CITY OF PULLMAN, WASHINGTON
CLASS SPECIFICATION

ENGINEERING TECHNICIAN 2105

GENERAL PURPOSE:
Performs engineering design, surveying, construction inspection, and related technical engineering work for the City's public works construction projects.

CLASSIFICATION SUMMARY:
The principal function of an employee in this class is to perform Public Works construction project design, surveying and inspection. Incumbents are expected to manage specific project components for the design, development, construction and inspection of public works projects. The work is performed under the supervision of the City Engineer or Senior Engineering Technician. An employee in this class performs the duties of other employees in the Engineering Department as required or as assigned by supervisory personnel. The Engineering Technician may supervise part-time aides and survey crew members.

ILLUSTRATIVE EXAMPLE OF ESSENTIAL DUTIES AND RESPONSIBILITIES:

Develops preliminary and final designs of Public Works construction projects.

Develops a variety of engineering calculations for street, public utility, and architectural building projects.

Prepares engineering documents, legal documents, contracts and correspondence for Public Works construction projects.

Plans, organizes and coordinates public works construction projects including preliminary engineering drawings using field data and profiles, preliminary design on plans and cross sections, estimates of materials, final contract engineering drawings, proposals and contracts, bidder evaluations and recommendations, pre-construction meetings, traffic controls, inspection schedules, inspections, material testing, record keeping, submittals of requests for design changes and change orders to supervisor, calculation and preparation of monthly pay estimates and project reports.

Serves as City liaison to contractors and the public and performs quality control/quality assurance activities to ensures that project is constructed according to design and material specifications; maintains accurate daily records of construction activity and materials used and notifies contractor and supervisor of authorized project modifications or non-compliance.

Inspects and tests materials used by contractors on projects; operates nuclear moisture/density gauge (Densometer); performs sieve analyses and concrete tests; repairs and maintains equipment.

Conducts traffic and traffic control studies and related field work.

Supervises and participates in all phases of field work; serves as chief of party of a survey crew; acts as survey crew member on other staff members' projects.

Inspection of development construction projects to assure compliance with City Design Standards, approved plans, and permits. Includes coordination with the contractor and/or developer pertaining to project schedule, traffic control, City standards, and other issues.

Organizes, lays-out, and completes projects such as construction staking, radial topography, traverse surveying, and level loops.

Records and maintains accurate field notes, performs engineering calculations; conducts traffic and other field studies;

Maintains and updates accurate maps and engineering files.

Uses computer-aided drafting and mapping software and a variety of personal computer programs such as word processing, spreadsheets, databases and other miscellaneous engineering and general purpose programs.

Attends work on a regular and dependable basis.

Interacts in a professional and respectful manner with city staff and the public.

OTHER JOB FUNCTIONS:

Performs other tasks as assigned.

SELECTION FACTORS:
(Applicants should describe their previous experience and training for each of the following selection factors. These factors will be the basis for selecting the most qualified applicants to be interviewed. Candidates selected for employment must satisfactorily demonstrate possession of these factors during a prescribed probationary period, and afterwards, for continued employment.)

Knowledge of:
- The terminology, methods, and practices of engineering, drafting, preliminary and final design, and surveying, and skill in their application to municipal public works projects;
- Public works construction materials, methods and practices;
- The materials, methods, and practices used in public works construction inspection and materials testing, and their application to municipal public works projects;
- Traffic control and other safety standards for public works construction projects.

Ability to:

- Plan, organize, design and manage public works construction projects;
- Determine compliance with engineering plans and specifications on a variety of construction projects, and to contact contractors and construction supervisors effectively in securing compliance with specifications;
- Perform precise survey work, keep accurate records, make engineering computations, reduce field notes, and prepare plans and designs for public works projects;
- Read and understand blueprints, engineering plans and specifications;
- Combine sound engineering judgment and common sense to solve a variety of design and construction problems;
- Use computer programs such as computer-aided drafting and mapping software and a variety of personal computer programs such as word processing, spread-sheets, databases and other miscellaneous engineering and general purpose programs;
- Deal courteously and tactfully with contractors and the public;
- Work outdoors in a variety of weather conditions, walk safely on and through rough terrain, and work in vehicular traffic areas;
- Obtain nuclear moisture/density gauge certification and traffic flagger's certification;
- Establish and maintain effective working relationships with division and department personnel, contractors, and the public;
- Provide quality services in a cost-effective manner and recommend improved methods of performing the work;
- Physically perform the essential functions of the job;
- Obtain and maintain a valid driver's license and a safe driving record.

MINIMUM QUALIFICATIONS:
(Persons applying for a position of this class should have any combination of the following experience and training.)

College level course work in Civil Engineering, Construction Management or other related field in a depth and breath sufficient to provide an understanding of engineering and project management principles to allow the incumbent to manage public works construction projects and three years of a variety of experience in public works engineering, including design, surveying, drafting, and construction inspection experi-ence; or any equivalent combination of experience and training.

TOOLS AND EQUIPMENT USED:
Personal computer and ancillary equipment, including plotter, digitizer, word processing, spreadsheet, database and computer-aided-design software; manual and electronic surveying equipment; traffic study equipment; inspection and materials testing equipment; office equipment; standard drafting tools; 4-pound hammer; 10-pound sledgehammer; camera; motor vehicle; portable radio.

WORK ENVIRONMENT:
(The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.)

Work is performed mostly in office settings. Outdoor work is required in the inspection of various land use developments, construction sites, or public works facilities. The employee occasionally works near moving mechanical parts, and in high, precarious places, and near open excavations. The employee is occasionally exposed to wet and/or humid conditions, extreme temperature conditions, fumes or airborne particles, raw sewage, toxic or caustic chemicals, risk of electrical shock, and vibration. The employee occasionally works in busy streets near heavy vehicular traffic. The employee occasionally uses 4-pound hammers and 10-pound sledgehammers for an extended period of time. The employee must occasionally lift and/or move up to 100 pounds. The noise level in the work environment is usually quiet in the office and moderate-to-loud in the field.

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

FLSA Classification: Non-Exempt
Adopted: 9/82 Revised: 9/91, 5/94, 6/99, 12/01