



Illinois Department of Transportation

Memorandum

To: DEPUTY SECRETARIES, DIRECTORS AND BUREAU CHIEFS
From: Dianna L. Taylor
Bureau Chief of Personnel Management
Subject: Technical Vacancy
Date: May 5, 2017

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement May 8, 2017 in the designated areas.

The deadline for applicants to submit their names for consideration is **4:30 p.m. on Friday, May 19, 2017**. Applicants will not be accepted after that time and date.

NOTE: Applications will be accepted from qualified permanent DOT employees only. 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 the Bureau of Personnel Management at 217/782-5594.

ET V

Bridge Inspection Group Technician
Bureau of Bridges & Structures
Office of Program Development
Springfield

Attachments
40939

Technical Applications (PM 1080 rev 9/19/16) **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 **Friday, May 19, 2017**, 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: Applications will be accepted from qualified permanent DOT employees only. 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:	Engineering Technician V	Salary Range:	\$5,015 - \$9,155
Position Title:	Bridge Inspection Group Technician	Union Position:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Position Number:	PW015-23-65-906-53-01	IPR#:	40939

Office/Central Bureau/District/Work Address:

Office of Program Development/Bureau of Bridges and Structures/2300 South Dirksen Parkway, Springfield, IL

Description Of Duties:

This position oversees technical teams which make detailed in-depth inspections of major bridge structures throughout the state to fulfill the requirements of the National Bridge Inspections Standards; compiles information needed to program necessary repairs and maintenance activities; and ensures public safety.

Special Qualifications:

Required:

- Possess the National Bridge Inspection Standards certification for Team Leader-Element
- Valid driver's license
- Statewide travel with overnight stays more than 60% of the year
- Ability to work in confined spaces and at extreme heights over land and water in adverse weather and traffic conditions

Desired:

- Three years of college with the major courses of study being in pre-engineering, completion of a program in pre-engineering or civil engineering technology, or a four-year degree in a scientific program other than engineering
- Twelve years of engineering technician experience under the direction of a professional engineering or equivalent with a minimum of three years in a supervisory position
- Strong oral and written communication skills
- Ability to supervise, train and motivate personnel

Shift/Remarks:

6:30 am - 5:00 pm / Monday – Thursday (30 minute lunch)

**ILLINOIS DEPARTMENT OF TRANSPORTATION
POSITION DESCRIPTION**

DATE:	March 24, 2017	POSITION:	Bridge Inspection Group Technician
APPROVED BY:	<i>Carl Puzey</i>	OFFICE:	Program Development/Bureau of Bridges and Structures
CODE:	PW015-23-65-906-53-01	REPORTS TO:	Bridge Inspection Group Engineer

Position Purpose

This position is accountable for the oversight of the technical teams which make detailed in-depth inspections of major bridge structures throughout the state. These duties are necessary to fulfill the requirements of the National Bridge Inspections Standards, compile information needed to program necessary repairs and maintenance activities, and ensure public safety.

Dimensions

Personnel directly reporting:	15
Detailed in-depth bridge inspections and reports:	25 annually
Fracture Critical Bridge Member Inspections:	50 annually
Underwater Bridge Element Inspections:	25 annually
Detailed Ultrasonic Bridge Inspection and Reports:	50 annually
Value of Bridge Inspection Equipment:	\$1.2 million

Nature and Scope

This position reports to the Bridge Inspection Group Engineer. Reporting directly to this position are the Senior Bridge Inspection Technicians, The Associate Bridge Inspection Technicians, the Assistant Bridge Inspection Technicians and Highway Maintainers.

The incumbent operates in an environment of inspection of major highway structures throughout the state and supervision of crew activities. The incumbent must have appreciable knowledge of structure technology, nomenclature and the ability to recognize structural problems in a variety of bridge types so that serious deficiencies can be properly analyzed and accurately reported.

The greatest challenge of the job is for the detection of problems that affect the structures and the determination of reasons for those problems. These bridges represent a massive investment of public funds. Proper inspection helps to preserve this investment, prevent structural failures, and increase the level of public safety. Typical problems include supervising field personnel during bridge inspections, coordination with district inspection and maintenance staff, and appropriate govern mental agencies to obtain necessary permits.

The incumbent must be able to operate, maintain and care for all of the equipment under their control. The incumbent is responsible for analyzing and scheduling the specific inspection equipment and traffic control needs for reach bridge to be inspected. On most structure, traffic control assistance is needed. As such, specific needs for signs, barricades, cones, arrow boards, and flagmen must be determined and scheduled with the District Maintenance Engineer. Functions performed personally by the incumbent include organizing and supervising the bridge technicians during bridge inspections, assisting in the preparation of the yearly

bridge inspection schedule, and sounding underwater areas around river piers; and obtaining river bottom profiles and elevations with electronic depth sounding equipment. S/He must be aware of problems associated with welded bridges and capable of testing for flaws and cracks associated with welds and out of plane bending. The incumbent must be familiar with many types of bridges to make critical observations of all bridge components, keep notes, take photographs, and make sketches as needed to record the required bridge data. Of particular importance are the NBIS required Fracture Critical Bridge Member and Underwater Bridge Elements Inspections. The incumbent must be able to establish the necessary traffic control in accordance with departmental standards to protect both motorist and crew and to minimize interference with highway traffic. Additionally, the incumbent prepares detailed bridge inspection reports as directed by the Bridge Inspection Group Engineer, assists with and directs the technicians in the preparation of these reports.

The accountabilities are accomplished through the following:

Senior Bridges Inspection Technician, who prepare detailed notes and takes photographs of components inspected; obtains streambed profiles adjacent to piers; obtains accurate elevations of critical points, profiles evaluations of lower chords and decks; performs nondestructive tests on critical bridge members. S/He must research available design, construction and repair data. Typical problems include supervisory duties for bridge technician during inspections.

Assistant Bridge Inspection Technician, who participates in the detailed inspection of major bridge structures throughout the state. Obtaining profile elevations of lower chords and decks; sounding underwater areas around river piers and obtaining river bottom profiles and elevations with electronic depth sounding equipment; makes observations of all bridge components and keep notes, takes photographs and makes sketches as needed to record the required information.

Associate Bridge Inspection Technician, who prepares detailed notes and takes photographs of components inspected and takes an inventory of the bridges to be inspected. S/He must research available design, construction and repair data.

Highway Maintainer, who performs a variety of tasks related to the maintenance, repair and upkeep of roads, bridges and other related structures and features.

The incumbent is afforded latitude in the accomplishment of duties and keeps the Bridge Inspection Group Engineer apprised of any structural problems encountered. This position assumes full responsibility of the bridge inspection crew in the absence of the Bridge Inspection Group Engineer.

The incumbent has internal contacts with both Bureau of Bridges and Structures and district Operations personnel for the purpose of accomplishing responsibilities. Externally, the incumbent has occasional contacts with local agencies, Federal Highways Administration personnel, and the public. This position requires continual travel and the ability to perform strenuous physical activities in an outdoor environment. Access to many of the components of large bridge is very difficult and at considerable height above ground or water. The work place is additionally complicated with the presence of high speed traffic on the deck and high voltage electronic transmission lines often above or adjacent to the structure. Statewide travel is required.

The effectiveness of this position can be measured by the accuracy of the work performed, the quality of the inspection reports, and the efficiency of the crews under his/her direction. Effective performance in this position also requires leadership to gain full cooperation of other crew members and willingness to work in an adverse environment of weather, traffic conditions and height.

Principal Accountabilities

1. Directs and supervises the Inspection Teams in the continuing detailed inspection of major bridges throughout the state to ensure compliance with the National Bridge Inspection Standards.
2. Visually inspects bridges to seek out damaged or deteriorated components, makes records and photographs of problems detected and makes appropriate recommendations for repair or structural analysis.
3. Prepares bridges inspection reports under the direction of the Bridges Inspection Group Engineer.
4. Operates and maintains a variety of expensive and sophisticated equipment used by the crew.
5. Establishes proper traffic protection in accordance with departmental standards.
6. Performs calculations in conjunction with the inspection and reports.
7. Performs duties 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.