



# Illinois Department of Transportation

## Memorandum

---

To: DEPUTY SECRETARIES, DIRECTORS AND BUREAU CHIEFS  
From: Becky Koehler  
Bureau Chief of Personnel Management  
Subject: Technical Vacancy  
Date: May 29, 2018

---

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement May 31, 2018 in the designated areas.

The deadline for applicants to submit their applications for consideration is **4:30 p.m. on Wednesday, June 13, 2018**. Applications will not be accepted after that time and date.

**NOTE: 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.**

If you have any questions, please contact the Bureau of Personnel Management at 217/782-5594.

ET V

CADD Supervisor  
Region 5/District 9/Program Development  
Office of Highways Project Implementation  
Carbondale

Attachments  
42810

Technical Applications [PM1080 rev 6/1/17](#)\*\***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 **Wednesday, June 13, 2018**, 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: 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

<b>Classification:</b>	<b>Engineering Technician V</b>	<b>Salary:</b>	<b>\$5,015 - \$7,085*</b>
<b>Position Title:</b>	<b>CADD Supervisor</b>	<b>Union Position:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Position Number:</b>	<b>PW015-23-59-304-50-01</b>	<b>IPR#:</b>	<b>42810</b>

---

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

OHPI / Region 5 / District 9 / Bureau of Program Development, 2801 W Murphysboro Rd, Carbondale, IL

---

#### Description Of Duties:

This position is accountable for supporting and improving the proficient use of Computer Aided Design and Drafting (CADD) related software and hardware for design development and delivering usable formats to construction personnel and contractors.

---

#### Special Qualifications:

##### Required:

- Valid driver's license
- Occasional districtwide and statewide travel with overnight stays and overtime

##### Desired:

- Completion of three years of college with the major courses of study being in pre-engineering completion of a two-year program in CADD and/or a four-year degree in a scientific program other than engineering
- Twelve years of engineering technician experience with a minimum of three years in a supervisory position
- Extensive knowledge and experience with MicroStation, GEOPAK, ProjectWise and Power GEOPAK
- Ability to plan, organize and execute administrative or technical program requirements
- Ability to plan and direct efforts of work for efficient accomplishments of program objectives
- Ability to maintain harmonious relationships with employees, agency officials and the general public
- Strong oral and written communication skills

---

#### Shift/Remarks:

8:00 am – 4:30 pm / Monday – Friday

\*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.

\*\*Technical Application PM1080 (revised 6/1/17) is required. No previous version of the PM1080 will be accepted.

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
POSITION DESCRIPTION**

<b>DATE:</b>	February 5, 2018	<b>POSITION:</b>	CADD Supervisor
<b>APPROVED BY:</b>	<u>Jeffrey L. Keirn</u>	<b>OFFICE/DIVISION:</b>	OHPI, Region 5, District 9, Program Development
<b>CODE:</b>	PW015-23-59-304-50-01	<b>REPORTS TO:</b>	Project Support Engineer

---

***Position Purpose***

This position is accountable for supporting and improving the proficient use of Computer Aided Design and Drafting (CADD) related software and hardware for design development and delivering usable formats to construction personnel and contractors.

***Dimensions***

Subordinate Personnel:	1 – 8
Support Staff:	60 – 70
# of CADD Works Stations/Plotters:	70 / 3

***Nature and Scope***

This position reports to the Project Support Engineer. Reporting to this position are the Lead CADD Operator, Senior CADD Operator, CADD Operator and CADD Operator Trainees.

CADD systems are highly specialized and are a rapidly developing area of highway engineering. The CADD system was introduced in order to meet the increased demands for plan preparation under limited staffing levels. Increasingly sophisticated, highly specialized and ever-changing technology requires that knowledge and skills are refined and upgraded continually. The incumbent must be able to support the interoperability of the technology and its related hardware used within the district; including but not limited to Power GEOPAK, ProjectWise, Trimble, LiDAR data and GIS.

Typical problems include aiding designers with complex highway plans using the CADD system, assisting CADD users with technical problems, keeping abreast of district program priorities in order to properly prioritize projects, addressing hardware and software failures and problems with the operation of the CADD related equipment including plotters, and providing data to users, consultants, and contractors in a timely fashion. Ever changing technology makes it necessary to continually expand skill levels and knowledge as software is added and upgraded. The incumbent also works with the central Bureau of Design and Environment to evaluate, test and make recommendations concerning new versions of current software, computer configurations and potential benefits of new technology, hardware and concepts.

The CADD Supervisor has the responsibility of file management from project creation through archiving. This position provides timely access of data beginning with the district Sections of Surveys, Studies and Plans, Land Acquisition and Utilities then converts and transfers MicroStation and GEOPAK data into a format usable by the Bureau of Project Implementation and may have to meet in the field to deliver or review provided data. S/He insures project set-up including proper access, conversion, merging of data from a variety of sources, including surveys, aerial mapping, LiDAR and GIS data and ensures transfer of files in a timely fashion. The incumbent reviews in-house and consultant files for standard and policy adherence. S/He also maintains district specific CADD resource files and many district-use maps. The incumbent may also act as a back-up operator when necessary to meet tight district deadlines. The incumbent meets with other managers and supervisors to

schedule work, prioritize, and resolve technology issues; works with highway designers and project leaders to properly translate design concepts, and with users to resolve issues regarding correct drafting methods; and reviews finished plans to ensure the drafting and related aspects of plans meet established and accepted drafting and design standards and guidelines. S/He applies considerable knowledge and experience in the use of the CADD system, providing technical support and training to CADD users. This position develops a training strategy, recommending what training may be beneficial to each user and presents and/or participates in training sessions. S/He also provides individual task specific instruction as needed. Training material must be reviewed and revised as software is upgraded or added to the system. Within the Bureau of Program Development, the incumbent also works closely with the survey unit to provide accurate surveys and terrain models by processing, merging and manipulating historical data to be used by designers in the development of projects. The incumbent provides access to historical electronic data, for use in current projects, to other bureaus for review of design intent. The incumbent serves as district coordinator with the central Bureau of Design and Environment relative to problems with CADD software applications, state standards, and computer configurations. The incumbent reports issues, suggests revisions or additions and tests upgrades in a production environment. The CADD supervisor acts as the point of contact for district consultants and contractors in their use of the Illinois Department of Transportation (IDOT) provided workspace. Questions from exterior users are directed to this position for clarification of CADD related policies and guidelines. S/He also loads and reviews any consultant produced CADD files and advises the appropriate manager/supervisor on the integrity and reusability of transferred consultant files.

This position accomplishes its accountabilities through the following subordinates:

Lead CADD Operator – who supports district CADD users by troubleshooting and teaching; becoming efficient and knowledgeable with hardware and software used within the district and fulfilling responsibilities of the CADD Supervisor as needed.

Senior CADD Operator – who assists CADD users with drawing techniques for plan development and becoming familiar with other hardware and software used in the district to complete the program.

CADD Operators and CADD Operator Trainees who are becoming proficient in the use of MicroStation and GEOPAK as it relates to district use and works on projects as assigned.

The incumbent has broad latitude to accomplish responsibilities. Matters of a unique nature are referred to the supervisor with recommendations for resolution. The incumbent works within the confines of all state and federal laws and follows IDOT policy. This position requires a valid driver's license, occasional overtime, and some travel within and outside the district, with the possibility of overnight stays.

Within the district, this position maintains communications with surveyors, designers and project leaders in the Bureaus of Program Development, Resident Engineers in the Bureaus of Project Implementation and Operations regarding work performed and provided through the CADD system. Outside of the district, this incumbent is in frequent contact with support staff in the Bureau of Design and Environment, consultants, contractors and vendors as related to the implementation and use of current IDOT CADD related hardware and software.

The effectiveness of this position is measured by the timely provision of data, resolution of failures and problems, training of new and current CADD users, and a smooth flow of CADD related data throughout the district.

***Principal Accountabilities***

1. Accurately loads, processes, merges and manipulates electronic data for terrain creation for use in developing highway plans. Aids designers in producing timely, correctly drafted highway plans based on conceptual requirements defined by project leaders and designers.
2. Identifies, resolves and/or reports CADD system hardware and software issues. Reviews hardware and software upgrade recommendations and reports findings to the Bureau of Design and Environment.
3. Reviews, evaluates and promotes skill and knowledge advancement in subordinates. Develops and presents the district training program for all district CADD users through individual task specific sessions or group sessions.
4. Manages CADD related files.
5. Converts and/or translates CADD related data and files for delivery to various bureaus, the central office, contractors and consultants.
6. Reviews consultant produced projects for compliance with IDOT standards.
7. Performs other duties as assigned.
8. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.