

**Civil Engineer Trainee  
Squad Engineer Trainee (5 positions)**

<b>IPR Number:</b>	<b>43681</b>	<b>Union Position:</b>	<input checked="" type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b>
<b>Position Number:</b>	<b>PW110-23-52-303-10-01</b>	<b>Shift:</b>	<b>8:00 am – 4:30 pm</b>
<b>Opening Date:</b>	<b>September 3, 2019</b>		<b>Monday – Friday</b>
<b>Closing Date:</b>	<b>December 2, 2019</b>	<b>Salary:</b>	<b>\$4,275 – \$4,655*</b>

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

Office of Highways Project Implementation / Region 2 / District 2 / Bureau of Program Development / 819 Depot Ave. Dixon, IL

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**Position Purpose:**

This is a training position and part of a rotation program. This position assists with the inspection and improvements to layouts on various construction projects and with preparation of location studies. They will also help with the preparation of plans for highways, lighting, bridges, landscaping, and resurfacing improvements. This is an entry-level engineering trainee position. This position is responsible for performing detailed tasks associated with the preparation of design studies, contract plans, and specification for highway improvement plans. Additional responsibilities may include assisting the squad with preparation of exhibits, reports, plan sheets, and documents for highway and bridge improvements.

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**Qualifications:**

**Position Requirements:**

- Completion of a master's or bachelor's degree in engineering from an ABET accredited college OR a current Engineer Intern License in the state of Illinois (includes those expecting to graduate in fall of 2019 or spring of 2020). (Note: Those applying with only a degree must have a minimum of 2.5 cumulative GPA in engineering related courses. If 2.0-2.5 GPA, applicants must have passed the Fundamentals of Engineering exam)
- Valid driver's license

**Position Desirables:**

- Strong oral and written communication skills
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**How to Apply/Remarks:**

Technical Applications PM1080 (rev 8/23/19) 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 4:30 pm on the closing date listed above. Applications will not be accepted after this date and time. The previous application form revised 6/1/17, will be accepted until 4:30 pm on October 23, 2019.

**Agency Contact:** Bureau of Personnel Management, 217/782-5594

**Unofficial college transcripts must be included with application. Official college transcripts must be submitted upon date of employment. Applicants possessing an Engineer Intern License must also include a copy with application. Applicants not submitting these documents by the posting deadline will not be considered for employment.**

To be considered for a permanent position within IDOT, you must either be a US citizen or a non-citizen with permanent work authorization.

Only education/coursework and experience listed within the application will be considered for determining eligibility for this position.

NOTE: Please be advised that if a high volume of applications is 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.

Applicants will be notified in writing to schedule interviews.

\*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.

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**ILLINOIS DEPARTMENT OF TRANSPORTATION  
POSITION DESCRIPTION**

<b>DATE:</b>	January 18, 2019	<b>WORKING TITLE:</b>	Squad Engineer Trainee
<b>POSITION CLASSIFICATION:</b>	Civil Engineer Trainee	<b>OFFICE/BUREAU:</b>	OHPI/Bureau of Program Development
<b>POSITION NUMBER:</b>	PW110-23-52-303-10-01	<b>REGION/DISTRICT:</b>	Region 2/District 2

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***Position Purpose***

This is a training position and part of a rotation program. This position assists with the inspection and improvements to layouts on various construction projects and with preparation of location studies. They will also help with the preparation of plans for highways, lighting, bridges, landscaping, and resurfacing improvements. This is an entry-level engineering trainee position. This position is responsible for performing detailed tasks associated with the preparation of design studies, contract plans, and specification for highway improvement plans. Additional responsibilities may include assisting the squad with preparation of exhibits, reports, plan sheets, and documents for highway and bridge improvements.

***Dimensions***

Subordinates:	None
Number of Location Studies and Contracts:	3 – 5 per year
Program Value of Contracts and Studies:	\$200,000 - \$5 Million per year

***Nature and Scope***

This position reports to the Squad Engineer and may report to a squad leader on a project basis. No subordinate personnel report to this position.

This position performs in an environment which is sensitive to public and municipal involvement. When proposing roadway improvements, h/she must seek input from all affected parties while remaining within design control value restraints. H/she must also have knowledge of highway technology as it relates to the planning functions of construction, maintenance, and traffic operations. Travel is required to check on project details, meeting with the public at informational meetings, and making field inspections of the various projects. The incumbent of this position performs in an environment of pre-determined and accelerated deadlines. H/She also performs in an area sensitive to quantity errors, incomplete plan assembly, and inadequate design which may result in an incomplete engineer's cost estimate, contractors bid, or delayed letting schedules.

Understanding the requirements and reasoning behind the selection of specific design standards and providing a high level of accuracy in calculations are the most typical problems encountered by this position. Additional challenges include obtaining field data and properly transferring this data to the plan in a neat, accurate, and timely manner. The greatest challenges to this position are learning the processes used for selecting design standards, to learn the plan assembly process, and to accomplish assigned duties in an effective manner to ensure completion of contract plans in time for proposed lettings.

This position is responsible for proposing highway improvements compatible with state policies and within the Design Control Value. This includes layout of design alignments, developing vertical gradelines, determining preliminary design elements, and estimating quantities and costs. All these responsibilities are subject to the review and approval of his/her supervisor. This position is also responsible for the justification and documentation of the proposal through the means of a Project Studies Report. He/she acts as liaison with the public and advises the project studies sub-squad leader of any project detail which could become publicly or

ecologically controversial. H/she personally computes and verifies materials and earthwork quantities, establishes horizontal and vertical elevations, and under direction of the Squad Engineer, lends design input to plans.

In accomplishing the objectives of this position, the incumbent must operate within the limits of prescribed department standards and specifications and the directions of the Squad Engineer. Any problems involving design details, quantity changes or deviations from departmental standards or policies should be referred to his/her supervisor.

Internal contacts include other sections within the Bureau of Program Development for the purpose of obtaining information relative to specific design projects and regarding right-of-way requirements. He/she has occasional contact with the Bureau of Operations for signing requirements and to obtain information regarding maintenance problems and landscaping requirements, and with the Bureau of Project Implementation for soil survey data. External contacts include local, county, and state agencies and the general public affected by the proposed designs being studied.

Performance on the job can be measured best through the quality of computations, roadway designs, and ability to learn the specifics of design report preparation, standard selection, and plan assembly.

**Principal Accountabilities**

1. Responsible for the preparation, completion, and processing of project studies reports that are technically feasible, cost effective, minimize adverse environmental effects, and are acceptable to the public.
2. Assists the Squad Engineer in the preparation of plans, specifications, and contract documents, while ensuring the proper design of road construction, reconstruction, and rehabilitation projects.
3. Verifies and computes plan quantities and prepares pay item quantity schedules to ensure the accuracy of plan submittals.
4. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
5. Performs other duties as required.

**Subordinates of this position** (if applicable, list subordinate information in the chart below)

Position Classification	Position Number	Working Title	Authorized Identical
N/A			

**Supervisor of this position**

Immediate Supervisor Position Classification: Civil Engineer III

Working Title: Squad Engineer

Position Number: PW113-23-52-33-10-02

**Position Requirements**

- Completion of a master's or bachelor's degree in engineering from an ABET accredited college OR a current Engineer Intern License in the state of Illinois. (Note: Those applying with only a degree must have a minimum of 2.5 cumulative GPA in engineering related courses. If 2.0-2.5 GPA, applicants must have passed the Fundamentals of Engineering exam)
- Valid driver's license.

**Position Desirables**

- Strong oral and written communication skills.

**Agency Approvals**

  
Bureau Chief of Personnel Management

  
Secretary, Department of Transportation