Job Title: CIVIL ENGINEER V - CONCRETE TECHNOLOGY ENGINEER - IPR#45750

Agency: Department of Transportation
Closing Date/Time: 07/15/2022
Salary: $6,445 - $10,210 Monthly
Job Type: Salaried Full Time
County: Sangamon
Number of Vacancies: 1
Plan/BU: NR916 - Protech Teamsters

*This position is covered by the Revolving Door Prohibition Policy.

This position is a union position; therefore, provisions of the relevant collective bargaining agreement/labor contract apply to the filling of this position.

All applicants who want to be considered for this position MUST apply electronically through the illinois.jobs2web.com website. State of Illinois employees should click the link near the top left to apply through the SuccessFactors employee career portal. Applications submitted via email or any paper manner (mail, fax, hand delivery) will not be considered.

Agency Mission Statement
The Illinois Department of Transportation is seeking to hire a Concrete Technology Engineer.

The IDOT team works diligently to provide safe, cost-effective transportation for Illinois in ways that enhance quality of life, promote economic prosperity and protect our environment. We are problem solvers and leaders, constantly searching for innovations and improvements in support of our commitment to providing the best multimodal transportation system for Illinois.

Our team fosters a culture of inclusivity. We value diversity and hold ourselves to the highest ethical standards as we work together for a common purpose. Team members frequently collaborate with colleagues and others outside the department to best meet customer needs.

Employees enjoy excellent benefits, including health, vision and dental insurance; a retirement plan and deferred compensation options; state holidays and other time off; tuition reimbursement; flexible schedules; and pre-tax benefit programs. The department also offers extensive training and career advancement opportunities.

We invite qualified applicants to apply to become part of our team. We are confident that you will take pride in serving Illinois and its residents and visitors.

Job Responsibilities
This position is accountable for the assurance of high quality portland cement concrete in pavements and structures for the department through supervision, technical guidance, development, and implementation of concrete quality management programs.

Value of testing equipment utilized: $1,000,000
Number of concrete plants monitored: 450

This position reports to the Engineer of Concrete and Soils. Reporting to this position are the Concrete Staff Engineer, Field Engineer, Tests Field Engineer Trainee, Test Field Engineer Trainee, and Concrete Laboratory Supervisor.
This position works in an environment where s/he is responsible for organizing and directing activities throughout the state of Illinois to ensure high quality concrete in pavements and structures. The incumbent exhibits a highly specialized knowledge of theory and practice in the field of concrete technology. S/He works with staff at the Federal Highway Administration (FHWA) and United States Army Corps of Engineers (USACE) and with consultants and material suppliers concerning specifications, test procedures, and equipment. The incumbent develops sampling and testing agreements with other states as needed. S/He works with organized industry groups in cooperative testing and information exchange. The incumbent consults with staff at the University of Illinois, district offices, and throughout the department in the areas of aggregates, cements, finely divided minerals, and admixtures to develop procedures for control of concrete mixtures. S/He works with various governmental and industry groups to reevaluate the department's concrete technology program.

Challenges for this position include planning priorities, disseminating concrete-related technology to district office staff, assuring that the department's specifications are current, controlling the quality of concrete material in the field, and utilizing current technology effectively.

The incumbent is accountable for quality management program testing requirements and development of concrete related materials and test methods. Within the Concrete Laboratory, s/he is responsible for furnishing laboratory test data to district office staff, calibrating concrete testing equipment, and distributing concrete testing equipment and parts. This position is responsible for developing and furnishing interpretation of specifications, providing technical assistance, and developing and updating department publications. S/He is accountable for training staff to teach the Concrete Tester course. The incumbent acts as the resource for the department in the area of concrete technology. This position is responsible for developing test procedures and specifications for new products and materials. S/He acts as the field liaison with district office staff to ensure that concrete plants produce mixtures in a specified manner. The incumbent is responsible for providing concrete mix designs when requested by district office staff and maintaining approved materials lists. The incumbent is responsible for the development and implementation of the Concrete Quality Control/Quality Assurance (QC/QA) Program.

(Job Responsibilities continued)

The incumbent accomplishes responsibilities through the following staff: **Concrete Staff Engineer**, who is accountable for effecting the application of laboratory technology to actual field situations and assisting district office staff with solving specific material problems.

**Field Engineer**, who is accountable for effecting the application of laboratory technology to actual field situations, promoting uniform testing and practices throughout the state, and assisting district office staff in solving specific materials problems as they arise.

**Tests Field Engineer Trainee**, who conducts correlation of field and laboratory test results to ensure the applicability of laboratory developed results to field situations and performs inspections of materials producers' products.

**Test Field Engineer Trainee**, who assists in the quality testing and inspection of hot-mix asphalt (HMA), portland cement concrete (PCC), PCC products, metal and miscellaneous products or other materials as needed.

**Concrete Laboratory Supervisor**, who is responsible for quality assurance testing, product evaluations, and dissemination of test results.

Work is performed with minimal supervision and within the Bureau of Materials' established guidelines and policies. Any problems are solved in a manner consistent with the policies and specifications of the department.

The incumbent has internal contact with staff in the district offices, Bureau of Construction, Bureau of Bridges and Structures, Bureau of Design and Environment, Bureau of Operations, and Division of Aeronautics. S/He has external contact with staff at the FHWA, USACE, and University of Illinois as well as with consultants, material suppliers, other states, various governmental and industry groups. This position requires occasional travel throughout the state which may include overnight stays to aid district office staff.

The effectiveness of the incumbent is measured principally by his/her ability to provide timely and accurate technical assistance, quality control information, and liaison to department staff and interested industry groups.

**Principal Accountabilities**
1. Ensures proper quality assurance testing and development of concrete related materials and test methods.
2. Within the Concrete Laboratory, furnishes laboratory test data to district office staff, calibrates concrete testing equipment, and distributes concrete testing equipment and parts.
3. Develops and furnishes interpretation of specifications, provides technical assistance, and develops and updates department publications.
4. Acts as the resource for the department in relation to concrete technology.
5. Develops test procedures and specifications for new products and materials.
6. Acts as the field liaison with district office staff to ensure that concrete plants produce mixtures in a specified manner.
7. Develops and implements the Concrete Quality Control/Quality Assurance (QC/QA) Program.
8. Provides concrete mix designs when requested by district office staff and maintains the approved materials lists.
9. Ensures the department has staff adequately trained to teach the Concrete Tester course.
10. Provides consulting and testing services to in-state and out-of-state government agencies.
11. Provides liaison for the materials industry to keep the department abreast of developments in concrete technology.
12. Trains, motivates, and evaluates subordinates to ensure a well-developed and competent staff.
13. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
14. Performs other duties as assigned.

Qualifications
Position Requirements
- Current registration as a Licensed Professional Engineer in the state of Illinois
- Five years of experience in civil engineering
- Occasional statewide travel which may include overnight stays
- Valid driver's license

Position Desirables
- Supervisory experience
- Experience in the area of highway engineering
- Knowledge of various types of concrete mixtures and relevant and emerging test methods for plastic and hardened concrete
- Knowledge of American Association of State Highway and Transportation Officials (AASHTO) and American Society for Testing and Materials (ASTM) standards
- Ability to make decisions regarding quality and durability of products and materials

Work Hours: 8:00 AM - 4:30 PM Monday-Friday
Work Location: 126 E Ash St Springfield, IL 62704-4766
Office: Office of Highways Project Implementation/Bureau of Materials
Agency Contact: DOT.CO.BPM.EmploymentApplications@Illinois.gov
Job Function: Transportation

APPLICATION INSTRUCTIONS
Use the “Apply” button at the top right or bottom right of this posting to begin the application process. If you are not already signed in, you will be prompted to do so.
State employees should sign in to the career portal for State of Illinois employees – a link is available at the top left of the work.Illinois.gov homepage in the blue ribbon.
Non-State employees should log in on the using the “View Profile” link in the top right of the work.Illinois.gov homepage in the blue ribbon. If you have never before signed in, you will be prompted to create an account.
If you have questions about how to apply, please see the following resources:
State employees: Log in to the career portal for State employees [K51] and review the Internal Candidate Application Job Aid HERE [K52]
Non-State employees: on work.Illinois.gov – click “Application Procedures” in the footer of every page of the website.