

**ENGINEERING TECHNICIAN-
SOIL AND WATER CONSERVATION DISTRICT**

122-A

DISTINGUISHING FEATURES OF THE CLASS: This position involves the performance of technical engineering duties, including surveying and transcribing field survey notes into cross sections and profiles. The difficulty of assignments gradually increases as proficiency in the position is acquired. The individual is required to operate field and office equipment such as computers, surveying equipment, materials testing equipment, motor vehicle and all other engineering or scientific equipment required for performing engineering work. General instructions are given for each routine task with specific and detailed explanations for new duties to be performed. Work is performed under the general supervision of the Sullivan County Soil and Water Conservation District Manager.

TYPICAL WORK ACTIVITIES: *The typical work activities listed below, while providing representative examples of the variety of work assignments in the title, do not describe any individual position. Incumbents in this title may perform some or all of the following, as well as other related activities not described.*

Performs all drafting manually;

Drafts plans from survey notes;

Prepares and traces maps, plans, specifications and profiles for constructions projects;

Prepares quantity estimates for construction projects;

Prepares application for grants, permits and approvals from various agencies;

Makes engineering computations such as cut and fill estimates;

Inspects construction projects in the field for compliance with project specifications and/or plans,
including quantity and quality of materials used;

Conducts pond site investigations;

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Performs technical analysis of soil materials;

Conducts drainage assessments for landowners;

Assists landowners with DEC permit applications;

May act as chief of survey parties;

Plots cross sections, profiles, base lines, and topography;

Performs geotechnical field testing procedures;

Performs engineering computations;

Prepares written reports summarizing all work performed;

Performs various clerical duties including preparation of invoices, purchase orders, and other administrative documents, as needed.

FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES, AND PERSONAL CHARAC-

TERISTICS: Good knowledge of field or civil engineering and survey work; good knowledge of drafting, surveying and mathematics; good knowledge of methods and materials used in the construction and maintenance of roads, bridges, buildings, and other infrastructure projects; good knowledge of drafting, surveying, and mathematics including algebra, geometry, trigonometry, and computations; good knowledge of land surveying principles and practices; manual skill and mechanical aptitude; ability to understand and interpret engineering plans and descriptive specifications; ability to interpret maps; ability to understand and follow oral and written directions; willingness to learn; accuracy; and dependability.

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MINIMUM QUALIFICATIONS: Either:

- (A) Possession of a Bachelor's Degree from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees in civil engineering or a related field including courses in drafting; or
- (B) Possession of an Associates Degree from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees in civil engineering or a related field including or supplemented by courses in drafting, and two (2) years of technical engineering experience which included drafting; or
- (C) Graduation from high school or possession of a high school equivalency diploma and four (4) years of experience in acceptable engineering work as described in (B) above; or
- (D) An equivalent combination of training and experience as described in (A), (B) and (C) above.

Civil engineering is a branch of engineering dealing with design and construction of highways, bridges, waterworks, harbors, or other infrastructure projects. Candidates must demonstrate why a degree is related to civil engineering.

Technical engineering experience is experience that involves planning, designing, and implementing projects on roads, bridges, building, water or waste water projects, or other infrastructure projects. Technical engineering must demonstrate evidence related to knowledge of mathematical sciences and experience in working from plans or drawings, taking measurements and calculations, interpreting graphs or tables, and interpreting technical instructions or dimensional drawings. In addition to showing technical engineering experience, candidates must demonstrate drafting experience including plotting and drawing maps, plans, specifications, architectural drawings, or similar documents.

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Jurisdictional Class: Competitive

Public Hearing: N/A

NYS Civil Service Commission Approval: N/A

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