



# Traffic Engineering Technician II

# Traffic Engineering Technician III

## General Information

<b>Classification Code:</b>	TCHSPC
<b>Effective Date:</b>	March 15, 2024
<b>Pay Grade:</b>	B23 – B24
<b>FLSA Status:</b>	Non-exempt

## Position Summary

Traffic Engineering Technicians conduct field studies to determine traffic volume, speed, effectiveness of signals, adequacy of lighting, and other factors influencing traffic conditions; designs and inspects traffic related projects; and operates traffic systems, under direction of a traffic engineer. The Traffic Engineering Technician performs technical office and field assignments in support of traffic engineering studies and projects and participates in special projects. Performs related duties as assigned.

## Classification Characteristics

The Technical Specialist is a paraprofessional classification focused on performing specialized functions and on how to carry out the operations of the process specified by higher level positions. This position has a choice as to how and when operations are carried out, but not as to what operations constitute the process and may include lead responsibilities for lower-level staff. The Technical Specialist classification series is differentiated from the Technical Analyst classification as responsibility of the Technical Analyst classification is at a broad professional level.

**Traffic Engineering Technician II** – This is the journey level class within the Technical Specialist classification. This class performs some advance skills involving technical knowledge that requires an understanding of established and defined department or program policies and procedures. This includes a basic understanding of the Manual on Uniform Traffic Control Devices, customer service data collection, researching and applying traffic engineering principles, practices and techniques related to signing, pavement marking, signals, lighting, and temporary traffic control plans. Duties are performed independently under general guidance from a lead technician or traffic engineer.

**Traffic Engineering Technician III** – This is the advanced/lead level within the Technical Specialist classification. This level performs work at an advanced level and requires demonstrated competency on projects that are technically challenging including programming hardware and software to support traffic signals, streetlights, and traffic communication systems. This includes researching design or operational options, comparing vendor equipment offerings, and designing/drafting traffic system plans and specifications. Offers solutions for traffic control needs, responds to citizen services requests, and procures needed equipment. Duties require the application of advanced paraprofessional principles and practices with general guidance provided by the supervisor or traffic engineers. Employees at this level may provide training and orientation to newly assigned personnel. Duties are performed independently under general guidance from a traffic engineer or supervisor.

*Positions assigned to this classification are flexibly staffed and are normally filled by advancement from the first level. When filled from the outside, they require several years of prior experience in the assigned field. Grade progression is dependent on the years of experience/expertise in position or specialization, AND degree of complexity, coordination, and visibility of projects in the community.*

<b>Essential Duties</b>	
<i>The duties listed below are a typical sample; position assignments may vary.</i>	
1	Interact with the public to answer traffic-related questions, discuss traffic control ordinances, plans, policies, and procedures while providing excellent customer service. Reviews circumstances, conditions, and data related to traffic control or operations questions and requests. Determines appropriate response and actions if any.
2	Design and draft signal, beacon, lighting, signing, marking, temporary traffic control plans and specifications using CAD and other systems. Estimate project construction cost and time allotment, write project specifications.
3	Performs site inspections as assigned to verify public improvement projects associated with privately funded development, city funded capital investment, and operations budget funded repairs and upgrades are constructed to City Standards and Specifications.
4	Prepares and administers contracts, and agreements, with contractors and materials suppliers.
5	Operate and monitor field and office-based traffic signal systems and ancillary support systems. Maintain and update data, CAD files, graphical displays, and compile reports on system performance.
6	Works and communicates effectively with coworkers, other agencies, consultants, contractors, and the public.
7	Performs other duties of a similar nature or level.

<b>Functional Specific Responsibilities</b>
N/A

<b>Qualifications</b>
<p><b>Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>• <b>Traffic Engineering Technician II (B23):</b> Associate degree or two-year technical certificate relevant to area of assignment and three to five years of experience typically in traffic engineering, transportation planning or related, with sufficient related work experience in municipal or traffic engineering or transportation planning or an equivalent combination of education and experience to successfully perform the job.</li> <li>• <b>Traffic Engineering Technician III (B24):</b> Associate degree or two-year technical certificate relevant to area of assignment and five or more years of experience typically in traffic engineering, transportation planning or related, with sufficient related work experience in municipal or traffic engineering or transportation planning or an equivalent combination of education and experience to successfully perform the job.</li> </ul>
<p><b>Licensing/Certifications:</b></p> <ul style="list-style-type: none"> <li>• Valid Oregon Class C Driver’s license at time of appointment.</li> </ul> <p>The following are required within designated time frames:</p> <ul style="list-style-type: none"> <li>• Traffic Signal Inspector certification within one year of appointment.</li> <li>• International Municipal Signal Association (IMSA) certifications: <ul style="list-style-type: none"> <li>○ Work Zone certification within one year of hire.</li> <li>○ Signs and Markings certification within one year of appointment to Technician III.</li> <li>○ Traffic Signals, and Roadway Lighting certification within three years of appointment Technician III.</li> </ul> </li> </ul>
<p><b>Technology Skills:</b></p> <ul style="list-style-type: none"> <li>• Operating system software — Microsoft Windows.</li> <li>• Office suite software — Microsoft Office including Outlook, Word, Excel, and PowerPoint.</li> <li>• Computer aided design CAD software — Autodesk AutoCAD preferred.</li> <li>• Infrastructure asset management software — Infor and related field tools.</li> </ul>

## Qualifications

- Control software — Traffic signal, traffic signal central system control, school zone beacon software, and portable changeable message sign.
- Vehicle detection software — Preemption/priority, induction loop, video camera, and radar.
- Analytical or scientific software — AGi32 lighting analysis software, Synchro.
- Geographic information system — ESRI ArcGIS software; ESRI ArcView.
- Data base user interface and query software — Microsoft Access.

### Knowledge Required:

- Computers and Electronics — Knowledge of processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
- English Language — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
- Engineering and Technology — Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
- Mathematics — Knowledge of arithmetic, algebra, geometry, and their applications.
- Administrative — Knowledge of administrative and office procedures and systems such as word processing, managing files and records, designing forms, and workplace terminology.
- Customer Service — Knowledge of principles and processes for providing customer services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
- Design — Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.
- Mechanical — Knowledge of machines and tools, including their designs, uses, repair, and maintenance.

### Skills:

- Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- Complex Problem Solving — Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.
- Judgment and Decision Making — Considering the relative costs and benefits of potential actions to choose the most appropriate one.
- Reading Comprehension — Understanding written sentences and paragraphs in work-related documents.
- Speaking — Talking to others to convey information effectively.
- Writing — Communicating effectively in writing as appropriate for the needs of the audience.
- Active Learning — Understanding the implications of new information for both current and future problem-solving and decision-making.
- Coordination — Adjusting actions in relation to others' actions.
- Social Perceptiveness — Being aware of others' reactions and understanding why they react as they do.
- Time Management — Managing one's own time and the time of others.

### Abilities:

- Oral Comprehension — The ability to listen to and understand information and ideas presented through spoken words and sentences.
- Oral Expression — The ability to communicate information and ideas in speaking so others will understand.
- Inductive Reasoning — The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
- Written Comprehension — The ability to read and understand information and ideas presented in writing.
- Deductive Reasoning — The ability to apply general rules to specific problems to produce answers that make sense.
- Speech Clarity — The ability to speak clearly so others can understand you.
- Speech Recognition — The ability to identify and understand the speech of another person.

## Qualifications

- Near Vision — The ability to see details at close range (within a few feet of the observer).
- Far Vision — The ability to see details at a distance.
- Written Expression — The ability to communicate information and ideas in writing so others will understand.
- Number Facility — The ability to add, subtract, multiply, or divide quickly and correctly.
- Originality — The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.

## Physical Requirements

Key	None 0% (0 hrs.)					Seldom 1-10% (Up to 1 hrs.)					Occasionally 11-35% (Up to 3 hrs.)					Frequently 36-75% (3-6 hrs.)					Continuous 76-100% (6+ hrs./day)				
	0%	1-10%	11-35%	36-75%	76-100%	0%	1-10%	11-35%	36-75%	76-100%	0%	1-10%	11-35%	36-75%	76-100%	0%	1-10%	11-35%	36-75%	76-100%	0%	1-10%	11-35%	36-75%	76-100%
<b>BODY POSITIONS</b>												<b>PUSH/PULL</b>													
Standing				X		0-10 lbs.																			X
Sitting				X		11-20 lbs.							X												
Walking – Even Surface			X			21-50 lbs.			X																
Walking – Uneven Surface		X				51-75 lbs.	X																		
Kneeling		X				76-100 lbs.	X																		
<b>MOVEMENTS</b>												<b>ENVIRONMENTAL HAZARDS</b>													
Bending/Stooping		X				Indoors		X																	
Twisting		X				Outdoors		X																	
Crawling		X				Dust			X																
Squatting/Crouching		X				Fumes/Odors/Gasses		X																	
Balancing		X				Chemical Agents		X																	
Reach – Overhead		X				Biological Agents		X																	
Reach – Forward		X				Noise – Low		X																	
Reach – Backward		X				Noise – Moderate			X																
Climbing – stairs		X				Noise – High		X																	
Climbing - ladder		X				Low Light		X																	
<b>USE OF HANDS</b>																									
Grasping – whole hand				X		Heat		X																	
Grasping – pinch grip		X				Cold		X																	
Fine manipulation/feeling			X			Restricted workspace		X																	
Keyboarding				X		Vibration – whole body	X																		
<b>LIFT/CARRY</b>												<b>JOB SPECIFIC</b>													
0-10 lbs.		X				Driving – vehicle/equipment		X																	
11-20 lbs.		X				Operate foot controls		X																	
21-50 lbs.		X				Seeing																	X		
51-75 lbs.	X					Talking																X			
76-100 lbs.	X					Hearing																		X	
						Extended work hours		X																	

**Classification History**

2012.01 Created  
2024.03 Revisions and reformatted

**I have reviewed the job description.**

**Employee: Name** \_\_\_\_\_ **Signature** \_\_\_\_\_ **Date** \_\_\_\_\_