

Job Title: ENGINEERING TECH I - PHYSICAL TESTING TECHNICIAN - IPR#44754

Agency: Department of Transportation

Closing Date/Time: 04/15/2021

Salary: \$2,695 - \$4,735 Monthly

Job Type: Salaried Full Time

County: LaSalle

Number of Vacancies: 2

Plan/BU: NR916

DO NOT APPLY ONLINE

****DO NOT CLICK THE APPLY BUTTON****

HOW TO APPLY:

Technical Applications PM1080 (rev 3/8/21) 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 the closing date listed above. The previous application form revised 10/16/20 will be accepted until May 8, 2021. The previous application form revised 10/16/20 will be accepted until May 8, 2021. Please visit <https://idot.illinois.gov/about-idot/employment-opportunities/employment/index> to download the Technical Application PM1080.

Please indicate IPR#44754 on the Technical Application PM1080.

Applicants may submit college transcripts for completed coursework.

*This position is subject to a pre-employment physical examination and drug and alcohol testing.

Agency Mission Statement

The Illinois Department of Transportation is seeking to hire Physical Testing Technicians.

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 is primarily an on-the-job training position. The incumbent should learn how to perform prescribed inspections and testing of aggregates, Hot Mix Asphalt (HMA), and Portland Cement Concrete (PCC) produced for use on bridge and highway construction projects. The incumbent should also acquire the ability to perform the inspections and tests required to ensure that effective embankment construction practices and subgrade controls are used on construction projects. The incumbent should learn how to inspect and test materials including aggregates, pre-cast concrete products, liquid asphalts, reinforcing steel, corrugated metal pipes, and other miscellaneous materials. The incumbent is responsible for proper documentation of inspections and tests and for attending and successfully completing assigned training which will be needed to develop the skills and knowledge to perform these duties.

This position reports to the Area Testing Supervisor, but may report to the Mixtures Control Engineer, Geotechnical Engineer, Physical Test Engineer, HMA Supervisor, PCC Supervisor, or Soils Laboratory Supervisor when operational needs require utilization for field testing and inspection. There are no subordinates reporting to this position.

This position is primarily a training position designed to give the incumbent field and lab exposure to develop the skills and experience to ensure HMA and PCC produced for highway and bridge construction projects within the district comply with state specifications, project plans, and special provisions. It is also designed to give the incumbent experience in inspection and testing aggregates, precast concrete, metals, and other materials. The unique technological aspect of the position is that a sound working knowledge of mixture requirements, test procedures, and proportioning is required, which is gained primarily through both training and experience.

Typical problems faced by the incumbent include sampling and testing to cover plant production and project needs; ensuring that material to be incorporated in the mixtures is from a properly inspected source and meets all applicable specifications and special provisions; and recognizing situations requiring corrective action and recommending the appropriate action to be taken. The greatest challenge for the incumbent is to develop good working relationships with state, local agency, consultant and contractor personnel to achieve conformance with specifications and project requirements without having direct control.

(Job Responsibilities continued)

The incumbent's primary responsibility is to ensure that aggregates, HMA, and PCC construction projects within the district comply with state specifications and special provisions through continuous and effective monitoring of the production and placement processes. The incumbent's objectives are accomplished through observing the contractor's work, collecting samples, maintaining adequate documentation of material production, conducting specified inspections and performing tests. HMA tests include, but are not limited to, compaction density using a nuclear gauge, compaction density using cores, asphalt content, and maximum specific gravity. The incumbent will also perform adequate sampling and inspection on Quality Control for Performance (QCP), Pay for Performance (PFP), and Quality Control/Quality Assurance (QC/QA) projects. PCC tests include: air, slump, and strength tests as well as aggregate gradations. Aggregate tests include: gradation and sampling for quality, freeze thaw expansion, alkali-silica reactivity, and specific gravity. Soils tests include: moisture content of soils, Proctor tests to determine weight of soils and grain size analysis of soils. The incumbent should have, or be able to acquire, a good working knowledge of Microsoft Office. This position requires certification in, or the ability to obtain certification in, Aggregate Technician, HMA Level I, PCC Level I and Nuclear Density training within twelve months of hire date in addition to developing on-the-job skills in the field.

The incumbent has the authority to act within his/her area of jurisdiction but consults with his/her supervisor and project Resident Engineers concerning anticipated problems, issues with material quality, or situations where contractor operations might have to be shut down. The position operates within departmental rules, orders, policies, and specifications.

(Job Responsibilities continued)

Within the department, contacts are primarily with district Bureau of Project Implementation personnel concerning materials on state, federal, and local agency projects. Outside contacts are with County Engineers, producers, consultants, and contractors. Extensive travel within the district and some travel statewide (approximately 15,000 miles per year) is required. There is the possibility of overnight travel for training. This position requires occasional overtime, heavy/repetitive lifting up to 50 pounds; work in confined spaces, climbing steep terrain; wading in water; dealing with poisonous plants, animals, insects, rodents, snakes; performing outdoor work in a variety of conditions including, but not limited to, inclement weather (hot, cold, wet, windy, muddy), active construction sites and roadways open to traffic.

The incumbent's performance can be evaluated by his/her success in achieving cooperation of personnel not under his/her direct control in meeting departmental specifications and project

requirements, by reviewing project records and reports, and by feedback from Resident Engineers and contractor's personnel.

Principal Accountabilities

1. Ensures material and mixture producers meet the requirements of the Standard Specifications for Road and Bridge Construction, project plans, special provisions and departmental policies..
2. Attends and successfully completes assigned training.
3. Ensures proper documentation and assignment of all materials and tests. Performs inspections and testing to cover material production and project needs. Prepares plant and field reports as directed:
4. Develops good working relationships with construction personnel, contractors, and producers. Sets priorities to ensure that all required inspections are made.
5. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
6. Performs other duties as assigned.

Qualifications

Position Requirements

- Education/Experience:
 - Two years of college in civil engineering technology, pre-engineering or job related technical/science curriculum OR
 - Two years of engineering experience
- Certification in, or the ability to obtain certification in, Aggregate Technician, HMA Level I, PCC Level I and Nuclear Density training within twelve months of hire date
- Valid driver's license
- Extensive travel with the possibility of overnight stays
- Overtime
- Heavy/repetitive lifting to 50 pounds
- Outdoor work in a variety of conditions

Position Desirables

- Strong oral and written communication skills
- Strong computer skills, particularly with Microsoft Office software

Work Hours: 7:00 AM to 3:30 PM Monday - Friday (30 minute lunch)

Work Location: Ottawa - 700 E Norris Dr

Office: Office of Highways Project Implementation/Region 2/District 3/Project Implementation

Agency Contact: DOT.CO.BPM.EmploymentApplications@Illinois.gov

Job Function: Transportation

Collective Bargaining Agreement language applies to this requisition

We are currently transitioning our application process away from paper process to an electronic application process. This position has not been transitioned please follow the directions below when applying to this position.

Please visit the IDOT website at <http://www.idot.illinois.gov/about-idot/employment-opportunities/employment/index> to obtain the required bid forms and application forms.