

Job Title: ENGINEERING TECH III - SENIOR CADD OPERATOR - IPR#45677

Agency : Department of Transportation

Closing Date/Time: 08/16/2022

Salary: \$3,920 - \$6,775 Monthly

Job Type: Salaried Full Time

County: Jackson

Number of Vacancies: 2

Plan/BU: NR916 - Protech Teamsters

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 Senior CADD Operators.

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.

The department offers extensive training and career advancement opportunities. Employees also receive a robust benefit package including:

- Monday-Friday work schedule
- Flexible work schedules are available in many program areas.
- Health, Life, Vision, and Dental Insurance
- Pension Plan
- (10) Weeks paid Maternity/Paternity Leave
- Deferred Compensation Program and other pre-tax benefit programs (Medical/Daycare)
- Employees earn (12) paid Sick Days annually.
- New Employees earn (10) paid Vacation Days their first year of service and can earn up to (25) paid Vacation Days annually.
- Employees earn (3) paid Personal Days annually.
- (13-14) paid holidays annually (based on start date)
- Tuition Reimbursement

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 assisting in the drafting and designing of complex highway plans using sophisticated state of the art computer aided design and drafting (CADD) equipment, for identifying and resolving

CADD system problems, and for conducting training and support for the CADD design system.

CADD System Value:	\$500,000
ADD Workstations/Plotters:	70/2

This position reports to the CADD Unit Supervisor. There are no subordinates reporting to this position.

CADD systems are a rapidly developing area of highway engineering. Increasingly sophisticated, highly specialized, and ever-changing technology require that knowledge and skills be refined and advanced continuously. Under the general direction of the CADD Unit Supervisor, the incumbent exercises a moderate degree of design and drafting expertise and judgment in order to assist users in creating highly complex highway plans and translating Digital Terrain Modeling (DTM) data into usable format for use by designers and construction personnel.

Typical problems include aiding designers with complex highway plans using the GADD system, assisting CADD users with technical problems, keeping abreast of district program priorities in order to properly prioritize requests, resolving computer failures and problems with the operation of the GADD system and recommending possible solutions and workarounds, therefore continually expanding skill levels and knowledge is necessary as software and hardware is added and upgraded. Other responsibilities include assisting the CADD Supervisor in training new users in accurate and efficient methods using CADD and other engineering software and hardware and maintaining district resources. The greatest challenges of the position include assisting designers in software interpretation to create accurate 3d models, assisting in the training of new users, the creation of accurate DTM models, and the processing, conversion and transfer of data beginning with surveys, to designers, to construction and finally to maintenance.

(Job Responsibilities continued)

The incumbent personally works closely with highway designers and project leaders to properly translate design concepts into correctly prepared and drafted plans within accepted practices and highway design standards. The incumbent applies moderate expertise and experience in the use of CADD system workstations in order to provide technical support and training to GADD users. The incumbent must continually refine and upgrade skills as technology advances are made available. This position assists the GADD Supervisor with the development and presentation of the district training program, which must be reviewed and revised as software is upgraded or added to the system. The incumbent also assists the GADD Supervisor with creating projects, sending/reviewing consultant data, merging aerial mapping files and maintaining the integrity of cell libraries, district use maps and documentation databases. At times, the incumbent acts as a back-up CADD Operator when necessary to meet district deadlines. S/He may create and annotate sheets, attach schedules, draw and annotate details, or perform other project related tasks, as well as maintain district standards and a variety of district use maps. This position is responsible for accurately processing, merging, and manipulating DTM models for use in projects. This position processes survey and DTM data, transfers necessary files through Studies and Plans, Land Acquisition and Project Support then converts and transfers CADD data into a format usable by Project Implementation.

The incumbent works with general supervision to increase knowledge of CADD design system and other engineering software and hardware, assist on complex highway design and drafting projects when necessary to meet tight district deadlines.

The incumbent maintains frequent contacts with the Survey Chief, designers and project leaders in the Bureaus of Program Development, Project Implementation and Operations personnel regarding work being done and provided throughout the CADD system. This position requires occasional travel within the district and outside the district, which could include overnight stays, occasional overtime outside normal work shift hours, and the ability to problem solve and teach new processes.

The effectiveness of this position is measured by timely response to questions and resolution of failures and problems, training of CADD users, and a smooth flow of CADD data throughout the district.

Principal Accountabilities

1. Aids designers in producing timely, correctly drafted highway plans, including identifying and recommending workarounds to encountered issues with CADD software and hardware.
2. Maintains district standards and a variety of district use maps, creates exhibits and other special projects as requested from bureaus
3. Assists CADD supervisor in the development and presentation of the district training program.

4. Assists CADD Supervisor with project set-up. Accurately processes, merges, and manipulates DTM models for use in projects.
5. Processes, converts and transfers CADD data throughout Bureaus of Program Development, Project Implementation and Operations as needed.
6. Assists CADD Supervisor with preparing data for consultants and reviewing consultant submittals.
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.

Qualifications

Position Requirements

- Education/Experience:
 - Completion of two years of college in civil engineering technology, pre-engineering or a job related technical/science curriculum PLUS thirty months of engineering experience; OR
 - Six years of engineering experience
- Valid driver's license
- Occasional travel within the district and outside the district, which could include overnight stays
- Overtime outside normal work shift hours and weekends

Position Desirables

- Experience with:
 - Power GEOPAK SS4/10
 - Knowledge of modern methods and techniques as applied to design of public works
 - OpenRoads Designer
 - Trimble Business Center
 - GIS
- Good oral and written communication skills

Work Hours: 8:00 AM - 4:30 PM

Work Location: 2801 W Murphysboro Rd Carbondale, IL 62901-1059

Office: Office of Highways Project Implementation/Region 5/District 9/Program Development

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

Job Family: 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 Illinois.jobs2web.com homepage in the blue ribbon.

Non-State employees should log in on the using the "View Profile" link in the top right of the Illinois.jobs2web.com 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 and review the [Internal Candidate Application Job Aid](#)

Non-State employees: on Illinois.jobs2web.com – click "Application Procedures" in the footer of every page of the website.

The main form of communication will be through email. Please check your "junk mail", "spam", or "other" folder for communication(s) regarding any submitted application(s). You may receive emails from the following addresses:

- donotreply@SIL-P1.ns2cloud.com
- systems@SIL-P1.ns2cloud.com