To:        DEPUTY SECRETARIES, DIRECTORS AND BUREAU CHIEFS
From:     Dianna L. Taylor
          Bureau Chief of Personnel Management
Subject:  Technical Vacancy
Date:     March 14, 2017

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement March 15, 2017 in the designated areas.

The deadline for applicants to submit their names for consideration is 4:30 p.m. on Tuesday, March 28, 2017. Applicants will not be accepted after that time and date.

NOTE: A copy of each applicant’s ACTIVE Illinois Professional Engineer License must accompany application for this position. Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.

All applicants will receive a position description for the position they are applying for. If you have any questions, please contact the Bureau of Personnel Management at 217/782-5594.

EE IV    Lighting Maintenance Unit Chief
          Region 1/District 1/Electrical Operations
          Highways Project Implementation
          Oak Park

Attachments
41668
Technical Applications (PM 1080 rev 9/19/16) must be received by the Bureau of Personnel Management, Room 113, 2300 South Dirksen Parkway, Springfield, IL 62764 (Fax # 217/557-3134) or emailed to DOT.CO.BPM.EmploymentApplications@Illinois.gov by Tuesday, March 28, 2017, 4:30 p.m. Please include address, daytime phone and position for which applying if not already listed on application. Applicants will be notified in writing to schedule interviews.

NOTE: A copy of each applicant’s ACTIVE Illinois Professional Engineer License must accompany application for this position. Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.

Position Summary Sheet

Classification: Electrical Engineer IV
Position Title: Lighting Maintenance Unit Chief
Position Number: PW154-23-51-923-10-01

Office/Central Bureau/District/Work Address:
Office of Highways Project Implementation/Region One/District One/Bureau of Electrical Operations/545 Harrison, Oak Park, IL

Description Of Duties:
This position is accountable for managing and performing the oversight of contracted maintenance for all District One highway lighting, navigation lighting and various other electrical systems as part of the Maintenance Section of the Bureau of Traffic Operations; prepares plans and specifications for electrical maintenance contract, lighting contracts, and other electrical system contracts; develops preventative maintenance programs and initiates equipment system upgrades for operational efficiency; reviews plans for maintainability and coordination with existing systems, coordination of maintenance transfers for construction projects, initiation of contractor work authorizations, inspection of contractor work for approval and payment, and the review and acceptance of associated documentation. This position also oversees the district’s electrical state stock inventory.

Special Qualifications:

Required:
- A current Illinois Professional Engineer license
- A valid driver’s license
- Ability to physically access maintained electrical systems both on and off the roadway, potentially on uneven terrain

Desired:
- Eight years’ experience in the oversight and/or inspection of electrical construction or maintenance, familiarity with common electrical materials, apparatus and equipment and understanding of the National Electrical code and common good industry practice
- Familiarity with highway lighting installation practices and typical equipment; basic highway lighting design; basic control circuits, SCADA systems and basic wireless technologies
- Strong oral and written communication skills
- Supervisory experience
- Computer skills including spreadsheet and data base familiarity

Shift/Remarks:
7:00 am - 3:00 pm / Monday - Friday (30 minute lunch)

*This position is on-call 24 hours a day/7 days per week for emergency response as needed.

*Individual salary offers are computed based on an applicant’s current position and experience level in comparison to the posted title as well as internal equity of staff in the organizational unit.
Position Purpose

This position is accountable for managing and performing the oversight of contracted maintenance for all District One highway lighting, navigation lighting and various other electrical systems as part of the Maintenance Section of the Bureau of Traffic Operations. Activities include preparation of plans and specifications for electrical maintenance contract, lighting contracts, and other electrical system contracts. Develop preventative maintenance programs and initiate equipment system upgrades for operational efficiency. This accountability extends to the review of plans for maintainability and for coordination with existing systems, coordination of maintenance transfers for construction projects, initiation of contractor work authorizations, inspection of contractor work for approval and payment, and the review and acceptance of all associated documentation. This position is also accountable for oversight of the District's electrical state stock inventory.

Dimensions

Geographic Area: District 1 (6 county area)
Subordinate Personnel: 1-2 Technicians and cadre or part-time staff as assigned
Lighting Systems Maintained: Over 500 (over 18,000 conventional poles, over 1,600 high mast)
Navigation Lighting Systems Maintained: 27
State Stock Inventory Scope: 10,000 sq. ft. of storage; 6,000 - 7,000 items
Value of Systems Maintained: $175-200 million
Railroad Crossings: 264

Nature and Scope

This position reports to the Electrical Maintenance Section Chief as does the Pump Station Unit Chief and the Special Systems Unit Chief, the Electrical Maintenance Contract Management Technician, Railroad Inspection Technician, Electrical Maintenance Engineers and Technicians, and other cadre or part-time staff as assigned. Reporting to this position are the RR Inspection Technician and the Electrical Maintenance Technician.

The growth of the urban/suburban transportation system in northeastern Illinois and the increased demands on that system have caused a continuous growth in highway lighting on the state system in District 1 and have contributed to extremely high public and media expectations for the operational performance of lighting and other systems that enhance the safe and efficient movement of traffic. At the same time, waterway safety concerns require similar high reliability in navigation lighting. Maintenance of the systems in District 1 is performed by contracted forces responding to prescribed requirements and acting upon work order directives from the Department to restore outages and malfunctions to service and to perform work such as damage repairs, preventive maintenance, and system enhancements to keep performance of the systems at a high level. The Maintenance Section of the Bureau of Electrical Operations is responsible for this contracted maintenance and the Lighting and Distribution Unit is responsible for the oversight and planning of the lighting and electrical distribution portion of that work. The safe and efficient movement of traffic is also increasingly dependent upon safe and effective railroad crossings. The candidate supervises a technician who, in concert with railroad company personnel, performs annual federally mandated inspections of the over 264 district railroad crossings involving state routes, prepares condition reports and distributes these to other bureaus and the Central Office.
Typical problems encountered by the candidate include monitoring the high volume of diverse work activities both in the field and in documentation; covering the complete 6-county area with limited staff and transportation resources; assuring that high standards of workmanship are achieved by contracted forces even under the pressures of required timeliness; providing adequate advance planning and authorization of work so as to avoid delay of the contractor and inefficient use of the available workforce; assuring adequate use of recovered state stock and determining appropriate scrap designation and providing oversight of transitions between contracts. The greatest challenge of the position is to maintain a regular flow of work authorizations, inspections, approvals and other routine tasks while responding to variable daily immediate demands that require rapid decisions and direction.

The incumbent personally reviews contract documents; establishes daily monitoring and inspection routines and responsibilities; performs system tests and adjustments; establishes work programs and priorities; prepares contractor work authorizations; troubleshoots system malfunctions; recommends system modifications; inspects contractor work for acceptance and payment; and prepares or reviews associated work documentation. S/he contributes input to design work of the Engineering Section and coordinates communications issues with the Communications Section. S/he also personally trains, monitors, and directs the work of staff to perform these same functions.

The incumbent is responsible for the preparation of maintenance contract specifications as well as work quantity estimates and cost estimates in conjunction with the annual or biennial bidding of the contract work. S/he is responsible for ascertaining and evaluating maintenance needs, developing work programs, evaluating and selecting system repairs, and assuring that the contracted maintenance work conforms to specified requirements in terms of workmanship, overall quality, timely response, and care for electrical safety. The incumbent must be able to physically access electrical facilities in varying locations both on and off the roadway, potentially on uneven terrain.

In this capacity, the incumbent and subordinate staff review IDOT plans for maintenance impacts, facilitate transfers of system maintenance for construction contracts, plan maintenance work activities and prepare work authorizations, coordinate with utilities, assess and address damage to maintained systems, troubleshoot malfunctions, monitor and appropriately inspect work of the Electrical Maintenance Contractor for acceptance and payment, and assure accurate ongoing and final documentation of all associated work. S/he and staff must plan and establish work programs to promote a high service level and also be responsive to, and on-call for, the 24/7 demands for continuous operation. Adequate spare equipment and special material being essential for the rapid restoration of systems, the candidate and staff are also responsible for accurate tracking and judicious use of the electrical state stock inventory for all systems maintained, including those not directly managed by the Unit.

The incumbent works within established Departmental specifications and policies, District and Bureau standards and industry standards, but is required to exercise considerable independent judgment in prioritizing work authorizations, determining the timing of certain non-routine work, assigning the use of state stock inventory and in progressing with system enhancements. The candidate must exercise creativity to optimize the use of material and labor resources for the greatest impact. S/he and Unit staff are responsible to higher level supervision but have considerable freedom and mobility to manage duties district-wide.

The incumbent maintains regular contact with other staff within the bureau as well as the Bureaus of Traffic, Maintenance and Construction. S/he is also in frequent contact with contractor supervisory and field personnel, the electric utility, consultants, construction contractors and equipment manufacturers.

The effectiveness of the position is measured by consistent and reliable operation of the District's roadway lighting and associated systems and the effective use of resources to enhance the safety and performance of these systems.
Principal Accountabilities

1. Prepares contract specifications, work quantity estimates, and cost estimates for District-wide roadway lighting maintenance, electrical systems and distribution.
2. Ascertains and evaluates maintenance needs for lighting, distribution and electrical systems, and develops work programs and specific work authorizations to address those needs.
3. Responds to emergency needs as required to protect operational integrity of systems.
4. Assures oversight of contracted maintenance work conforms to specified requirements and overall quality.
5. Reviews plans for maintainability and integration with existing systems; prepares comments accordingly.
6. Facilitates transfers of system maintenance for construction contracts.
7. Assesses and addresses damage to maintained systems; troubleshoots malfunctions.
8. Accurately tracks electrical state stock inventory, including those not directly managed by the Unit.
10. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
11. Performs other duties as assigned.