

DEPARTMENT: NIAGARA COUNTY SOIL AND WATER DISTRICT
CLASSIFICATION: COMPETITIVE
APPROVED: MARCH 10, 2000

AGRICULTURAL ENGINEER

DISTINGUISHING FEATURES OF THE CLASS: The work involves responsibility for the collection of field data, survey, design and cost estimations for a variety of natural resource conservation related improvement projects. Projects include manure management, erosion and sediment control, surface and subsurface drainage, stream-bank stabilization, barnyard water exclusion, clay extraction mines and milk-house waste. The work is performed under the direct supervision of the Soil and Water District Manager. Supervision may be exercised over the work of technicians in the field. Does related work as required.

TYPICAL WORK ACTIVITIES:

1. Designs and drafts plans and specifications for natural resource conservation related projects to include manure management, erosion and sediment control, surface and subsurface drainage, stream-bank stabilization, barnyard runoff management systems, clay extraction mines and milk-house waste.;
2. Computes cost-estimates and quantity estimates of construction materials required and determines time schedules for construction projects;
3. Inspects construction projects (including materials and installation of materials) and determines if work is in compliance with plans and specifications and monitors work in progress to authorize contractor's payments;
4. Maintains accurate as-builts and design documentation;
5. Files environmental permit applications to the appropriate agency as required;
6. Acts as liaison between private contractors and municipality/landowner, makes changes on plans and drawings, and records all field data;
7. Supervises field parties engaged in making surveys, project designs and construction checks;
8. Reports to and consults with the Soil and Water District Manager on critical phases of individual projects;
9. Assists with grant proposals.

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

Working knowledge of the principles and practices of agricultural/civil engineering; working knowledge of modern methods and techniques as applied to the construction and maintenance of agricultural or public works projects; oral and written communication skills; ability to make engineering computations, design engineering projects, plans and specifications; ability to conduct engineering research work and to write technical reports; ability to use engineering field and office instruments including AutoCAD, total station survey and GIS; ability to operate required computer programs; ability to establish cooperative working relationships with others; ability to work independently; physical condition commensurate with the demands of the position.

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MINIMUM QUALIFICATIONS: Either:

Graduation from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees, with a Bachelor's degree in civil engineering, agricultural engineering, environmental engineering, natural resource conservation or a closely related field **and** one (1) year of professional experience in engineering surveys, engineering design, computer aided design and drafting, agricultural water quality management or a closely related field; **or**

Graduation from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees, with an Associate's degree in civil technology, drafting, surveying, agricultural engineering, natural resource conservation or a closely related field **and** three (3) years of paraprofessional or professional experience in engineering surveys, engineering design, computer aided design and drafting, agricultural water quality management or a closely related field. One (1) year of the experience must have been in a professional capacity; **or**

Graduation from high school or possession of a high school equivalency diploma **and** five (5) years of paraprofessional or professional experience in engineering surveys, engineering design, computer aided design and drafting, agricultural water quality management or a closely related field. One (1) year of the experience must have been in a professional capacity.