

**TOWN OF RIDGEFIELD
Office of the Town Engineer**

RIDGEFIELD, CONNECTICUT

***Energy Conservation & Building
Maintenance***

***Ornamental Street Light LED Retrofit
Main Street***

February, 2013

DETAILED SPECIFICATIONS:
BIDDING REQUIREMENTS
PROJECT DESCRIPTION



**RUDY MARCONI
FIRST SELECTMAN**

**CHARLES R. FISHER, P.E., L.S.
TOWN ENGINEER**

LEGAL NOTICE

INVITATION to BID

The **Town of Ridgefield** invites all interested parties to submit sealed bids on the following :

Bid DUE DATE: March 8, 2013

Bid DUE TIME: 11:00 AM

Bid ITEM: Ornamental Streetlight LED Retrofit, Main Street

Bid NUMBER: 2013- 26

Terms and conditions as well as the description of items being bid are stated in the specifications.
Specifications may be obtained at the following address:

**Town Of Ridgefield
Jerry Gay
400 Main Street
Ridgefield, CT. 06877
203 - 431 – 2720**

Or downloaded from www.ridgefieldct.org in Purchasing section under Departments

The return bid envelope must be marked and addressed to the following:

**TOWN OF RIDGEFIELD
DIRECTOR OF PURCHASING
BID NUMBER: 2013 - 26
400 MAIN STREET
RIDGEFIELD, CT. 06877**

Proposals must be received no later than the date and time stated above at the Purchasing Director's office on the second floor. **For further information,** please call **Jerry Gay at (203) 431-2720 or E-Mail at purchasing@ridgefieldct.org**

Bid Documents available at www.ridgefieldct.org in Purchasing section under Departments

Results may be viewed at www.ridgefieldct.org in the Purchasing Section under Departments

TOWN OF RIDGEFIELD CONNECTICUT

BOARD OF SELECTMEN

INSTRUCTIONS TO BIDDERS

1. Submit proposals in a sealed envelope plainly marked with bid number to identify this particular proposal.
2. Withdrawals of or amendments to bids received later than the time and date specified for bid opening will not be considered.
3. The Board of Selectmen of the Town of Ridgefield reserves the right to accept or reject any or all options, bids or proposals; to waive any technicality in any bid or part thereof, and to accept any bid deemed to be in the best interest of the Town of Ridgefield, Connecticut.
4. Bidders may be present at the opening of bids.
5. Bids may be held by the Town of Ridgefield for a period not to exceed sixty (60) days from the opening of bids for the purpose of reviewing the bids and investigating the qualifications of bidders prior to the awarding of the contract.
6. Insurance requirements, if any, must be submitted with the bid. This includes any Hold Harmless requirements as well as Certificates of Insurance for the full amounts specified. **Unauthorized changes** to these forms, i.e. adding, striking out and/or changing any words, language or limits **will cause the bidder to be disqualified.**

Please Note: Certificates of Insurance, if required, MUST name the Town of Ridgefield as **Additional Insured**. Failure to do so will mean disqualification from the Bid. There will no exceptions.

7. **Permits:** It is the Contractor's responsibility to obtain any necessary permits prior to the start of construction. All work shall be completed in compliance with the latest edition of the prevailing fire prevention and building codes in effect in the State of Connecticut, the latest edition of the State of Connecticut Department of Transportation standard Specifications for Roads, Bridges and Incidental Construction, Town of

Ridgefield Road Construction Standards, or as set forth in these specifications.

8. **Emergency Work:** The Contractor shall file with the Engineer a telephone number of a person authorized by him who may be contacted regarding emergency work at the job site that may be required during non-working hours for reasons of public safety. The person shall be readily available and have full authority to deal with any emergency that may occur.
9. **Sales Tax:** In accordance with the provisions of Special Act No. 77-98, as amended, and Section 12-412(a) of the Connecticut General Statutes, sales of tangible personal property and services to the Town are not subject to the Connecticut Sales and Use Tax, and such tax shall not be included as part of the bid.
10. **Contractor's Qualification Statement:** The Contractor's Qualification Statement must be filled out as part of the bid package and the experience and references listed therein will be one to the determining factors in the awarding of the bid.
11. **Hold Harmless Agreement:** In order for the bid to be considered valid, the Contractor **must** sign the enclosed hold harmless agreement. Bids submitted without the signed hold harmless agreement will be rejected.
12. **Prevailing Wage Rates:** This project **IS NOT** subject to the State of Connecticut's prevailing wage rates.
13. **Time of Completion:** All work must be completed within sixty (60) days of the notice to proceed.
14. **Bonds:** Bid, performance, and payment bonds are not required as part of this project.
15. **Bid Submissions:** The following items shall be submitted for a bid to be considered complete:
 - a. Executed proposal sheets, P-1 to P-3
 - b. Executed Hold Harmless Agreement
 - c. Certificates of Insurance in conformance to item 6 above
 - d. Contractor's List of Subcontractor's (if none, state none)
 - e. Contractor's Qualification Statement
 - f. Copy of the Contractor's current State of Connecticut E-1 license.
16. Questions regarding bid procedures should be directed to Jerry Gay, Purchasing Director at 203-431-2720.

**Town of Ridgefield
Office of the Town Engineer
Energy Conservation & Building Maintenance**

Ornamental Streetlight LED Retrofit, Main Street

Information for Bidders and General Contract Provisions

1. PREPARATION OF PROPOSALS

Proposals must be made upon forms contained herein or as directed elsewhere. The blank spaces in the Proposal must be filled in correctly where indicated. The Bidder must state the prices for which he proposes to do each item of the work contemplated. In case of discrepancy where both words and the numerals are requested, the words shall govern. Ditto marks are not considered writing or printing and shall not be used. The Bidder shall sign his Proposal correctly. If the Proposal is made by an individual, his name, post office addresses and telephone number must be shown. If made by a firm, partnership, or corporation, the Proposal must be signed by an official of the firm, partnership, or corporation authorized to sign contracts, and must show the post office address and telephone number of the firm, partnership, or corporation. Failure to do so may disqualify the bid.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the Bidder, post office address, bid number, and name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed to: The Purchasing Agent, Town Hall, 400 Main Street, Ridgefield, CT 06877.

All information shall be entered in ink or by typewriter. Mistakes may be crossed out and corrections inserted before submission of your bid. The person signing the bid shall initial corrections in ink.

Corrections and/or modifications received after the closing time specified will not be accepted.

2. SUBMISSION OF PROPOSALS

Descriptive literature containing complete specifications must accompany each bid. If a bidder wishes to furnish additional information, more sheets may be added.

3. INCURRING COSTS

The Town of Ridgefield is not liable for any cost incurred for the preparation of proposals or submission of samples by the firms submitting proposals for the work requested in this bid document or request for proposals.

4. FAMILIARITY WITH THE WORK

Each bidder is considered to have examined the work to fully acquaint him with the exact existing conditions relating to the work and has fully informed himself as to the work involved and the difficulties and restrictions attending the performance of this bid. The submission of a bid will be considered as conclusive evidence that the bidder has made such examination.

5. CONSIDERATION OF PRIOR SERVICE

Previous performance, quality of service and merchandise will be considered.

6. ADDENDA AND INTERPRETATIONS & ALTERNATE PROPOSALS

At the time of the opening of bids each bidder will be presumed to have inspected the work and to have read and to be thoroughly familiar with all of the Contract Documents (including all addenda). The failure or omission of any bidder to receive or examine any form, instruction or document shall in no way relieve any bidder from any obligation in respect to his bid.

If any person contemplating submitting a proposal is in doubt as to the true meaning of any part of these specifications, he may submit a written request for an interpretation to the Purchasing Agent. No interpretations as to the meaning of the plans, specifications or other Contract Documents will be made to any bidder orally. Every request for such interpretation should be in writing addressed to the Town of Ridgefield, Purchasing Agent, 400 Main Street, Ridgefield, Connecticut 06877, and to be given consideration, must be received at least five (5) days prior to the date fixed for the opening of Bids. Any and all such interpretations and any supplementary instructions will be in the form of written Addenda to the Specifications which, if issued, will be mailed by Registered Mail with Return Receipt Requested to all prospective bidders at the respective addresses furnished for such purposes, not later than three (3) days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such Addendum or interpretations shall not relieve any bidder from any obligations under his bid as submitted. All Addenda so issued shall become part of the Contract Documents. Oral explanations will not be binding on the Town.

The specifications listed are to be interpreted as meaning the minimum acceptable by the Town of Ridgefield. Bidders are requested to submit quotations on the basis of these specifications. Alternative bids providing a broader scope and/or services than requested in these specifications may receive consideration providing such equipment and/or service is clearly explained. Any exceptions to the specifications requested herein must be clearly noted in writing and are to be included as a part of your bid proposal. If none are included it will be assumed that there are none.

Definition of the word "complete" means that each unit of the equipment proposed shall include all appurtenances, fasteners, parts, accessories, and services ordinarily

catalogued.

An item equal to that named or described in the specifications may be furnished by the Bidder, except where expressly noted as “no substitutions.” The naming of any commercial name, trademark, or other identification shall not be construed to exclude any item of any manufacturer not mentioned by name, nor limit competition, but shall establish a standard of equality only. An item shall be considered equal to the item so named or described if:

- a. It is at least equal in quality, durability, appearance, strength and design.
- b. It will perform at least equally the function imposed by the design for the work being contracted for or the material being purchased.
- c. It conforms substantially, even with deviations, to the detailed requirements for the item in the specifications.

The Bidder shall hold the Town of Ridgefield, its officers, agents, servants, and employees, harmless from liability of any nature or kind because of use of any copyrighted or uncopyrighted compositions, secret process, patented or unpatented inventions, articles or appliances furnished or used under this bid, and agrees to defend, at his own expense, any and all actions brought against the Town of Ridgefield or himself because of the unauthorized use of such articles.

7. QUOTATION LIMITATION

Bidders shall offer only **ONE ITEM AND PRICE** for each line item bid. If an or-equal item is to be bid, the bidder is to select the brand and model that meets or exceeds the specified item, and submit his bid for that item.

8. ESTIMATE OF WORK

For bidding purposes, the work has been subdivided into unit price items. The quantities shown are to be considered as approximate only. The Purchasing Agent does not expressly or by implication agree that the actual quantity will correspond therewith, but reserves the right to increase or decrease the amount of any item or portion of the work as deemed necessary.

9. SAMPLES

Samples of articles, when required shall be furnished free of cost of any sort to the Town of Ridgefield. Samples received may be retained by the Town for future comparison. Samples which are not destroyed by testing, or which are not retained for future comparison will be returned upon request at the bidder's expense.

10. WITHDRAWAL OF BID

Bidders may withdraw their proposals at any time prior to the bid date. No agent/broker

shall withdraw or cancel their proposal for a period of sixty (60) days after the bid closing date. The successful agent/broker shall not withdraw, cancel or modify their proposal.

11. POWER OF ATTORNEY

Attorneys-in-fact who sign contract bonds must file, with each bond, a certified and effectively dated copy of their power of attorney.

12. SUBCONTRACTORS

Each bidder contemplating the use of any subcontractor shall submit a list of subcontractors as listed on the Bid Form. The apparent low bidder shall file with the Town of Ridgefield, within five (5) days after the date of bid opening, a complete list of the names and addresses of competent, responsible and qualified subcontractors who are actually to perform major portions of the work. This in no way restricts or limits the requirement that all subcontractors must be approved by the Town. Subcontractors listed on the Bid Form or those previously approved may not be changed without the approval of the Town of Ridgefield. Local subcontractors, material suppliers, and labor in the Town of Ridgefield should be considered and sought insofar, as is practical in the performance of this project.

13. QUALIFICATION OF BIDDER

In determining the qualifications of a bidder, the Town may consider his record in the performance of any contracts for similar work into which he may have previously entered; and the Town expressly reserves the right to reject the bid of such bidder if such record discloses that such bidder, in the opinion of the Town, has not properly performed such contracts or has habitually, and without just cause, neglected the payment of bills or has otherwise disregarded his obligations to subcontractors, suppliers, state or local codes, men or employees of subcontractors. The Town may make such investigation as he deems necessary to determine the ability of the bidder to perform the work and the bidder shall furnish to the Town all such information and data for this purpose as the Town may request. The Town reserves the right to reject any bid if the evidence submitted by or the investigation of such bidder fails to satisfy the Town that such bidder is properly qualified, or that such bidder misrepresented material facts in the bid documents.

14. DISQUALIFICATION OF BIDDERS

More than one proposal from an individual, firm, partnership, corporation, or an association under the same or different names will not be considered. Reasonable grounds for believing that any Bidder is interested in more than one proposal for the work contemplated will cause the rejection of all proposals in which such Bidder is interested. Any or all proposals in which such Bidder is interested will be rejected if there is reason for believing that collusion exists among the Bidders and all participants in such collusion will not be considered in future proposals for the same work. Proposals in which the prices are obviously unbalanced may be rejected. No Contract will be awarded

except to competent Bidders capable of performing the class of work contemplated.

15. DELIVERY

Inasmuch as this work concerns a needed public improvement, the provisions of this bid relating to the time of delivery, performance and completion of the work are of the essence of this bid. Accordingly, the successful bidder shall commence work **upon receipt of the signed Purchase Order** unless the Town shall authorize or direct a further delay. Time of delivery shall be stated as the number of calendar days following receipt of the Purchase Order by the Bidder to receipt of the goods or services by the Town of Ridgefield. Prices quoted must include delivery to the Town of Ridgefield as specified on the Purchase Order. No charges will be allowed for parking, crating, freight, express or cartage unless specifically stated and included in this bid.

Time of delivery may be considered in the award.

16. PAYMENT

The Town, after inspection and acceptance of workmanship, and in consideration of the faithful performance by the Bidder of all and singular his covenants, promises, and agreements contained herein, agrees to pay the Bidder for the full completion by him of the work embraced in this Contract, within (30) Thirty Days of the receipt of the final invoice. When subcontractors or suppliers are utilized, the successful Bidder for this project shall be required to submit a Mechanics Lien Waiver, acceptable to the Town, with each progress payment and/or at time of final payment prior to any payment being made.

Time, in connection with any discount offered, will be computed from the date of delivery to the Town or from the date a correct invoice is received by the Town's Finance Department, if the latter date is later than the date of delivery. Prices will be considered as **NET**, if no cash or payment discount is shown.

The successful bidder shall submit invoices to the following address:

Town of Ridgefield
Office of the Town Engineer
66 Prospect Street
Ridgefield, CT 06877

IT IS UNDERSTOOD AND AGREED THAT SHOULD A BID BE ACCEPTED, IT WILL AUTOMATICALLY BECOME THE CONTRACT OR AN ADDENDUM TO ANY CONTRACT AGREED UPON.

Notification of the bid award will be made by issuance of a purchase order. Bidders are to list their bids on the appropriate attached sheets. Bidders may attach a letter of explanation. A clear notification should be made on the standard bid sheets at the

appropriate point of explanation that there is a letter of explanation attached. All bids must be NET prices.

The successful bidder shall submit an itemized invoice to the Town of Ridgefield for the work as described herein.

The bidder shall be required to submit a Mechanics Lien Waiver, acceptable to the Town of Ridgefield, with each progress payment and at time of final payment prior to any payment being made.

At the time of award the successful bidder shall be required to supply the Town of Ridgefield a Certificate of Good Standing, certifying that the corporation is in fact a valid corporation and presently licensed to conduct business in the State of Connecticut.

17. SALES TAX

Certain materials and supplies incorporated in the work of this project are exempt from Connecticut Sales Tax. The Bidder shall familiarize himself with current regulations of the State Tax Department. The tax on materials or supplies exempted by such regulations shall not be included as part of the bid. The Town will furnish the successful Bidder sales tax exemption authorization.

18. CARE AND PROTECTION OF PROPERTY

The Bidder shall take particular care to avoid damages to all private and public property and to private or public improvements within the Town's right of way. He shall make good any damages to the satisfaction of the Town. There shall be no additional compensation for the repair or restoration of private or public property improvements.

19. COMPLIANCE WITH FEDERAL, STATE AND LOCAL CODES

The Bidder shall be responsible for full compliance with any Federal, State and/or Local codes, laws, regulations and standards, as applicable.

20. AWARD

The Town of Ridgefield reserves the right to accept or reject any bid to best serve its interests, or to hold the bids for sixty (60) days before decision.

The Town reserves the right to reject any and all bids (or any part thereof), to waive defects in proposals, or to accept any proposal deemed to be in its best interest.

Exceptions will be considered to the specification provided, providing they are listed and fully explained on a separate page entitled "EXCEPTIONS TO SPECIFICATIONS"

Each exception will be considered as to its degree of impact and total effect on the bid.

The purchaser shall determine which (if any taken) exceptions are acceptable, and this determination shall be final.

The Town of Ridgefield reserves the right:

- a. To award bids received on the basis of individual items, or groups of items, or on the entire list of items.
- b. To reject any or all bids, or any part thereof.
- c. To waive any informality in the bids.
- d. To accept the bid that is in the best interest of the Town of Ridgefield. The Purchasing Agent's decision shall be final.

21. INSURANCE

Insurance requirements are detailed under the attached "Appendix - Insurance Requirements."

22. GUARANTEE

The bidder shall unconditionally guarantee for a period of one (1) year unless otherwise noted from the date of acceptance, all materials, supplies, equipment, and services; including but not limited to its workmanship, delivery and installation. If within the guarantee period there are any defects or signs of deterioration the bidder shall repair, adjust or replace the item(s) to the complete satisfaction of the Town. These repairs, adjustments, or replacements are at the sole expense of the bidder and shall be made at such times that are agreeable to the Purchasing Agent so that it is least detrimental to instructional programs.

23. PERMITS

When required all licenses and permits for complying with any applicable Federal, State, and Municipal laws, codes, regulations in connection with the prosecution of the work shall be obtained by the Bidder, at no additional cost to the Town.

24. NONDISCRIMINATION IN EMPLOYMENT

The successful bidder shall agree and warrant that, in the performance of this contract, he will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, sex, religion, or national origin in any manner prohibited by State, Federal, County, or Municipal law. A certification of Non-segregated Facilities and a Certification Regarding Equal Employment Opportunity shall be considered a part of this contract.

25. MECHANICS LIEN WAIVERS

The successful Bidder shall be required to submit a Mechanics Lien Waiver, acceptable to the Town of Ridgefield, with each progress payment, and/or at time of final payment,

prior to any payment made.

HOLD HARMLESS AGREEMENT

The undersigned covenants and agrees to and shall at all times indemnify, protect and save harmless the Town of Ridgefield from and against all costs or expenses resulting from any and all losses, damages, detriments, claims, demands, cost and charges including attorneys fees the Town of Ridgefield may directly or indirectly suffer, sustain or be subjected to by reason or on account of the work to be performed pursuant to this Contract or any activities in connection with said Contract whether such losses and damages be suffered or sustained by the Town of Ridgefield directly or by its employees, licenses or invitees or be suffered or sustained by other persons or corporations who may seek to hold the Town of Ridgefield liable therefore.

The Contractor shall comply with the Provisions of the Immigration Reform and Control Act of 1986 effective and enforceable as of June 6, 1987 which Act makes unlawful the hiring for employment or subcontracting individuals failing to provide documentation of legal eligibility to work in the United States. The Contractor shall hold the Town of Ridgefield harmless for the failure of the Contractor to comply with the provisions of said Act.

IN WITNESS WHEREOF, the parties hereto have set their hand and seal this on the _____ day of _____

Signed, Seated and Delivered in the
Presence of:

Signed:

Notary Public

CONTRACTOR'S QUALIFICATION STATEMENT

List below references for similar projects, including all information requested. This page must be completed and submitted with the bid.

1. Client: _____
Project Address: _____
Approximate Value: _____ Date: Started _____ Completed _____
Contact: Name _____ Telephone _____

2. Client: _____
Project Address: _____
Approximate Value: _____ Date: Started _____ Completed _____
Contact: Name _____ Telephone _____

3. Client: _____
Project Address: _____
Approximate Value: _____ Date: Started _____ Completed _____
Contact: Name _____ Telephone _____

4. Client: _____
Project Address: _____
Approximate Value: _____ Date: Started _____ Completed _____
Contact: Name _____ Telephone _____

Company: _____ *Bid Title:* _____
Street: _____ *Bid No.:* _____
City, State: _____ *Telephone No.:* _____

CONTRACTOR'S LIST OF SUBCONTRACTORS

List below the subcontractors intended to be utilized for this project. This page must be completed and submitted with the bid.

1. Firm: _____

Firm's Address: _____

Contact: Name _____ Telephone _____

Type of Work to be Performed: _____

2. Firm: _____

Firm's Address: _____

Contact: Name _____ Telephone _____

Type of Work to be Performed: _____

3. Firm: _____

Firm's Address: _____

Contact: Name _____ Telephone _____

Type of Work to be Performed: _____

4. Firm: _____

Firm's Address: _____

Contact: Name _____ Telephone _____

Type of Work to be Performed: _____

Company: _____

Bid Title: _____

Street: _____

Bid No.: _____

City, State: _____

Telephone No.: _____

PROPOSAL

Proposal of: _____

to furnish and deliver all materials and to do and perform all works in accordance with the Contract Documents for **Ornamental Street Light LED Retrofit, Main Street**, the plans and specifications prepared by Charles R. Fisher, P.E.,L.S., Town Engineer, the works being situated within the Town of Ridgefield, Connecticut.

The undersigned bidder has carefully examined the Contract Documents referred to in the "Information for Bidders", and also the site of the work, and will provide all necessary labor, machinery, tools, apparatus, and other means of construction, and do all the work and furnish all material called for by the Contract Documents in the manner prescribed therein and in said Contract, and in accordance with the requirements of the Engineer under them for the following sums:

<u>Item</u>	<u>Estimated Quantity</u>	<u>Computed Total</u>
<u>Item 1A: 35 watt LED Retrofit Kit and Installation</u>		
the unit price of:		
_____ dollars		
and _____ cents		
(\$ _____) Each	52 EA	\$ _____

<u>Item 1B: 14 watt LED Lamp Replacement</u>		
the unit price of:		
_____ dollars		
and _____ cents		
(\$ _____) Each	53 Each	\$ _____

Computed Grand Total, Items 1A through Item 1B Inclusive

\$ _____

For purposed of comparison, the Computed Grand Total, All Items will serve as the basis of comparison of all bids. The computed total is not an official part of this proposal.

The Town reserves the right to eliminate any item or portion of the work that it deems to be in the best interest of the Town.

Any inconsistencies between the plans and specifications shall be reported to the Town Engineer. The Town Engineer shall make the final decision on any inconsistencies and their intent.

Dated: _____

Signature of Bidder: _____

By: _____

Title: _____

Business Address: _____

Town of Ridgefield
Office of the Town Engineer
Energy Conservation and Building Maintenance

Ornamental Street Light LED Retrofit Main Street

Project Scope

In general, the contractor shall supply all labor, materials, tools, and equipment necessary to convert the existing 175 watt, 120 volt metal halide and 15 watt CFL street lights along Main Street to 35 watt, 120 volt LED lights and 14 watt, 120 volt LED lights respectively complete as described herein. The intent of the project is to retrofit the existing metal halide street light system to LED lighting through the utilization of the existing fixtures to provide a more economical lighting system. The work is more particularly described as follows:

1. Existing Facilities:
 - a) 52 total 175 watt metal halide lamps, 120 volts
 - b) 53 total 15 watt cfl lamps, 120 volts
2. Remove the existing units as required to facilitate the retrofit of the replacement units. The number of units removed on a daily basis shall not exceed the Contractor's ability to install a like number of replacement units. It is the intent of these specifications to provide for a fully functional lighting system at the end of each work day.
3. All units removed shall remain the property of the Town of Ridgefield and shall be delivered by the Contractor to the Town's storage facility at 60 South Street.
4. Replacement units:
 - a) 52 total Sylvania 35 watt D6 Area Light Retrofit Kit, type V medium light distribution, 120-277 voltage.
 - b) 53 each Sylvania Ultra LED A-Line 14 watt LED Lamp.
 - c) All other materials and supplies necessary to facilitate the existing unit retrofit.

Replacement units shall be of the manufacturer and type specified. No substitutions will be allowed.

5. Install the new replacement units as necessary into the existing units, providing all labor and equipment necessary to facilitate the installation. All work shall be weathertight and conform to all applicable building codes.
6. Clean all existing units, including all interior and exterior glass surfaces.
7. Complete all other work not fully described to provide a fully functioning LED lighting system.
8. Coordinate all work with the utility company necessary to obtain utility subsidies and incentives which will be due to the Town of Ridgefield.
9. Provide site cleanup services including dumpsters as necessary.

10. Provide industry standard warranties of the work completed as described within these specifications.
11. All work shall be completed within sixty (60) days from the date of contract award.

The Contractor shall obtain all necessary permits and pay all associated fees.

It is the Contractor's responsibility to determine the exact amount of effort required to meet the project's intent and reflect that effort in his submitted bid. In addition to the Contractor's proposal sheets, the contractor shall note his proposed work schedule and all work to be completed along with any exceptions that the Contractor may have. The contract award will be based on the lowest total cost bid that meets the project's intent.

By submitting a bid, the Contractor acknowledges that he has visited the site and is aware of the conditions involved in meeting the project's intent. The Contractor is responsible to familiarize himself with all aspects of the existing conditions prior to submitting a bid. Questions regarding bidding procedures may be directed to Jerry Gay, Purchasing Director, at 203-431-2720.

The Town reserves the right to eliminate any item, quantity, or portion of the work that it deems to be in the best interest of the Town.

Any inconsistencies shall be reported to the Town Engineer. The Town Engineer shall make the final decision on any inconsistencies and their intent.

SECTION 16010
ELECTRICAL GENERAL PROVISIONS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. This Division is a part of the entire set of Contract Documents and shall be coordinated with the applicable provisions of the other parts. The following requirements clarify, amend or are in addition to the requirements set forth under the General Conditions and Division 1.
- B. In case of any discrepancy between the various Drawings, or between parts of the Specifications or between Drawings and Specifications, the matter shall immediately be submitted to the Engineer and, for Contractual purposes, the most expensive condition shall apply.

1.02 INTENT

- A. It is the intention of the Specification and Drawings to call for finished work, tested and ready for operation.
- B. Any apparatus, material, incidental accessories or work not shown on the Drawings or itemized in the Specification, but reasonably implied and necessary to make the Work complete and perfect in all respects and ready for operation, shall be provided by the Contractor without additional expense to the Owner.
- C. Major items of equipment are specified on the Drawings or in the Specifications and shall be furnished complete with all accessories normally supplied.
- D. Minor details not shown nor specified, but necessary for the proper installation and operation, shall be included in the Work and in the Contractor's estimate, the same as if herein specified.
- E. With submission of bid, Contractor shall give written notice of any materials or apparatus believed inadequate or unsuitable, in violation of laws, ordinances, rules or regulations of authorities having jurisdiction, and any necessary items of work omitted. In the absence of such written notice, it is mutually agreed that the Contractor has included the cost of all required items in his proposal.

1.03 DEFINITIONS

- A. "Engineer" is the person lawfully licensed to practice engineering or an entity lawfully practicing engineering as identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term "Engineer" means the Engineer or the Engineer's authorized representative.

- B. "Furnish" means to supply and deliver to the project site or appropriate trade.
- C. "Install" means to unpack, assemble, erect, fit up and connect in the specified or appropriate manner so as to be complete and ready for intended use.
- D. "Provide" means to furnish and install.

1.04 DRAWINGS

- A. Drawings when issued with these specifications are diagrammatic and indicate the general arrangement of systems and approximate location of apparatus to be provided. Exact locations of all equipment are to be coordinated by the Contractor and are subject to approval of the Engineer and Owner.
- B. The general runs of raceways, feeders, branch circuits, etc., are indicated on the drawings. It is not intended that the exact routing of these items be determined there from. Maintain maximum headroom and space conditions at all points.
- C. The locations of panels and other equipment indicated on the drawings are approximately correct, but they are understood to be subject to such revision as may be found necessary or desirable at the time the work is installed in order to meet field conditions or to simplify the work. The Contractor shall verify that all minimum distance and access requirements are met.
- D. The Contractor shall take special care in the installation of raceways where same is concealed to ensure that it does not project beyond the finish lines of floors, ceilings and walls.
- E. The Owner reserves the right to make reasonable changes before installation of equipment, without additional cost.

1.05 INSPECTION OF SITE

- A. The Contractor shall visit the site, examine and verify the conditions under which the work must be conducted before submitting a proposal.
- B. The submission of a Proposal implies that the Contractor and all Subcontractors as necessary have visited the site and are familiar with the conditions under which the work must be conducted.

1.06 WORK INVOLVING OTHER TRADES

- A. The Contractor is responsible for compliance with all local, state and federal licensing regulations, union jurisdictions, labor laws, etc., and shall engage qualified and licensed individuals to perform all aspects of the Work.

1.07 CODES, PERMITS & FEES

- A. The Contractor shall give all necessary notice, apply for all permits, coordinate with the Utility Company and pay all company governmental taxes, fees and other costs in connection with his work; file all necessary plans, all documents and obtain all necessary approvals from state and local departments having jurisdiction; obtain all required certificates of inspection for his work and deliver same to the Owner with copies to the Architect and Engineer before request for acceptance and final payment for the Work.
- B. All work shall be executed in accordance with the rules and regulations set forth in local, state and federal codes and the requirements of the local utility companies. Where the Drawings or Specifications indicate materials or construction in excess of code requirements, the Drawings or Specifications shall govern.

PART 2 PRODUCTS

2.01 MATERIALS & WORKMANSHIP

- A. All equipment and materials shall be new and in unblemished condition and shall be standard products of manufacturers regularly engaged in the production of electrical equipment.
- B. All equipment shall be UL listed and labeled and shall conform to the latest edition of the NEC Code.
- C. All material shall conform to the requirements of all applicable codes and shall be trademarked and/or grade-marked.
- D. All major items of equipment shall be furnished complete with all accessories normally supplied with the catalog items listed and all other accessories necessary for a complete, properly operating system.
- E. The drawing arrangements are based on the manufacturers listed, either in these specifications or on the schedules on the Drawings.
- F. If any other equipment is considered for approval it shall be equal in quality, durability, appearance, capacity and efficiency through all ranges of operation, shall fulfill the requirements of equipment arrangement and space limitations of the equipment shown on the Drawings and/or specified and shall be compatible with the other components of the system.

2.02 DEVIATIONS

- A. The Drawings and/or Specifications indicate the name, model number or type of equipment or materials to be used as a standard for the materials specified.

- B. Where the Contractor proposes to use an item of equipment other than that specified or detailed on the drawings, which requires any redesign, new drawings shall be prepared at his own expense after approval of the substitution is granted.
- C. Where such approved deviations require a different quantity and arrangement of raceways, supports, wiring, conduit and equipment from that specified or indicated on the drawings, the Contractor shall furnish and install any such raceways, structural supports, insulation, electrical wiring and conduits, or any other additional equipment required by the system at no additional cost to the Owner for this and any other trade affected by the change.
- D. Whether expressly specified or otherwise noted, no materials, products or equipment shall be incorporated in the new work without written approval.
- E. A satisfactory review of a submittal by the Engineer shall not be construed as an acceptance of a deviation unless that deviation is flagged as a deviation by the Contractor on the submittal.
- F. In cases where more than one manufacturer, material or product is specified by name, the Contractor has the option to use any one named, but he must notify the Engineer of his choice on the proposed submittal schedule.
- G. In cases where a single manufacturer, material, or product is specified with the words "or approved equal", or words of similar intent, the Contractor must prove to the Engineer's satisfaction that the material or product proposed is essentially equal in quality, design, capacity, size, availability, durability or other criteria to that specified. A complete installation of the proposed substitution shall have been in satisfactory use for a sufficient period of time to establish its value as equal.
- H. The Engineer shall have the final authority as to the acceptance of any substitutions. Any claims by the Contractor for extension of time or increase in cost as a result of such substitutions will not be accepted.

2.03 SUBMITTALS

- A. The materials, workmanship, design and arrangement of all work installed under the Contract shall be subject to the approval of the Engineer.
- B. No later than 15 days after the Contract Award, the Contractor shall submit to the Engineer a list of proposed manufacturer's of equipment and materials with a submittal schedule for approval. Contractor's intent to use the exact equipment or material specified does not relieve him of the responsibility of submitting such a schedule.
- C. Submittals shall be provided in a timely manner and shall allow sufficient time for the Engineer to adequately review the submissions without delay to the scheduling of the Work.

- D. The Contractor shall review all submittals prior to submission to the Engineer to ensure the following:
1. Specific conformance with each detail of the Drawings and Specifications.
 2. Accuracy of dimensions and completeness.
 3. Conformance with safe and sound practices.
 4. Proper coordination and fit with adjacent work of other trades.
- E. Submittals shall bear stamped evidence of checking by the Contractor when submitted to the Engineer's office.
- F. Submittals shall be clearly labeled with the following:
1. Project name.
 2. Contractor's name and phone number.
 3. Specification Section number.
 4. Corresponding symbols and numbers from the drawings (ex. LP-1, for Lighting Panel, No. 1).
 5. All pertinent information, including intended use, service, voltage, dimensions, capacities, etc.
 6. Equipment cuts shall be project specific, and shall be Factory Drawings. Standard catalog and/or price sheet photocopies are not acceptable.
- G. Review by the Engineer shall not relieve the Contractor from responsibility of errors, deviation from Contract Documents or violation of sound practices.
- H. Should changes be indicated on the returned submittals, the Contractor shall provide revised submittals promptly until final acceptance by the Engineer. Any subsequent changes made to the submittals after initial review by the Engineer shall be indicated as such by the Contractor.
- I. Upon final acceptance of the submittals, the Contractor shall distribute copies as required for proper coordination or as directed by the Engineer.
- J. The Contractor shall keep one copy of each approved submittal in the field office at all times.
- K. The Contractor shall provide additional shop fabrication and field installation shop drawings as required by the Engineer during construction.

PART 3 EXECUTION**3.01 SAFETY**

- A. In accordance with generally accepted construction practices and in particular Federal Regulation Part 1926, Subpart K and Subpart S (Occupational Safety and Health Act), latest edition (OSHA), the Contractor will be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours.

3.02 SCHEDULING OF WORK

- A. Carefully examine the Drawings and Specifications, visit the site, and be fully informed as to all existing conditions, dimensions and limitations before starting the work.
- B. Once work is started, the Contractor shall complete the work without interruptions so as to return work areas to the Owner as soon as possible.
- C. The Contractor shall adequately protect and preserve all existing and newly installed work. The Contractor at his expense shall promptly repair any damage to facilities.
- D. Covering Work: No raceways, conductors, fittings, outlets or other work of any kind shall be covered up or hidden from view before it has been examined or approved by the Engineer and any authority having jurisdiction over same. Any imperfect work or material, which may be discovered shall be removed and corrected immediately after being rejected.
- E. The Contractor shall consult with the Owner as to the methods of carrying on the work so as not to interfere with the owner's operation any more than absolutely necessary; accordingly, all service lines shall be kept in operation as long as possible and the services shall only be interrupted at such times as will be designated by the Owner.
- F. The Contractor shall take all necessary precautions to protect the Owner's equipment and personnel from damage or injury due to his carrying on of the work. The area in which the Contractor is working must be kept as clean as possible at all times, with only a minimum amount of construction material at the site at one time.
- G. Materials and equipment must be placed to avoid interferences with the Owner's operation and shall be moved when directed by the Owner.

3.03 COORDINATION

- A. Before any work is installed, and before any equipment is fabricated or purchased, the Contractor shall carefully check the Drawings, and all job conditions. Any lack

of coordination between the Work, the Drawings, Utility Company and/or job conditions shall be immediately reported to the Engineer in writing.

- B. Field Measurements: Verify the dimensions governing the work at the site. No extra compensation shall be claimed or will be allowed on account of differences between actual dimensions and those indicated on the Drawings.
- C. Examine adjoining work on which this work is dependent and report any work, which must be corrected. No waiver of responsibility for defective work shall be claimed or will be allowed due to the failure to report unfavorable conditions affecting this work.
- D. Exact locations of all equipment are to be coordinated by the Contractor and are subject to approval of the Engineer and the Owner.
- E. Generally, all work shall be installed so as to be readily accessible for operation, maintenance and repair. Such spaces and clearances shall, however, be kept to the minimum size required.
- F. Any rearrangement of conduits, panels or other such departures from the Drawings and the reasons there of, shall be submitted to the Engineer for approval, in the form of detailed drawings showing the proposed changes. No such changes shall be made without the prior approval of the Engineer.

3.04 PROTECTION OF PROPERTY

- A. In all occupied buildings, the Contractors shall be responsible for performing the work in a manner that will not affect the School's operation or harm existing equipment.
- B. **Special attention and care shall be employed when working in and around the Ridgefield High School Parking Area. All work shall be coordinated with the Board of Education.** This includes dust or dirt contamination, temperature or humidity fluctuations, production of noxious odors, disturbing noise or other disruptive conditions.
- C. Restore to its original condition, without expense to the Owner, any of the Owner's property that shall become damaged due to the negligence and/or work of the Contractor's employees or subcontractors.

3.05 REMOVALS

- A. In general, equipment to be removed is indicated on the Drawings. The Contractor shall legally dispose of these materials. **All bulbs shall remain the property of the Town of Ridgefield and shall be transported to a storage facility as designated.**

- B. Work that has been cut or partially removed shall be protected against damage until covered by permanent construction.

3.06 INTERRUPTIONS

- A. Where new work is to be connected to existing systems or equipment, the work shall be installed so as to minimize downtime or disruption of services. The Contractor shall schedule the work as directed by the Owner's field representative.
- B. Where temporary shutdown of essential systems is required the contractor shall make provisions to return the systems to normal operation at the end of each workday.

3.07 CUTTING AND PATCHING

- A. All cutting, patching and repair work caused by Contractor shall be the Contractors responsibility and shall be done by personnel skilled in the trade of the repair work. All such repairs shall be subject to the approval of the Engineer and Owner.

3.08 WALL, FLOOR AND ROOF PENETRATIONS

- A. Penetrations, if required, at building walls, partitions, floors and roofs shall be located in the field by the Contractor, and are subject to approval by the Engineer.

3.09 MAINTENANCE AND PROTECTION

- A. The Contractor shall be responsible for work and equipment until finally inspected, tested and accepted.
- B. Equipment and materials shall be protected from theft, injury or damage.
- C. Protect equipment outlets, conductors, conduit openings, etc. with temporary plugs or caps.
- D. Provide adequate storage for all equipment and materials delivered to the job site. Equipment set in place in unprotected areas must be provided with temporary protection.

3.10 CLEANING

- A. Remove rubbish and surplus materials from the job site each day and leave premises and work in a clean condition.

3.11 TESTS

- A. Conduct all tests and adjustments of equipment as specified or necessary to verify performance requirements of as required by authorities having jurisdiction. Submit data taken during such tests to Engineer. Pay all fees involved in required testing of equipment.

END OF SECTION

D6 Area Light LED Retrofit Kit



Key Features & Benefits

- Reduces energy consumption up to 68%
- Provides significant maintenance cost savings by lasting 2-6 times longer than HID lamps
- UL1598 Classified and IP44 rated
- 50,000 hours life at 70% lumen maintenance
- 120-277V AC input voltage at 60Hz with surge protection
- UL1310 recognized Class 2 OPTOTRONIC® power supply
- Mercury free
- UV and IR free
- RoHS compliant
- Up to 30 feet mounting height
- Ability to power down for sunrise and sunset to save energy with dual ballast
- Smaller diameter for easier retrofit into more applications
- Mounting hardware included in kit and for all three methods: Top, Middle, Bottom

The D6 Area Light LED Retrofit Kit from SYLVANIA is an alternative to high-intensity discharge (HID) lamps up to 175W at pole heights up to 30 feet. The directional light distribution of high power LEDs allows the delivery of light only where needed, reducing wasted light and minimizing light trespass and upward emissions. The D6 is an environmentally friendly lighting solution as it contains no mercury or lead. It is an excellent solution for communities that wish to convert their existing lighting systems as it offers substantial energy and maintenance cost savings as well as minimizes waste in landfills.

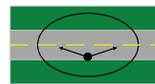
For purposes of ARRA, this product is made in the US.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. For FCC Part 15 user information, please see www.sylvania.com/fcc15b.

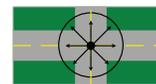


Product Offering

Ordering Abbreviation	Wattage (W)	Color Temperature	Light Distribution
LED55RETROFIT/750	55	5000K	Type-V Medium and Type-III Medium
LED55RETROFIT/656	55	5600K	Type-V Short and Type-III Short
LED55RETROFIT/741	55	4100K	Type-V Medium
LED35RETROFIT/750	35	5000K	Type-V Medium
LED35RETROFIT/741	35	4100K	Type-V Medium



Type-III



Type-V

Application Information

Applications

- College and business park campuses
- Historic restorations and downtown business districts
- Public lots and garages
- Residential roadways, walkways and bikeways
- Shopping centers, malls and plazas

Application Notes

1. Maximum mean ambient operating temperature outside the fixture is 40°C
2. Maximum ambient operating temperature outside the fixture can not exceed 60°C
3. To prevent personal injury or product damage only licensed electricians should provide all installation services
4. Please read installation manual before attempting installation
5. Recommended mounting height up to 30 feet
6. UL classification for post top and shoebox fixtures



Specification Data

Catalog # _____	Type _____
Project _____	
Comments _____	
Prepared by _____	Date _____

Ordering Information

Item Number	Ordering Abbreviation	Wattage (W) ¹	Input Voltage (VAC)	Power Factor ²	Efficacy (lm/W) ³	Average Rated Life (hrs.) ⁴	Typical Lumens (lm) ⁵	CCT ⁶	CRI	Operating Temperature	BUG Rating
78628	LED55RETROFIT/750/T5M/D6	55	120-277	0.98	69	50,000	3900	5000K	77	-30°C to 40°C	B2 U2 G1
78629	LED55RETROFIT/656/T5S/D6	55	120-277	0.97	64	50,000	3700	5600K	69	-30°C to 40°C	B2 U2 G1
78630	LED55RETROFIT/750/T3M/D6	55	120-277	0.98	69	50,000	3800	5000K	78	-30°C to 40°C	B2 U2 G1
78631	LED55RETROFIT/756/T3S/D6	55	120-277	0.98	62	50,000	3600	5600K	71	-30°C to 40°C	B2 U2 G1
78645	LED55RETROFIT/741/T5M/D6	55	120-277	0.98	67	50,000	3600	4100K	78	-30°C to 40°C	B2 U2 G1
78646	LED35RETROFIT/750/T5M/D6	35	120-277	0.98	74	50,000	2600	5000K	76	-30°C to 40°C	B2 U2 G1
78647	LED35RETROFIT/741/T5M/D6	35	120-277	0.98	78	50,000	2600	4100K	78	-30°C to 40°C	B2 U2 G1

1. Typical wattage while operated at 120VAC is 54W (±10%). Typical wattage while operated at 277VAC is 59W (±10%).
2. Power factor at 120V AC supply voltage
3. Thermally stable typical efficacy (±10%)
4. Hours lifetime with 70% lumen maintenance. Based on operation temperature at 104°F (40°C).
5. Thermally stable typical lumens (±10%)
6. Thermally stable typical CCT (±10%)

Ordering Guide

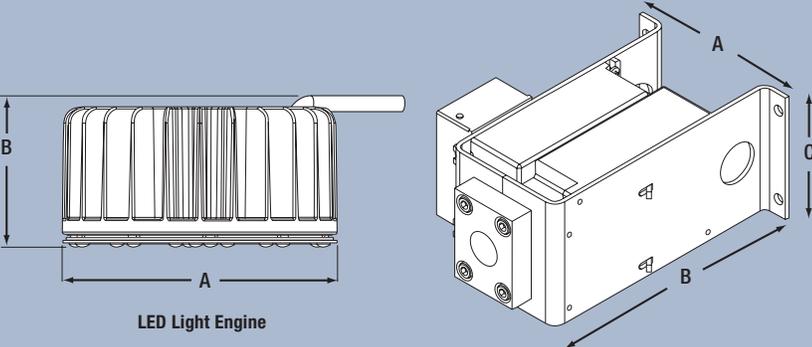
LED	55	RETROFIT	/	750	/	T5M	/	D6
LED Lamps and Retrofits	Wattage: 55W	Retrofit Kit		CRI, CCT: 750: 79CRI, 5000K CCT		Light Distribution: T5M: Type-V Medium		Diameter: 6 inches

Power Supply Ordering Information

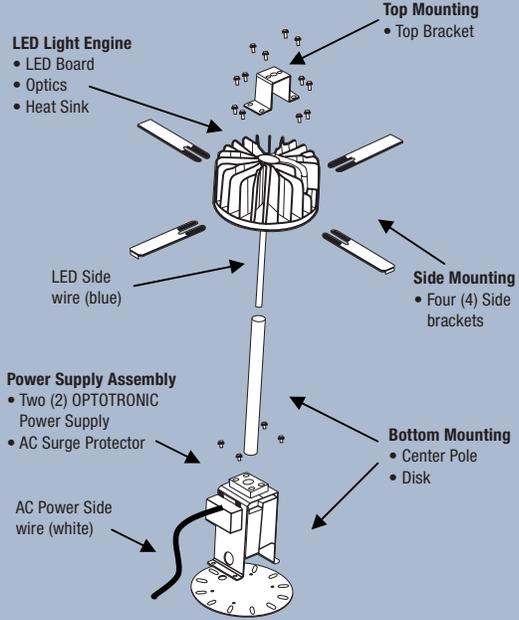
Item Number	Ordering Abbreviation	Power Supply IP Rating
51530-2	OT40/UNV/1110E*	IP66

* Constant current power supply (1.11A). UL 1310 and UL 48 recognized for US & Canada. Class 2 unit

Technical Information



	(A) Width/Diameter	(B) MOL	(C) Length
LED Light Engine	6.8"	3.7"	—
Power Supply Assembly	4.2"	6.1"	2.8"



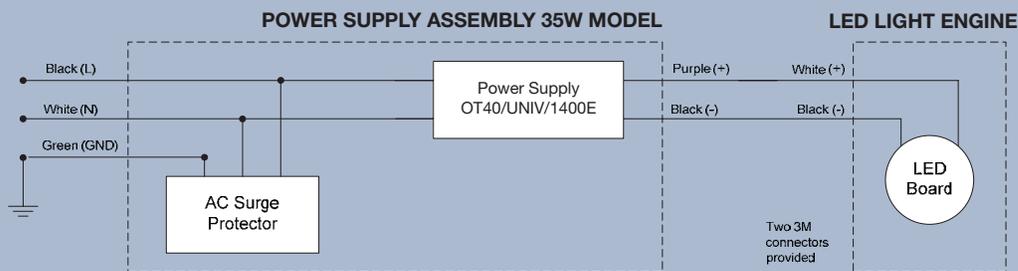
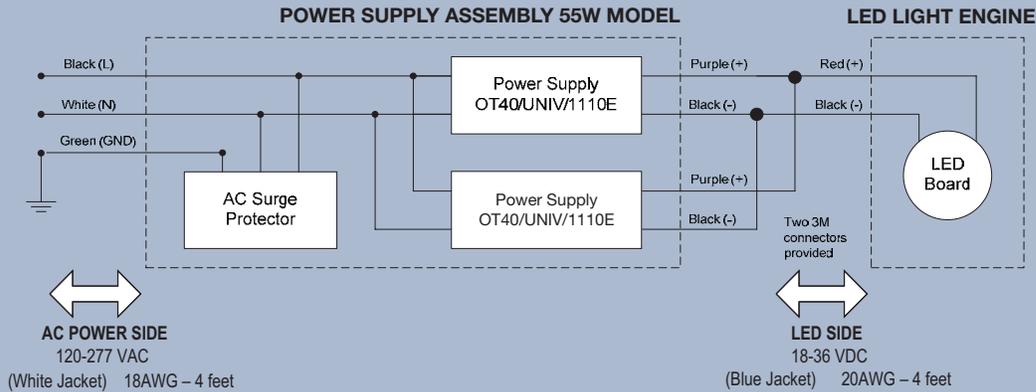
- LED Light Engine**
 - LED Board
 - Optics
 - Heat Sink
- Top Mounting**
 - Top Bracket
- LED Side wire (blue)**
- Side Mounting**
 - Four (4) Side brackets
- Power Supply Assembly**
 - Two (2) OPTOTRONIC Power Supply
 - AC Surge Protector
- AC Power Side wire (white)**
- Bottom Mounting**
 - Center Pole
 - Disk

* Power supply assemblies in images above are for 55W model. Assembly for 35W model will contain only one power supply, but retain the same overall bracket dimensions.

Wiring Diagram

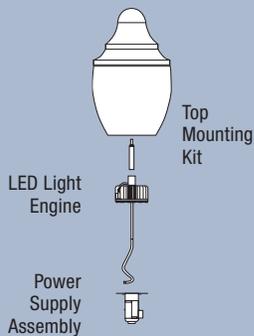
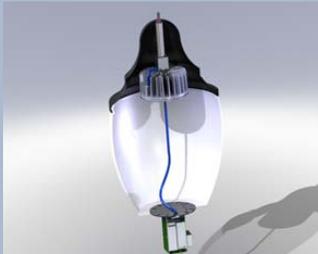
Notes:

1. AC surge protector and OPTOTRONIC® power supplies are pre-wired in Power Supply Assembly.



Assembly Diagram

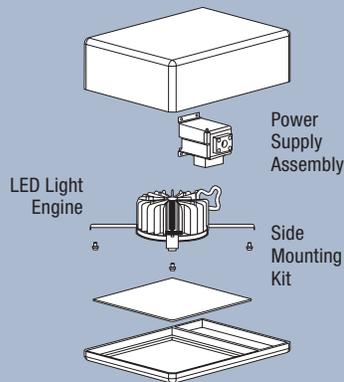
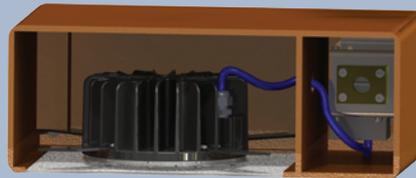
*Refer to Installation Manual for mounting instructions



Top Mounting

Recommended fixtures:

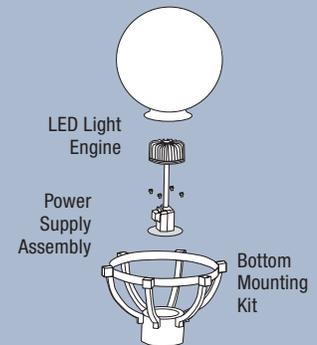
- Canopy light
- Cobra head
- High/Low bay
- Parking garage
- Pendant
- Post Top
- Shoebox
- Wall pack



Side Mounting

Recommended fixtures:

- Canopy light
- Cobra head
- High/Low bay
- Parking garage
- Pendant
- Post Top
- Shoebox
- Wall pack



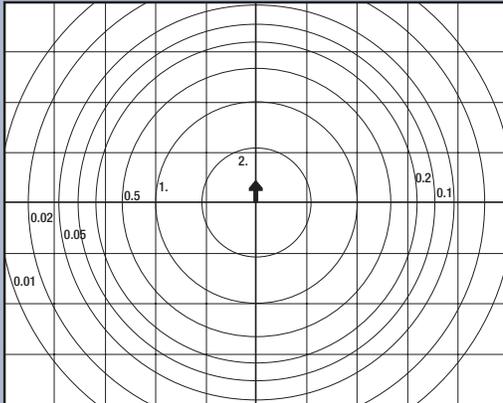
Bottom Mounting

Recommended fixtures:

- Post Top

Photometric Distribution

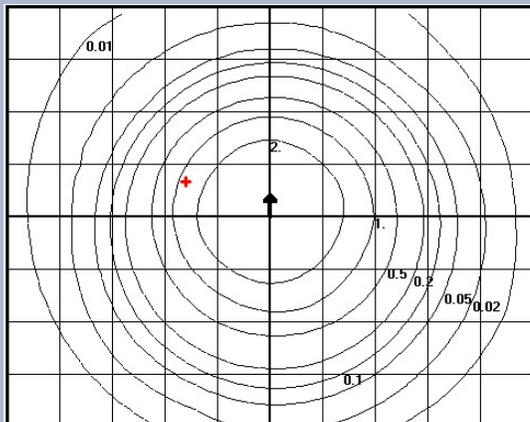
LED55RETROFIT/750/T5M/D6: Illuminance Diagram (Without a fixture)



Illuminance in footcandles

Mounting Height = 10'
Each box is one mounting height.
Type V Medium, 5000K CCT
(Distribution might change when
fixture globe is present)

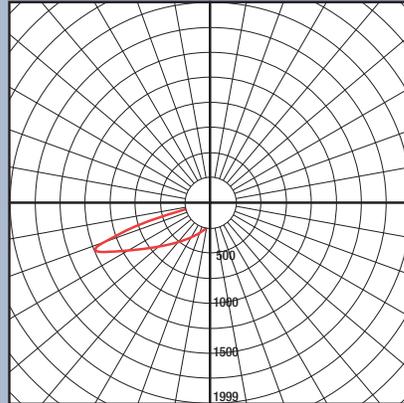
LED55RETROFIT/757/T5S/D6: Illuminance Diagram (Without a fixture)



Illuminance in footcandles

Mounting Height = 10'
Each box is one mounting height.
Type V Short, 5700K CCT
(Distribution might change when
fixture globe is present)

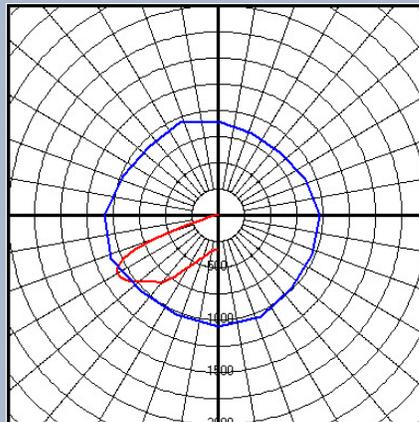
Luminous Intensity Distribution (Without a fixture)



Intensity in candelas

Max. plane at H = 0 Max. cone at V = 71
Max. candlepower = 1326
Type V Medium, 5000K CCT
(Distribution might change when
fixture globe is present)

Luminous Intensity Distribution (Without a fixture)



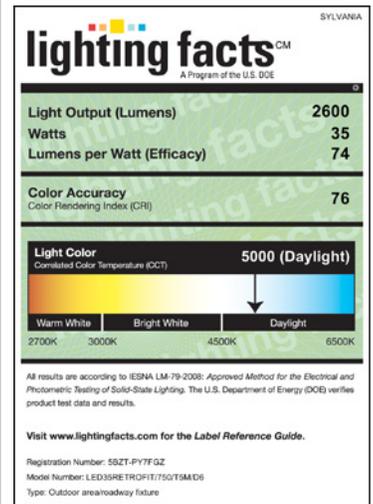
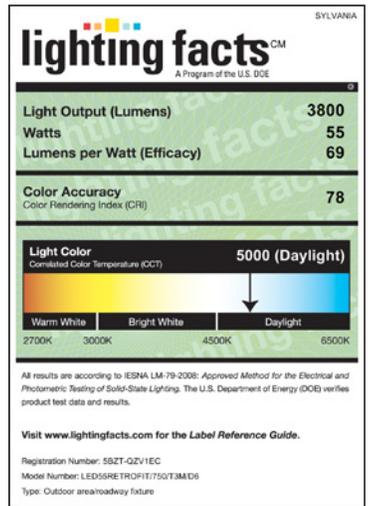
Intensity in candelas

Max. plane at H = 292.5 Max. cone at V = 60
Max. candlepower = 1102
Type V Short, 5700K CCT
(Distribution might change when
fixture globe is present)

Warranty

Refer to OSI Post-Top LED Retrofit Kit Statement of Limited Warranty.

SYLVANIA is a registered trademark of OSRAM SYLVANIA Inc.
SEE THE WORLD IN A NEW LIGHT is a registered trademark of OSRAM SYLVANIA Inc.
OPTOTRONIC and Global Care are registered trademarks of OSRAM GmbH.
All other trademarks are those of their respective owners.
Specifications subject to change without notice.



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Fax: 1-800-255-5043

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Fax: 1-800-562-4674

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Fax: 1-800-762-7192

Display/Optic
Phone: 1-888-677-2627
Fax: 1-800-762-7192

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Mississauga, ON L5S 1S4

Trade
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Fax: 1-800-667-6772

OEM/Special Markets/Display/Optic
Phone: 1-800-265-2852
Fax: 1-800-667-6772

www.sylvania.com

ULTRA LED A-line Lamps Omnidirectional



Rated up to 25,000 hours at 70% lumen maintenance, SYLVANIA ULTRA LED A-line omnidirectional lamps offer years of service and reduce energy and maintenance costs. SYLVANIA ULTRA LED lamps are environmentally preferred products. They are RoHS compliant and contain no mercury, lead or other hazardous materials. They emit no UV or IR radiation. A CRI of 80 ensures good color definition and with warm white 2700K CCT, these lamps can be used in many applications in both homes and businesses.

Key Features & Benefits

- Dimmable down to 10%*
- Long life: up to 25,000 hours (L₇₀)
- UV and IR free
- Mercury and lead free
- RoHS compliant
- Available in 2700K color temperature
- Suitable for indoor environments only
- Reduces energy consumption up to 82%
- Last up to 33 times longer than incandescent lamps
- No warm-up time, instant-on with full light output and stable color

* Performance may vary depending on dimmer used in application. Please refer to Dimmer Compatibility List (RETRO-DIM) for a list of compatible dimmers or visit www.SYLVANIA.com/LEDRetrofit



This light source meets restrict on hazardous substances.

Product Offering

Ordering Abbreviation	Wattage	Color Temperature	Typical Lumens
LED8A19/DIM/O/827	8	2700K	470
LED12A19/DIM/O/827	12	2700K	820
LED14A19/DIM/O/827	14	2700K	1100
LED20A21/DIM/O/827	20	2700K	1600

Application Information

Applications

- Downlights
- Pendant fixtures
- Table lamps
- Wall sconces

Market Segments

- Healthcare
- Hospitality
- Residential
- Retail

Application Notes

1. Operating temperature range between -20°C and +45°C (-4°F and + 113°F)
2. Not for use with emergency light fixtures or exit lights
3. Use in open fixture
4. Suitable for indoor use

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. For FCC Part 15 user information, please see www.sylvania.com/fcc15b.



Specification Data

Catalog #	Type
Project	
Comments	
Prepared by	

Ordering Information

Item Number	Ordering Abbreviation	Wattage (W)	Base Type	Replaces	Input Voltage (V)	Average Rated Life (hrs.) ¹	CCT ³	Typical Lumens (lm) ²	CRI ⁴	Power Factor	Bulb Finish	ENERGY STAR [®]
78935	LED8A19/DIM/O/827	8	Medium	40WA19	120	25,000	2700K	470	80	.95	Frosted	Yes
78907	LED12A19/DIM/O/827	12	Medium	60WA19	120	25,000	2700K	820	80	.95	Frosted	Yes
78911	LED14A19/DIM/O/827	14	Medium	75WA19	120	25,000	2700K	1100	80	.98	Frosted	No
78951	LED20A21/DIM/O/827	20	Medium	100WA19	120	25,000	2700K	1600	81	.98	Frosted	No

OSRAM SYLVANIA submits most lamps for ENERGY STAR testing. Early qualification for ENERGY STAR lamps begin at 25,000 hours (L₇₀) regardless that the design of the lamp is manufactured for a greater life expectancy. As the lamps pass ENERGY STAR qualifications, manufacturers are able to increase rated life as dictated by ENERGY STAR guidelines becoming either provisionally qualified or fully qualified. Please visit ENERGYSTAR.gov for more information about testing requirements for ENERGY STAR qualified products.

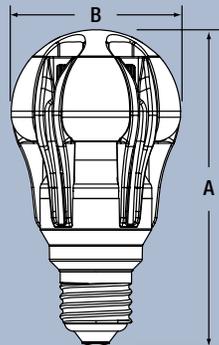
1. Hours lifetime with 70% (L₇₀) lumen maintenance 2. Thermally stable typical lumens (±10%)
 3. Thermally stable typical CCT (±10%) 4. CRI – Color Rendering Index

Ordering Guide

LED	8	A19	/	DIM	/	0	/	827
LED Lamps	Wattage: 8	Lamp Type: A19/A21		Dimmable		Omnidirectional		CRI, CCT: 827: 80+ CRI, 2700K CCT

Lamp Dimensions

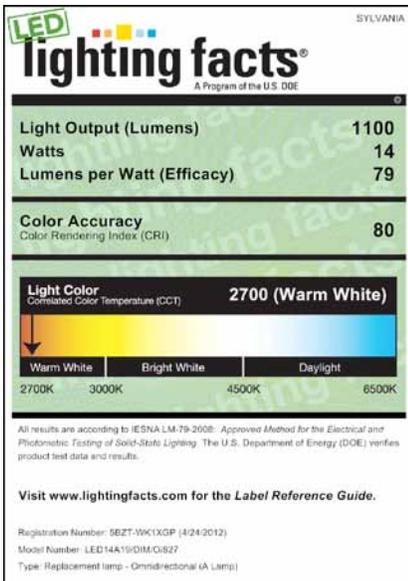
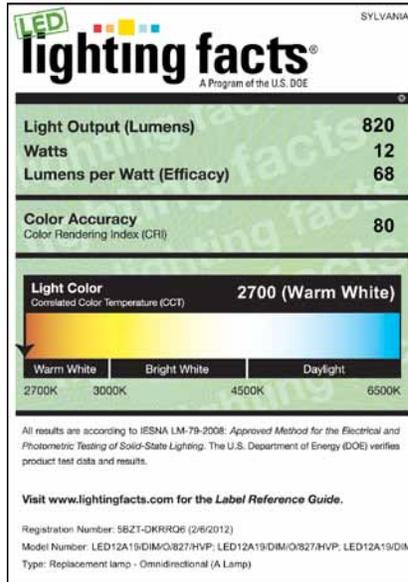
	(A) MOL (inches)	(B) Diameter (inches)
LED8A19	4.42	2.44
LED12A19	4.42	2.44
LED14A19	4.42	2.44
LED20A21	5.29	2.99



Energy Savings

Basic Product Description	LED Life (hrs.)	LED Lumens	Similar Incandescent	Incandescent Lumens	Incandescent Life (hrs.)	Watts Saved	Energy Savings*	LED Life vs. Incandescent
LED8A19	25,000	470	40W A19	465	1500	32	\$ 88.00	>16x
LED12A19	25,000	820	60W A19	850	1000	48	\$132.00	25x
LED14A19	25,000	1100	75W A19	1170	750	61	\$167.75	>33x
LED20A21	25,000	1600	100W A19	1690	750	80	\$220.00	> 33x

*Energy savings over life of lamp calculated at \$0.11/kWh



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1-800-LIGHTBULB

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Fax: 800-255-5043

National Accounts
Phone: 800-562-4671
Fax: 800-562-4674

OEM/Special Markets
Phone: 800-762-7191
Fax: 800-762-7192

Retail
Phone: 800-842-7010
Fax: 800-842-7011

SYLVANIA Lighting Services
Phone: 800-323-0572
Fax: 800-537-0784

Display/Optic
Phone: 888-677-2627
Fax: 855-543-1043

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1-800-LIGHTBULB

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Phone: 800-265-2852
Fax: 800-667-6772

Retail
Phone: 800-720-2852
Fax: 800-667-6772

SYLVANIA Lighting Services
Phone: 800-663-4268
Fax: 866-239-1278

Mexico
OSRAM MEXICO
Tultitlan/Edo de Mexico
Phone: 011-52-55-58-99-18-50

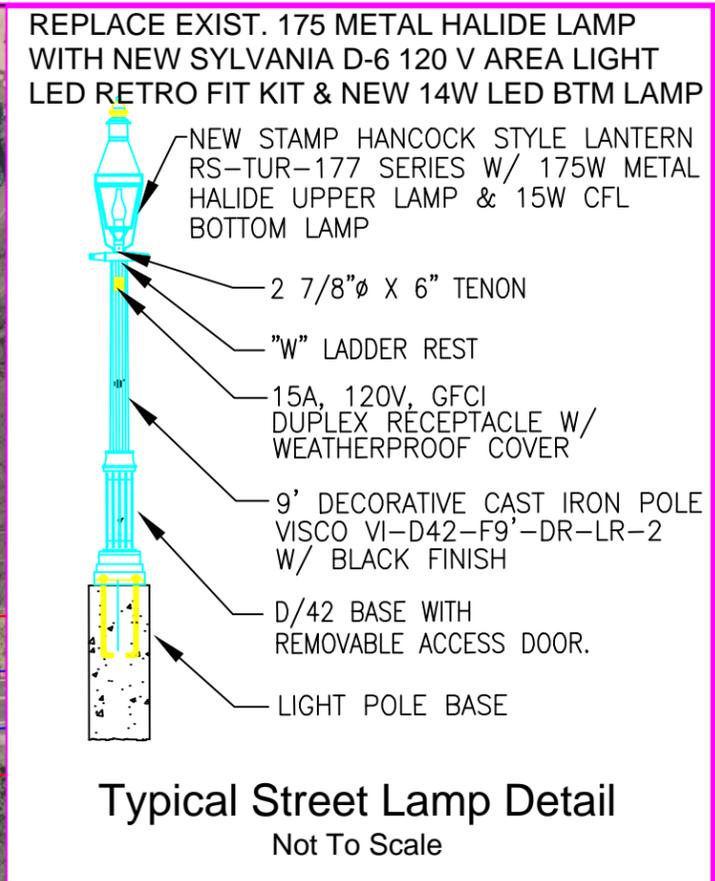
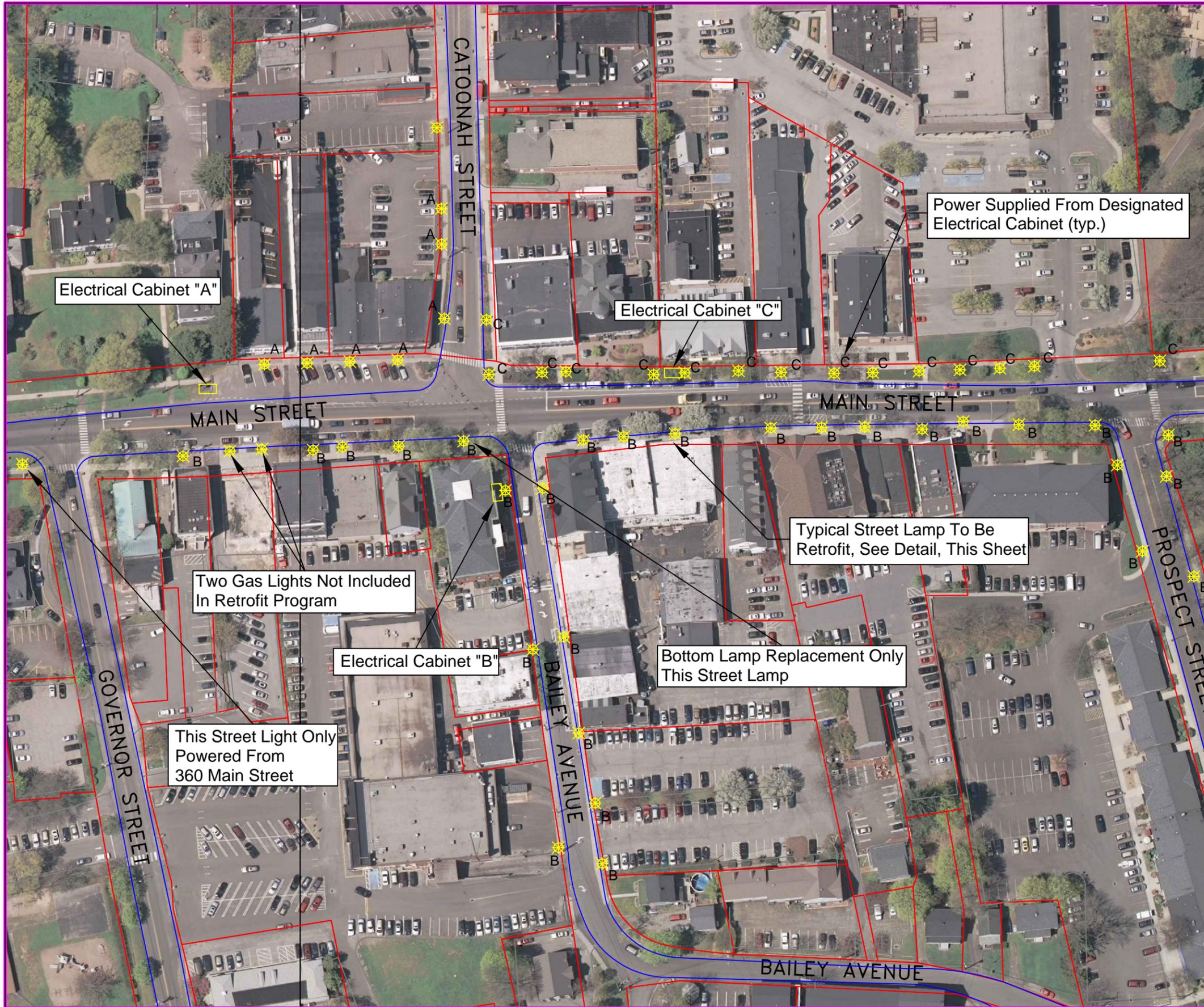
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ENERGY STAR is a registered trademark of the US government.
Specifications subject to change without notice.



- Material Specifications**
- 1) Top Light Source, Sylvania D-6 Area Light LED 35W Retrofit Kit, LED35Retrofit/741/T5M/D6 120-277 V 4100K
 - 2) Btm Light Source, Sylvania Ultra LED A-Line 14W Lamp LED14A19/DIM/0/827 2700K

Town of Ridgefield
Office of the Town Engineer

Energy Conservation Program
Ornamental Streetlight
LED Retrofit
Main Street

By: Charles R. Fisher, P.E., L.S.
Date: February 1, 2013
Scale: 1" = 100'

