



Illinois Department of Transportation

Memorandum

To: DEPUTY SECRETARIES, DIRECTORS AND BUREAU CHIEFS
From: Becky Koehler
Bureau Chief of Personnel Management
Subject: Technical Vacancy
Date: October 11, 2018

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement October 12, 2018 in the designated areas.

The deadline for applicants to submit their applications for consideration is **4:30 p.m. on Tuesday, November 13, 2018**. Applications will not be accepted after that time and date.

NOTE: Official college transcripts must be included with application. Applicants possessing an Engineer Intern License must also include a copy with application. Applicants not submitting these documents by the posting deadline will not be considered for employment. Please include IPR number on the application. 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.

If you have any questions, please contact the Bureau of Personnel Management at 217/782-5594.

EE I

Electrical Engineer I
Bureau of Design & Environment
Office of Highways Project Implementation
Springfield

Attachments
43147

*Illinois Department of Transportation (IDOT) considers official college transcripts to be original embossed transcripts in a sealed envelope from the university/college or in PDF format sent from the university/college directly to the Bureau of Personnel Management.

Technical Applications [PM1080 rev 6/1/17](#)****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, November 13, 2018**, 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: Official college transcripts must be included with application. Applicants possessing an Engineer Intern License must also include a copy with application. Applicants not submitting these documents by the posting deadline will not be considered for employment. Please include IPR number on the application. 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.



An Equal Opportunity Employer

Position Summary Sheet

Classification:	Electrical Engineer I	Salary:	\$4,540 - \$4,920*
Position Title:	Electrical Engineer I	Union Position:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Position Number:	PW151-23-75-309-30-01	IPR#:	43147

Office/Central Bureau/District/Work Address:

Office of Highways Project Implementation / Bureau of Design and Environment / 2300 South Dirksen Parkway, Springfield, IL

Description Of Duties:

This position is accountable for assisting with electrical engineering design and review of simple plans, layouts, specifications, special provisions and cost estimates, the review of electrical materials, and the field inspections of electrical installations.

Special Qualifications:

Required:

- Bachelor of Science in Electrical Engineering from an Accreditation Board of Engineering and Technology, Inc. (ABET) accredited university prior to date of employment or must be a Licensed Engineer Intern in the state of Illinois (includes those expecting to graduate in winter 2018/spring 2019)
- Minimum 2.5 cumulative GPA in engineering related courses (If GPA is between a 2.0-2.5, candidate must have passed Fundamentals of Engineering Exam.)
- Official college transcripts must be included with application. (Official transcripts indicating graduation date for winter 2018/spring 2019 graduates must be provided at time of hire.)
- Valid driver's license

Desired:

- Strong oral and written communication skills
- Working knowledge of the routine practices of electrical engineering

Shift/Remarks:

8:00 am – 4:30 pm / Monday – Friday

THIS IS AN ENTRY-LEVEL POSITION.

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*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.

**Technical Application PM1080 (revised 6/1/17) is required. No previous version of the PM1080 will be accepted.

**ILLINOIS DEPARTMENT OF TRANSPORTATION
POSITION DESCRIPTION**

DATE:	July 5, 2018	POSITION:	Electrical Engineer I
APPROVED BY:	Jack Elston	OFFICE/DIVISION:	Office of Highways Project Implementation / Bureau of Design & Environment
CODE:	PW151-23-75-309-30-01	REPORTS TO:	Electrical & Mechanical Chief

Position Purpose

This position is accountable for assisting with electrical engineering design and review of simple plans, layouts, specifications, special provisions and cost estimates, the review of electrical materials, and the field inspections of electrical installations.

Dimensions

Electrical Plan Design and Review:	25-30 Annually
Value of Electrical Plans:	\$5 Million Annually
Materials Review:	600 Items Annually
Field Inspections:	10-20 Annually

Nature and Scope

This position reports to the Electrical and Mechanical Chief. No staff report to this position.

This position participates in the design and preparation of plans, layouts, specifications, special provisions and cost estimates for lighting (exclusive of District 1) for the proper illumination of state, federal, and local highways, interchanges, intersections, rest areas, weigh stations, bridges (including navigation and aviation obstruction lights), tunnels, and overhead signs. S/He participates in the preparation of simple electrical plans, layouts, specifications, special provisions, and cost estimates for pump stations and all other electrical work (except traffic signals) contained in contracts let by the department, and reviews those prepared by consultants. Responsibilities also include the review, and recommendation for approval for, electrical and lighting material and equipment used by the department. The incumbent will participate in field inspections and final inspections of electrical projects under contract.

Typical problems include completion of simple electrical and lighting plans and contract documents within the timeframe set by the districts to meet letting schedules for general highway improvement projects. This includes establishing priorities and managing multiple assignments to meet project deadlines, as well as recommending design changes and additions as needed. Another challenge is determining the appropriate materials, equipment, and components to be used on simple installations while verifying each item meets all required codes, standards, and listings. The greatest challenge of this position is understanding and correctly applying all appropriate lighting and electrical design guidelines and department policies. This is essential to the proper design of electrical and lighting projects delivering the required level of safety and serviceability.

The incumbent is personally responsible for preparing and updating the summary of quantities for electrical and lighting projects and other documents as needed along with other tasks as assigned. Each project may require participation in a field review prior to design and a final inspection at the completion of construction to recommend acceptance of the project by the department.

Under the general direction of the Electrical and Mechanical Chief, the incumbent is given limited latitude in the design and review of electrical plans, inspections, and field inspections. S/He works within accepted engineering standards with respect to electrical systems, and is expected to exercise judgement in electrical design and review to make timely and proper suggestions for modifications and revisions to the plans and specifications. S/He makes a recommendation on a project-by-project basis as to whether the equipment components and materials identified in the design are appropriate for the contract and meet all electrical codes and standards.

Internally, this position has occasional contact with the district offices and the central office bureaus. External contacts may include consulting engineers, electrical contractors, electrical materials suppliers, manufacturers, and utility companies.

The effectiveness of this position is measured by the timely completion of simple electrical and lighting designs, plans, specifications, and estimates within a limited schedule. Also, this position is measured by the accurate appraisal of electrical and lighting materials for use on contracts, the timely and accurate completion of simple field inspections, and the harmonious relationships maintained with both internal and external partners.

Principal Accountabilities

1. Performs simple designs and plan preparations, layouts, specifications, special provisions, and cost estimates for pump stations, area and highway lighting, and electrical facilities.
2. Reviews and recommends plans, layouts, specifications, special provisions, and cost estimates for all electrical items (except traffic signals) contained in contracts let by the department.
3. Reviews and recommends specific electrical materials used in highway electrical and lighting contracts.
4. Applies all appropriate lighting and electrical design guidelines and departmental policies. Delivers the proper design of electrical and lighting projects with the required level of safety and serviceability, seeking assistance as needed.
5. Interacts with various bureaus within the department and external contacts on electrical and lighting matters under the direction of the Electrical and Mechanical Chief.
6. Assists in field and final inspections of electrical and lighting projects under contract.
7. Performs these and other duties as assigned in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
8. Performs other duties as assigned.