


<b>Village of Roselle</b> <b>Position Description</b> 	<b>Job Title</b>	Civil Engineer
	<b>Department</b>	Public Works
	<b>Employment Status</b>	Full Time, Non-Union
	<b>FLSA Status</b>	Exempt
	<b>Date Approved/Revised</b>	August 12, 2020

<b>Scope of Work</b>
<p>This position is responsible for professional and administrative engineering work involving the design, construction and inspection of Village public works facilities and projects. Responsibilities include managing projects for the Capital Improvement Program including design, field inspection, project budgeting, documentation, coordination, construction oversight, and communication; inspection and documentation of improvements to public and private infrastructure; follow up on resident inquiries; permit review; field survey; coordination with others in the Public Works Department, other Village departments, and other local governmental agencies.</p> <p>The incumbent’s work is subject to checking for technical accuracy and for adherence to standards by professional engineering personnel in any phase of engineering work on an assigned project.</p>

<b>Supervision</b>	
<b>Received</b>	Assistant Director of Public Works/Village Engineer
<b>Exercised</b>	Contractors and consultants

<b>Essential Job Functions</b>
<ul style="list-style-type: none"> <li>Independently oversees and manages various municipal infrastructure improvement projects including leading other personnel involved in the project, scheduling and budget considerations. Manages projects from the planning stage through the design phase to construction including coordinating permits, property acquisition, agreements, bidding, pay requests and project closeout.</li> <li>Prepares and/or reviews construction and engineering contract documents, engineering drawings or plans, project specifications, quantities, cost estimates, and bid documents for various municipal infrastructure improvement projects including streets, sidewalks, water main storm and sanitary sewers and various concrete structures including head walls, retaining walls, and culverts. Ensures all plans and specifications meet the necessary Village codes, standards and ordinances as well as applicable State and County requirements. Evaluates impacts and potential solutions from a cost, maintenance and liability perspective.</li> <li>Prepares computer generated plans, exhibits and details utilizing various design software such as AutoCAD, GIS or Adobe Acrobat.</li> <li>Schedules and participates in preconstruction and construction progress meetings, as appropriate, to initiate communication, resolve conflicts and ensure that the Village’s plans and policies are followed.</li> </ul>

## Essential Job Functions (Continued)

- Serves as resident engineer on construction projects, acting as liaison to contractors engaged in constructing Village public works projects. Ensures that the work adheres to the design plans and specifications. Resolves complex field problems. Maintains daily field construction records and communicates project status with supervisors.
- Prepares all required documentation related to State Motor Fuel Tax (MFT) and Federal, State and County grant funded projects, from initial implementation to final project closeout.
- Provides technical assistance to other departments and divisional staff in performing various duties such as emergency sewer/water repair, site development improvements and other municipal project related inspections and technical engineering related problems.
- Performs topographic and field surveys and compiles and documents components of existing infrastructure for planning purposes through field sketches, photographs, measurements, conversations with operations staff and other means.
- Coordinates and conducts the final survey and inspections required to accept the contractors' work on Village projects and to determine final quantities.
- Prepares agenda items and makes presentations to the Village Board, committees or public presentations. Prepares Village Board reports for contract awards, contract payouts, change orders and other project related items.
- Represents the Department on various inter-agency committees.
- Selects, oversees or directs consulting engineers regarding the preparation of studies, plans, specifications and construction inspection on new subdivision development and municipal sponsored Public Works projects/programs.
- Participates in the engineering staking and/or layout of jobs prior to the beginning of construction.
- Receives, verifies and approves pay requests and receives, reviews and provides recommendations to the Village Engineer or Director of Public Work on the approval of change orders for additional work to deal with unanticipated field conditions.
- Coordinates maintenance and construction activities with other departments, divisions, outside agencies and the public.
- Coordinates traffic data collection work, including traffic counts and analysis of information.
- Manages the traffic signal system annual maintenance contract.
- Promotes and maintains responsive community relations through verbal communication, written communication and/or meeting directly with residents in dealing with their complaints and engineering related problems, providing information about the need for various infrastructure improvements.
- Responsible for providing information to the public concerning Village standards and policies as well as property boundaries, utility locations, benchmark locations, addresses, lot information and right-of-ways. Represents the Village at public meetings or hearings on proposed public works projects.
- Works with the Village Engineer and other Public Works staff to update, create and administer applicable Village codes, standards and specifications.
- Stays abreast of new trends and innovations in public works and all associated regulations, policies and laws.

## Other Job Functions

- Performs other duties as assigned.
- Contributes to a positive group environment by:
  - Complying with all safety policies, practices, and procedures, and reporting all unsafe activities to supervisor and/or Public Works Director.
  - Participating in proactive team efforts to achieve departmental and Village-wide goals.
  - Assisting other co-workers on special projects as required.
  - Sharing knowledge and skills.
- Assists with the inspection of private development construction sites to ensure compliance with plans and specifications and enforce codes. Determines compliance with local and state standards needed for final subdivision acceptance.

## Requirements of Work

Graduation from an accredited four-year college or university with a Bachelor's degree in Civil Engineering or Construction Engineering is required, with major course work in civil engineering, construction, surveying or related field and supplemented by at least four years of experience in professional civil engineering; or any equivalent combination of training and experience which provides the following knowledge, ability and skills:

### Knowledge of

- Principles, practices, policies, procedures, methods, tools and materials used in municipal public works operations, civil engineering and construction of municipal improvements, streets, water, wastewater, sewer and stormwater management.
- Construction and maintenance methods, materials, and equipment as employed in public works and utility activities.
- Preparation of plans, designs, cost estimates and specifications for construction work and review of development plans and permits.
- Requirements of the IDOT Standard Specifications for Road and Bridge Construction, IDOT Standards and Standard Specifications for Sewer and Water Main Construction in Illinois; and the Subdivision and Land Ordinance. Experience with processing IDOT paperwork, such as MFT documentation.
- Various types of design standards and procedures used in the design and construction of public works and public improvement projects. Experience within with IDOT, Cook County, DuPage County, MFT funding and other federal funding sources preferred.
- Surveying, staking, inspection and related construction inspection procedures, materials, equipment, and methods.
- Field data collection devices including surveying and GPS equipment.
- Applicable safety procedures and precautions. Ability to enforce said standards as required.
- Methods and techniques used to supervise and motivate labor, trade workers and contractors.
- Report writing and preparation of technical documents.
- Personal computer skills, email, recordkeeping, database activity and word processing.
- Municipal operations, engineering and budgetary considerations.

## Requirements of Work (Continued)

<b>Knowledge of</b>	<ul style="list-style-type: none"> <li>• Applicable local, state and federal laws and regulations.</li> </ul>
<b>Ability to</b>	<ul style="list-style-type: none"> <li>• Develop and maintain effective working relationships with contractors, developers, architects, property owners, peers, intergovernmental partners, elected officials and the general public.</li> <li>• Read and interpret technical data, engineering plans, specifications, local ordinances and state regulations and compare them to construction in progress and to fairly and uniformly apply them.</li> <li>• Perform engineering design and survey computations with the use computer software and without, including the ability to add, subtract, multiply, and divide in all units of measure, using whole numbers, common fractions and decimals and to compute percentages.</li> <li>• Make field engineering computations for inspection operations using advanced mathematics, including geometry.</li> <li>• Critically analyze and process problems and use sound judgment in arriving at an effective and appropriate solution to resolve complaints, conduct inspections, and enforce Village and departmental policies, procedures and operations.</li> <li>• Prioritize and organize assignments in order to handle multiple tasks simultaneously and in a timely manner.</li> <li>• Apply technical knowledge and follow proper inspection techniques to examine workmanship and materials and to detect deviations from plans, regulations, ordinances, or applicable codes.</li> <li>• Keep accurate records and prepare routine reports from such records.</li> <li>• Work independently.</li> <li>• Communicate effectively, both orally and in writing; compose and prepare correspondence, specifications and technical reports.</li> <li>• Understand and follow complex oral and written instructions, as well as read and understand engineering plans, specifications, blueprints, diagrams and as-built drawings.</li> <li>• Utilize various computer aided design, drafting and GIS software-</li> <li>• Handle confidential material and information in an ethical and professional manner.</li> <li>• Function under general supervision and operate within policy guidelines using independent judgement in achieving assigned objectives.</li> <li>• Develop work methods and procedures with initiative and good judgement and to use resourcefulness and tact in meeting new challenges.</li> </ul>
<b>Skill in</b>	<ul style="list-style-type: none"> <li>• Application of modern civil engineering techniques and methods to solve operating problems.</li> <li>• Design of various improvements and structures such as streets, curbs and gutters, storm drains, sanitary sewers and sidewalks.</li> <li>• Preparing clear, comprehensive, and concise technical reports and evaluations of engineering problems.</li> <li>• Use of surveying and drafting instruments and tools, including computer aided design software.</li> </ul>

## Requirements of Work (Continued)

- Dealing tactfully, courteously and professionally with all with whom the position must come in contact with and exercising sound and effective judgement in doing so.
- Dealing directly with citizens with regard to their engineering related problems.
- File management and organizational skills.

## Necessary Special Requirements

- Possession of a valid Illinois Driver's License by the time of employment.
- Must be eligible to apply for the Professional Engineer's examination in the State of Illinois within two years of commencing employment.
- IDOT Documentation Certified or receipt of such within twelve months of commencing employment.
- National Incident Management System (NIMS) training as required.

## Physical Demands

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- Work is performed in both an office and outdoor setting; hand-eye coordination is necessary to operate computers and various pieces of office equipment.
- While performing the duties of this job, the employee frequently is required to stand and talk or hear; use hands and fingers to handle, feel, or operate objects, tools, or controls and reach with hands and arms.
- Physical ability to walk; sit; climb or balance; stoop, kneel, crouch, or crawl; and smell.
- The employee must occasionally lift and/or move up to 50 pounds.
- Specific vision abilities required by this job include close vision, distance vision and peripheral vision as well as the ability to adjust vision focus and distinguish objects and colors.
- While performing the duties of this job, the employee often works in outside weather conditions such as wet, hot, humid and/or cold conditions with exposure to dirt and dust during site visits to construction projects. The employee occasionally works near moving mechanical parts; in precarious places; and is occasionally exposed to fumes or airborne particles, toxic or caustic chemicals, extreme cold, extreme heat and vibration, disagreeable odors and high levels of noise.
- Physical working conditions may provide exposure to a variety of grades, elevations, heights, underground, working surfaces and traffic conditions.
- Physical ability to hear ordinary conversation, such as questions from residents as well as other sounds, including the back-up alarm on trucks or other equipment, radio-dispatched calls and/or signals and calls for help from a co-worker, etc.
- Prolonged periods of concentration, proofreading and extensive computer work.
- Primary functions require the employee to be fully ambulatory and possess physical dexterity to work in a field environment.