



City of Newburyport
Department of Public Services
Civil Engineer II – Stormwater

Position Purpose:

The Department of Public Services (DPS), Engineering Division is seeking a person to provide civil engineering assistance to the City Engineer, with a particular focus on stormwater management. The DPS is mainly an operational department comprised of the Water, Sewer, Parks and Highway Operations Division. The Highway Division also manages the Public Facilities Division and the Electrical Division. The Engineering Division provides technical assistance to the DPS and other city departments for all civil engineering-related matters including, but not limited to; water, sewer, roadway, stormwater, site development, and other public works functions. The Engineering Division reports to the DPS Director and DPS Deputy Director

Supervision:

Supervision received; Works under the general direction of, and provides support to, the City Engineer, and follows established Department rules, regulations, policies and engineering standards and procedures. However, this position requires strong leadership skills, the ability to work independently or in groups, and make sound engineering decisions.

Supervision Given: Provides direction to a laborer or intern during certain work tasks.

Job Environment:

This engineer position is both an office and field position. Site inspections, surveying and general field work in all types of weather is required. The Engineering office shares space with other DPS employees and visits from the general public which results in a distracting and busy environment. Direct contact with the general public and staff requires professionalism and a focus on customer service.

The employee occasionally works near heavy construction equipment machinery, moving mechanical parts, and in precarious places and is occasionally exposed to wet and/or humid conditions, fumes or airborne particles, and similar conditions encountered at public works construction sites. This position will be required to attend applicable job safety and related courses.

Essential Functions:

(The essential functions of duties listed below 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.)

Under general direction of the City Engineer, perform the following functions:

- Manage our NPDES MS4 General Permit stormwater compliance program and ensure City compliance with all aspects of permit requirements, which will include, but not be limited to, administration of Annual Reporting. culvert and manhole inspections, continual development of the Stormwater

Management Program (SWMP), and implementation of the Illicit Discharge Detection and Elimination Program (IDDE).

- May lead the establishment and management of a Watershed Protection Program; including public outreach, determining sources of pollutant loads, testing and monitoring of pollutants in our tributaries, working with authorities to mitigate pollutant loadings from private properties, assistance with design, construction, and monitoring of best management practices (BMPs) to reduce pollutant loadings, assistance with grant programs to fund mitigation efforts, program oversight and presentations. This is for our public water supplies' watershed, which is primarily in West Newbury.
- Hiring CCTV pipe inspection firms and managing the entire process of pipe inspections with traffic control and police details, reviewing videos and reports, data collection and mapping of our system and dye testing.
- Use of Trimble® GPS devices and related software's, water quality monitoring and testing and managing supplies, and manage the stormwater-related budget items.
- Propose improvements to the system, assist with the implementation of stormwater system-related Capital Improvement Projects (CIPs), coordination with DPS field crews and outside consultants and vendors, and management of our stormwater system in both GIS and AutoCAD.
- Will also implement and occasionally update the policies and procedures relating to the City Stormwater Ordinance and Stormwater Rules and Regulations.
- Lead the management of city-wide stormwater program, which may include oversight, design and technical review. May also assist with the supervisor of construction and maintenance of the stormwater system.
- Assist the City Engineer in all aspects of engineering and in-house engineering design projects, such as, horizontal and vertical layouts of roadways and intersections; layout, grading and drainage of public parks and facilities; and water and sewer improvement projects.
- Assist in the organizing, managing and updating the City's GIS system, including performing extensive field work to obtain existing conditions, updating the GIS datalayers and performing spatial analysis tasks, and coordinating with our GIS consultant. GIS spatial analysis and related experience preferred but not required.
- Perform civil engineering design functions, such as but not limited to, utility plans/profiles, roadway plans/profiles, parking lot and intersection layouts and grading, sewer capacity analysis, grading, drainage, and hydrologic and hydraulic analysis.
- Assist in the implementation and maintenance of DPS design and construction standards and the policy and procedures of the Water and Sewer Divisions.
- Participate in the review of various design, construction, and permitting plans that impact city infrastructure to ensure the DPS and City standards are met.
- Prepare a variety of reports, correspondence and special studies related to engineering functions.
- Assist the public and City Departments with a variety of inquiries and requests related to public works infrastructure and provides technical information on projects.

Other Functions:

- Perform similar or related work as required or as the situation dictates.
- Performs a wide variety of critical and responsible technical functions, including complex analysis.
- Assist with the preparation of contracts for design, construction and other related services or equipment for bidding purposes; including preparing contracts, advertisements, and compiling bids.
- Assist with capital improvement project planning.
- Establishes regular communication with regulatory agencies to assure compliance with existing and new regulations.

- Provide additional professional, administrative and technical support to the DPS Director and DPS Deputy Director or designee when requested.
- The City will train this position to perform drone flights that are used for many city-wide purposes. The extent of drone work is typically a few flight paths per month, via preprogrammed automated flight paths. The level of complexity for the type of flights we commonly perform can easily be handled by this position. No advanced licensing necessary for the work we perform. Prior drone experience helpful but not required.
- Attend and participate in various meetings and conferences as necessary and required. Attendance at meetings outside the normal 7am-3pm work day may be required.
- Inspect new construction, replacement, repairs and maintenance of streets, storm sewers, sanitary sewers, utilities, and related public works projects.

Minimum Required Qualifications:

Education, Training and Experience:

- Bachelor of Science or Science Technology degree in civil engineering or related field from an ABET-accredited institution required.
- Four to six years of increasing responsible general civil/site engineering design experience in utilities, roadway/highway design, stormwater management systems, and site development preferred.
- Experience in Construction Phase Services preferred.
- Current MA Driver's License with no driving-related restrictions.

Knowledge, Ability and Skill:

- AutoCAD® computer-aided-design program experience required.
- ERSI GIS ArcMap® with spatial analysis experience, or equivalent, preferred.
- Land survey experience preferred.
- Microsoft Office Excel® and Word® proficiency required.
- Microsoft Project® and Access® experience preferred.
- Excellent written, verbal, and interpersonal skills.
- Good planning, organization, time management, and leadership skills and the ability to make decisions independently.
- Strong personal and professional integrity.
- General knowledge of federal and state regulations, rules, guidelines, and policies related to the design and construction of highways, stormwater management systems, wetland protection, and related work preferred.
- Make complex engineering computations and to check, design, and prepare engineering plans, profiles, and sketches.
- Strong technical writing ability.
- Quantity takeoffs and cost estimating experience preferred.

Physical and Mental Requirements:

The work is primarily of an intellectual nature but requires some physical capabilities. While performing the duties of this job, the employee is frequently required to sit, and talk or hear; occasionally required to stand and walk; make visits to job sites and walk safely around active heavy construction equipment; work in local public streets with active traffic; frequently requires use of hands to finger or handle objects; carry and operate field survey equipment; remove manhole covers and catch basin grates for inspection purposes; make measurements in the field with various types of measuring devices including survey levels; occasionally

required to bend and reach with hands and arms for filing and various tasks in the field; and the ability to work outside in the field for extended periods of time under all types of weather conditions.

The employee must frequently lift and/or move up to 10 pounds, rarely lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision. This position requires the ability to operate standard office equipment such as a computer keyboard, calculator, printers and plotters. The employee must be able to hear normal sounds, distinguish sound as voice patterns and communicate through human speech using American English. Must pass a CORI check.

Disclaimers:

The City of Newburyport reserves, within its sole discretion, the right to revise or modify this job description at any time without any advance notice. This job description does not constitute an employment contract and does not alter the at will status of the employment relationship between the City and its employees. The employment relationship may be terminated at any time and for any reason by either the city or the employee.

(This job description does not constitute an employment agreement between the employer and employee. It is used as a guide for personnel actions and is subject to change by the employer as the needs of the employer and requirements of the job change.)