



## L I N C O L N   E L E C T R I C   S Y S T E M

August 31, 2006

Ms. Hallie Salem  
City of Lincoln  
Urban Development Department  
808 P Street  
Lincoln, NE 68508

RE: City/LES workflow/checklist for street light construction

Dear Hallie:

Lincoln Electric System is responsible for installation and/or operation and maintenance of the street lighting system for the City of Lincoln. This includes the design, design review and billing of street lighting facilities.

Maintenance of the lighting systems includes replacing lamps, luminaires, poles, conductors, replacing fuses, repair of pole/vehicle accidents, troubleshooting faulted circuitry, etc and also includes locating the underground conductors for those who must dig near the conductors. Keeping those items in mind, our street lighting staff needs to be involved in the design and construction of the proposed lighting facilities.

As we have discussed with you as a representative from Urban Development, when your department initiates lighting on City streets, your project coordinator/designer and/or lighting consultant needs to work with one of the LES lighting engineers upon conception. Our lighting engineers have been keeping all aspects of lighting design and construction to current LES and City design standards. There are so many lighting variables presently used in the City, it is very difficult and time consuming to stock and order the various parts for different lighting apparatus.

City Public Work's designers separate the lighting design from other parts of road design. This not only allows the electrical contractor to work from lighting plans with standard electrical symbols, it also allows LES to place those designs in our GIS database for future maintenance and location of underground conductors. With the lighting being separated, the cost of the lighting facilities is separate from the remainder of the project.

The City lighting facilities are inspected by an LES project inspector. If the lighting is not associated with the direct lighting of City streets, such as street ambience or neighborhood signage, then the lighting would need to be inspected by the City electrical inspector. This lighting would not be maintained by LES and would require a metered service.

Since LES oversees the design, operation and maintenance of the street lighting system, LES charges a percentage of the cost of the lighting facilities to the City project. Since your department designs and installs lighting systems also, LES requires the cost of the lighting system so that the same percentage will be added and charged to your project. Currently that percentage is 28.7 %. Please be aware that LES will bill your department that percentage of the lighting cost so you will need to make allowance for this in your total project cost.

Attached is the proposed "City/LES Workflow and Checklist for Street Light Construction" we have discussed. Please review and return comments to me within two weeks so we can prepare the checklist for signatures.

Sincerely,



Steve Young  
Senior Engineer  
Overhead Distribution/Street Lighting Design

SY/nh  
Attachment

c: Scott Opfer-City Public Works  
Curt Weber-City Public Works  
JJ Yost-Lincoln Parks & Recreation  
Steve Hubka-City Finance  
Thomas Shafer-City Public Works  
Marc Wullschleger-Urban Development  
Larry Kathol-LES  
Dave Spomer-LES  
Emil Turek-LES  
Tom Anderson-LES M&T  
Ken Rittgarn-LES Construction Management  
Dan Pudenz-LES  
Mike Murphy-LES

## **CITY/LES WORKFLOW AND CHECKLIST FOR STREET LIGHT CONSTRUCTION**

(This workflow includes all City of Lincoln agencies that have proposed lighting on City of Lincoln streets and alleys. This workflow may also be used on Lancaster County and State of Nebraska jobs where lighting maintenance and/or electric service is provided by Lincoln Electric System (LES))

1. CITY: Depending on which City agency is initiating the work---City agency (i.e. Public Works) sends proposed printed traffic signal plans and drawing bases that will accommodate street lighting design to LES distribution/street lighting design (attn: Steve Young). These plans shall show proposed row, paving, utilities, retaining walls, sidewalks, drives, etc.

or

City agency (i.e. Urban Development) sends street lighting plans to LES distribution/street lighting design (attn: Steve Young). These plans shall show proposed row, paving, utilities, retaining walls, sidewalks, drives, etc.

The City agency may have its consultant send plans.

CITY-UTILITIES REQUEST OF LES. City agency sends proposed .dwg base with .les suffix added to the file name (for security). Email them to [BPeterson@les.com](mailto:BPeterson@les.com), requesting existing LES utilities for design area.

Electronic files-electronic files can be sent instead of printed plans/drawings. Send to [BPeterson@les.com](mailto:BPeterson@les.com) first. Do not send electronic plans to others within LES because this will set up duplicate files. LES uses Autodesk software for construction design projects, but LES can read and convert from about any other CAD/GIS software. File transmittal should include the following:

- Coordinate System used (if other than the normal NAD83 County Grid)
- Layer legend
- Associated or xref files with descriptions.
- Contact information.

If native format is AUTOCAD, please include any custom fonts, plot styles and shape files. If native format is land desktop or civil 3d, please note as such.

2. LES: Steve Young creates a work order and sends plans to a LES street lighting engineer (Larry Kathol or Dave Spomer) for review or design depending upon which agency sends the plans. This review/design will show proposed pole placement and electric service locations. This review/design will include all foundations, conduit, cables, wiring, controls, pull boxes and anything else associated with street lighting.
3. LES: The street lighting engineer reviews lighting plans, makes changes as necessary and returns plans to initiating City agency with letter of approval if there are no changes. If changes are required, then the plans must be resubmitted. This may be done in a joint meeting with affected agencies. The street lighting engineer sends the work order to the department senior engineer/department manager for approval.
4. CITY: The City agency or its consultant completes the plan set including specials and APPIA bid documents. Sends a hard copy of the bid package to LES (attn: Steve Young). Sends the electronic street lighting plan sheets with all reference files included in the working file to [BPeterson@les.com](mailto:BPeterson@les.com) in .DWG. Advertises and completes bid process.
5. LES: LES street lighting engineer receives and reviews complete electronic file from the City agency or their consultant when sent out for bid. These plans shall be complete electronic sheet files just like the printed sheets. Plans do not necessarily need to be signed but need to contain all the elements in a working file (no reference files). A complete bid package needs to be provided. Generally these types of jobs will be contracted and an LES inspector assigned through LES construction management department. The street lighting engineer will send a set of plans to LES construction management.
6. CITY: City agency notifies LES construction management (Ken Rittgarn) the start date of lighting facilities that are to be installed or removed. Send City purchased lighting equipment catalog cuts and contractor purchased lighting equipment catalog cuts to the LES street lighting engineer. The City agency notification can be done at a preconstruction or regular coordination meeting.

CONTRACTOR: Catalog cuts shall be distributed by the lighting contractor to the City project manager who will then send copies to the LES street lighting engineer.

LES: The LES street lighting engineer will notify the City agency if the components are OK.

7. LES: For Public Works jobs, Ken Rittgarn will assign an LES inspector and inform the City who the inspector is. This inspector will be the LES contact person for the lighting contractor. LES inspector will inspect poles, street light/les only pull boxes, luminaires, lamps, controls and all street light wiring/splices-generally everything above grade.

An LES inspector may be assigned to State jobs to act as a liaison.

Urban Development may have their architect/engineer inspect their own work but need to follow the same procedures as described. An LES inspector will be assigned to work with the Urban Development architect/engineer/inspector.

CITY: A City observer will also be assigned by the city agency. The City observer will track material quantities and observe the installation of all items.

8. CONTRACTOR: The lighting contractor will notify the City project manager and the LES inspector when the contractor will be at a work site preferably within 24 hours of being on site.
9. LES: When the lighting system is complete or when a portion of a large lighting system has been completed, the LES inspector will notify and supply a set of plans to LES maintenance & troubleshooting department (M&T). LES M&T technicians will drive by the lighting system at night and ascertain lights are all functioning. M & T will notify the LES inspector via email that the lighting system is functioning or not.

For large lighting systems, the LES inspector, the LES street lighting engineer, the city project manager, the prime contractor and the lighting contractor will determine the portioning of the lighting system.

10. LES: The LES inspector will notify, via email, the street lighting engineer, the City project manager, the lighting contractor and the general contractor that the installation is working or what deficiencies need to be tended to.

CONTRACTOR: The contractor will have 48 hours to correct any deficiencies found by LES. If the deficiency is urgent, the contractor will be notified to immediately correct the deficiency. If the contractor cannot do the work immediately, LES or another contractor will be procured to do the work and the original lighting contractor billed.

These requirements need to be added to the City construction contract.

11. LES: Once the LES inspector OK's the lighting installation, the LES inspector will notify the LES street lighting engineer, the City project manager, the lighting contractor and the general contractor via email that the system is functioning and meets the design criteria. As built drawings shall be done by both City and LES inspectors for records and M & T.
12. LES: The LES street lighting engineer will meet with the inspectors to review the as built drawings. The LES street lighting engineer will work with LES engineering drafting to create an LES as built drawing. The LES street lighting engineer will also notify LES mapping to update records that the street light installation is now under LES maintenance. The LES street lighting engineer shall complete an installation/removal report. The LES street lighting engineer will notify the City agency that the lighting system has been inspected and complete. The warranty (usually 1 year period) will start at this time.

CITY: The City agency will also update their records.

13. CITY: The City agency will then make final payment to the lighting contractor. The City will compute street light costs and transfer funds from the general fund to the project fund with the City sending bills to City finance. The City agency will notify the LES street lighting engineer of the amount that will be transferred.

LES: The LES street lighting engineer will revise the LES work order to recoup all LES costs for the project. LES Financial Services will bill the City these costs.

14. CITY: The City agency will notify the contractor when the warranty expires.

For Lincoln Electric System \_\_\_\_\_

For City of Lincoln Public Works \_\_\_\_\_

For City of Lincoln Urban Development \_\_\_\_\_

NOTE: Non-street lighting (including receptacles for cords/plugs) installations such as ground/structure enhancement, neighborhood signage, pathway lighting, traffic message boards or festoon lighting shall be metered and considered a commercial service. Lighting poles/luminaires/devices that illuminate areas that are similar and adjacent to poles/luminaires/devices that are actually intended to illuminate the public street shall not be connected to the public street lighting system. Those area lights shall be metered and considered a commercial service. Those area lighting systems shall not be maintained by Lincoln Electric System. It is the responsibility of the initiating agency to provide billing information to LES prior to any meter installation and service connection. It is also the responsibility of the initiating agency to contact the city agency that will operate and maintain such systems. Since this is a metered service, installation must meet requirements of the proper government electrical inspection agency.

#### LES CONTACT INFORMATION:

LARRY KATHOL	402-467-7642	lkathol@les.com
KEN RITTGARN	402-467-7561	krittgarn@les.com
DAVE SPOMER	402-467-7641	dspomer@les.com
STEVE YOUNG	402-467-7632	syoung@les.com

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