



# Title: Engineering Analyst I

FLSA Status: Non-Exempt

## BRIEF DESCRIPTION:

The purpose of this position is to provide entry level analytical and data reporting support for the District’s capital and maintenance programs for project control scope, cost and schedule management. This is accomplished by assisting with updating project schedules, monitoring project cash flow, reviewing project cost estimates, updating project reports and status, coordinating project funding updates and budget transfers, performing basic analysis of project data, assisting project and contract managers in tracking expenditures against approved budgets, preparing issue papers and data reporting. Other duties may include participating in project construction meetings, observing project field construction progress and providing basic support to construction management staff with contract payments and change orders.

## 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	(L) Light	(M) Medium	(H) Heavy	(V) Very Heavy
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.

#	Code	Essential Functions	% of Time
1	S	Assist with the collection of project schedule and cost estimate data, tracking and monitoring contract amendments and invoices; updating project report status, cost and schedule; providing project managers with project cost, schedule and forecast information and analysis; developing project management reports for capital projects; monitoring and coordinating project funding cash flow; preparing project closeout reports detailing scope, cost and schedule deviations. Assist with updating the Capital Improvement Plan. Prepare correspondence, issue papers and technical reports. Perform other related administrative and reporting duties as assigned.	40%
2	S	Research current project cost estimates and schedules to provide to project team members; assist in the implementation of project specific documentation and project control procedures; review and monitor procedural compliance and review project cost estimates for consistency between various design disciplines. Provide finance staff with project funding updates and budget transfers. Perform other related scope, cost and schedule management duties as assigned.	25%



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3	S	Assist division staff with departmental budget analysis; review and analyze contractor/consultant submittals; assist division staff by developing spreadsheets and databases to track project information. Perform other related project and data reporting duties as assigned.	20%
4	S	Assist in tracking and monitoring change orders; developing project management reports for capital projects; documenting construction schedule and cost deviations and providing recordkeeping documents when requested for contractor claims. Assist construction management staff in processing and tracking contractor payment requests. Attend construction meetings and conduct field observations to track construction progress, as needed. Perform other related construction support duties as assigned.	15%



**JOB REQUIREMENTS:**

-Description of Minimum Job Requirements-	
Formal Education	<p>Work requires broad knowledge in a general professional or technical field. Knowledge is normally acquired through four (4) years of an accredited college or university resulting in a Bachelor's degree or equivalent in Engineering, Business, Construction Management, Business Administration, Public Administration or a closely related field.</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	<p>A minimum of one (1) year of experience performing technical or professional support for engineering and construction management related activities. Experience in transportation or transit projects is preferred.</p>
Supervision	<p>Work requires the occasional direction of helpers, assistants, seasonal employees, interns, or temporary employees.</p>
Human Collaboration Skills	<p>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.</p>
Freedom to Act	<p>The employee normally performs the duty assignment after receiving general instructions as to methods, procedures, and desired end results. There is some opportunity for discretion when making selections among a few, easily identifiable choices. The assignment is usually reviewed upon completion.</p>
Technical Skills	<p>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.</p>
Budget Responsibility	<p>Position has limited fiscal responsibility. May assist in the collection of data in support of recommendations for departmental budget allocations. May monitor division or program/project level budget and expenditures.</p>
Reading	<p>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.</p>
Math	<p>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.</p>
Writing	<p>Intermediate - Ability to write reports, prepare business letters, expositions, and summaries with proper format, punctuation, spelling, and grammar, using all parts of speech. Ordinarily, such education is</p>



<p>obtained in high school up to college. However, it may be obtained from experience and self-study.</p>
<p>Certification &amp; Other Requirements</p>

<b>KNOWLEDGE</b>
<ul style="list-style-type: none"> <li>• Basic statistical analysis.</li> <li>• Methods and techniques of tracking, recording and presenting statistical data.</li> <li>• English grammar, punctuation, spelling and usage.</li> <li>• Basic principles and practices of contract administration.</li> <li>• Practical application of computers and peripheral equipment.</li> <li>• Problem solving and communication skills.</li> <li>• Production of database reports.</li> <li>• Report and business correspondence.</li> </ul>

<b>SKILLS</b>
<ul style="list-style-type: none"> <li>• Intermediate word processing, spreadsheet, presentation and database software.</li> <li>• Specialized software related to functional area.</li> </ul>

<b>ABILITIES</b>
<ul style="list-style-type: none"> <li>• Learn Federal, State and local agency funding application requirements.</li> <li>• Learn current/local costs for estimating labor, materials and equipment.</li> <li>• Learn processes involved in the completion of environmental studies, design, right of way acquisition, construction and construction management.</li> <li>• Learn standard project reports to monitor schedule progress, expenditures, variances and exceptions.</li> <li>• Effectively present information and respond to questions from others.</li> <li>• Prioritize and deal with conflicting workload requirements.</li> <li>• Learn Enterprise Resource Planning software, DataWarehouse, SAP project system and related modules.</li> <li>• Understand project budget allocation and budget release processes.</li> <li>• Update project status reports including cost and schedule analysis.</li> <li>• Resolve budget differences between Finance and program control data.</li> <li>• Ensure timely funding and budget transfers.</li> <li>• Ensure timely creation of purchase requisitions and purchase orders.</li> <li>• Work with Division staff to review and update project schedules and cost estimates.</li> <li>• Develop a scope of services for procurement of professional consultant services.</li> <li>• Learn project management and control principles and systems.</li> <li>• Learn project cost and schedule development best practices.</li> <li>• Learn project scheduling practices and principles.</li> <li>• Learn project metrics to develop cost and resource loaded baseline schedules.</li> <li>• Learn project life cycle of conceptualization, planning, execution, and termination.</li> </ul>



- Learn standard project reports to monitor schedule progress, expenditures, variances, and exceptions.
- Learn funding allocation processes.
- Learn Federal contracting requirements and cost accounting standards.
- Learn Division and District business practices and procedures.
- Learn District construction practices and reporting requirements.
- Learn District policies, procedures and practices.
- Deal with difficult people and situations.
- Organize information clearly and precisely.
- Communicate clearly and effectively, both orally and in writing, with internal and external contacts.
- Interact professionally with District employees and outside agency representatives.



**OVERALL PHYSICAL STRENGTH DEMANDS:**

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

Sedentary	Light	Medium	Heavy	Very Heavy
<b>X</b>				
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
<b>Continuously</b> 2/3 or more of the time.	<b>Frequently</b> From 1/3 to 2/3 of the time.	<b>Occasionally</b> Up to 1/3 of the time.	<b>Rarely</b> Less than 1 hour per week.	<b>Never</b> 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	O	Making presentations; observing work site; observing work duties; communicating with co-workers
Sitting	C	Desk work; meetings; driving
Walking	O	To other departments/offices; around work site
Lifting	R	Supplies; files
Carrying	R	Supplies; files
Pushing/Pulling	R	File drawers; tables and chairs
Reaching	R	For supplies; for files
Handling	O	Paperwork
Fine Dexterity	C	Computer keyboard; telephone keypad; 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	R	Under equipment
Bending	R	Filing in lower drawers; retrieving items from lower shelves/ground
Twisting	R	From computer to telephone; getting inside vehicle
Climbing	R	Stairs
Balancing	N	
Vision	C	Reading; computer screen; driving; observing work site
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, copier, fax machine, calculator, vehicle, computer and associated hardware and software.



**ENVIRONMENTAL FACTORS:**

<b>C</b> Continuously	<b>F</b> Frequently	<b>O</b> Occasionally	<b>R</b> Rarely	<b>N</b> Never
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<b>D</b> Daily	<b>W</b> Several Times Per Week	<b>M</b> Several Times Per Month	<b>S</b> Seasonally	<b>N</b> Never
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-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	N
Noise and Vibration	N
Wetness/Humidity	N
Physical Hazards	N

(1) N/A

**PROTECTIVE EQUIPMENT REQUIRED:**

Safety shoes, protective eyewear, safety vest, hard hat only if performing occasional field observations.

**NON-PHYSICAL DEMANDS:**

<b>F</b> Frequently From 1/3 to 2/3 of the time	<b>O</b> Occasionally Up to 1/3 of the time	<b>R</b> Rarely Less than 1 hour per week	<b>N</b> Never Never occurs
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-Description of Non-Physical Demands-	-Frequency-
Time Pressure	O
Emergency Situation	R
Frequent Change of Tasks	F
Irregular Work Schedule/Overtime	R
Performing Multiple Tasks Simultaneously	F
Working Closely with Others as Part of a Team	F
Tedious or Exacting Work	O
Noisy/Distracting Environment	R
Other (see 2 below)	

(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.