



# Illinois Department of Transportation

## Memorandum

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To: DEPUTY SECRETARIES, DIRECTORS AND BUREAU CHIEFS  
From: Becky Koehler  
Bureau Chief of Personnel Management  
Subject: Technical Vacancy  
Date: July 25, 2018

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Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement July 27, 2018 in the designated areas.

The deadline for applicants to submit their applications for consideration is **4:30 p.m. on Thursday, August 9, 2018**. Applications 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.**

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

CE V

Metals & Miscellaneous Products Engineer  
Bureau of Materials  
Office of Highways Project Implementation  
Springfield

Attachments  
42974

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](mailto:DOT.CO.BPM.EmploymentApplications@Illinois.gov) by **Thursday, August 9, 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: 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.**



## Illinois Department of Transportation

An Equal Opportunity Employer

### Position Summary Sheet

<b>Classification:</b>	<b>Civil Engineer V</b>	<b>Salary:</b>	<b>\$6,315 - \$8,263*</b>
<b>Position Title:</b>	<b>Metals and Miscellaneous Products Engineer</b>	<b>Union Position:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Position Number:</b>	<b>PW115-23-75-702-50-01</b>	<b>IPR#:</b>	<b>42974</b>

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#### Office/Central Bureau/District/Work Address:

Office of Highways Project Implementation / Bureau of Materials /126 East Ash, Springfield, IL

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#### Description Of Duties:

This position is accountable for managing the activities of the Bureau of Materials/Metals and Miscellaneous Products Unit which develops and evaluates policies and procedures pertaining to metals and miscellaneous products. This includes developing and evaluating test procedures for metals and miscellaneous products, and supervising inspection programs.

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#### Special Qualifications:

##### Required:

- Current Illinois Professional Engineer license
- Valid driver's license
- Occasional statewide and out-of-state travel that may require overnight stays

##### Desired:

- Nine years' experience in civil engineering of which at least five years should be in the specific area of highway engineering, three years of which should have been supervising engineering functions
- Working knowledge of steel fabrication; production of metal, rubber, metal and plastic pipe
- Strong oral and written communication skills
- Ability to make decisions on quality and durability of products and materials
- Working knowledge of American Association of State Highway and Transportation Officials (AASHTO) and American Society for the Testing of Materials (ASTM) standards

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#### Shift/Remarks:

8:00 am – 4:30 pm / Monday – Friday

**THIS POSITION IS COVERED UNDER THE REVOLVING DOOR PROHIBITION (RDP) POLICY.**

\*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**

<b>DATE:</b>	April 13, 2018	<b>POSITION:</b>	Metals and Miscellaneous Products Engineer
<b>APPROVED BY:</b>	Brian Pfeifer	<b>OFFICE/DIVISION:</b>	Office of Highways Project Implementation/Bureau of Materials
<b>CODE:</b>	PW115 23-75-702-50-01	<b>REPORTS TO:</b>	Engineer of Concrete, Soils, and Metals

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***Position Purpose***

This position is accountable for managing the activities of the Bureau of Materials/Metals and Miscellaneous Products Unit which develops and evaluates policies and procedures pertaining to metals and miscellaneous products. This includes developing and evaluating test procedures for metals and miscellaneous products, and supervising inspection programs.

***Dimensions***

Personnel:	Direct: 4	Indirect: 6
Number of Fabricators and Manufacturers:	500	
Material Contract Value:	\$150 Million Annually	

***Nature and Scope***

This position reports to the Engineer of Concrete, Soils, and Metals. Reporting to this position are the Metals and Miscellaneous Products Laboratory Supervisor, Metals and Miscellaneous Products Quality Assurance Coordinator, Tests Field Engineer and Structural Products Engineer.

This position is responsible for providing guidance to the department related to metal and other miscellaneous products. The incumbent must effectively and diplomatically communicate with reinforcing and structural steel fabricators, producers and suppliers of metal, rubber, metal and plastic pipe and adhesives to assist in procurement of available quality materials and make decisions as to the impact on quality and durability caused by substitution of products and materials.

Typical problems include coordinating with other departmental bureaus and outside agencies to remain current on changing materials specifications. The greatest challenges for the incumbent are through the application of technology, manpower, and testing equipment: (1) maintaining uniform quality control of reinforcing steel mills, zinc and epoxy coating facilities, elastomeric bridge bearing fabricators, corrugated metal and plastic pipe plants, and numerous other miscellaneous products; and (2) coordinating efficient field sampling, laboratory testing and qualifying of manufacturing plants and products.

The incumbent is accountable for advising and counseling district personnel, departmental offices and other agencies on specifications and procedures necessary for quality fabrication, manufacture and certification of construction products tested by the bureau. The incumbent is accountable for new product investigations which include devising test procedures, evaluating results and making recommendations as to the quality of the products. The incumbent prepares and updates the department's *Manual for Materials Inspection*, researches other test methods and procedures, and recommends revisions of the specifications to accommodate the use of new commodities, processes and technologies. The incumbent has the special duties of (1) researching and advising the department's technical personnel, consultant and contractor staff on a wide variety of material specifications, (2) assisting with the updating of the material and producer/supplier coding system for the state-wide materials

management system, (3) scheduling sample preparation and prioritizing the laboratory testing program, and (4) preparing the policies and implementation activities of the various producer certification programs in metals and miscellaneous products areas.

To perform these functions, the incumbent utilizes the following staff:

Metals and Miscellaneous Products Quality Assurance Coordinator who is responsible for coordinating field inspection and testing for certification programs reinforcing steel, metal, timber, rubber, adhesive, and plastic products; maintaining specification library; and making recommendations for keeping specifications current with product use and technological advancements.

Metals and Miscellaneous Products Laboratory Supervisor who, with a staff, is responsible for competent testing of contractual metals and miscellaneous materials used in the state's highway construction and maintenance programs, and scheduling and coordinating all work performed in the bureau's machine shop.

Tests Field Engineer who is responsible for quality testing for the unit and assisting in solving structural products problems as they arise.

Structural Products Engineer who assists the unit engineer in quality testing/inspections and structural products problems as they arise.

The incumbent performs work with a minimum amount of supervision. The incumbent, through technical knowledge, interprets test results, resolves problems in fabrication and certification procedures, and advises manufacturers and departmental personnel on specifications and procedures. The position requires the incumbent to possess strong knowledge pertaining to mechanics or materials. The incumbent must possess strong written and oral communication skills for the dissemination of information by letters, reports, manuals, and oral presentations at conferences and meetings. The incumbent must possess management skills to perform supervisory and administrative duties. Within the bureau's established guidelines and procedures, the incumbent is responsible for recommending to district personnel the rejection of products that, in his/her judgement, are not in compliance with the specifications.

Internal contacts included heads of all units in the Bureau of Materials to discuss, advise, and procure information regarding specifications, test procedures, and new products, and has frequent contacts with the Bureaus of Design and Environment, Construction, Bridges and Structures, and Operations regarding interpretations of specifications and recommendations for specification revisions and regarding field investigations. The incumbent also has many contacts with district personnel concerning procedures of inspection of metal and miscellaneous products and commodity purchases, and frequent contacts with production facilities fabricators of (1) reinforcing steel (2) structural steel (3) structural fasteners (4) bridge bearings (5) zinc and epoxy coaters (6) metal and plastic pipe, both in- and out-of-state to clear up disagreements regarding interpretations of specifications and shop plans. External contacts include the state purchasing agent regarding departmental purchases. The incumbent serves on several National Transportation Product Evaluation Program (NTPEP) committees covering a broad range of metals and miscellaneous materials. The NTPEP committees are comprised of representatives of every participating American Association of State Highway and Transportation Officials (AASHTO) member department, the Federal Highway Administration (FHWA) and industry associations. The committees develop NTPEP guidelines by establishing policies and operating procedures in accordance with stated program goals. The committee develops an annual test program and makes decisions and appointments to execute it. Occasional travel is required throughout the state.

The effectiveness for the position is measured by the ability of the incumbent to (1) provide knowledgeable consultations, (2) make decisions and recommendations that will assure that quality products are economically purchased, and (3) use management skills to create a cooperative working environment.

**Principal Accountabilities**

1. Provides consultations and interpretations of inspection and testing to assure those materials meet departmental specifications.
2. Confers with fabricators, producers, and suppliers to assist in the procurement of available quality products for the construction and maintenance of the highway system.
3. Selects, trains, and motivates a competent staff to accomplish objectives.
4. Makes field trips to evaluate fabricated products to aid district personnel in making decisions regarding compliance to specifications.
5. Travels on an as-needed basis, including overnight and out-of-state, to perform the duties of this position.
6. Participates with regional and national testing initiatives.
7. Prepares correspondence and reports to assist the Engineer of Concrete, Soils, and Metals in providing notification of the bureau's decisions and recommendations.
8. Correlates evaluations of tests presently being performed and research of other test methods and procedures to assure the department that materials are being purchased economically and of high quality.
9. Ensures subordinates comply with all departmental safety rules, practices and procedures.
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 required or assigned.