



Title: Senior Engineering Technician

FLSA Status: Non-Exempt

BRIEF DESCRIPTION:

The purpose of this position is to provide a wide range of drafting services for the District’s Engineering and Construction Division. This is accomplished by performing advanced drafting work, assisting with a variety of field projects, gathering field data, assisting in project coordination, field surveys, and complex calculations, filing project plans, and producing graphics for public presentation.

ESSENTIAL FUNCTIONS:

Note: This information is intended to be descriptive of the key responsibilities of the position. The list of essential functions below does not identify all duties performed by any single incumbent in this position. Additionally, please be aware of the legend below when referring to the physical demands of each essential function.

(S) Sedentary Exerting up to 10 lbs. occasionally or negligible weights frequently; sitting most of the time.	(L) Light Exerting up to 20 lbs. occasionally; 10 lbs. frequently; or negligible amounts constantly; OR requires walking or standing to a significant degree.	(M) Medium Exerting 20-50 lbs. occasionally; 10-25 lbs. frequently; or up to 10 lbs. constantly.	(H) Heavy Exerting 50-100 lbs. occasionally; 10-25 lbs. frequently; or up to 10-20 lbs. constantly.	(V) Very Heavy Exerting over 100 lbs. occasionally; 50-100 lbs. frequently; or up to 20-50 lbs. constantly.
---	---	--	---	---

#	Code	Essential Functions	% of Time
1	S	Drafts and designs by applying design practices in the preparation of contract drawings, preparing civil, architectural, electrical, and mechanical drawings, creating and modifying AutoCAD drawings, assisting engineers and architects in mathematical calculations, plotting and printing on various media, preparing and amending right-of-way maps, working drawings and profiles, preparing presentation graphics and/or exhibits, and preparing as-built drawings.	60 %
2	S	Tracks and maintains the drawing files by creating, maintaining, and archiving current electronic and hard copy drawings and reference files, creating and maintaining a document control systems for drawings and drawing files, and coordinating, monitoring, and reproducing electronic and hard copy information for all engineering drawing requests.	20 %
3	S	Assist with project utility coordination through notification to utilities and organization of utility maps needed to identify potential utility conflicts, using horizontal level and other measurement tools for surveying to verify object locations in proposed construction fields, and transcribing into the AutoCAD software survey information to be used in construction drawings.	10 %
4	S	Assisting with workload distribution to engineering technician staff, giving oral and written instructions, and reviewing the work of other engineering technicians.	10 %



JOB REQUIREMENTS:

-Description of Minimum Job Requirements-	
Formal Education	<p>Work requires knowledge of a specific vocational, administrative, or technical nature which may be obtained with a two (2) year associate's degree, diploma or equivalent from an accredited college, technical, business, vocational, or correspondence school in Engineering, Construction Technology or a related field. Appropriate certification may be awarded upon satisfactory completion of advanced study or training.</p> <p>Additional directly related experience beyond the minimum requirement may substitute for the required education based on the ratio of one and a half (1.5) years of experience for each (1) year of education.</p>
Experience	A minimum of three (3) years of experience in civil or electrical engineering using CADD. Experience in field work is preferred.
Supervision	Work requires functioning as a lead worker performing essentially the same work as those directed, and includes overseeing work quality, training, instructing, and scheduling work.
Human Collaboration Skills	Work may require providing advice to others outside direct reporting relationships on specific problems or general policies. Contacts may require the consideration of different points of view to reach agreement. Elements of persuasion may be necessary to gain cooperation and acceptance of ideas.
Freedom to Act	The employee normally performs the job by following established standard operating procedures and/or policies. There is a choice of the appropriate procedure or policy to apply to duties. Performance reviewed periodically.
Technical Skills	Skilled: Work requires a comprehensive, practical knowledge of a technical field with use of analytical judgment and decision-making abilities appropriate to the work environment of the organization.
Budget Responsibility	Position has no fiscal responsibility.
Reading	Intermediate - Ability to read papers, periodicals, journals, manuals, dictionaries, thesauruses, and encyclopedias. Ordinarily, such education is obtained in high school up to college. However, it may be obtained from experience and self-study.
Math	Intermediate - Ability to deal with a system of real numbers; and practical application of fractions, percentages, ratios/proportions and measurement. Ordinarily, such education is obtained in high school up to college. However, it may be obtained from experience and self-study.
Writing	Advanced - Ability to write editorials, journals, speeches, manuals, or critiques. Ordinarily, such education is obtained in at the college level or above. However, it may be obtained from experience and self-study.
Certification & Other Requirements	



KNOWLEDGE
<ul style="list-style-type: none"> • Standard advanced drafting terminology, abbreviations, symbols, dimensioning techniques and acceptable graphic layouts, e.g., lettering styles and size, orientation, borders, title blocks, etc. • Preliminary and final engineering drawing requirements, including preparation of maps, working drawings, and plans and profiles. • Principles of advanced drafting layout and design. • Mechanics of advanced drafting. • Types and appropriate applications of drafting tools. • Civil, electrical, and mechanical engineering and architectural design drafting practices. • Graphic-type software, including setup. • Computers, printers, and plotters in reproducing graphics. • Different methods of field measurement to determine exact location. • Basic surveying equipment use and procedures. • Electronic document control (create, delete, storage and retrieval, archive to CD, object and hyper linking). • Legal description and appraisal plat format. • APN books and numbers.
SKILLS
<ul style="list-style-type: none"> • Advanced word processing, spreadsheet, presentation and database software. • Specialized software related to functional area.
ABILITIES
<ul style="list-style-type: none"> • Communicate clearly and concisely, both orally and in writing. • Work from verbal instructions, sketches, or notes. • Print reproduction from electronic files, microfiche, and hardcopy via plotter, printer, blueprint machine, copier, and scanner. • Work with small computers in the production of various graphics products. • Assist District personnel in design and layout of printed materials. • Prepare and amend right-of-way maps, working drawings, and plans and profiles. • Prepare as-built drawings. • Recommend minor design changes or clarifications. • Assist in project coordination. • Assist in field surveys; perform complex calculations. • File and catalog project plans. • Produce graphics for public presentations. • Perform the most complex and advanced drafting tasks and assist supervisor with assigning, coordinating, and checking work of staff. • Learn District policies and procedures.



OVERALL PHYSICAL STRENGTH DEMANDS:

-Physical strength for this position is indicated below with "X"-

Sedentary	Light	Medium	Heavy	Very Heavy
X				
Exerting up to 10 lbs. occasionally or negligible weights frequently; sitting most of the time.	Exerting up to 20 lbs. occasionally, 10 lbs. frequently, or negligible amounts constantly OR requires walking or standing to a significant degree.	Exerting 20-50 lbs. occasionally, 10-25 lbs. frequently, or up to 10 lbs. constantly.	Exerting 50-100 lbs. occasionally, 10-25 lbs. frequently, or up to 10-20 lbs. constantly.	Exerting over 100 lbs. occasionally, 50-100 lbs. frequently, or up to 20-50 lbs. constantly.

PHYSICAL DEMANDS:

C	F	O	R	N
Continuously	Frequently	Occasionally	Rarely	Never
2/3 or more of the time.	From 1/3 to 2/3 of the time.	Up to 1/3 of the time.	Less than 1 hour per week.	Never occurs.

Note: This is intended as a description of the way the job is currently performed. It does not address the potential for accommodation.

-Physical Demand-	-Frequency-	-Brief Description-
Standing	R	Observing work site; observing work duties; communicating with co-workers
Sitting	C	Desk work; meetings; driving
Walking	R	To other departments/offices; around work site
Lifting	R	Supplies; equipment; files
Carrying	R	Supplies; equipment; files
Pushing/Pulling	R	File drawers
Reaching	R	For supplies; for files
Handling	O	Paperwork
Fine Dexterity	C	Computer keyboard; calculator
Kneeling	R	Filing in lower drawers; retrieving items from lower shelves/ground
Crouching	R	Filing in lower drawers; retrieving items from lower shelves/ground
Crawling	N	
Bending	R	Filing in lower drawers; retrieving items from lower shelves/ground
Twisting	R	Getting inside vehicle
Climbing	R	Stairs, step stool
Balancing	R	Step stool
Vision	C	Reading; computer screen; driving
Hearing	F	Communicating via telephone/radio; to co-workers/public
Talking	O	Communicating via telephone/radio; to co-workers/public
Foot Controls	R	Driving
Other (specified if applicable)		None

MACHINES, TOOLS, EQUIPMENT, SOFTWARE, AND HARDWARE:

Telephone, fax machine, copier, printer, large format plotter, large format scanner, vehicle, computer and associated hardware and software.



ENVIRONMENTAL FACTORS:

C Continuously	F Frequently	O Occasionally	R Rarely	N Never
--------------------------	------------------------	--------------------------	--------------------	-------------------

D Daily	W Several Times Per Week	M Several Times Per Month	S Seasonally	N Never
-------------------	--	---	------------------------	-------------------

-Health and Safety Factors-	
Mechanical Hazards	N
Chemical Hazards	N
Electrical Hazards	N
Fire Hazards	N
Explosives	N
Communicable Diseases	N
Physical Danger or Abuse	N
Other (see 1 below)	N

-Environmental Factors-	
Respiratory Hazards	N
Extreme Temperatures	S
Noise and Vibration	N
Wetness/Humidity	N
Physical Hazards	N

(1) N/A

PROTECTIVE EQUIPMENT REQUIRED:

Reflective safety vest, hard hat, safety eyewear, and safety shoes.

NON-PHYSICAL DEMANDS:

F Frequently From 1/3 to 2/3 of the time	O Occasionally Up to 1/3 of the time	R Rarely Less than 1 hour per week	N Never Never occurs
---	---	---	-----------------------------------

-Description of Non-Physical Demands-	-Frequency-
Time Pressure	O
Emergency Situation	N
Frequent Change of Tasks	O
Irregular Work Schedule/Overtime	R
Performing Multiple Tasks Simultaneously	O
Working Closely with Others as Part of a Team	F
Tedious or Exacting Work	F
Noisy/Distracting Environment	R
Other (see 2 below)	N/A

(2) N/A

PRIMARY WORK LOCATION:

Office Environment	X	Vehicle	
Warehouse		Outdoors	
Shop		Other (see 3 below)	
Recreation/Neighborhood Center			

(3)N/A

The above statements are intended to describe the general nature and level of work being performed by individuals assigned to this position. They are not intended to be an exhaustive list of all responsibilities, duties, and skills required. This description is subject to modification as the needs and requirements of the position change.