shall be submitted in print and as an Excel file.
 - o The printed Price Proposal form shall be submitted in a sealed envelope.
 - o The electronic Price Proposal form (Excel file) may be submitted on the same thumb drive as other electronic bid documents but must be saved as a separate Excel document and must be clearly labeled “BIDDER NAME_Price Proposal_TOWN NAME.”

No oral, telegraphic, electronic, facsimile, or telephonic bids or modifications will be considered unless specified. Bids received after the scheduled Submittal Deadline will be returned unopened. Bids must bear original signatures and figures.

The successful bidder will be required to furnish a performance & payment bond in the amount equal to the contract award if bid is greater than \$25,000.00, along with all required insurance certificated, within fifteen (15) calendar days after the award date in order to execute a Contract. This applies to each Bid submitted for each community.

Christina Collins
Finance Director

PLEASE COMPLETE THIS PAGE AND SUBMIT WITH YOUR PROPOSAL

ACKNOWLEDGEMENT OF ADDENDUM

(if applicable)

Addendum Number

Signature of Bidder

COMPANY NAME: _____

COMPANY ADDRESS: _____

COMPANY ADDRESS: _____

BIDDER’S SIGNATURE: _____

BIDDER’S NAME (PRINT): _____

TITLE: _____ TEL. NO.: _____

EMAIL ADDRESS: _____ *

*Please include your email address. Future proposals will be emailed, unless otherwise noted.

INSTRUCTIONS TO BIDDER

ACCEPTANCE PERIOD. Unless otherwise specified herein, bid proposals and pricing are firm for a period of six (6) months.

ADDENDA ACKNOWLEDGMENT. Each bid shall include specific acknowledgment in the space provided of receipt of all addenda issued during the solicitation period. Failure to acknowledge may result in the bid being rejected as not responsive.

AUTHORIZED SIGNATURES. Every bid must be signed by the person or persons legally authorized to bind the Bidder to a contract for the execution of the work. Upon request of the Town, any agent submitting a bid on behalf of a Bidder shall provide a current power of attorney certifying the agent's authority to bind the Bidder. If an individual makes the bid, his or her name, signature, and post office address must be shown. If a firm or partnership makes the bid, the name and post office address of the firm or partnership and the signature of at least one of the general partners must be shown. If a corporation makes the bid, the bid shall show the name of the state under the laws of which the corporation is chartered, the name and post office address of the corporation and the title of the person signing on behalf of the corporation. Upon request of the Town, the corporation shall provide a certified copy of the bylaws or resolution of the board of directors showing the authority of the officer signing the bid to execute contracts on behalf of the corporation.

AWARD OF BID. Award will be made to the Bidder offering the most advantageous bid after consideration of all Evaluation Criteria set forth below. These criteria are not listed in any order of preference. Evaluation scores will not be released until after award of bid. Each Town shall not be obligated to accept the lowest priced bid but will make an award in the best interests of each Town after all factors have been evaluated. The right is reserved, as the interest of each Town may require, to reject any or all bid proposals, to waive any technical defect or informality in bids received, and to accept or reject any bid or portion thereof. The Town reserves the right to reject any bid of any Bidder who previously failed to perform adequately for the Town or any other governmental agency. The Town expressly reserves the right to reject the bid of any Bidder who is in default on the payment of taxes, licenses, or other monies due the Town.

CANCELLATION OF SOLICITATION. The Town may award and/or cancel their solicitation at any time.

COMPLIANCE WITH LAWS. All bids shall comply with current federal, state, and other laws relative thereto.

DEFINITION OF TERMS. For the purposes of this ITB, the following definitions will be used:

- a. **Contractor.** Throughout this set of documents, the terms "Vendor", Bidder", Proposer", "Respondent", and "Contractor" will carry the same weight and meaning as the entity that may (and does) submit a Bid on this project. "Contractor" may also refer to the Successful Bidder.
- b. **May.** Indicates something that is not mandatory but permissible.
- c. **Must/Should.** Indicates a mandatory requirement. A bid that fails to meet a mandatory requirement will be deemed non-responsive and not be considered for award.
- d. **Bidder.** The person or firm making the offer.
- e. **Bid.** The offer presented by the Bidder.

- f. **ITB.** Acronym for Invitation to Bid.
- g. **Should.** Indicates something that is recommended but not mandatory. Failure to do what "should" be done will not result in rejection of your bid.
- h. **Submittal Deadline.** The date and time on or before all bids must be submitted.
- i. **Successful Bidder.** The person, contractor, or firm to whom the award is made.

INK OR TYPEWRITTEN. All information, prices, notations, signatures, and corrections must be in ink or typewritten. Mistakes may be crossed out and corrections typed or printed adjacent to the mistake and initialed in ink by the person signing the bid.

NON-COLLUSION AFFIDAVIT. Bidders are required to submit a Non-Collusion Affidavit with their Bids. See attached Affidavit. If there is reason to believe that collusion exists among the Bidders, the Town may refuse to consider bids from participants in such collusion.

OPENING OF BIDS. All bids, irrespective of irregularities or informalities, will be opened and the names of the Bidders will be read aloud at the Submittal Deadline. A recording of this reading will be made available on the Jamestown website.

Postponement of Opening. The Town reserves the right to postpone the Submittal Deadline and opening of bids any time before the date and time announced in the Invitation to Bid or subsequent addenda.

PRICES. All Bids shall give the prices proposed, both in writing and in figures, shall give all other information requested herein, and shall be signed by the Bidder's authorized representative. Bid prices shall include everything necessary for the completion and fulfillment of the contract. Unit & total price in dollars shall be submitted in both writing and numbers where applicable, in case of a discrepancy, the amount shown in words will govern.

FORMS. In addition to the written Technical Proposal, the following forms must be completed and submitted on or before the Submittal Deadline for the Bid to be considered complete:

- Price Proposals
- Bid Form
- Non-Collusion Affidavit
- Bidder's Statement Regarding Insurance Coverage
- Bidder Statement of Relevant Experience
- Bid Bond
- Performance Bond
- Labor and Material Payment Bond
- Proposed Subcontractors (if applicable)
- Insurance Certificate

PRICE DISCREPANCIES. In the event that there are unit price items in a bid schedule and the "amount" indicated for a unit price of an item does not equal the product of the unit price and quantity listed, the unit price shall govern and the amount will be corrected accordingly. If there is more than one item in a bid schedule, and the total indicated for the schedule does not agree with the sum of prices of the individual items, the prices given for the individual items shall govern and the total for the schedule will be corrected

accordingly. The Bidder will be bound by said corrections. If discrepancies are found between the original “MASTER” and copy or copies, the original “MASTER” will provide the basis for resolving such discrepancies. If one document is not clearly marked “MASTER”, the Town reserves the right to use the original as the Master. For pricing discrepancies between the electronic Price Proposal form (Excel file), the printed Price Proposal form, and the bid form (with pricing written words), the bid form will prevail.

BID CONTENT. Bidder must describe in detail how he will meet the requirements of this ITB, and may provide additional related information with his bid. The bid should be presented in a format that corresponds to, and references, the sections outlined herein, and should be presented in the same order. Responses to each section and subsection should be labeled to indicate which item is being addressed. Bids should be straightforward and concise. Emphasis should be concentrated on conforming to the ITB instructions, responding to the ITB requirements, and on providing a complete and clear description of the offer. If a complete response cannot be provided without referencing supporting documentation, you must provide such documentation with the bid indicating where the supplemental information can be found. Supplemental information shall clearly reference the bid section to which it applies.

The Town is not liable for any costs incurred by Bidders before entering into a formal contract. Costs of developing the bids or any other such expenses incurred by the Bidder in responding to the ITB, are entirely the responsibility of the Bidder, and shall not be reimbursed in any manner by the Town.

BID MODIFICATIONS. Any Bidder who wishes to make modifications to a bid already received by the Town must withdraw their bid in order to make the modifications. Withdrawals must be made in accordance with the terms and conditions of this solicitation (see Bid Withdrawal). All modifications must be made in ink, properly initialed by Bidder’s authorized representative, executed, and submitted in accordance with the terms and conditions of this solicitation. It is the responsibility of the Bidder to ensure that modified or withdrawn bids are resubmitted before the Submittal Deadline.

BID WITHDRAWAL. Bidders' authorized representative may withdraw bids only by written request received before the Submittal Deadline.

BIDDER’S BACKGROUND. Bidder must include in his bid a complete disclosure of any alleged significant prior or ongoing contract failures, any civil or criminal litigation or investigation pending which involves the Bidder or in which the Bidder has been judged guilty or liable. Failure to comply with the terms of this provision will disqualify any bid. The Town reserves the right to reject any bid based upon the Bidder’s prior history with the Town or with any other party, which documents, without limitation, unsatisfactory performance, adversarial or contentious demeanor, significant failure(s) to meet contract milestones or other contractual failures.

PUBLIC RECORDS. Rhode Island law provides that municipal records shall at all times be open for personal inspection by any person. Information and materials received by the Town in connection with an ITB response shall be deemed to be public records subject to public inspection upon award, recommendation for award, or 10 days after bid opening, whichever occurs first. However, certain exemptions to the public records law are statutorily provided. If the Bidder believes any of the information contained in his or her response is exempt from the Public Records Law, then the Bidder, must in his or her response, specifically identify the material which is deemed to be exempt and cite the legal authority for the exemption, otherwise, the Town will treat all materials received as public records.

QUESTIONS AND COMMENTS. It shall be the Bidder’s responsibility to ask questions, request changes or clarifications, or otherwise advise the Town if any language, specifications or requirements of an ITB

are ambiguous, contradictory, or appear to inadvertently restrict or limit the requirements stated in the ITB to a single source. Questions and comments regarding this solicitation must be submitted in writing, either by email to mgray@jamestownri.net mail to Michael Gray, Public Works Director, or faxed to (401)-423-7226 by 4:00pm on Friday January 8, 2021. Questions received after the deadline noted herein will not be answered. The questioner's company name, address, phone and fax number, and contact person must be included with the questions or comments. All submitted questions and the Town's written response to each will be available as an addendum that will be posted on the Jamestown website by Friday January 22, 2021. Potential proposers are responsible for checking the Jamestown website or contacting the Jamestown Finance office to request a copy of the addendum. Proposers must acknowledge receipt of all addenda on the town proposal form which will be submitted with the proposal package.

ASSIGNMENT OF RIGHTS OR OBLIGATIONS. Except as noted hereunder, Successful Bidder may not assign, transfer or sell any rights or obligations resulting from this solicitation without first obtaining the specific written consent of the contracting Town.

TAXES, EXEMPT. The Town is exempt from the payment of the Rhode Island State Sales Tax under the 1956 General Laws of the State of Rhode Island, 44-18-30, Paragraph 1, as amended. Further, the Town is also exempt from the payment of any excise or federal transportation taxes. The proposal prices submitted must be exclusive of same. If requested, the Town will furnish exemption certificates when the successful bidder submits invoices for payment.

TERMS OF THE OFFER. The Town reserves the right to negotiate final contract terms with any Bidder selected. The contract between the parties will consist of the ITB together with any modifications thereto, the awarded Bidder's bid, and all modifications and clarifications that are submitted at the request of the Town during the evaluation and negotiation process. In the event of any conflict or contradiction between or among these documents, the documents shall control in the following order of precedence: the final executed contract, the ITB, any modifications and clarifications to the awarded Bidder's bid, and the awarded Bidder's bid. Specific exceptions to this general rule may be noted in the final executed contract. Bidder understands and acknowledges that the representations above are material and important and will be relied on by the Town in evaluation of the bid. Bidder misrepresentation shall be treated as fraudulent concealment from the Town of the facts relating to the bid.

TERMS AND CONDITIONS

ATTORNEY FEES. In the event a suit or action is instituted in connection with any controversy arising out of this contract, the prevailing party shall be entitled to receive, in addition to its costs, such sum as the court may adjudge reasonable as to attorney's fees and costs.

AUTHORITY OF THE TOWN. Subject to the power and authority of the Town as provided by law in this contract, the Town shall in all cases determine the quantity, quality, and acceptability of the work, materials and supplies for which payment is to be made under this contract. The Town shall decide the questions that may arise relative to the fulfillment of the contract or the obligations of the contractor hereunder.

CANCELLATION OF THE CONTRACT. Without cause, the Town may cancel this contract at any time with thirty- (30) days written notice to the supplier/contractor. With cause, the Town may cancel this contract at any time with ten- (10) days written notice to the Bidder. Cancellation for cause shall be at the discretion of the Town and shall be, but is not limited to, failure to supply the materials, or service specified within the time allowed or within the terms, conditions or provisions of this contract. The successful Bidder may not cancel this contract without prior written consent of the Town's Finance Director.

CHANGES IN WORK. The Town may, at any time work is in progress, by written order, make alterations in the terms of work as detailed herein, require the performance of extra work, decrease the quantity of work, or make such other changes as the Town may find necessary or desirable. The Contractor shall not claim forfeiture of contract by reasons of such changes by the Town. Changes in work and the amount of compensation to be paid to the Contractor for any extra work as so ordered shall be determined in accordance with the unit prices of contractor's proposal.

COMPLIANCE WITH OR DEVIATION FROM SPECIFICATIONS. Bidder hereby agrees that the material, equipment or service offered will meet all the requirements of the specifications in this solicitation unless deviations from them are clearly indicated in the Bidder's response. Bidders may submit an "approved equal" product or service in quality basis. The Town reserves the right to determine equality. Bidders must indicate brand or the make being offered and submit detailed specifications if other than the specifications requested with the submission of the bid and in accordance with applicable technical specifications.

CONTRACT INCORPORATION. This contract embodies the entire contract between the Town and the Contractor. The parties shall not be bound by or be liable for any statement, representation, promise, inducement or understanding of any kind or nature not set forth herein. No changes, amendments, or modifications of any of the terms or conditions of the contract shall be valid unless reduced to writing and signed by both parties. The complete contract shall include the entire contents of the ITB solicitation, all addenda, all of Bidder's successful submittal, supplemental agreements, change orders, performance bond(s), and any and all written agreements which alter, amend or extend the contract. Parties may add or remove items or services from the scope of work on an as needed basis and at the discretion of the Town.

FORMATION OF CONTRACT. Bidder's signed Bid and the Town's written acceptance shall constitute a binding contract.

LAWS GOVERNING CONTRACT. This contract shall be in accordance with the laws of the state of Rhode Island. The parties stipulate that this contract was entered into in the respective county of the

Town, in state of Rhode Island. The parties further stipulate that the county of the Town is the only appropriate forum for any litigation resulting from a breach hereof or any questions risen here from.

SEVERABILITY. If any provisions or portion of any provision, of this contract are held invalid, illegal or unenforceable, they shall be severed from the contract and the remaining provisions shall be valid and enforceable.

SPECIFICATIONS, CHANGES TO. The parties shall not be bound by or be liable for any statement, representation, promise, inducement or understanding of any kind or nature not set forth herein or by written amendment. No changes, amendments, or modifications of any of the terms or conditions of the specification shall be valid unless reduced to writing and signed by both parties.

SPECIFICATIONS, DEFINITION. The term "specification" or "ITB specification" as used in this solicitation shall be interpreted to mean all the pages that make up this solicitation including documents referenced herein.

COOPERATION BETWEEN CONTRACTORS. The Town reserves the rights to contract for and perform other or additional work on or near the work covered by these specifications. When separate contracts are let within the limits of any one project, each contractor shall conduct his work so as not to interfere with or hinder the progress or completion of the work being performed by other contractors. Contractors working on the same project shall cooperate with each other as directed. Each contractor involved shall assume all liability, financial or otherwise, in connection with his contract and shall protect and save harmless the Town from any and all damages or claims that may arise because of inconvenience, delays, or loss experienced by them because of the presence and operations of other contractors working within the limits of the same project.

COORDINATION WITH AGENCIES. The Contractor shall coordinate his activities with the proper regulatory agencies and have their representative on site at the proper times.

DAMAGE. The Contractor shall be held responsible for any breakage, loss of the Town's equipment or supplies through negligence of the contractor or his employee while working on the Town's premises. The Contractor shall be responsible for restoring or replacing any equipment, facilities, etc. so damaged. The Contractor shall immediately report to the Town any damages to the premises resulting from services performed under this contract. Failure or refusal to restore or replace such damaged property will be a breach of this contract.

INSURANCE REQUIREMENT. Within ten (10) consecutive calendar days of award of contract, Successful Proposer must furnish the Town with the Certificates of Insurance proving coverage as specified in "Proposer's Statement Regarding Insurance Coverage" and naming the Town, its officers and agents, Additional Insured by endorsement.

RIGHTS RESERVED. Completion of Work. If Contractor fails to comply with the conditions of the contract or fails to complete the required work or furnish the required materials within the time stipulated, the Town reserves the right to purchase in the open market, or to complete the required work, at the expense of the Contractor.

ACKNOWLEDGEMENT of Risk & Hold Harmless Agreement. In addition to the indemnity provisions in the these Terms and Conditions of Purchase and to the fullest extent permitted by law, the selected vendor, its officers, agents, servants, employees, parents, subsidiaries, partners, officers, directors,

attorneys, insurers, and/or affiliates (Releasors) agree to release, waive, discharge and covenant not to sue the Town, their officers, agents, servants or employees (Releasees) from any and all liability, claims, cross-claims, rights in law or in equity, agreements, promises demands, actions and causes of action whatsoever arising out of or related to any loss, damage, expenses (including without limitation, all legal fees, expenses, interest and penalties) or injury (including death), of any type, kind or nature whatsoever, whether based in contract, tort, warranty, or other legal, statutory, or equitable theory of recovery, which relate to or arise out of the Releasors use of or presence in and/or on Town property. The Releasors agree to defend, indemnify and hold harmless the Releasees from (a) any and all claims, loss, liability, damages or costs by any person, firm, corporation or other entity claiming by, through or under Releasors in any capacity whatsoever, including all subrogation claims and/or claims for reimbursement, including any court costs and attorney's fees, that may incur due to Releasors use of or presence in and on Town property; and (b) any and all legal actions, including third-party actions, cross-actions, and/or claims for contribution and/or indemnity with respect to any claims by any other persons, entities, parties, which relate to or arise out of Releasors use of or presence in and on Town property. The Releasors acknowledge the risks that may be involved, and hazards connected with use of or presence in and on Town property but elect to provide services under any contract with the Town with full knowledge of such risks. Releasors also acknowledge that any loss, damage, and/or injury sustained by Releasors is not covered by Releasees insurance. Releasors agree to become fully aware of any safety risks involved with the performance of services under any contract with the Town and any safety precautions that need to be followed and agree to take all such precautions. The duty to indemnify and/or hold the Town harmless shall not be limited by the insurance required under the Terms and Conditions of Purchase.

ADDITIONAL INSURANCE REQUIREMENTS. In addition to the insurance provisions noted within the Contract Documents, the liability insurance coverage, except Professional Liability, Errors and Omissions or Workers' Compensation insurance required for performance of a contract with the Town shall include the Town, its department, divisions, officers, and employees as Additional Insureds but only with respect to the selected vendor's activities under the contract. The insurance required through a policy or endorsement shall include:

Waiver of Subrogation waiving any right to recovery the insurance company may have against the Town; and Provision that the selected vendor's insurance coverage shall be primary with respect to any insurance, self-insurance or self-retention maintained by the Town and that any insurance, self-insurance or self-retention maintained by the Town shall be in excess of the selected vendor's insurance and shall not contribute.

There shall be no cancellation, material change, potential exhaustion of aggregate limits or non-renewal without thirty (30) days written notice from the selected vendor or its insurer(s) to the Town's Purchasing Agent. Any failure to comply with the reporting provision of this clause shall be grounds for immediate termination of the contract with the Town. Insurance coverage required under the contract shall be obtained from insurance companies acceptable to the Town. The selected vendor shall pay for all deductibles, self-insured retentions and/or self-insurance included hereunder. The Town's Purchasing Agents reserve the right to consider and accept alternative forms and plans of insurance or to require additional or more extensive coverage for any individual requirement.

BRAND NEUTRALITY – The Town remains brand neutral and expresses no preference for specific products and/or manufacturers. References to specific products or brands, where provided herein, are for reference only and should be interpreted to mean "or equivalent".

FAMILIARITY WITH SITE/CONTRACT DOCUMENTS - It is the responsibility of the BIDDER/CONTRACTOR to visit the Project site(s) and become familiar with all applicable existing conditions. This responsibility extends to any and all subcontractors or tradespersons employed or intended to be employed by the successful CONTRACTOR. It is furthermore the responsibility of the BIDDER/CONTRACTOR to examine the Contract Documents and become familiar with same, and to ensure that said familiarity extends to any and all subcontractors or tradespersons as referenced above. No claim for extra compensation shall be entertained for Work required be done which an examination or examinations of the Site and/or the Contract Documents would have revealed as necessary to accomplish the purpose intended or indicated within the Contract Documents.

CLEANING FINISHED WORK - After the Work is completed, each site shall be carefully cleaned free of debris, product wrappings, etc. and left in first class condition, ready to use. All waste materials shall be properly recycled off-site and the Work left broom-clean.

PROTECTION OF TRAFFIC

A. The CONTRACTOR shall inconvenience traffic as little as possible and shall provide suitable barricades, red lights, "Danger" or "Caution" signs at all places where the Work constitutes in any way a hazard to the public. All barricades and obstructions along public roads shall be illuminated at night and all lights for this purpose shall be kept burning from sunset to sunrise.

B. In addition, the CONTRACTOR shall provide and maintain such other warning signs and barricades in other areas as may be required for the safety of those employed in the Work or visiting site. Traffic control devices shall be in accordance with the latest Manual of Uniform Traffic Control Devices.

C. The CONTRACTOR shall provide watchmen at particularly dangerous locations such as railroads, heavily traveled roadways and similar locations, and where ordered by the OWNER.

D. Access to private properties over driveways shall be maintained. Temporary structures erected by the CONTRACTOR to accomplish this shall be safe. The CONTRACTOR shall be liable for any damage or injury resulting from the Work.

E. Arrangements for traffic protection and control, detours, barricades, flaggers, danger signs and warning lights shall be provided in accordance with local jurisdictional authorities' requirements.

F. Efforts shall be made to preserve two lane traffic on all roads, except in areas where it becomes necessary, then one lane of traffic will be open for traffic. At all road crossings where "open cut construction" will be allowed one lane of traffic will be preserved.

G. When it is necessary to close a street temporarily, detours shall be provided and plainly and adequately marked. Adequate barricades, lights and other warnings shall be provided and erected to protect the public from the Work. The CONTRACTOR shall provide uniformed signal men to direct traffic at major intersections and as directed by the Town.

START-UP CERTIFICATIONS AND COMMISSIONING - The CONTRACTOR is responsible for scheduling and coordinating all required certifications and commissioning tests for each Town. The

CONTRACTOR is further required to schedule and coordinate all appropriate start-up tests, training, etc. with all equipment vendors, subcontractors, etc. for all equipment.

BID FORM

Bid Number – ITB JTN-21-500
Street Light Maintenance and LED Conversion

To:
Town of _____
Address: _____

From:

Name of Proposer

Mailing Address

Town, State & Zip

THE PRICE OF EACH ITEM MUST BE WRITTEN IN WORDS AND FIGURES. IN CASE OF
DISCREPANCY, THE AMOUNT SHOWN IN WORDS WILL GOVERN.

All items shall be completely filled out in writing

Please provide the following cost items in writing:

Base Cost:

Total Cost of LED Conversion Option 1:	
Total Cost of LED Conversion Option 2:	
Total Cost of Controls Option1:	
Total Cost of Controls Option 2:	
Total Cost of Controls Option 3:	
Total Cost of Decorative Lights Option 1:	
Total Cost of Decorative Lights Option 2:	
Total Pre-Conversion Maintenance:	
Total Post-Conversion Maintenance:	
Total GIS Lighting Survey:	

Company Name of Proposer

Mailing Address (PO Box or street)

Town, State, and Zip Code

Name of Authorized Representative

Signature

Title

Type of Business (Corp, Partnership, Sole Proprietorship)

Telephone Number

Facsimile

CONTRACTOR'S PROPOSAL

The undersigned Proposer agrees that he will contract with the Town to provide all necessary labor, supervision, tools, and other means to do all the work and furnish all the materials specified in the contract in the manner and time therein prescribed, and that he will take in full payment the amount set forth hereon.

The Town will have the sole authority to enter into an Agreement under this Invitation for Bid with the Bidder of its choice based on the evaluation criteria referenced herein. The Town has the sole right to select any Bid Item or combination of Bid Items when making an award.

To Be Completed, Notarized, and Submitted with Bid

NON-COLLUSION AFFIDAVIT

Bid Number – ITB **JTN-21-500**
Street Light Maintenance and LED Conversion

State of Rhode Island Counties of Newport and Providence“.
_____, Bidder, being first duly sworn, deposes and says
that he or she is Owner of the party making the foregoing bid that the bid is not made in the interest of, or
on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that
the bid is genuine and not collusive or sham; that the Bidder has not directly or indirectly induced or
solicited any other Bidder to put in a false or sham bid, and has not directly or indirectly colluded,
conspired, connived, or agreed with any Bidder or anyone else to put in a sham bid, or that anyone shall
refrain from bidding; that the Bidder has not in any manner, directly or indirectly, sought by agreement,
communication, or conference with anyone to fix the bid price of the Bidder or any other Bidder, or to fix
any overhead, profit, or cost element of the bid price, or of that of any other Bidder, or to secure any
advantage against the public body awarding the contract of anyone interested in the proposed contract;
that all statements contained in the bid are true; and further, that the Bidder has not , directly or indirectly,
submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information
or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company
association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or
sham bid."

Date

(Signed at)

Bidder name
(Person, Firm, Corp.)

Authorized Representative

Address

Representative's Name

City, State, Zip

Representative's Title

BIDDER STATEMENT REGARDING INSURANCE COVERAGE

Bid Number – ITB JTN-21-500

Street Light Maintenance and LED Conversion

BIDDER HEREBY CERTIFIES that the Bidder has reviewed and understands the insurance coverage requirements specified in the Request for Proposal No2020-07. Should the Bidder be awarded the contract for the work, Bidder further certifies that the Bidder can meet the specified requirements for insurance and agrees to name the Town as Additional Insured for the work specified.

Insurance Required:

Workmen's Compensation and Employment Liability Insurance in compliance with statutory limits.
Comprehensive General Liability Insurance including Products Completed, Contractual, Property, and Personal Injury coverage with combined single limits of \$1,000,000 per occurrence and in the aggregate.
Professional Liability Insurance with a limit of \$1,000,000 per claim and in the aggregate. Automobile Liability Insurance including non-owned and hired automobiles with the limits listed below.

Bodily Injury	\$1,000,000 each person \$1,000,000 each occurrence
Property Damage	\$1,000,000 each occurrence

Name of Bidder (Person, Firm, or Corporation)

Signature of Bidder's Authorized Representative

Name & Title of Authorized Representative

Date of Signing

BIDDER STATEMENT OF RELEVANT EXPERIENCE

Bidders should provide a minimum of three (3) references from similar projects performed for any local government clients within the last five years. Information provided shall include:

- Client/Business name;
- Project description;
- Project dates (starting and ending);
- Client/Business project manager name and telephone number;
- Contract amount.

I hereby certify that I have performed the work listed below.

Signature of Bidder

CLIENT/ BUSINESS NAME	PROJECT DESCRIPTION	PROJECT DATES	CLIENT/BUSINESS CONTACT	CONTRACT AMOUNT

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned _____, as Principal, and _____, as Surety, are hereby held and firmly bound unto the TOWN OF JAMESTOWN, RHODE ISLAND, as OWNER in the penal sum of (\$ _____), for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this _____ day of _____, 20____.

The condition of the above obligation is such that whereas the Principal has submitted to the Town of _____, Rhode Island, a certain BID, attached hereto and hereby made a part hereof to enter into a Contract in writing, for _____.

NOW, THEREFORE,

If said BID shall be rejected, or

If said BID shall be accepted and the Principal shall execute and deliver a Contract in the Form Of Contract attached hereto (properly completed in accordance with said BID) and shall furnish a Performance Bond and a Labor and Material Payment Bond for his/her faithful performance of said Contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the Agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time with which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

_____ and _____ Principal Notary
Seal

Notary
By: _____ and
Seal

Surety

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that _____

(Name of Contractor)

of _____
(Address of Contractor)

as Principal, hereinafter called Principal, and

(Name of Surety)

(Address of Surety)

as Surety, hereinafter called Surety, are held and firmly bound unto the Town of Jamestown, Rhode Island, called the Obligee, in the full penal sum of _____ Dollars (\$ _____), in lawful money of their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT WHEREAS said Principal has entered into a certain written Contract with said Obligee, dated the _____ day of 20 for the _____

which Contract, together with all Contract Documents now made or which may hereafter be made in extension, modification or alteration thereof, are hereby referred to, incorporated in and made a part of this Bond as though herein fully set forth.

NOW, THEREFORE, if the said Principal shall well and truly keep, perform, and execute all the terms, conditions and stipulations of said Contract according to its provisions on his/her or its part to be kept and performed and shall indemnify and reimburse the Obligee for any loss that it may suffer through failure of the Principal to faithfully observe and perform each and every obligation and duty imposed upon the Principal by the said Contract, at the time and in the manner therein specified, then this obligation shall be null and void, otherwise it shall remain and be in full force and effect.

PROVIDED, HOWEVER, that any alterations which may be made in the terms of said Contract or in the Work done or to be done under it, or the giving by the Obligee of any extension of time for the performance of said Contract or any other forbearance on the part of either the Obligee or the Principal one to the other, shall not in any way release the Principal and/or the Surety, or either of them, their representatives, heirs, executors, administrators, successors or assigns from liability hereunder, notice to the Surety or Sureties of any such alteration, extension or forbearance being hereby specifically and absolutely waived.

AND PROVIDED FURTHER THAT NO ACTION, suit, or proceeding shall be had or maintained against the Surety on this instrument unless the same be brought or instituted and process served upon the Surety within three (3) years from the expiration of the guaranty period

provided in the Contract, whether the Work be completed by the Principal, or Obligee.

IN WITNESS WHEREOF, the said Principal and Surety have SIGNED AND SEALED this instrument this _____ day of _____, 20_____.

ATTEST:

Principal

(Principal) Secretary
By _____ (S)
(SEAL)

Witness as to Principal

ATTEST:

Surety

(Surety) Secretary
(SEAL)

By _____
Attorney-in-Fact

Witness as to Surety

Note: Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners should execute Bond.

IMPORTANT: Surety companies executing Bonds must appear on the U.S. Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Rhode Island.

LABOR AND MATERIAL PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, that _____

(Name of CONTRACTOR)

of _____
(Address of CONTRACTOR)

as Principal hereinafter called Principal, and

(Name of Surety)

of _____
(Address of Surety)

_____, a Corporation organized and existing under the laws of the State of _____, as Surety, hereinafter called Surety, are held and firmly bound unto the Town of Jamestown as Obligee, hereinafter called the Obligee, in the full penal sum of _____ dollars (\$ _____) in lawful money of the United States for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT WHEREAS said Principal has entered into a certain written Contract with said Obligee, dated the _____ day of _____, 20_____, which written Contract provides for the which Contract, together with all Plans and Specifications now made or which may hereafter be made in extension, modification of alteration thereof, are hereby referred to, incorporated in and made a part of this Bond as though herein fully set forth.

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the Work provided for in such Contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs or machinery, equipment and tools, consumed or used in connection with the construction of such Work, and all insurance premiums on said Work and for all labor, performed in such Work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this Bond is executed, pursuant to the provision of the General Statutes of the State of Rhode Island and the rights and liabilities hereunder shall be determined and limited by said sections to the same extent as if they were copies at length herein.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed there under or the Specifications accompanying the same shall in any wise affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the Specifications.

PROVIDED, FURTHER, that no final settlement between the Obligee and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, the said principal and surety have signed and sealed this instrument this _____ day of _____, 20____.

ATTEST:

Principal

(Principal) Secretary
By _____ (S)

(SEAL)

Witness as to Principal

ATTEST:

Surety

(Surety) Secretary

(SEAL)

By _____
Attorney-in-Fact

Witness as to Surety

NOTE: Date of Bond must not be prior to date of Contract. If CONTRACTOR is Partnership, all partners should execute bond.

IMPORTANT: Surety companies executing Bonds must appear on the U.S. Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Rhode Island.

PROPOSED SUBCONTRACTORS

THE BIDDER SHALL STATE THE NAMES OF ALL THE SUBCONTRACTORS
THAT THEY PROPOSE TO USE

Note: If more than two (2) subcontractors are proposed, provide multiple copies of this form with the various entities' information filled in below.

If none, write "None" _____

*Description of Work

Proposed Subcontractor, Name: _____

Address: _____

Description of Work

Proposed Subcontractor, Name: _____

Address: _____

*Insert description of Work and subcontractors' names as may be required.

This is to certify that all names of the above-mentioned subcontractors are submitted with full knowledge and consent of the respective parties.

The Bidder warrants that none of the proposed subcontractors have any conflict of interest in respect to this Contract.

Bidder _____
(Fill in Name)

By _____
(Signature and Title)

NOTICE OF AWARD

TOWN OF _____

TO: _____

PROJECT DESCRIPTION: Streetlight Maintenance and LED Conversion Project

The OWNER has considered the BID submitted by you dated _____ for the above referenced WORK in response to its Invitation to Bid and the Standard & Special Instructions to Bidders.

You are hereby notified that your BID has been accepted for items in the amounts shown in the Bid Schedule, for the Town of _____ portion only.

You are required by the Standard & Special Instructions to Bidders to execute the Agreement and furnish the required CONTRACTOR'S PERFORMANCE BOND, LABOR AND MATERIAL PAYMENT BOND, and Certificates Of Insurance within fifteen (15) calendar days from the date of this NOTICE to you. The bond forms contained within the Contract Documents must be used. Substitute bond forms will not be accepted.

If you fail to execute said Agreement and to furnish said BONDS and CERTIFICATES OF INSURANCE within fifteen (15) days from the date of this NOTICE, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your BID as abandoned, and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this _____ day of _____, 20_____.

TOWN OF _____, RHODE ISLAND

OWNER

BY:

TITLE:

Agenda Item # _____ Date: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged by _____
this the ____ day of _____, 20_____. (Company Name)

BY: _____

TITLE: _____

NOTICE TO PROCEED

TOWN OF _____

TO:

DATE:

PROJECT DESCRIPTION: Streetlight Maintenance and LED Conversion Project

Town of _____ Portion Only

You are hereby notified to commence WORK in accordance with the Bid Proposal dated ____/____/20____, on or before ____/____/20____ and you are to complete the WORK within one hundred twenty (120) consecutive calendar days thereafter. The date of completion of all WORK is therefore xx/xx/20xx.

TOWN OF _____, RHODE ISLAND
OWNER

BY:

TITLE:

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by _____
this the ____ day of _____, 20 _____. (Company Name)

BY: _____

TITLE: _____

PRICE PROPOSAL FORMS

Intentionally blank.

Please see attached Excel Files.

CONTRACT AGREEMENT

TOWN OF _____

THIS AGREEMENT made and executed this ____ day of _____, in the year 20____, by and between the Town of _____, a municipality located within the State of Rhode Island, by its Town Council duly constituted, and without personal liability for the individual's signatory hereto, herein termed the OWNER, party, of the first part, and _____ of _____ doing business as a corporation, hereinafter termed the CONTRACTOR, party of the second part;

WITNESSETH: That the parties to this Agreement each in consideration of the Agreements on the part of the other herein contained have agreed, and by these presents do hereby agree, the OWNER for itself, and the CONTRACTOR for themselves and their heirs, executors, administrators, successors, and assigns, as follows:

That the Contract Documents consisting of this Agreement, together with the Legal and Procedural Documents, General and Supplemental Conditions, Detailed Specification Requirements, Contract Drawings, and any Addenda issued before execution of the Agreement, for the Contract;

That the CONTRACTOR has informed themselves fully in regard to all conditions pertaining to the place where the Work is to be done and other circumstances affecting the Work;

That the CONTRACTOR has obtained all the information he needs to enable them to estimate fully and fairly the costs of the Work herein contemplated;

That the CONTRACTOR shall furnish all plant, labor, materials, suppliers, tools, equipment, and other facilities and things necessary or proper for or incidental to, the party of the first part in accordance with this Contract, commencing Work within the time interval stated in the Bid Proposal, provided he shall have been notified by the OWNER so to do, and completing everything required of them under this Contract not later than the time stated in the Bid Proposal.

That the OWNER shall pay and the CONTRACTOR shall receive, as full compensation for fulfilling everything required of the CONTRACTOR under this Contract, the unit prices and lump sums recorded in the Bid Form of the Proposal.

That the quantities shown in the Bid Proposal or Bid Form are approximate only, and are solely for the purpose of facilitating the comparison of Proposals; that the OWNER shall not be held responsible if these quantities are not even approximately correct; that for all Work upon which unit prices and lump sums are quoted, the CONTRACTOR'S compensation shall be computed upon the Work actually performed, measured by the units of measurement specified, whether greater or less than the quantities shown in the Bid Proposal or Bid Form; and that the unit prices and lump sums set against the several items cover all incidental services required of the CONTRACTOR under the Contract. That the CONTRACTOR shall give to the OWNER, as liquidated damages, for each day lost by the CONTRACTOR in the completion of the Work of the Contract after the time stipulated in the Contract Documents, the sum of Two Hundred Dollars (\$200.00) per day;

Signed, sealed and delivered in triplicate the day and year first above written.

OWNER:
Town of _____ a, Rhode Island

BY: _____
Town Administrator

CONTRACTOR*: _____

ADDRESS: _____

BY: _____

TITLE: _____

***IMPORTANT:** Execute acknowledgment of officer or agent of CONTRACTOR who signs this document.

This Contract, Bonds, and Certificates of Insurance are satisfactory to the Town of XXXXX, Rhode Island.

BY: _____
Town Solicitor

Town Council Agenda Approval Date

SCOPE OF WORK

Prepared for the Town of Jamestown

1. General Scope of Work

Please note that the Town reserves the right to make changes related to the wattages, control options, maintenance count, etc. based on requirements around how streetlights on state roads will need to be transferred to RIDOT.

The Town of Jamestown (“the Town”) is seeking Proposals from qualified contractors (“Contractor(s)” or “Vendor(s)”) to provide turnkey projects to:

- 1) provide pre-LED conversion streetlight maintenance,
- 2) convert existing municipally-owned streetlights to LED
- 3) purchase and install streetlight controls, and
- 4) provide warranty and non-warranty maintenance services following the conversion.

LED conversion project elements include developing a lighting design (including the recommendation of equipment options for the LED conversion and equipment options for controls) and installing lighting samples in the Town for review and approval (pilot program), then removing and disposing of the existing luminaires and/or ancillary fixtures, installing town-approved LED luminaires, installing in-line fuse disconnects, installing streetlight controls, labeling streetlight poles, as appropriate, retrofitting and/or replacing post top fixtures as required, installing or repairing posts and poles as required, providing an updated streetlight inventory, supplying GPS fixture location and inventory data to the Town, and applying for available rebates and incentives. Conversion also includes routine maintenance during the first year where labor and materials are fully warrantied.

Note that the Town is “brand neutral” and has not identified a particular LED fixture product or streetlight network control option as being the product of choice.

The Vendor is expected to provide information to support their selection in sufficient detail so that each Town may make informed choices accordingly. On the Bid Form, Vendors may propose two options. Vendor’s preferred option is to be expressed as Option # 1. See the Bid Form for additional information. The costs associated with hosting and maintaining controls network(s) are to be included in the Bid. For each controls option, please provide the annual base cost per unit. See price proposal form for more details. The Town retains the option to negotiate with the selected contractor(s) or other service providers for these services.

The value of any incentives or rebates from National Grid and the Rhode Island Office of Energy Resources (OER) for the LED conversion shall remain with the Town or with the awarded vendor, to be determined by the Town. As such, all pricing must reflect the full price of the project. The selected Contractor will be responsible for completing the necessary applications and supporting documentation to capture any incentives, rebates, etc., applying to National Grid and/or OER accordingly, and following-up as needed until incentives are received by the municipality.

The Bidder shall prepare an estimate of the energy and demand (kWh and KW) savings. The Bidder shall calculate energy and demand savings and incentives based on the National Grid tariff, comparing rated wattage of the existing fixture and the rated wattage of the proposed fixture, running on a dusk to dawn schedule (4175 running hours annually). Expectations for dimmed operations should not be included.

Note: Since the Town has not made final decisions about dimming schedules, this methodology will allow for simple review and a level field for evaluating bids. The Town recognizes that actual

costs and savings will be impacted by the RI S05 Tariff, controls selection, adopted dimming schedules and other factors some of which will be decided after contract award.

Maintenance services will include all services necessary to keep the streetlights in good and proper working condition including warranty work, routine repairs, emergency repairs, coordination activities and call center operations. Similar maintenance on decorative lights as well as other incidentals are also included as part of this ITB – see the Price Proposal Forms for additional information.

The Town may select the same Contractor or different Contractors, for the various Bid Items within this ITB based on the evaluation processes and in accordance with their best interests as described herein. Prospective firms must provide a complete response addressing all the requirements of this Invitation to Bid (ITB).

2. Detailed Scope of Work

All of the requirements herein (as applicable) shall apply to the following specific Scope of Work (Bid) Items. State of RI prevailing wage rates will apply to all labor activities associated with each Bid Item. Bid pricing for materials shall not include sales tax. More details are provided in section 2.01 and thereafter.

- Item 1:** Pre-LED conversion streetlight maintenance, including:
 - a. Unit per-pole pricing for routine maintenance as described herein;
 - b. Time and materials labor rates for routine maintenance and emergency maintenance as described herein;
- Item 2:** LED conversion, including all fixtures, hardware, equipment, fused disconnects, confirming inventory, basic lighting design, pilot program, ensuring proper operations of each streetlight, incidentals necessary for a complete turnkey project, call center operations, and year 1 maintenance services. Each bidder must submit two equipment options as described herein. First year warranty and routine maintenance pricing is included within this Bid Item.
- Item 3:** Streetlight Controls – purchase, installation, commissioning, and training for the control system. Each bidder must submit two (2) control system options as described herein. The Bid shall include the initial (one-time) installation costs for the streetlight control software platform and separately, shall include on-going service fees such as internet-hosting costs or data plans.
- Item 4:** Post-LED conversion streetlight maintenance (years 2-5), including:
 - a. Monthly per-pole pricing for routine, non-warranty services;
 - b. Time and materials pricing for routine, non-warranty services;
 - c. Labor and material costs for emergency services.

Note: The first-year post-conversion maintenance costs, while labor and material warranties are in effect, are to be included within the conversion bid prices.

- Item 5:** GIS Lighting Survey - Audit the Town's streetlight inventory to create a clean dataset of the existing fixtures and conditions. Create a GIS interchange data set suitable for use with various online GIS systems such as Google Maps, ARC GIS, Map Info etc.

2.01 General and Technical Requirements

All data regarding the streetlights within the Town is based on information provided by the Town. The inventory of cobra head style streetlights located on wood and steel poles was provided by National Grid for Jamestown. All inventory counts are to be considered estimates.

The basis for each bid shall be the inventories in the price proposals. The number of fixtures and associated wattages shown should be considered estimates only; the Price Proposal Forms are set up on a unit price basis, and the prices offered by each Contractor shall be used to adjust for any discrepancies that may be found between the National Grid and/or Municipal inventories and the actual conditions found in the field by the Contractor.

The Contractor(s) shall comply with applicable environmental laws and regulations regarding handling of hazardous substances and shall take appropriate measures to ensure the safe handling of such substances as Contractor(s) may encounter in the performance of the approved Contract(s).

The project will be "No Waste", i.e. all equipment will be removed and properly recycled in accordance with all applicable laws and regulations. All disposal costs shall be borne by the Contractor. The Contractor will provide copies of disposal lading documentation to the Town and will keep copies on file as required by law.

2.02 Contractor Minimum Qualifications

Prospective firms submitting proposals shall submit at least 5 references of similar projects in the area of streetlight conversion, management and maintenance services. Anyone working above the communication space on utility poles or within electric distribution enclosures shall be electrically qualified as defined by OSHA 1910.269 (hereinafter "Qualified Electrical Worker"). *Customer personnel or Qualified Electrical Workers are never allowed to enter a Company manhole, handhole, or other enclosed electrical equipment for any reason without the Company's safety supervision personnel being present on site and overseeing said work.*

By submitting a Proposal, the Contractor is certifying that all electricians who would perform work under the Agreement are Qualified Electrical Workers as described above. Contractor must abide by any and all requirements set forth in Appendix B - National Grid's Customer-Owned Streetlight Equipment Standards.

2.03 Purchase and Storage of Goods and Materials

The Contractor shall supply and install LED luminaires approved for the specific road classification and/or application. The Contractor shall also supply controls, luminaire arms (where necessary), in-line fused disconnects (see Appendices A and B), other fuses as required, daily report forms, wiring, and any other materials required to complete the work outlined herein.

The Contractor shall maintain an inventory or have readily available a supply/supplier of luminaires, network controls, or other parts that are routinely used for warranty and non-warranty repairs in order to perform these repairs in accordance with the maintenance response times defined herein. Storage of the parts inventory shall be the responsibility of the Contractor.

The Town will provide (at no cost) a central staging area where LED luminaires and other materials may be delivered, stored, picked-up and prepared for installations. Contractors may also deposit the removed luminaires and materials into contractor-provided storage bins at the staging site. Additional staging areas may be provided by the Town based on the location of individual work areas throughout the duration of the project. The Contractor shall have reasonable access to the stored goods and materials. Details about the hours of access will be finalized after the Contractor is selected. Alternatively, the Contractor may provide staging areas at his/her own expense.

2.04 Responsibilities of the Contractor during LED Conversion – Scope of Work Bid Items 2, 3, and 5

The selected Contractor(s) shall provide all labor, equipment, materials, permits and incidental work necessary to completely remove and properly dispose of the existing luminaires and replace them with new LED luminaires with streetlight controls, if said controls are approved by the Town. This work will be performed on streetlights listed in the attached streetlight inventories, which is to be verified and updated as part of the project (as noted herein). Additional streetlight and/or decorative fixtures may be added or removed after the acceptance of a final design plan only by an approved change order from the municipality, as noted in the Proposal Terms and Conditions.

Bids shall not include assumptions about lighting design. Decisions regarding appropriate light outputs and dimming criteria will be determined in coordination with the awarded Contractor.

Work will be scheduled on a block-by-block basis in geographic succession using maps provided by the Contractor that will depict the replacement schedule by area. Scheduling is subject to approval by the Town's Project Manager, or designee. The Contractor will provide maps and database listings, utilizing the streetlight inventory, of the pole locations where the Contractor will be performing LED replacements.

The Contractor shall use handheld GPS devices to verify and/or update the streetlight coordinates and maps as needed (such as Trimble or other equivalent device as approved by the Town) for the duration of the Contract. The Contractor will be responsible to create information sheets on each pole, fixture, and control with location data. This information shall be provided to the Town for processing and incorporation into their mapping database. GIS mapping will be the responsibility of the Town, unless the optional task 5 is awarded.

The Contractor shall complete project reports described herein and will meet all applicable federal, state, utility, and municipal rules, regulations, and requirements.

Pilot Program – the pilot program involves installing 8-10 sample light fixtures and control nodes (as applicable) at the site of the Town' 'choosing, at no cost. The pilot serves to confirm and approve fixture wattages which should be closely considered depending on the controls strategy that is chosen. For example, if simple photocells are to be used, the specified wattages may be too bright. The vendor is responsible to advise the Town and verify the wattages with the Town prior to ordering any product for installation. The pilot program should be representative of the exact fixtures, wattages, and controls that will be installed during LED conversion as agreed to by the Town.

LED Fixture Installation - The work involves removing an existing luminaire and photocell, repairing or adjusting a streetlight arm, and wiring as necessary, installing a new LED luminaire, wireless streetlight control as appropriate, and fuse block while repeating the process until all of the identified luminaires are replaced.

All LED luminaires will be installed according to the manufacturer's instructions. After replacing the existing luminaire with the new LED luminaires, the Contractor will test and confirm proper operation of the streetlights and controls, if included. Work also includes, but may not be limited to:

- a. Coordinate and schedule any needed power disconnections and reconnections with National Grid, such as defective wire on a pole, as appropriate.
- b. Coordinate traffic control with the Town as necessary.

- c. Identify the pole location and verify map and pole number; update database with equipment installed, date, latitude and longitude for GPS coordinates, IP addresses, and other information, as needed. Provide this data in a file format suitable to common GIS software and the Town's requirements, such as ESRI ArcMap, as well as Microsoft Excel.
 - If luminaire arm is missing or defective, make a note and report to municipal representative and skip to the next location.
 - If a luminaire is on a utility pole but not on the inventory list, report to the municipal representative and perform the conversion as approved, then make a note in the inventory.
- d. Affix appropriate Ownership Identification Label (to be provided by the Contractor) prior to installation in accordance with National Grid requirements.
- e. Prepare LED luminaire and control for installation. Scan LED luminaire bar code. Ensure that each fixture and control work as intended. If a networked system, also confirm that each control can be seen on the software at the time of installation.
- f. Perform safety check:
 - Check the secondary power lines (triplex) to determine the best approach for the luminaire and luminaire arm installation.
 - Check tree/vegetation. If tree /vegetation is obstructing the streetlight, trim branches as necessary to complete the installation; note work done in daily report form.
 - Check utility supply wire to the streetlight ensuring the drip loop is not touching any other wires or equipment. If touching other equipment, make adjustment if necessary; note work done in daily report form.
- g. Check luminaire arm for structural integrity and perform routine\minor maintenance tasks (i.e., if bolts are loose, tighten the bolts). If luminaire arm and/or wind rod is damaged or non-repairable make a note to report to appropriate municipal representative and skip to the next location.
- h. Check line voltage to the luminaire; update database if necessary.
- i. Remove and dispose of existing luminaires.
- j. Complete installations of fused disconnect devices as described below and per instructions below and in Appendices A and B.
 - Install inline fused disconnect and cover on streetlight-only pole if power is fed overhead.
 - Install inline fused disconnect and cover in underground streetlight-only pole hand hole or in junction box, following approval and under supervision of the Utility.
- k. Install LED luminaire and Controls as specified in Contract.
- l. Confirm successful operation of the luminaire and control.
- m. Note wattage of removed luminaire and LED replacement model, as well as pole number and street name for each. Prepare and store removed luminaire for recycling.
- n. Utilize a main vehicle (a properly equipped bucket truck) equipped with Type D Arrow Board for mobile operation.
- o. Comply with applicable environmental laws and regulations regarding handling of hazardous substances and take appropriate measures to ensure the safe handling of such materials as may be encountered in the performance of the Contract.
- p. Recycle all materials such as old luminaires, paint, paint brushes and other materials responsibly. Provide required lading documentation.

Contractor may propose additional work for the Town's consideration.

Electric System Separation - The Contractor will be responsible for creating a physical electrical separation between National Grid's secondary conductors and the municipal-owned street and area light conductors. This fused disconnect device is required to be installed at the time of conversion to LED on Utility-owned poles.

The separation is accomplished by installing a fused disconnect device (e.g., an in-line fuse holder capable of utilizing a midjet cartridge style fuse on every street and area light supply located as near as possible to the connection to the National Grid-owned secondary conductors). National Grid will permit the Town to install the disconnect devices on existing streetlight locations in an energized condition using Qualified Electrical Workers, which will include the disconnecting of the existing energized supply conductor source to the streetlight luminaire. The Contractor shall design his/her Work Plan such that this activity should not require a visit from National Grid to de-energize or re-energize the streetlight source at the service connection.

The purpose of the fused disconnect device, in addition to providing electrical protection, is to serve as a disconnect point for the municipally-owned streetlight. Once installed, the Town's Qualified Electrical Workers may disconnect or reconnect a customer-owned streetlight(s) using the fuse device to perform maintenance or other equipment per Narragansett Electric Co. (National Grid) Guidelines for Customer-Owned Streetlighting Installation and Maintenance replacement (Appendix A).

For underground customer circuit applications, the Contractor shall locate the disconnect device within an enclosure installed and owned by the municipality and located in close proximity to the designated service connection location within the enclosed National Grid facility. However, at a minimum for existing streetlight installations only, the disconnect device can be located within the base of the first streetlight standard closest to the circuit's service connection.

If it is found that the existing streetlight conductors are defective, corroded, or burned, or the circuits are insufficient, National Grid will allow the Qualified Electrician to install a #10 AWG wire of sufficient length, and will allow the municipality to make the permanent connections to National Grid's secondary wiring loop using the appropriate material and sized connectors, per the National Grid's Customer-Owned Streetlight Equipment Standards (Appendix B).

Traffic Controls - The Contractor shall submit a traffic control plan for approval by the municipality prior to authorization to proceed with the work. The traffic control plan shall stipulate the streets where police are required for traffic control at work zones due to traffic volume and/or safety concerns.

The Contractor shall provide and maintain such signs, barricades and warning lights as are necessary to warn and protect the public at all times if affected by work operations. Contractor shall arrange for police traffic patrols with the Police Department, in accordance with the approved traffic control plan, where required.

The cost of police details (personnel and vehicles) shall be borne by the Town, not the Contractor. However, the Contractor is responsible for all other incidental traffic control measures and devices (cones, warning signs, flaggers etc.).

The procedure for securing police detail assistance involves notifying and securing the approval of the Town, followed by the direct scheduling of such assistance by the Contractor. In the event of a scheduling change for any reason, the Contractor will be responsible for cancellation of any police detail. The cost of any cancelled work not coordinated with the police department will be the responsibility of the Contractor.

Contractor shall conduct operations as to cause the least possible obstruction and inconvenience to public traffic. Contractor shall maintain and make available to the Town a local telephone number and website where they can be contacted twenty-four (24) hours per day.

Quality of the Work- Contractor shall make all necessary repairs and replacements to remedy any and all defects, breaks, or failures of the Work occurring within the conversion period. Such repairs and replacements shall conform to the specifications under which the Contractor originally performed the work.

Payment for LED Fixture Conversion - The LED installation process will be paid according to the final approved Price Proposal form and based on actual quantities as verified in the field and/or modified by approved change order. All streetlight work is subject to approval by the respective Town's Project Manager or designee prior to payment authorization. Payments are subject to a standard 10% retainage until the end of the project. The Contractor shall provide a payment schedule for the Town's approval after award.

GIS Lighting Survey – Prior to LED conversion, collect data on existing lighting inventory and identify attributes such as GPS coordinates (latitude and longitude) of each fixture, fixture type, pole mounting configuration, wattage, pole height and type, setback, mast arm length, and ID number. Record any issues such as damage, tree obstruction or electrical hazards. Auditor's software shall be capable of generating a custom mobile application for use by the client and their electrical contractor that provides all location mapping, asset data, and the ability to record installation progress and field notes in real time.

The Contractor shall provide frequent audit reports showing an overview map listing the locations completed during data collection.

The Contractor shall reconcile the data with the Town's existing inventory and provide a GIS interchange data and GIS map for the Town's use. This may include the development of a data dictionary defining data being collected for use with the GIS interchange data set

2.05 Responsibilities of the Contractor Pre and Post LED Conversion – Scope of Work Items 1 and 4

The Contractor(s) shall provide warranty and non-warranty maintenance services for each existing light fixture (as of the date of the Contract acceptance) and each new light fixture once converted to LED and accepted by the Town.

Call Center Operations – The Contractor shall maintain a Call Center where residents and municipal staff may report outages and other issues and which enables the Contractor to meet the emergency and non-emergency response times and other requirements of this ITB.

- a. The Call Center is to be accessible twenty-four (24) hours per day, seven (7) days per week. It shall provide both internet, and phone access.
- b. The Contractor shall provide written (electronic) reports detailing the services provided, any coordination efforts with the utility provider, calls received, urgency of the call, caller information (if available), nature of the repair and any other relevant information. The frequency of these reports may vary and is at the discretion of the Town.
- c. Within the Bid, the Bidder shall describe their approach to the Call Center operations.

Routine Maintenance – As part of routine maintenance, the Contractor will be responsible for initially responding to outages and following up on City or constituent repair requests to the call center. The

Contractor shall first determine if the issue can be resolved remotely to avoid field actions if possible. If the issue falls under routine maintenance, it shall be addressed within the timeframe provided herein. With approval from the Town, the Contractor may bundle routine maintenance issues to minimize the number of times a truck needs to be rolled. The Contractor shall be responsible for the replacement of failed lamps, ballasts, or other equipment, repair of minor wiring issues, replacement of broken covers, and other failures/issues that occur under warranty or as a result of age and normal deterioration. Routine maintenance will be performed within five (5) business days of notification, weather permitting.

The selected Contractor shall maintain an inventory or have readily available a supply/supplier of streetlight network controls, photocells, lamps, ballasts and all other equipment/materials that is routinely used for these repairs in order to perform the repairs in the timeframes required.

Immediately following the completion of the repair work, the Contractor shall send an after-action report to the Town indicating what actions were taken to resolve the field issue. The Contractor will log this into the reporting system and generate a report of repair actions each billing period for review by the Town.

Emergency Repair Service - Emergency service shall be provided by the Contractor twenty-four (24) hours per day, seven (7) days per week, to make immediate or temporary repairs to municipally-owned series and multiple streetlight pole or service knock downs or damage caused by vehicle collision, acts of God, vandals, or as required because of a public safety hazard.

Emergency calls must be authorized under direction of the Town unless otherwise specified. When so authorized, the Contractor shall dispatch a qualified service technician and equipment. Response time shall be less than two (2) hours under normal circumstances.

Contractor shall conduct operations so as to cause the least possible obstruction and inconvenience to public traffic. Contractor shall maintain and make available to the Town, a local telephone number and website where they can be contacted twenty-four (24) hours per day.

Additional Repair Service - In the event a pole and/or fixture needs to be replaced and/or additional poles or lights are requested, the Contractor shall submit a quote via e-mail to the applicable municipal representative for approval. Upon approval, the Contractor shall proceed with the replacement. The successful Contractor will be expected to note and then report to the Town's representative any outages found in the process of responding to a streetlight maintenance request.

Utility Coordination - The Contractor will be required to coordinate streetlight repair and maintenance activities with the utility where required. However, the Town are interested in minimizing these costs to the extent practicable. The procedure for securing assistance from the utility involves notifying and securing the approval of the Town, followed by the direct scheduling of such assistance by the Contractor. The Contractor shall be responsible for following up with the utility on a weekly basis to determine the status of any outstanding work requests. If the utility has completed its work, and the streetlight is still not functioning, the Contractor shall return to finalize the repair. In the event of a scheduling change for any reason, the Contractor will be responsible for cancellation of any utility assistance. The Contractor will pay for any utility assistance that it fails to cancel in a timely fashion.

Reporting - The Contractor shall provide reports in spreadsheet format, (Microsoft Excel), outlining the following information: location of repair, pole number, adjacent street address, coordination activity with utility company, complaint number, date complaint received, date repair due, date of actual service, if repair has been turned over to utility and if so the work request number, and any other pertinent notes. The monthly reports shall include summary information, as requested by the Town (e.g. total number of calls, average response time).

Other Assistance – At the Town’s request, the Contractor shall make themselves available to attend Town Council and other meetings in order to report on issues concerning the street-lighting system

2.06 Other Services

The Contractor should identify any other services that it will provide as part of the contract.

2.07 Deliverables and Schedule

Deliverables shall be considered those tangible resulting work products that are to be delivered to the Town such as reports, final streetlight inventory, copies of incentive applications, warranty documentation, cut sheets and other items related to this project .

The following deliverables related to the LED conversion shall be provided on a daily, weekly, bi-weekly, monthly or other basis as needed, and shall include but not be limited to:

- a. Daily report submitted at the beginning of the next work day, by fax or e-mail as directed by the Town detailing the number of streetlights removed, number of LED streetlights installed, number of poles skipped and reason why the poles were skipped, traffic detail provided, utility coordination, and any incident or situation and additional work that happened during the work day. The reports shall identify locations by street and pole number. The reports shall also indicate the planned or proposed work for the following week.
- b. Monthly summary report detailing work completed for submission to National Grid.
- c. Pay requests will be on a monthly basis and will detail work performed per line item as specified in the Price Agreement and any negotiated work performed during that time. All payment requests shall be made utilizing AIA standard payment forms 702 and 703.
- d. Access to the inventory database, as appropriate.
- e. Final summary report that includes the final inventory (streetlight and decorative) at the conclusion of the project.

2.08 Warranty and Performance

All parts and labor shall be covered under warranty as described below.

The Contractor represents and warrants that:

- A. They will perform all Services set forth herein in a good and workmanlike manner, in conformance with the specifications and requirements of the approved Contract, and in accordance with the highest applicable professional and/or industry standards;
- B. Each of their employees, subcontractors, and others assigned to perform Services have the proper skill, training, and background to be able to perform Services in a competent, timely, and professional manner and that all Services shall be so performed; and
- C. They will, at all times during the term of an approved Contract, maintain and keep current all licenses, technical certifications, and certificates of insurance required to perform the work set forth in the Contract.

Warranty work shall have at a minimum a one-year (1-year) workmanship warranty period from the date of project completion and acceptance by the Town. The manufacturer’s warranty for the LED luminaires and controls shall be at least ten (10) years. Contractor shall submit completed original Manufacturer warranty documentation, issued to the appropriate Town, prior to acceptance of the work.

The one (1) year and ten (10) year warranty periods for all equipment will begin upon final acceptance of the entire project for the Town, not on the install date of each individual piece of equipment. Contractor shall make all necessary repairs and replacements to remedy any and all defects, breaks, or failures of the Work occurring within the workmanship warranty period. Such repairs and replacements shall conform to the specifications under which the Contractor originally performed the work. Contractor shall also repair any damage or remedy any disturbance to property or improvements if caused by the Contractor's work and if the damage or disturbances occurs within the warranty period. If Contractor performs warranty work, the warranty work also shall have a one (1) year workmanship and ten (10) year materials warranty period from the date of acceptance by the municipality. The Contractor shall notify the Town if such problems occur within the one (1) year period. The Town, or their designated representative, will provide the Contractor with written Notice of the need to perform warranty work unless it is determined that an emergency exists, that delay would cause serious additional loss or damage, or if any delay in performing the work might cause injury to any member of the public. If the Contractor, after written Notice, fails within five (5) days to comply with the municipality's request, the municipality has the right to perform the warranty work either by hiring another Contractor or by using its own forces. In that event, the Contractor and its Surety shall be liable to the municipality for the cost of the work performed and any additional damage suffered by the Town, including reasonable attorney's fees incurred by the Town for this event.

2.09 Period of Performance

CONVERSION

It is the responsibility of the contractor to ensure the proper flow of materials and scheduling of labor to meet project timelines. The LED conversion shall be completed within one hundred and eighty (180) calendar days (weekends and holidays included) from the notice to proceed with LED conversion work. The failure to complete work within the stipulated timeframe will result in the assessment of liquidated damages in the amount of five hundred dollars (\$500) for each day the work is past due unless just cause can be provided to the Town for the delay. "Just cause" is defined as acts of god such as floods, earthquakes, acts of terrorism or other natural disasters that have been clearly documented by the Contractor. Normal amounts of rain, wind, or poor weather conditions will not be considered as just cause for extending the contract duration. Please note that the liquidated damages are not penalties, but rather pre-determined damages.

The initial term of this Agreement shall begin on the Effective Date and shall expire one (1) year later unless terminated sooner as provided herein. The Bidder shall provide a schedule at the outset of the project that identifies specific milestones and the anticipated date of completion.

The Parties may agree, by mutual consent, to extend the Agreement for an additional one (1) year period. All original or duly negotiated and mutually agreed upon terms and conditions shall apply during any such extension period.

Conversion work may not begin until all National Grid and Office of Energy Resources (OER) approvals for incentives and rebates are approved and authorization to proceed is furnished.

MAINTENANCE

Pre-LED conversion maintenance shall begin as of the date of transfer of ownership of lights to the Town and shall continue uninterrupted for the term of this contract or until all of the fixtures have been converted to LED. The Town shall issue a Notice to Proceed for this work once the transfer is complete.

Post-LED conversion maintenance shall begin upon written acceptance by the Town of the LED conversion project (“Conversion Effective Date”). The initial term of this Price Agreement element (Post-LED Conversion Maintenance) shall begin on the Conversion Effective Date and shall expire three (3) years later unless terminated sooner as provided herein. This contract will be for an initial three (3) year period with two (2) additional one (1) year extensions.

The additional two (2) years may be taken individually or in multiple years with the same terms and conditions. At least sixty (60) days prior to the expiration of the initial term, or extension, the Parties shall commence discussions if they desire to extend the Price Agreement. The Contractor shall provide a written extension proposal within thirty (30) calendar days following the municipality’s request for such a proposal. However, nothing binds or requires either Party to extend this Price Agreement. The total term of this Price Agreement shall not exceed five (5) years.

2.10 Work Performed by the Town

Municipal staff shall make available sufficient hours of staff personnel as is required to meet with the Contractor and provide such information as required.

The Town has assigned the following personnel or their designees to this project. Contact information will be provided upon contract award.

- Michael Gray, Town of Jamestown

The Town, or their designee, will perform the following specific duties:

- a. Approve the lighting design, pilot program, and completed streetlight inventory.
- b. Inspection and monitoring of the project.
- c. Provide instruction and direction for additional work that the Contractor might perform.
- d. Cover the cost of police detail, in accordance with the respective Town-approved traffic control plans.
- e. Provide guidance on maintenance services.
- f. Provide lay down area.
- g. Serve as a central point of communication as issues arise during the lighting conversion process.

2.11 Place of Performance

The work will be performed on poles as depicted herein or as otherwise negotiated by the Town. The Town reserves the right to add to the Price Agreement additional sites, such as but not limited to municipal parking lots, schools, parks, and other lighting on municipal properties not listed herein. The Town reserves the right to negotiate pricing for alternative and/or additional fixture types.

2.12 Public Safety

Contractor shall comply with the following safety requirements:

- a. Work performed on all poles must follow the applicable requirements of OSHA and shall ensure all such work is performed by a Qualified Electrical Worker.
- b. Work in Utility’s manhole, hand hole, or other enclosed electrical equipment shall be performed in coordination with and under the supervision of the Utility, as per Appendices A and B.
- c. Temporary traffic control based on municipally approved traffic control plans.

Locations with limited access include the following:

Some streets may be off limits during holidays and special events (pre-planned road races, etc.). Emergency situations may result in limited or restricted access to certain streets on an as-needed basis. No additional compensation shall be allowed for limited or restricted access as defined herein. A delay of work caused by a special event sponsored by the Town shall be considered “just cause” for a delay of the LED conversion. The LED conversion schedule will be extended proportionately for any special event delays caused at the request by the Town to avoid liquidated damages.

3. Proposal and Content Organization

By submitting a response, the Contractor is accepting all contract conditions, terms, and documents that are a part of, referenced by, or attached to this ITB.

The Contractor must provide all information and follow the format outlined herein. Additional materials in other formats may not be considered. The Town may reject as non-responsive at their sole discretion any proposal or any part thereof, which is incomplete, inadequate in its response, or departs in any substantive way from the required format. Proposal responses shall be organized in the following manner:

- a. Cover Letter
- b. Table of Contents
- c. Description of Firm and Experience, including Project Team and Equipment
- d. Project Approach and Understanding - Conversion
- e. Project Approach and Understanding – Pre and Post-Conversion Maintenance
- f. Proposed LED Luminaires and Controls Manufacturer Warranties and Cut-Sheets
- g. Bid Forms and Price Proposal Forms

3.01 Cover Letter

The Cover Letter must state the name of the person(s) authorized to represent the Contractor in any negotiations, the name(s) of the person(s) authorized to sign any contract that may result, the contact person’s name, mailing or street addresses, phone and fax numbers and email addresses.

A legal representative of the successful firm authorized to bind the firm in contractual matters must sign the Cover Letter and the Proposal response.

3.02 Table of Contents

Please provide a *Table of Contents* after the Cover Letter giving a clear identification by section and page number. Such sections will be those listed below.

3.03 Description of Firm and Experience (Maximum Points – 30)

1. Provide a company profile and describe your firm’s legal structure. Include:
 - a. Company ownership. If incorporated, the state in which the company is incorporated and the date of incorporation.
 - b. Location of the company offices.
 - c. Number of employees both locally and nationally.
 - d. Location(s) from which employees will be assigned.

- e. Name, address, and telephone number of the Bidder's point of contact for a contract resulting from this ITB.
 - f. Company background/history and why Bidder is qualified to provide the services described in this ITB.
 - g. Length of time Bidder has been providing services described in this ITB. Please provide a brief description.
 - h. Resumes for key staff to be responsible for performance of any contract resulting from this ITB.
2. Describe areas of expertise and other information that would be helpful in characterizing the firm. Describe the firm's internal procedures and/or policies associated or related to work quality and cost control. Describe the resource availability, which may include the various levels of experience of the personnel to be provided and vehicles and equipment to be used, to perform the work for the duration of the project.
 3. Briefly describe other engagements by your firm that demonstrate relevant experience and that best characterize the firm's capabilities, work quality, and cost control.
 4. Describe your firm's familiarity and experience working with utility and other incentive programs. Please note that a minimum of 3 years prior experience is expected.
 5. Provide the approximate number of people and how many crews will be assigned to the LED conversion and maintenance sections of this project. Describe your firm's workforce, including the prior experience of all qualified certified journeyman linemen on staff, who are capable of performing as Qualified Electrical Workers as described in this ITB. Please include:
 - a. Names of key team members, including those of any subcontractors, who will be performing the work on this project, and:
 - b. their responsibilities on this project
 - c. current assignments and location
 - d. experience on similar or related projects
 - e. unique qualifications
 - f. percentage of their time that will be devoted to the project.

Contractors must notify and receive approval of the Town for any changes to proposed subcontractors.

6. Provide a list and descriptions of the vehicle(s) and equipment to be used including important features such as the main vehicle (bucket truck) which is equipped with Type D Arrow Board for mobile operation.

3.04 Project Approach and Understanding – LED Conversion (Maximum Points – 20)

Provide a narrative description of how the firm proposes to design a replacement plan and then replace the Town's inventory of utility and municipal-owned streetlights with LED streetlights and streetlight controls. Your firm should rely on expertise and experience with similar projects to demonstrate how it will effectively complete the proposed project within the allowable timeframe. The narrative should describe your firm's overall approach to the project including but not necessarily limited to the following elements:

1. Describe how you will work with the Town to determine appropriate wattages, lumen output, color

temperature, color rendering, and overall quantity of light. Describe your process for choosing and installing sample fixtures for visual review within the Pilot Program area in the Town.

2. Describe your strategy for using control systems to maximize incentives and limit on-going utility costs.
3. Describe storage and staging areas you will require during the project. You may include a discussion of how your firm will make personnel adjustments if project goals and standard are not being attained. Provide a short description of how traffic control will be handled on residential streets and on arterial streets.
4. Describe the type of handheld devices to be used by your crews and how you will furnish and utilize these devices in the field to verify and update the municipalities' streetlight databases as the conversion to LEDs, perhaps with network controls, is completed. Specify the type of device to be used and explain how the device will interface with and update the streetlight databases. Explain how you will format the databases as needed to work with the handheld devices and to have data available to the Town through Excel or other approved software. Explain how you propose to work with maps to track progress. Explain how you will share the database, train municipal representative(s), and report monthly progress to National Grid.
5. Provide a Proposed Project Schedule to complete the work within the required timeframe as described in this ITB. Provide the impact of multiple participating communities on the project schedule.
6. Describe your firm's safety policies and procedures as they relate to handling high-pressure sodium lamps and other hazardous items. How are employees directed to deal with broken lamps? What precautions are taken to prevent damage to lamps during luminaire removal, clean-up activities, and transport? Do the procedures specifically address handling high-pressure sodium lamps and other types, including mercury vapor lamps, in public areas or in environmentally sensitive areas? Describe your firm's environmental spill or release response procedures and training in general and specifically as they would apply to the materials to be handled for this project and the firm's equipment that will be used.
7. Describe how you propose to commission the streetlights and controls including provision of commissioning reports.
8. Describe your firm's approach to training of municipal staff on the network control software.
9. Include any other information you feel will be helpful in assessing your firm's ability to meet the LED conversion requirements of this ITB.

3.05 Project Approach and Understanding – Maintenance (Maximum Points – 20)

1. Describe in detail the services to be offered to meet the requirements of this ITB. Responses must include a clear explanation of warranty, routine, emergency, and additional maintenance definitions, scope and practices.
2. Describe Call Center operations including intake and response protocols for routine and emergency calls, reporting practices, online portal, staffing, oversight, and arrangement of operation.

3.06 Proposed LED Luminaires and Network Controls, Including Manufacturer Warranties (Maximum Points – 20)

1. **LED Luminaires**

All proposed luminaires shall be eligible for National Grid and Office of Energy Resource incentives. They shall be Design Lights Consortium qualified where possible, dimmable through the use of proposed controls, and meet the requirements described in *Specification for LED Luminaires*. Specify the preferred LED luminaires proposed to replace the HPS MV, and/or other streetlights as depicted in the streetlight inventory in your proposal. Respondents shall provide two (2) options for LED luminaires as follows:

- Option 1:** This shall be the Contractor’s preferred product for roadway luminaires. Describe the technical capabilities and features that make it your preferred option. Specify the manufacturer, model numbers, rated wattage and manufacturer’s warranties, and attach cut sheets for the proposed luminaires. Include an estimate of the energy and demand (kWh and KW) savings as described in this ITB.
- Option 2:** This may be an alternate product that meets the technical specifications herein. Describe the differences in technical capabilities and features of the product that make it worthy of consideration. Specify the manufacturer, model numbers, rated wattage and manufacturer’s warranties, and attach cut sheets for the proposed luminaires. Include an estimate of the energy and demand (kWh and KW) savings as described in this ITB.

2. Streetlight Controls

Proposed controls shall be “state of the art” in terms of technology, shall be fully functional in salt air environments and capable of operating within the variable voltage range allowed by regulation. Quoted controls should include all streetlights listed in the initial inventory, including decorative lights. Bidders are encouraged to offer up to three (3) types of controls with varying capabilities and prices, as described below:

- Option 1:** Products proposed under option one (1) shall be a simple dimming controls system with capabilities for lighting management such as scheduling, alarms/notifications, and remote control.
- Option 2:** Products proposed under option two (2) shall be a networked controls system that allows for integration of additional smart features, beyond dimming and scheduling.
- Option 3:** Standard photocell for on/off operation.

Describe the technical capabilities and features of each type of controls offered; include examples of their use in other communities, if applicable. Provide supporting documentation and opinion as to the benefits of each option.

3. Decorative / Post Top Fixtures:

Specify the LED luminaires proposed to replace or retrofit the post top streetlights in the Town inventories. Describe the technical capabilities and features of the proposed products. Specify the manufacturer, model numbers, rated wattage and manufacturer’s warranties, and attach cut sheets for the proposed luminaires. Include an estimate of the energy and demand (kWh and KW) savings as described in this ITB.

Respondents may offer up to two (2) Proposals for different types of Decorative Luminaires as detailed below:

- Option 1:** A replacement fixture for Decorative Streetlights.

Option 2: A drop in retrofit kit for Decorative Streetlights.

3.07 References (Maximum Points – 10)

Provide references that include three (3) previous municipalities or other government agencies for which similar LED conversion work was performed and (3) previous municipalities or other government agencies for which similar maintenance work was performed. Note that extensive descriptions or references to vaguely related projects are discouraged and may negatively impact the overall outcome of the evaluation. References may be called and their responses used in the evaluation process.

Information provided shall include:

- a. Client/Business name;
- b. Project description;
- c. Project dates (starting and ending);
- d. Client/Business project manager name and telephone number;
- e. Contract amount.

3.08 Price Proposals (Maximum Points – 75)

Complete the Bid Form and submit along with a separate Price Proposal as per the instructions within this ITB. Please note that all Price Proposals should be submitted in a marked envelope that is separate from the technical proposal outlined above. The envelope should be clearly marked “price proposal” and include the bidders name, address information, bid name, and bid number.

Price proposals will be evaluated after all qualification packages have been reviewed and scored. Qualifying price proposals will be calculated and rated. The scores from the qualifications and pricing evaluation will then be added to determine the final score for ranking purposes.

4. Evaluation Criteria

The evaluation of proposals will be conducted in a time frame convenient to the Town. The Town reserves the right to award on the basis of cost alone, accept or reject any or all proposals, and to otherwise act in its best interest including, but not limited to, directly negotiating with any Contractor who submits a proposal in response to this ITB and to award a contract based upon the results of those negotiations alone. Further, the Town reserves the right to waive irregularities it may deem minor in its consideration of proposals. The Town has the right to reject any or all proposals for good cause in the public interest and may waive any evaluation irregularities that have no material effect on upholding a fair and impartial evaluation selection process.

Proposals found to be technically or substantially non-responsive at any point in the evaluation process will be rejected and not considered further. Qualification proposals that are rated with a combined average score less than seventy-five (75) will not be considered for further evaluation during the price proposal evaluation phase. The Town may elect to require bidders to provide presentations and interviews for further consideration of award.

PHASE 1

The first phase is an initial review to determine if the proposal, as submitted, is complete. To be complete, a proposal must meet all the requirements of this ITB.

PHASE 2

The second phase is an in-depth analysis and review based on criteria defined under *Proposal Content and Organization*. In the event that the Town requires further information and/or a demonstration of any equipment or process offered in any proposal, all Contractors asked for same will do so at no cost.

Each proposal response will be evaluated in accordance with the following evaluation criteria:

EVALUATION CRITERIA – PROPOSAL RESPONSES	
Criteria	Maximum Score
1. COVER LETTER	N/A
2. TABLE OF CONTENTS	N/A
3. DESCRIPTION OF FIRM AND EXPERIENCE	30
4. PROJECT APPROACH & UNDERSTANDING - CONVERSION	20
5. PROJECT APPROACH & UNDERSTANDING - MAINTENANCE	20
6. PROPOSED LEDS AND CONTROLS	20
7. REFERENCES	10
Maximum Technical Proposal Total:	100

If oral interviews or presentations are determined to be necessary, this next step will consist of oral presentations and further clarification of the Contractor's response. The municipalities reserve the sole right to select the number of Contractors, as determined by the evaluation scoring, to be interviewed.

PHASE 3

Following completion of the ITB proposal evaluations, the third phase is a comparison of each proposal's evaluation score relative to the costs proposed.

The Municipalities will individually score the Price Proposals from Contractors whose ITB evaluations place them in the Competitive Range in accordance with the following evaluation criteria:

Criteria	Maximum Score
1. CONVERSION PRICES, WARRANTIES – LEDS	20
2. INSTALLATION PRICES, WARRANTIES CONTROLS	20

3. T&M AND PER POLE MAINTENANCE PRICES	15
4. ADDITIONAL MAINTENANCE SERVICE PRICES	20
Maximum Price Proposal Total	75

The Price Proposal evaluation score will be added to the Proposal Response evaluation score to determine a **TOTAL TECHNICAL AND PRICING SCORE (Maximum: 175 points)**.

APPENDICES

Please see the following pages for the appendices.

Appendix A – National Grid Guidelines for Customer Owned Streetlights

Appendix B – National Grid Customer-Owned Streetlight Equipment Standards

Appendix C – Technical Specifications



Narragansett Electric Co. Guidelines for Customer-Owned Street Lighting Installation and Maintenance

The general safety and welfare of the public and all workers are of paramount concern to Narragansett Electric Co., d/b/a National Grid (hereinafter “Company”). These concerns are particularly salient as street lights are installed within the designated electric space on a distribution pole and/or provided service from underground electric distribution enclosures. To perform work on street lights, workers must often be within established electrical clearances above the communication space and in close proximity to electric distribution lines with voltages as high as 34.5KV. Therefore, the Company requires that anyone working above the communication space on Company poles or within electric distribution enclosures are electrically qualified as defined by OSHA 1910.269 (hereinafter “Qualified Electrical Worker”). Customer personnel or Qualified Electrical Workers are never allowed to enter a Company manhole, handhole, or other enclosed electrical equipment for any reason without the Company’s safety supervision personnel being present on site.

Maintenance of Overhead Customer-Owned Street and Area Lighting Equipment

Once the street lighting purchase process and the transfer of ownership of the unmetered street lights or the attachment of customer-owned unmetered street and area lighting as available under the S-05 tariff (new requests) is complete, the customer is responsible for maintaining all customer-owned street and area lighting equipment, including but not limited to: luminaires, standards, foundations, conduits and conductors. The Company will allow the customer to perform all maintenance activities on customer-owned equipment provided they are in compliance with the following provisions:

- The customer shall ensure that only Qualified Electrical Workers perform work on the street lighting system. This assurance will be provided to the Company through the execution of the Company’s Acknowledgment for the Use of Qualified Electrical Workers document (hereinafter “Acknowledgment”) by an appropriately authorized municipal or governmental official. This Acknowledgment is currently located in the Agreement for Customer-Owned Street and Area Lighting Attachments as Appendix Form G.
- If the customer’s workers do not meet the qualifications stated above, or the Company is not in receipt of a valid Acknowledgment, the customer shall request that the Company make all connections and/or disconnections of the customer’s street lighting system to the Company’s secondary distribution conductors to facilitate certain maintenance or equipment replacement in a de-energized condition. If this occurs, the Company will assess the appropriate service charges per the Company’s Terms and Conditions for Distribution Service.¹

Maintenance of Underground Customer-Owned Street and Area Lighting Equipment

Customer personnel or Qualified Electrical Workers are never allowed to enter a Company manhole, handhole, or other enclosed electrical equipment for any reason without the Company’s safety supervision personnel being present on site.

¹ R.I.P.U.C. No. 2130.



Narragansett Electric Co. Guidelines for Customer-Owned Street Lighting Installation and Maintenance

However:

- At the sole discretion of the Company, the customer's Qualified Electrical Workers may be allowed supervised access to perform maintenance or equipment replacement functions of customer- owned equipment within enclosed Company facilities.
- When supervised access is denied, the Company shall schedule and perform the required customer work and be reimbursed for all time and expenses, including materials, in accordance with the Company's Attachment Agreement.

The Company will allow the customer to perform all routine maintenance activities on customer-owned underground fed equipment provided compliance with the following provisions:

- The customer shall ensure that only Qualified Electrical Workers work on its street and area lighting system by having an appropriately authorized municipal or governmental official execute the Acknowledgment.
- The Company will permit a customer's Qualified Electrical Worker to install the fused disconnect device through the access point at the pole base of the first street light from the source while the street and area lights are energized.
- As mentioned previously, if the customer's workers do not meet the qualifications stated above, or the Company is not in receipt of a valid Acknowledgment, the customer must request that the Company make all connections and/or disconnections of the customer's street lighting system to the Company's secondary distribution conductors to facilitate certain maintenance or equipment replacement in a de-energized condition. If this occurs, the Company will assess the appropriate service charges per the Company's Terms and Conditions for Distribution Service as referenced in the Company's Attachment Agreement.

Electric System Separation

Per the Company's Attachment Agreement, the customer is responsible for creating a physical electrical separation between the Company's secondary conductors and the customer-owned street and area light conductors. This separation is accomplished by installing a fused disconnect device (e.g., an in-line fuse holder capable of utilizing a midget cartridge style fuse on every street and area light supply located as near as possible to the connection to the Company-owned secondary conductors). The Company will permit the customer to install the disconnect devices on existing street light locations in an energized condition using Qualified Electrical Workers, which will include the disconnecting of the existing energized supply conductor source to the street light luminaire. This should not require a visit from the Company to de-energize or re-energize the street light source at the service connection.

- The fused disconnect device, in addition to providing electrical protection, shall serve as a disconnect point for the customer-owned street light. Once installed, the customer's Qualified Electrical Worker may disconnect or reconnect a customer-owned street light(s) using the fuse device to perform maintenance or other equipment

Narragansett Electric Co. Guidelines for Customer-Owned Street Lighting Installation and Maintenance

replacement. The disconnect device must be installed prior to or during any major maintenance/equipment replacement of an existing light (luminaire replacement, arm/bracket replacement, etc.) or within a period not greater than 10 years following the purchase date, and must be installed at the time of any new customer-owned lighting attachment. Further, in the event a customer plans to purchase the Company's street lights and convert to LED or other light source, this fused disconnect device is required to be installed at the time of conversion.

- For underground customer circuit applications, the customer shall locate the disconnect device within an enclosure installed and owned by the customer and located in close proximity to the designated service connection location within the enclosed Company facility. However, optimum location for the disconnect device is within an enclosure installed and owned by the customer and located in close proximity to the designated service connection location within the enclosed company facility. However, at a minimum for existing street lighting installations only, the disconnect device can be located within the base of the first street light standard closest to the circuit's service connection.
- If it is found that the existing street light conductors or circuits are insufficient, the Company will allow the customer to install a #10 AWG wire of sufficient length, and will allow the customer to make the permanent connections to the Company's secondary using the appropriately sized connectors per the Company's Customer-Owned Municipal Lighting Standards.

New or Relocation Lighting Requests - Overhead

For new customer-owned street lighting attachments or the relocation of existing street lights sourced by overhead equipment, the customer must submit the appropriate Company forms provided in the Attachment Agreements prior to a required field survey by the Company personnel or agent. The field survey is performed to ensure all NESC clearances and loading conditions of the distribution structure or pole are acceptable. If existing clearances and load capacity are sufficient, the Company shall approve the customer's installation or relocation of street lighting equipment. If existing clearances and load capacity are not sufficient to accommodate the requested attachment, the make-ready terms and provisions of the Attachment Agreement will become applicable.

Once the appropriate conditions for installing or relocating the equipment are met, the customer shall:

1. Install the equipment per the Company's Customer-Owned Lighting Standards using Qualified Electrical Workers;
2. Leave a recommended #10 AWG Black wire and a #10 AWG White wire of sufficient length for the Company to perform the final connections to the company's secondary network;
3. Provide a #4 AWG stranded copper conductor with sufficient length to connect to the pole mounting equipment grounding conductor (when available) or to the secondary system neutral.



Narragansett Electric Co. Guidelines for Customer-Owned Street Lighting Installation and Maintenance

4. Install the physical disconnect device to be installed and ready prior to making the final connection to the secondary conductors on new or relocated lights.

For new customer-owned street lighting attachments or the relocation of existing street lights sourced by overhead equipment, the Company personnel shall perform the final service connections. The Company will assess the applicable Lighting Service Charge per the Company's Terms and Conditions for Distribution Service and referenced in the Company's Attachment Agreements.

New or Relocation Lighting Requests - Underground

For new customer-owned street lighting attachments or the relocation of existing street lights sourced by underground equipment, the customer must submit the appropriate Company forms provided in the Attachment Agreements prior to the Company personnel performing the required field survey to locate and provide an applicable electrical service point. Following the customer's installation of the equipment per the Company's Customer-Owned Lighting Standards, which recommends #10 AWG Black and White wire of adequate length and a required #4 AWG stranded copper conductor to be installed to the specified ground assembly provided by the customer, the Company would perform the supply connections at the service point.

For new customer-owned street lighting attachments or the relocation of existing street lights sourced by underground equipment, Company personnel shall perform the final service connections. The Company will assess the applicable Lighting Service Charge per the Company's Terms and Conditions for Distribution Service as referenced in the Company's Attachment Agreements.

Lighting Removal Requests

In the event a customer determines a light is no longer needed, the customer may remove the lighting equipment from the pole or other Company facility. The customer will be responsible for disconnecting the existing source and neutral conductors to the light and making the circuit electrically and physically safe. Given that the appropriate notification and timeframes are provided to the Company by the customer per the Attachment Agreement, and upon notification of the customer's removal of all street lighting equipment, the Company will visit the location and remove the remaining connections from the secondary network. At that point, electric service billing for that location will be terminated following the billing of the applicable Lighting Service Charge per the Company's Terms and Conditions for Distribution Service for removal of the connection per each service connection location.

Contact Us

In the event that a Qualified Electrical Worker performing work on behalf of the customer is presented with a situation that may require the Company's assistance, please do not hesitate to contact a Company representative before performing or continuing the work. Be advised, however, that the Company shall perform work requests in accordance with the applicable provisions of the Company's Terms and Conditions for Distribution Service.

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This document contains information that is provided for reference purposes only, and should not be construed or used as a substitute for an analysis of the applicable tariffs, agreements, and safety regulations specific to each particular customer.

CUSTOMER OWNED OUTDOOR LIGHTING – TABLE OF CONTENTS			
nationalgrid	OUTDOOR LIGHTING CONSTRUCTION STANDARD	PAGE NUMBER	ISSUE
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1. **SAFETY:**

The number 1 priority of every job is:

SAFETY!

National Grid's distribution poles carry electric lines that operate at voltages as high as 34,500 volts and can carry very high amperages.

National Grid's underground infrastructure carries the same very high distribution voltages and amperages in a confined space, and may also carry sub-transmission or transmission lines that operate at even higher voltage levels.

Outdoor lights are installed within the electric space on a distribution pole. Performing work on outdoor lights may require the worker to be in close proximity to the distribution lines.

It is the responsibility of the customer that owns and maintains outdoor lighting to insure that all personnel working on the outdoor lighting system are qualified to work in the designated electric supply space on a distribution pole in accordance with OSHA 1910.269.

OVERHEAD DISTRIBUTION

No customer, customer's employees, or contractors are ever allowed to perform any work on National Grid 120/240 volt or 120/208 volt secondary conductors.

UNDERGROUND DISTRIBUTION

No customer, customer's employees, or contractors are ever allowed to enter a National Grid manhole or handhole for any reason without National Grid safety supervision personnel being present on site.

IF UNSURE: - **STOP** – Call National Grid for assistance.

No outdoor lighting repair is too important to sacrifice personal safety.

OUTDOOR LIGHTING - SAFETY			
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2. **GENERAL:** These Standards identify requirements to enable a customer to safely install, remove, and maintain a customer owned outdoor lighting system which is installed on National Grid distribution poles and connected to National Grid overhead or underground secondary conductors.

Standards: All customer owned outdoor lighting shall be in compliance with the applicable provisions of the National Electric Safety Code, (NESC) latest edition, and the applicable National Grid Construction Standards.

Note: (As of July 1, 2014, the latest edition of the NESC is the 2012 edition)

Customer Owned Equipment: The customer shall be responsible to own, operate, and maintain all outdoor lighting equipment beyond the service tap connections to National Grid. This shall include, but not be limited, to the following:

1. Supplying all material and labor.
2. Transferring an overhead supplied outdoor light attachment to a new pole in the event of a pole replacement.
3. Relocating an overhead supplied outdoor light attachment to accommodate other construction activities on the pole.
4. Performing any work required on the outdoor lighting underground conduit system, conductors, foundation, pole, arm and luminaire.
5. Emergency 24 hour response to remove or make safe the outdoor light attachment in the event of a broken pole.

***NOTE:** In an emergency, National Grid personnel may perform, at customer expense, any customer outdoor lighting work National Grid deems necessary to maintain public or employee safety.*

Electrical Separation: The customer is responsible to create an electrical separation between the National Grid secondary conductors and the customer owned outdoor lighting conductors. This is required to insure the safety of National Grid and customer employees. It also clearly defines where National Grid ownership ends and customer ownership begins. This is accomplished by installing a dual pole in-line fuse holder with a midjet cartridge style fuse on every outdoor light supply located as near as possible to the connection to the National Grid owned secondary conductors. This fuse, in addition to providing electrical protection, shall serve as a future disconnect point for the customer owned outdoor light. Once installed, the customer may disconnect or reconnect a customer owned outdoor light only by means of the in-line fuse holder. See Figure 6 for overhead supplied outdoor lights, and Figures 7, 8, 9, or 10 for underground supplied outdoor lights. See Figure 12 for in-line fused disconnect details.

Ownership Identification: The customer is responsible to label all customer owned outdoor lighting luminaires in accordance with National Grid Construction Standards. See Figures 1 and 2.

Worker Qualifications: All customer work shall be completed only by personnel qualified to work in the electric supply space on a distribution pole (herein referred to as "Qualified Worker") in accordance with OSHA 1910.269. An executed copy of the OSHA 1910-269 ACKNOWLEDGEMENT FOR THE USE OF QUALIFIED ELECTRICAL WORKERS form is mandatory.

Final Connections to National Grid 120/240 VAC or 120/208 VAC Secondary Conductors: For OVERHEAD supplied lighting, National Grid will permit a Qualified Worker to make all connections and disconnections of customer owned outdoor light supply conductors to the company owned secondary and grounding conductors. For UNDERGROUND supplied lighting, National Grid will permit a Qualified Worker to make all connections and disconnections of customer owned outdoor light supply conductors to the company owned secondary and grounding conductors provided that National Grid personnel are present to provide safety supervision and access to the underground facilities.

CUSTOMER OWNED OUTDOOR LIGHTING - GENERAL			
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3. **CONSTRUCTION DRAWINGS:**

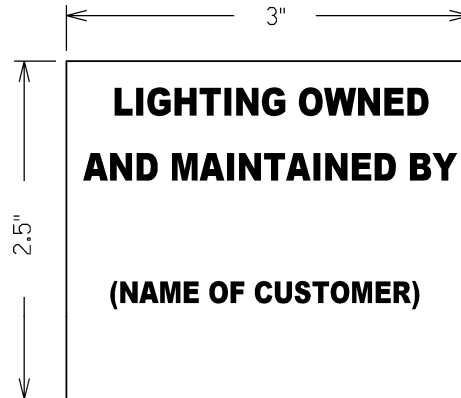


Figure 1 – Ownership Identification Label for Customer Owned Outdoor Luminaires

1. All customer owned outdoor light luminaires shall be identified with a label to clearly define ownership and maintenance responsibilities.
2. Ownership identification labels shall be reflective white with black lettering. See Figure 1.

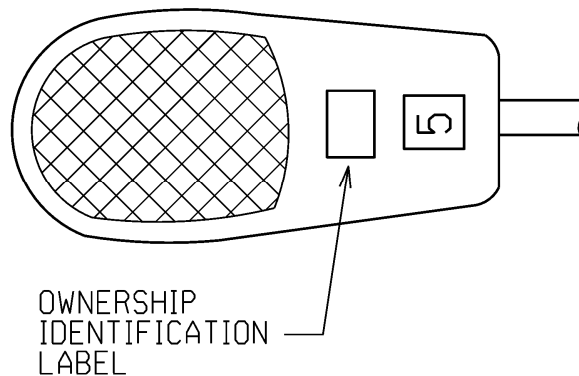


Figure 2 – Installation of Ownership Identification Label

1. Ownership identification label shall be installed on the lower door of a horizontal roadway luminaire such that it is clearly visible from the ground. See Figure 2.
2. For post top, floodlight, and other luminaires, the ownership identification label shall be installed on the luminaire housing in a location such that it is clearly visible from the ground.

OWNERSHIP IDENTIFICATION OF CUSTOMER OWNED LIGHTING			
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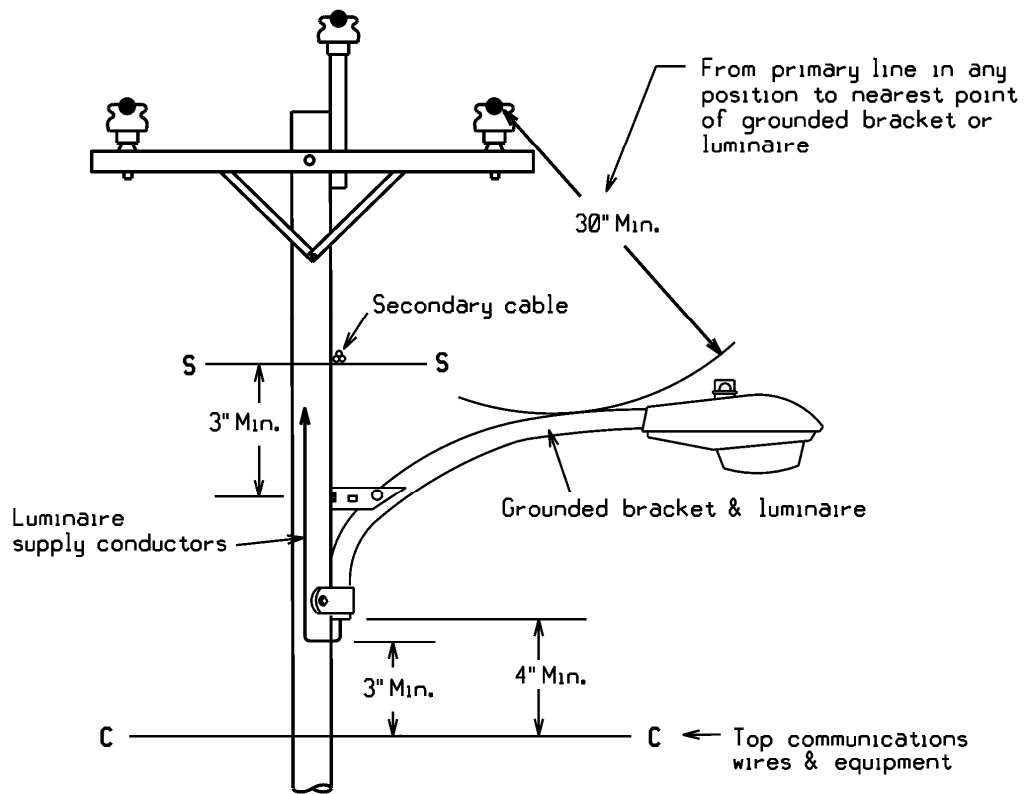


Figure 3 – Outdoor Light Clearance from Overhead Conductors

1. Primary Conductors – Maintain minimum 30-inch clearance from any primary conductor or cable to nearest point of grounded luminaire or bracket.
2. Secondary Conductors – Maintain minimum 3-inch vertical clearance from secondary wires or cable to nearest point of grounded luminaire bracket. (NESC Table 239-1)

3. Communications Cables – Maintain minimum 4-inch vertical clearance from closest communication cable to nearest point of grounded luminaire bracket. (NESC Table 238-2)

Maintain minimum 3-inch clearance from closest communications cable to nearest point of luminaire supply conductors drip loop. Luminaire supply conductors must be covered with non-metallic flexible conduit. (NESC 238D)

4. Location on Pole – Always install the outdoor light **BELOW** the secondary conductors. This applies to new installations and any time an existing outdoor light is relocated or transferred to a new pole.

CLEARANCES FROM OVERHEAD CONDUCTORS			
nationalgrid	CUSTOMER OWNED OUTDOOR LIGHTING STANDARD	STANDARD NUMBER	ISSUE
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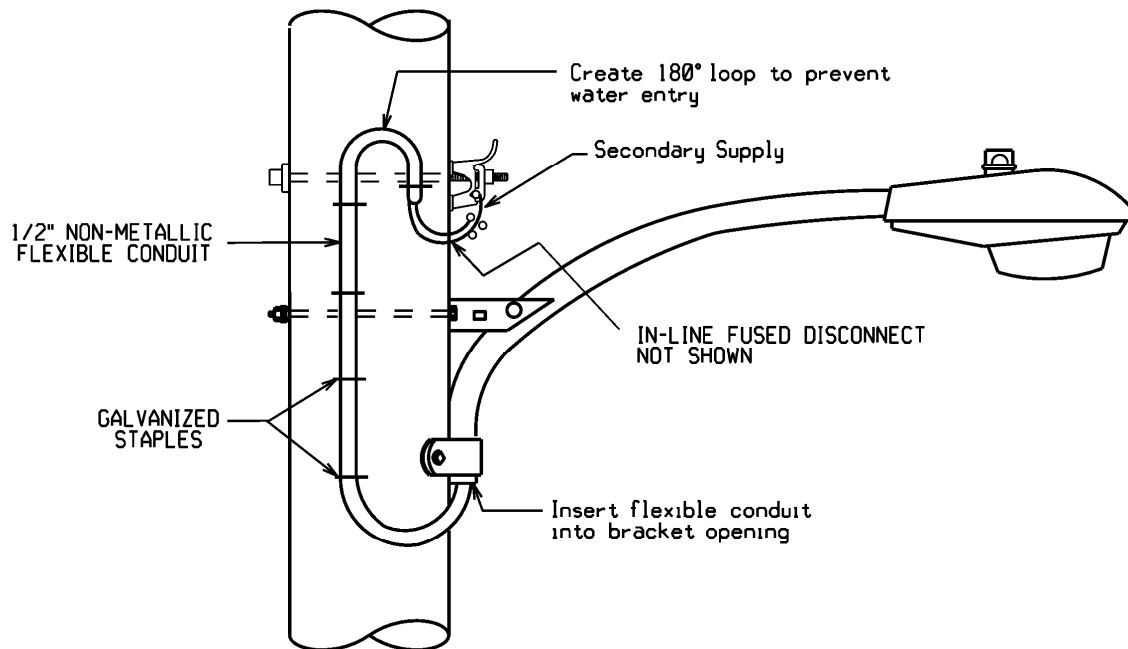


Figure 4 - Mechanical Protection for Overhead Supplied Outdoor Light Fixture Conductors

1. NESC Table 239G1 requires that all luminaire supply conductors (#10 AWG) shall have mechanical protection (1/2" non-metallic flexible conduit) installed from the point where they leave the pole end of the bracket to the connection to the secondary supply in order to take advantage of the clearance dimensions shown on page 5.
2. Insert the non-metallic flexible conduit into the bracket opening and extend up the pole to the secondary supply.
3. Create a 180 degree loop at the secondary supply to prevent rain water from entering and becoming trapped inside the flexible conduit.
4. Secure the non-metallic flexible conduit with galvanized staples spaced 12-inches apart or closer as necessary.

MECHANICAL PROTECTION FOR OVERHEAD OUTDOOR LIGHTING FIXTURE CONDUCTORS			
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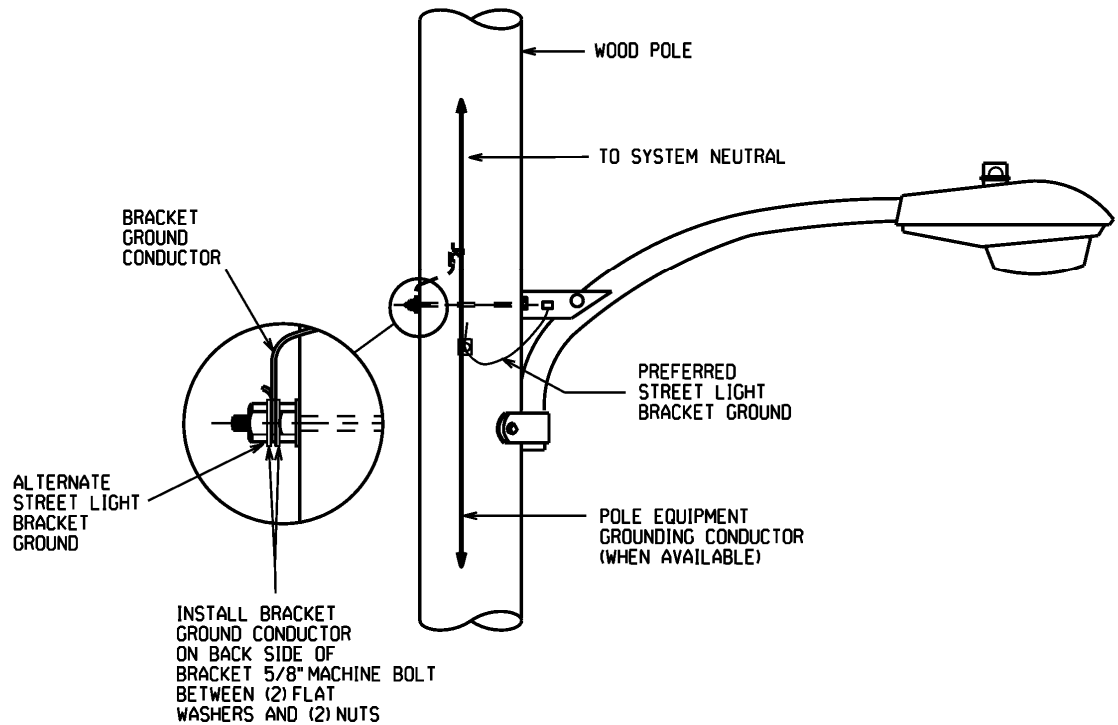


Figure 5 – Grounding of Overhead Supplied Outdoor Light

1. Every outdoor light bracket shall be grounded. Install a #4 AWG stranded copper conductor with enough length to connect to the pole equipment grounding conductor (when available) or to the secondary system neutral. Final connections to National Grid conductors may be made by a Qualified Worker.
2. Many brackets have a bracket grounding bolt located near the wood pole end of the bracket. If none exists, install a bracket grounding bolt on the bracket or connect grounding conductor to the back side of the 5/8" square head machine bolt which secures the bracket to the pole.

GROUNDING OF OVERHEAD SUPPLIED OUTDOOR LIGHTING			
nationalgrid	CUSTOMER OWNED OUTDOOR LIGHTING STANDARD	STANDARD NUMBER	ISSUE
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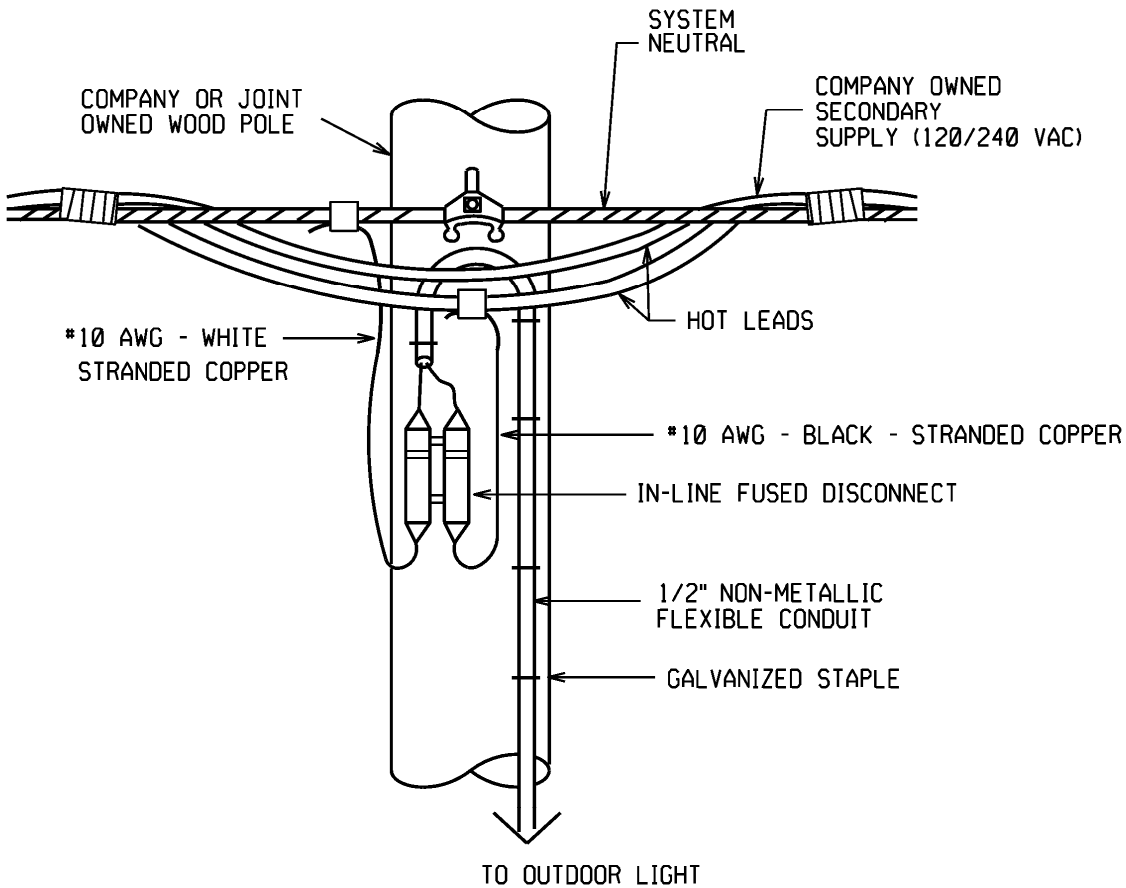


Figure 6 – Connection of Overhead Supplied Customer Owned Outdoor Light to National Grid Overhead Secondary Conductors

1. Every customer outdoor light shall have an in-line fused disconnect as described in “Electrical Separation” on page 3. See page 14 for details on the in-line fused disconnect.
2. Secure the in-line fused disconnect to the pole using a spring loaded conduit clip or galvanized staple.
3. Provide sufficient slack in the luminaire wiring to facilitate fuse replacement.
4. Outdoor lighting fixture wiring shall be #10 AWG 7-strand copper BLACK-WHITE with RHH/RHW/USE-2 insulation.

CONNECTION OF CUSTOMER OWNED LIGHTING TO NATIONAL GRID OVERHEAD SECONDARY CONDUCTORS			
ISSUE	STANDARD NUMBER	CUSTOMER OWNED OUTDOOR LIGHTING STANDARD	nationalgrid
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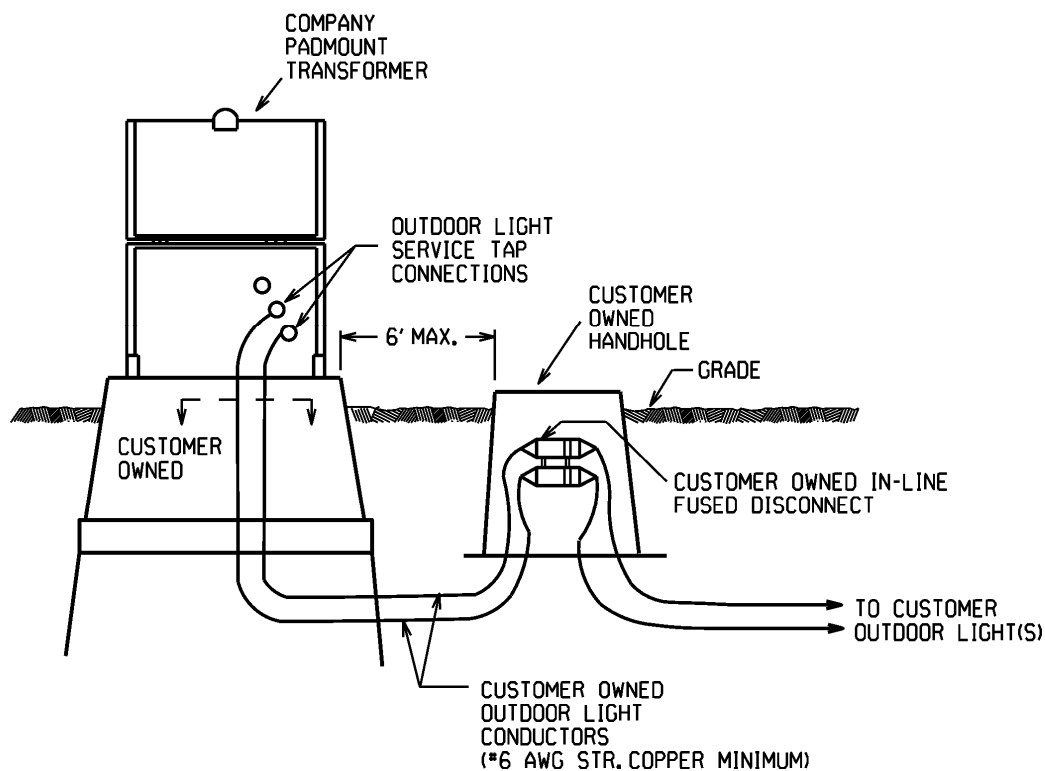


Figure 8 – Connection of Underground Supplied Street Light to National Grid Padmount Transformer

1. Install customer owned handhole as shown in Figure 8. Customer owned handhole shall house the in-line fused disconnect. See page 14 for details on the in-line fused disconnect.
2. Underground supply conductors shall be #6 AWG 7-strand copper (minimum) with RHH/RHW/USE-2 insulation. Conductors shall be color coded BLACK = Hot lead, WHITE = Neutral.
3. In cases where a new customer conduit is to be installed into a National Grid padmount transformer, National Grid shall determine the conduit entrance location at the padmount transformer foundation. The customer shall install the conduit to just outside this location. National Grid shall then create the opening in the padmount foundation and extend the customer conduit into the padmount foundation.
4. All electrical connections or disconnections to the secondary supply may be performed by a Qualified Worker, however, in every case, National Grid personnel shall be present to provide safety supervision and to unlock and relock the padmount transformer.

CONNECTION OF CUSTOMER OWNED LIGHTING TO NATIONAL GRID PADMOUNT TRANSFORMER			
ISSUE	STANDARD NUMBER	CUSTOMER OWNED OUTDOOR LIGHTING STANDARD	nationalgrid
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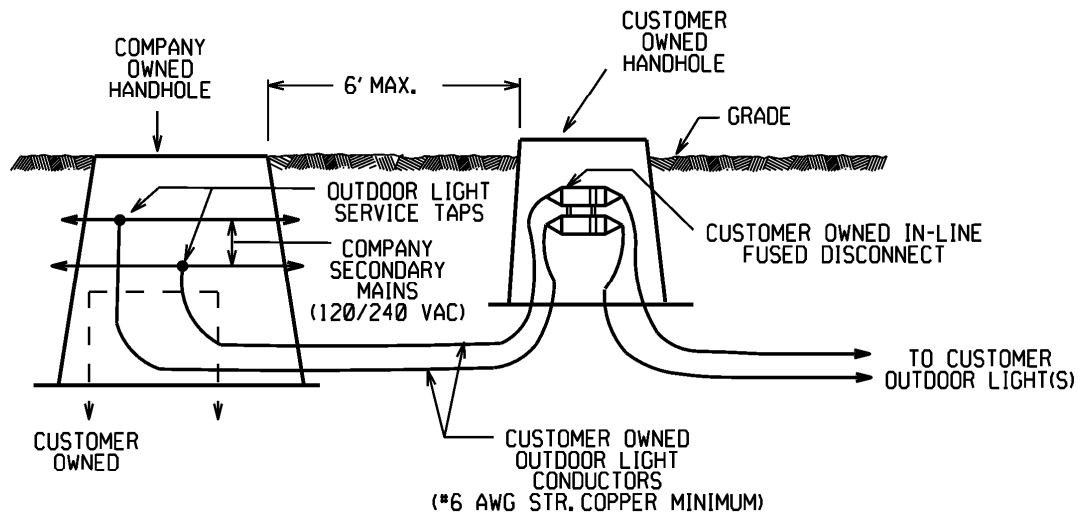


Figure 9 – Connection of Underground Supplied Customer Owned Outdoor Lighting to National Grid Handhole or Manhole – Standard Connection

1. Install customer owned handhole as shown in Figure 9. Customer owned handhole shall house the in-line fused disconnect. See page 14 for details on the in-line fused disconnect.
2. Underground supply conductors shall be #6 AWG 7-strand copper (minimum) with RHH/RHW/USE-2 insulation. Conductors shall be color coded BLACK = Hot lead, WHITE = Neutral.
3. In cases where a new customer conduit is to be installed into a National Grid manhole or handhole, National Grid shall determine the conduit entrance location in the manhole/handhole, The customer shall install the conduit to just outside this location. National Grid shall then create the opening in the manhole/handhole wall and extend the customer conduit into the manhole/handhole.
4. All electrical connections or disconnections to the secondary supply may be performed by a Qualified Worker, however, in every case National Grid personnel shall be present to provide safety supervision.

CONNECTION OF CUSTOMER OWNED LIGHTING TO NATIONAL GRID MANHOLE OR HANDHOLE – STANDARD CONNECTION			
nationalgrid	CUSTOMER OWNED OUTDOOR LIGHTING STANDARD	STANDARD NUMBER	ISSUE
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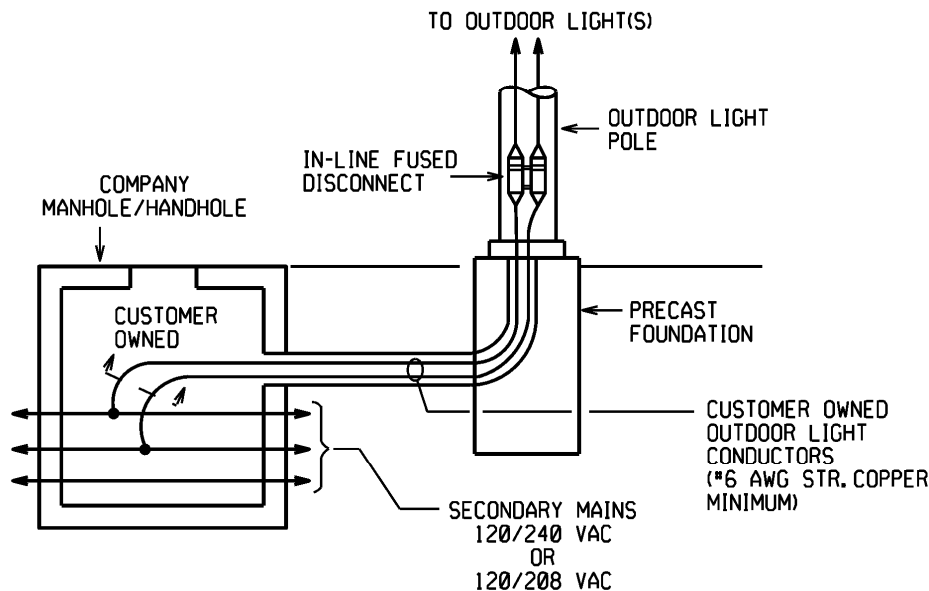


Figure 10 – Connection of Underground Supplied Customer Owned Outdoor Light to National Grid Handhole or Manhole – Non-Standard Connection

1. For all new installations and modifications to existing installations, the customer is required to install an in-ground handhole located as close as possible to the company provided electrical source point, as illustrated in Figures 7, 8, and 9.
2. In the rare case where the customer owned concrete outdoor lighting foundation is immediately adjacent to the National Grid manhole/handhole, installation of an in-ground customer owned handhole may be impossible. In this case, the in-line fused disconnect may be installed inside the pole access handhole. **This is allowed only in cases where no physical space exists to install the in-ground customer owned handhole.** Note that the #6 AWG underground supply conductors between the manhole and the base of the outdoor light are customer owned.
3. Underground supply conductors shall be #6 AWG 7-strand copper (minimum) with RHH/RHW/USE-2 insulation. Conductors shall be color coded BLACK = Hot lead, WHITE = Neutral.
4. In cases where a new customer conduit is to be installed into a National Grid manhole or handhole, National Grid shall determine the conduit entrance location in the manhole/handhole, The customer shall install the conduit to just outside this location. National Grid shall then create the opening in the manhole/handhole wall and extend the customer conduit into the manhole/handhole.
5. All electrical connections or disconnections to the secondary supply may be performed by a Qualified Worker, however, in every case National Grid personnel shall be present to provide safety supervision.

CONNECTION OF CUSTOMER OWNED LIGHTING TO NATIONAL GRID MANHOLE OR HANDHOLE – NON-STANDARD CONNECTION			
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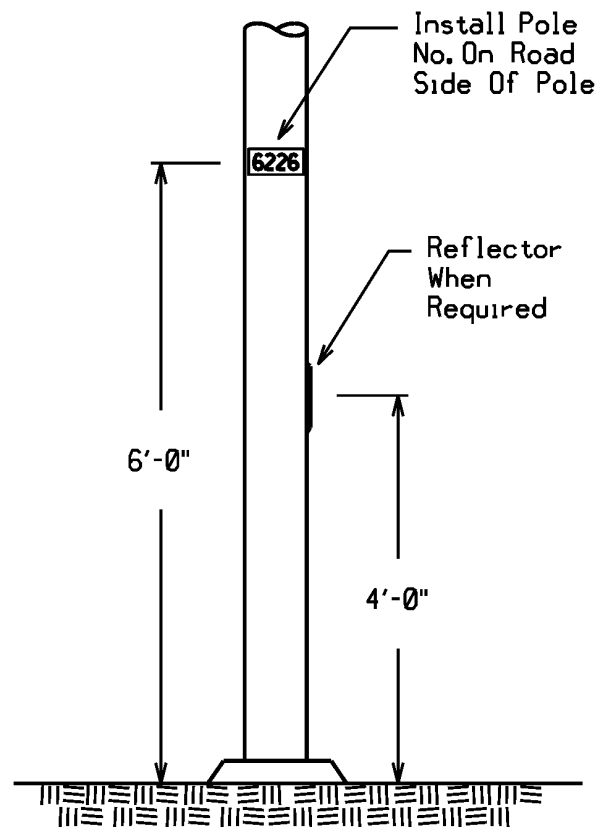


Figure 11 – Pole Numbering - Underground Supplied Customer Owned Lighting

1. Every underground supplied customer lighting pole shall be numbered in accordance with Figure 11.
2. Always use 1-3/4-inch x 3-inch, high intensity white reflective pole number decals.
3. Pole number decals shall be installed horizontal to each other as shown in Figure 11 – not vertical.

POLE NUMBERING – UNDERGROUND SUPPLIED LIGHTING			
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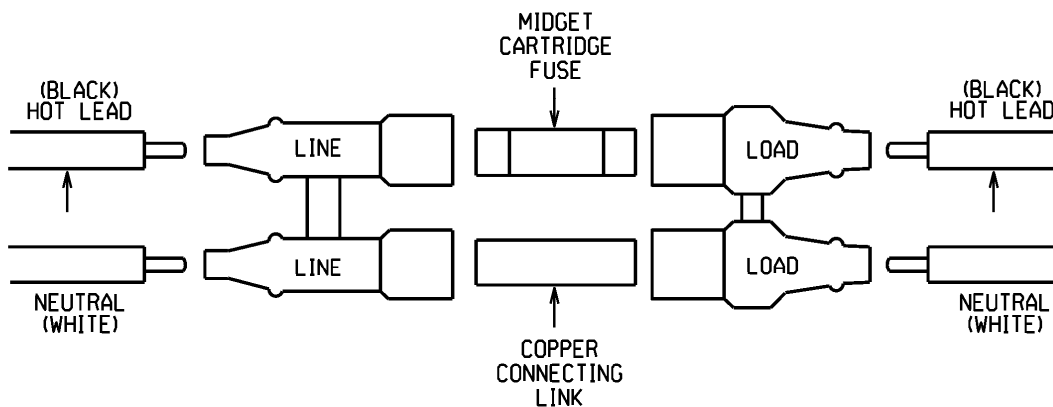


Figure 12 – In-Line Fused Disconnect Details

1. All customer owned outdoor lighting equipment shall be fused using a dual pole, watertight, in-line fuse holder and cartridge style fuse. This fuse, in addition to providing electrical protection, shall serve as a disconnection point for the customer owned outdoor lighting equipment.
2. Fuse Holder
 The fuse holder shall be a watertight device suitable for use in an outdoor environment.

 The fuse holder shall be totally insulated, thus having no exposed energized parts.

 The fuse holder shall accept #14 AWG - #6 AWG stranded copper conductors on both ends.

 The fuse holder shall be a dual pole device allowing simultaneous disconnection of both the 120 VAC hot lead (black wire) and the neutral conductor (white wire).

 The fuse holder shall be designed such that, when separated, the midget cartridge fuse and copper connecting link shall be held captive in the load end of the fuse holder.

 The fuse holder shall be polarized to prevent accidental reversal of the live leg and neutral connections.
3. Cartridge Fuse
 The fuse shall be a non-glass type, midget style cartridge fuse. Fuse dimensions shall be 13/32" diameter x 1½" length.
4. Neutral Connection
 The neutral conductor shall not be fused. Install a 13/32" diameter x 1½" length copper connecting link in place of a cartridge fuse.
5. Always provide sufficient slack in wiring to facilitate fuse replacement.

IN-LINE FUSED DISCONNECT DETAILS			
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Appendix C

SPECIFICATIONS FOR LED LUMINAIRES

1.0 INTRODUCTION

This specification provides the necessary information to allow for selection of LED luminaires which meet the key parameters of this project. Requirements were developed to meet the objectives of this project and allow for a common basis of design against which all proposals can be evaluated for suitability. Incomplete submittals or failure to meet any of the stated criteria may result in rejection of a proposal. Submittal entries will be evaluated based on best overall value rather than lowest price.

2.0 RELATED DOCUMENTS

Contract Drawings and Conditions of Contract (including General Conditions, Addendum to the General Conditions, Special Conditions, Technical Specifications Sections and all other Contract Documents) apply to the work of this section.

3.0 DEFINITIONS

- 3.1 Lighting terminology used herein is defined in IES RP-16. See referenced documents for additional definitions.
- 3.2 Exception: The term “driver” is used herein to broadly cover both drivers and power supplies, where applicable.
- 3.3 Clarification: The term “LED light source(s)” is used herein per IES LM-80 and TM-21 to broadly cover LED package(s), module(s), and array(s).

4.0 PRODUCT REQUIREMENTS

- 4.1 Tabulated summary of key parameters and product criteria.

Existing Luminaires			New Luminaire Requirements							
Luminaire Type	Lamp Wattage	Source	Minimum Initial Lumens	Maximum Wattage	Distribution Type	Input Voltage	Maximum Weight	Maximum EPA	Mounting	Driver
Flood	250W	HPS	13,500	140	6x6	120-227	120-277	3.1ft ²	Yoke	Dimmable
Flood	400W	HPS	18,500	220	6x6	120-227	120-278	3.1ft ²	Yoke	Dimmable
Flood	1000W	MV	18,500	220	6x6	120-227	120-279	3.1ft ²	Yoke	Dimmable
Flood	400W	MV	13,500	140	6x6	120-227	120-281	3.1ft ²	Yoke	Dimmable
Flood	300W	MH	13,500	140	6x6	120-227	120-282	3.1ft ²	Yoke	Dimmable
Flood	400W	MH	13,500	140	6x6	120-227	120-283	3.1ft ³	Yoke	Dimmable
Post	100W	HPS	6800	50	Type 5	120-227	120-284	0.3 ft ²	Tenon (3x3 standard)	Dimmable
Post	50W	HPS	3900	30	Type 2	120-227	120-290	0.3 ft ²	arm (2" normal)	Dimmable
Roadway	100W	HPS	6800	50	Type 2	120-227	120-286	0.3 ft ²	arm (2" normal)	Dimmable
Roadway	100W	MV	6800	50	Type 2	120-227	120-294	0.3 ft ²	arm (2" normal)	Dimmable
Roadway	105W	INC	3900	30	Type 2	120-227	120-292	0.3 ft ²	arm (2" normal)	Dimmable
Roadway	205W	INC	6800	50	Type 2	120-227	120-293	0.3 ft ³	arm (2" normal)	Dimmable
Roadway	250W	HPS	15,500	140	Type 2	120-227	120-288	0.5ft ²	arm (2" normal)	Dimmable
Roadway	250W	MV	15,500	140	Type 2	120-227	120-296	0.5ft ²	arm (2" normal)	Dimmable
Roadway	400W	HPS	25,000	220	Type 2	120-227	120-289	0.75ft ²	arm (2" normal)	Dimmable
Roadway	400W	MV	25,000	220	Type 2	120-227	120-297	0.5ft ²	arm (2" normal)	Dimmable
Roadway	50W	HPS	3900	30	Type 2	120-227	120-290	0.3 ft ²	arm (2" normal)	Dimmable
Roadway	70W	HPS	3900	30	Type 2	120-227	120-291	0.3 ft ²	arm (2" normal)	Dimmable

***Please note that all final wattages should be approved by the towns through the pilot program and prior to installation, depending on individual towns' control strategies.**

Existing Luminaires			New Luminaire Lighting Requirements (Maintained Levels)				
			Roadway			Sidewalk	
Luminaire Type	Lamp Wattage	Source	Average at Pavement	Ave:Min Uniformity	Max Veiling Luminance Ratio	Average at Pavement	Ave:Min Uniformity
Roadway	100W	HPS	0.7fc	6	0.4	0.2fc	4
Roadway	100W	MV	0.7fc	6	0.4	0.2fc	4
Roadway	105W	INC	0.7fc	6	0.4	0.2fc	4
Roadway	150W	HPS	0.7fc	6	0.4	0.2fc	4
Roadway	175W	MV	0.7fc	6	0.4	0.2fc	4
Roadway	205W	INC	0.7fc	6	0.4	0.2fc	4
Roadway	250W	HPS	1.3fc	4	0.4	0.5fc	4
Roadway	250W	MV	1.3fc	4	0.4	0.5fc	4
Roadway	400W	HPS	1.8fc	4	0.4	0.6fc	4
Roadway	400W	MV	1.8fc	4	0.4	0.6fc	4
Roadway	50W	HPS	0.4fc	6	0.4	0.2fc	4
Roadway	70W	HPS	0.4fc	6	0.4	0.2fc	4
Roadway	70W	MV	0.4fc	6	0.4	0.2fc	4

4.2 General requirements

- 4.2.1 Luminaires shall satisfy the key criteria summarized in section 4.1.
- 4.2.2 Luminaires shall be listed on the DesignLights Consortium Qualified Products List and qualify for National Grid and OER incentives.
- 4.2.3 Transmissive optical components shall be applied in accordance with OEM design guidelines to ensure suitability for the environment (e.g., electromagnetic, thermal, mechanical, chemical).
- 4.2.4 Luminaire shall be designed for ease of component replacement and end-of-life disassembly.
- 4.2.5 LED light source(s) and driver(s) shall be RoHS compliant.
- 4.2.6 Luminaire shall accept the voltage or voltage range specified at 60 Hz and shall operate normally for input voltage fluctuations of plus or minus 10 percent.
- 4.2.7 All internal components shall be assembled and pre-wired using modular electrical connections.
- 4.2.8 The following shall be in accordance with ANSI C136.37.
 - 4.2.8.1 Wiring and grounding
 - 4.2.8.2 Terminal blocks for incoming AC supply wiring (electrical)
 - 4.2.8.3 Photocontrol receptacle
 - 4.2.8.4 Latching and hinging
 - 4.2.8.5 Mounting provisions
 - 4.2.8.6 Ingress protection: minimum rating of IP66 for Optical assembly, and IP65 for Electrical components compartment.

4.3 Painted or finished luminaire surfaces exposed to the environment

- 4.3.1 Shall exceed a scribe creepage rating of 8 (per ASTM D1654) after 3000 hours of exposure testing to salt fog per ASTM B117.
- 4.3.2 Coastal finish option shall exceed a scribe creepage rating of 8 (per ASTM D1654) after 5000 hours of exposure testing to salt fog per ASTM B117.
- 4.3.3 The coating shall exhibit no greater than 30% reduction of gloss per ASTM D523, after 500 hours of QUV testing at ASTM G154 Cycle 6.
- 4.3.4 Fixtures shall be available in a black finish.

4.4 Vibration

- 4.4.1 Luminaires shall meet requirements for Level 2 (bridge/overpass) per ANSI C136.31

4.5 Thermal management

- 4.5.1 Luminaire shall start and operate in ambient temperature range from -40C to 40C.
- 4.5.2 Maximum rated case temperature of driver and other internal components shall not be exceeded when luminaire is operated in ambient temperature range specified.
- 4.5.3 Mechanical design of protruding external surfaces (heat sink fins) shall facilitate hose-down cleaning and discourage debris accumulation.
- 4.5.4 Non-passive means of cooling are not allowed. This includes the use of liquids or other mechanical cooling systems.

4.6 Photocontrol receptacle, and photocontrol

4.6.1 Receptacle

4.6.1.1 Luminaires to be supplied with a 7-pin ANSI C136.41 compliant receptacle with the dimming leads from the driver connected to the receptacle pads and specified in ANSI C136.41. Drivers shall all be 0-10 volt dimming capable.

4.6.2 Photocontrol

4.6.2.1 Shall be rated for minimum 20 years, with 10-Year Warranty.

4.6.2.2 Shall have LED inrush protection on the 7-pin node. Please specify type.

4.6.2.3 Shall have extreme surge protection of 1280J/40kA utility or 2120J/40kA UL listed.

4.6.2.4 Shall have double thick enclosure and lens with additional UV inhibitor.

4.6.2.5 Shall be UL listed to U.S. and Canadian safety standards.

4.6.2.6 Shall be 120V to 480VAC, 60Hz.

4.6.2.7 Shall have load rating of 1000 watts, 1800 VA ballast.

4.6.2.8 Shall have average power consumption: <0.5 watts @ 120V.

4.7 Electrical immunity

4.7.1 Luminaire shall be listed for wet locations by a U.S. Occupational Safety Health Administration (OSHA) Nationally Recognized Testing Laboratory (NRTL).

4.7.2 Manufacturer shall indicate on submittal form whether failure of the electrical immunity system can possibly result in disconnect of power to luminaire.

4.7.3 Enhanced surge protection devices (SPD) are required. SPDs shall be rated to protect the luminaire up to 20kV\10kA combination wave surges in accordance with ANSI C136.2 (Most Current) and UL 1449 recognized.

4.7.4 Failure mode of surge protection is to leave the luminaire off.

4.8 Interference and power quality

4.8.1 Luminaire shall comply with FCC 47 CFR part 15 interference criteria for Class A (non-residential) digital devices.

4.8.2 Luminaire shall comply with section 5.2.5 (luminaires rated for outdoor use) of ANSI C82.77 at full input power and across specified voltage range.

4.9 Color attributes

4.9.1 Color Rendering Index (CRI) shall be no less than 70 with the option of 80 or higher.

4.9.2 Nominal Correlated Color Temperature (CCT) options shall be available in 2700K, 3000K and 4000K +/- 8%.

4.10 Identification

4.10.1 Luminaire shall have an external label per ANSI C136.15.

4.10.2 Luminaire shall have an internal label per ANSI C136.22.

5.0 PRODUCT REQUIREMENTS by product category

5.1 Roadway Luminaires

5.1.1 Optical Features

- 5.1.1.1 Borosilicate or tempered glass optical enclosure is preferred.
- 5.1.1.2 Any plastic materials used in the optical assembly that affect the light output and distribution shall be appropriately heat and UV resistant. Plastic materials shall have been evaluated and exhibit a Yellowness Index (YI) over the useful life of the product of no more than 30%. YI reference ASTM E313 (ASTM D1925). A list of relevant plastic materials used, and the plastic material manufacturer's "YI" data report shall be provided with the bid documents.

5.1.2 Electrical Features

- 5.1.2.1 Expected life of LED light engines of >100,000 hours at 25C.
- 5.1.2.2 LED's lumen depreciation equal to or greater than L85 at 100,000 hours.
- 5.1.2.3 Expected life of the electronic driver of 100,000 hours at 25C ambient.
- 5.1.2.4 Driver shall be easily accessible.
- 5.1.2.5 Surge protection device shall be connected in series with the luminaire load and shall disconnect power at the end of life. Device shall allow no more than 10% of pass-through to surge energy under either differential or common mode surge.

5.1.3 Mechanical Features

- 5.1.3.1 Luminaires with rugged die-cast aluminum housing are preferred. Polycarbonate door is acceptable.
- 5.1.3.2 Mast arm mount is adjustable for arms from 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter with 2-bolt clamping mechanism.
- 5.1.3.3 Tool-less entry to electrical compartment with 3 station terminal block and quick disconnects.
- 5.1.3.4 Bubble level located inside the electrical compartment for levelling of luminaire during installation.

5.2 Floodlights

5.2.1 Optical Features

- 5.2.1.1 Shielding options available to control light trespass and uplight where required.
- 5.2.1.2 Segmented internal reflectors designed to produce beam pattern as specified in the tables in section 5.1.

5.2.2 Electrical Features

- 5.2.2.1 Expected life of LED light engines of >100,000 hours at 25C.
- 5.2.2.2 LED's lumen depreciation equal to or greater than L80 at 100,000 hours.
- 5.2.2.3 Expected life of the electronic driver of 100,000 hours at a 25C ambient.
- 5.2.2.4 Surge protection device shall be connected in series with the luminaire load and shall disconnect power at the end of life. Device shall allow no more than 10% of pass-through to surge energy under either differential or common mode surge.

5.2.3 Mechanical Features

- 5.2.3.1 Low copper content die cast aluminum A360 allow castings. Die-cast aluminum housing with integral heat sink fins is preferred.

5.2.3.2 Tool free access to electrical compartment with stainless steel latches.

5.2.3.3 Knuckle adjustable to fit 2-3/8" to 2-7/8" tenon.

6.0 QUALITY ASSURANCE

- 6.1 Before approval and purchase, Owner may request luminaire sample(s) identical to product configuration(s) submitted for inspection. Owner may request IES LM-79 test reports of luminaire sample(s) to verify performance is within manufacturer-reported tolerances.
- 6.2 Electrically test fully assembled luminaires before shipment from factory.
- 6.3 After installation, Owner may perform IES LM-50 field measurements to verify performance requirements, giving consideration to manufacturing tolerances and measurement uncertainties as outlined in IES LM-61 and NEMA LSD 63.

7.0 WARRANTY

- 7.1 Warranty shall be for a minimum period of ten (10) years and shall cover maintained integrity and functionality of the following:
 - 7.1.1 Luminaire housing, wiring, and connections
 - 7.1.2 LED light source(s)
 - 7.1.2.1 Negligible light output from more than 15 percent of the LED packages constitutes luminaire failure.
 - 7.1.3 LED driver(s) and associated surge protection device.
- 7.2 Warranty period shall begin with the date of project completion as per RFP, or as negotiated by owner such as in the case of an auditable asset management system. Note that warranty on labor shall be for a minimum of one (1) year as per RFP.

8.0 MANUFACTURER SERVICES

- 8.1 Manufacturer shall provide on-site installation and troubleshooting support in addition to via telephone and/or email.

9.0 ELIGIBLE MANUFACTURERS

- 9.1 While the products indicated above are preferred, any manufacturer offering products that comply with the required product performance and operation criteria may be considered. If you chose to submit alternate products, please clearly indicate in your bid response
- 9.2 All roadway luminaires supplied must be from the same manufacturer. All floodlights supplied must be from the same manufacturer that may be different from the roadway light manufacturer.

10.0 REQUIRED SUBMITTALS

- 10.1 Product cutsheets
 - 10.1.1 Luminaire cutsheets
 - 10.1.2 Cutsheets for LED light source(s)
 - 10.1.3 Cutsheets for LED driver(s)
 - 10.1.4 Provide diagrams illustrating light output and input power as a function of control signal.

- 10.1.5 Cutsheets for surge protection device
- 10.2 Instructions for installation and maintenance
- 10.3 IES LM-79 luminaire photometric report(s) from an accredited test laboratory.
- 10.4 Lumen maintenance calculations and supporting test data
 - 10.4.1 Shall be in accordance with LED Lighting Facts guidance.
 - 10.4.1.1 Exception: calculations shall be based on 100,000 hours of operation and average ambient temperature of 25C
- 10.5 Summary of reliability testing performed for LED driver(s)
- 10.6 Written product warranty as per section 7.0 above.
- 10.7 Safety certification and file number indicating compliance with UL 1598
 - 10.7.1 Applicable testing bodies are determined by the US Occupational Safety Health Administration (OSHA) as Nationally Recognized Testing Laboratories (NRTL) and include: CSA (Canadian Standards Association), ETL (Edison Testing Laboratory), and UL (Underwriters Laboratory).
- 10.8 Documentation from the luminaire and controls manufacturer(s) confirming interoperability of their products and identifying the manufacturer responsible for resolving any interoperability issues.
- 10.9 Documentation from the controls manufacturer(s) regarding any cybersecurity certifications the system has, including but not limited to UL 2900, IEC 62443, NIST Cybersecurity Framework, or other certifications to test the cybersecurity of system.