

8361

TRANSPORTATION ENGINEERING TECHNICIAN ENROLLEE 2

NATURE OF WORK

Under limited supervision, performs complex level technical work in one or more functions associated with the construction, maintenance and operation of highways and their attendant facilities and structures. The employee is enrolled in a program of work and training which leads to certification as a Transportation Engineering Technician by the Transportation Technician/Technologist Board of Advisors at BridgeValley Community and Technical College. Performs related work as required.

EXAMPLES OF WORK:

Prepares a complete, final project report.

Performs design drafting of an intersection of divided highways with signalization.

May supervise and record the erection and removal of concrete, steel, or composite structures.

Prepares earthwork balances or mass diagrams for highway section.

Tests cement for fineness, initial and final set, soundness, normal consistency, air content, autoclave, and sample preparation.

Operates air sampling equipment.

Prepares complete flow map of an area to show traffic type, volume, and directional flow.

Drafts regulations covering traffic movements for special occasions or for oversize or overweight traffic.

Determines boundaries and acreage of drainage areas from topographic maps or from ground surveys.

Performs field check of a standard scale topographic map to determine compliance with national map accuracy standards.

Inspects grouting on pavement, headwalls, bridge structures, or box culverts.

May supervise and inspect shoulder and/or surface grading programs.

KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of standard materials used in highway construction.

Knowledge of federal, state and American Association of State Highway Transportation Officials(AASHTO) load and clearance factors applicable to pavements and structures.

Knowledge of surveying techniques and symbols.

Knowledge of the concepts of geodetic control and mapping.

Knowledge of the concepts of state grid and map projections in use.

Knowledge of highway construction equipment and hand tools and their capabilities.

Ability to read and understand complex plans and specifications.

Ability to prepare written reports.

Ability to perform design drafting including combining and calculating materials and developing final plan.

Ability to operate materials testing devices.

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TRANSPORTATION ENGINEERING TECHNICIAN ENROLLEE 2 (CONT'D)

KNOWLEDGE, SKILLS, AND ABILITIES: (Cont'd)

Ability to analyze traffic flow data to determine specified movements and capacity.

Ability to analyze field survey notes and plans for accomplishment of maintenance work.

MINIMUM QUALIFICATIONS:

TRAINING: Graduation from a standard four-year high school or the equivalent.

SUBSTITUTION: Additional experience as described below may be substituted for the required training on a year-for-year basis.

EXPERIENCE: Five years of full-time or equivalent part-time paid technical experience associated with the design, development, or management of construction or renovation projects which involve the application of engineering principles from one of the traditional engineering disciplines.

SUBSTITUTION: An Associate Degree from a regionally accredited college or university in engineering, engineering technology or related fields may be substituted for two years of the required experience. A bachelor's degree from a regionally accredited college or university in engineering, engineering technology or related fields may be substituted for four years of the required experience.

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