



Illinois Department of Transportation

Memorandum

To: DIRECTORS, DEPUTY DIRECTORS, AND BUREAU CHIEFS
From: Dianna L. Taylor
Bureau Chief of Personnel Management
Subject: Technical Vacancy
Date: September 15, 2016

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement September 16, 2016 in the designated areas.

The deadline for applicants to submit their names for consideration is **4:30 p.m.** on **Thursday, September 29, 2016**. 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 Jennifer Sunderland or Denise Hamilton at 217/782-5594.

CE V

Mixtures Control Engineer
Region 3/District 5/Project Implementation
Highways Project Implementation
Paris

Attachments
40969

Technical Applications (PM 1080) **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 **Thursday, September 29, 2016**, 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

Classification:	Civil Engineer V	Salary Range:	\$6,315 - \$10,210
Position Title:	Mixtures Control Engineer	Union Position:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Position Number:	PW115-23-55-203-20-01	IPR#:	40969

Office/Central Bureau/District/Work Address:

Office of Highways Project Implementation/Region 3/District 5/Bureau of Project Implementation-Materials/13473 IL Hwy 133 W., Paris, IL

Description Of Duties:

This position is accountable for planning and directing those activities that ensure that hot mix asphalt and Portland cement concrete mixtures are acceptable for use on state and local highway improvement projects where federal, state, and Motor Fuel Tax funds are involved.

Special Qualifications:

The following criteria is required:

- A current Illinois Professional Engineer license
- Valid driver's license

The following criteria is desired:

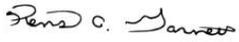
- Nine years of experience in civil engineering of which at least five years should be in the specific area of highway engineering, three years of which should have been supervising engineering functions
- Extensive knowledge of the principles and practices of civil engineering with special emphasis in activities of the Project Implementation/Materials
- Ability to develop and maintain cooperative relationships with departmental staff and the public
- Ability to interpret and enforce divisional and departmental policies
- Strong oral and/or written communication skills

Shift/Remarks:

7:00 am – 3:30 pm / Monday – Friday

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

**ILLINOIS DEPARTMENT OF TRANSPORTATION
POSITION DESCRIPTION**

DATE:	August 6, 2015	POSITION:	Mixtures Control Engineer
APPROVED BY:		OFFICE/DIVISION:	Highways/R 3 District 5/Bureau of Project Implementation/Materials
CODE:	PW115-23-55-203-20-01	REPORTS TO:	District Materials Engineer

Position Purpose

This position is accountable for planning and directing those activities that ensure that hot mix asphalt and Portland cement concrete mixtures are acceptable for use on State and local highway improvement projects where Federal, State, and Motor Fuel Tax funds are involved.

Dimensions

Subordinate Personnel:	2 Direct; 5 Indirect
Annual Value of Mixtures:	\$15-\$45M
Number of PCC Plants:	20-30
Number of HMA Plants:	4-8

Nature and Scope

This position reports to the District Materials Engineer as do the district Geotechnical Engineer, Physical Tests Engineer, and an Executive Secretary. Reporting to this position are the P.C.C. Supervisor and the Bituminous Supervisor.

The incumbent and his/her staff are responsible for the quality of Portland Cement Concrete, Hot Mix Asphalt and other mixtures produced at many locations and used in the construction of transportation facility improvements. This quality control is achieved by utilizing properly inspected aggregates and materials; designing and proportioning each mixture; surveying and calibrating the plants to assure predictable uniform mixtures; daily inspecting, sampling, testing and adjusting of mixes; and assuring the quality by progress and final sampling and testing. These functions require a great deal of expertise involving detailed knowledge of materials, the interaction of components of a mixture and the resulting effects on the properties of the final product. The incumbent must impart this expertise to subordinates so that the daily on-the-job control of mixtures will be accomplished at all locations of the District.

Typical problems encountered in this position include ensuring acceptable mixture designs to improve skid resistant properties and other safety and wear features of pavement surfaces; approving the design of new mixtures thereby reducing the demand for scarce materials and enabling the use of available by-products; utilizing QC/QA, QCP, and Pay for Performance specifications for quality assurance applications and providing for the monitoring of the use of these specifications under operating conditions; determining the capability of sophisticated electronic plant proportioning equipment, the value and use of complex chemical additives and the impact of experimental products on mixtures; evaluating the effectiveness of consultant and local agency testing equipment and consultant and local agency personnel engaged in materials proportioning and inspection; establishing District policy in the area of material and equipment testing and specification interpretation. The greatest challenge to this position is to extend pavement and bridge life and improve highway safety through the proper design and inspection of hot mix asphalt and Portland cement concrete mixtures.

The incumbent personally determines whether hot mix asphalt and Portland cement concrete materials will be used on projects in those instances where questions have been made as to material acceptability; approves

hot mix asphalt and Portland cement concrete mixture, designs to meet unusual product demands; ensure prompt investigation and resolution of complaints regarding mixture designs; approves new types of hot mix asphalt compacting equipment; establishes subordinate performance objectives and evaluates performance; determines subordinate training needs and recommends appropriate action; provide work safety for employees by enforcing Departmental safety rules and by providing necessary training and seeing that employee safety hazards are investigated and eliminated. The incumbent accomplishes accountabilities through the following personnel:

P.C.C. Supervisor—Advises technicians in the field concerning Portland cement concrete proportioning and related mixtures and also engages in plant survey and calibration, and perform progress and final sampling and testing.

Bituminous Supervisor—Advises technicians in the field concerning hot mix asphalt proportioning and related mixtures and also engages in plant survey and calibration, and perform progress and final sampling and testing.

The incumbent has frequent contacts with the District Bureau of Project Implementation-Construction, Operations, and Project Implementation-Local Roads to coordinate schedules to ensure the timely and effective review of plans, and the proportioning and inspection of mixtures. The incumbent negotiates the acceptability of special provisions covering unique mixture problems with the Bureau of Program Development, the Central Bureau of Materials & Physical Research, and the Federal Highway Administration. The incumbent deals continuously with contractors, consultants, material suppliers and local officials to ensure understanding of guidelines governing conditions of material acceptability.

The incumbent's performance may be evaluated by the quality of the hot mix asphalt and Portland cement mixtures produced, by the performance of his/her subordinates, and through feedback from Resident Engineers, contractors, and producers.

Principal Accountabilities

1. Designs Portland cement concrete mixtures and verifies hot mix asphalt mixtures that are acceptable for use on highways.
2. Establishes appropriate inspection methods and density and compaction procedures that ensure material acceptability on highways.
3. Reviews plans and prepares special provisions to cover mixture design and proportioning required for State and Local Agency contracts.
4. Determines the acceptability of substitute materials and chemical additives in mixture designs.
5. Utilizes QC/QA, QCP and Pay for Performance specifications for quality assurance applications and monitors the field use of the specifications to ensure their acceptability for project use.
6. Establishes training methods to adequately prepare assigned personnel for field proportioning and inspection assignments.
7. Conducts investigations of problems with aggregates, hot mix asphalt, and Portland cement concrete mixtures and institutes corrective action if necessary.
8. Keeps abreast with technologies which advance mixture design and control, recycling, and by-product utilization.
9. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
10. Performs other duties as assigned.