



NORTHERN MORAINÉ W R D

Job Description Junior Engineer / Staff Engineer

Effective Date: 11-13-2022

FSLA Status: Exempt

Pay Range: Junior Engineer (0-3 years experience)
Unit III Grade 1; (\$63,249 - \$75,898)
Staff Engineer (3+ years experience)
Unit III Grade 3; (\$79,036 - \$91,685)

Nature of Work:

The Junior Engineer / Staff Engineer is a confidential employee responsible for engineering functions for the District, including responsibilities for resident engineering, development of computer-based mapping, operations, maintenance, laboratory, and SCADA programs. Work also includes data collection, data entry, plan reviews, coordinating engineering work by outside consultants, preparing bids and plans, reviewing work for compliance with bidding documents, plans and specifications, reviewing payment requests and making recommendations for payment, measuring quantities and general troubleshooting work. Work is performed in accordance with established engineering practices and procedures and standard Illinois governmental procedures and rules.

Work also includes responsibility for assisting the District Manager and the Director of Operations in activities related to the District's business functions including filling in for laboratory analysis and basic operational tasks on an as-needed basis.

Work is performed under the general supervision of the District Manager, who reviews work for results obtained.

Examples of Essential Job Functions:

- Perform resident engineering work on District projects, including construction observation and inspection for compliance with District approved plans, specifications, and ordinances. Measuring quantities and verifying for payment requests.
- Assist in annual updating and execution of the District's Capital Improvement Plan. Assist in developing project goals, scope, and budget estimates by working with operating staff and others to determine functional needs.
- Evaluate equipment, facilities and processes for repair/replacement/renewal or upgrade needs. Develop plans, specifications, and bid documents for the District's capital equipment repair, replacement or renewal program. Apply for required permits.
- Assist administrative staff with annual bid documents for commodities and services.
- Evaluate bids received, develop recommendations for the District Manager to take to the Board for Action on Bids.
- Manage all aspects of construction phase of the District's capital projects, including review/approval



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of submittals, construction inspections, processing progress payments and recommending approval of payments and construction close out documents.

- Assist in the securing of SRF funds or other funding sources for major projects.
- Evaluate options, provide cost estimates and develop engineering plans, specifications and bid documents to extend sewer service to unserved areas within the FPA. Seek low-cost options for existing, nearby businesses and residents in need of service in advance of an area wide development program.
- Perform annual updates of the District's CMOM plan and ensure the District's compliance with required reporting.
- Plan, design, and develop implementation plans for a phased SCADA system for all District facilities. Determine instrumentation, metering, and monitoring needs.
- Assist in the continued development of the District's Computerized Maintenance Management System.
- Complete ongoing evaluation of all collection system assets and help manage the District's CMOM asset management system.
- Perform annual updates of the District's existing GIS data. Create updated atlas maps for District operators' use. Routinely produce annual record drawings of the District's collection system.
- Consolidate all facility operations and maintenance manuals, schedules, and requirements into a comprehensive, electronically accessible platform.
- Revise and update development, sewer use and other ordinances and policies of the District.
- Collect and perform lab analysis on wastewater samples.
- Perform District sewer service connection inspections.
- Assist in studies, evaluation of data and development of models to maximize operating efficiencies of the District's wastewater collection, conveyance and treatment facilities.
- Assist in the troubleshooting of processes, equipment, and systems to restore proper operations or overcome operating deficiencies.
- Assist in preparing NPDES operating permit renewal applications and other regulatory required permit applications as needed.
- Attend Board meetings as directed by the District Manager.
- Assist with annual fiscal budget preparation.
- Attend and participate in professional network meetings; stay informed of new trends and





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innovations in the area of wastewater management.

- Communicates with customers and residents by telephone, email and in person, answering questions and providing them with information in a timely manner; resolve problems.
- Provide effective and efficient customer service and promote and maintain responsive community and intergovernmental relations.
- Respond to difficult and sensitive public inquiries and complaints; disseminate or explain information and assist with resolutions under guidance of the District Manager.
- Assist with preparing packets of information for trustees before each board meeting.
- Assist in delivery of Board Packets to board members monthly, as directed by District Manager.
- Fill in for and performs miscellaneous duties of operations and clerical staff, as needed.
- Follow safe work practices.
- Perform other duties as assigned.
- Maintain professional conduct; adhere to District code of ethics; maintain/strive for a work environment of teamwork, cost consciousness, and excellence.

Other Job Functions

Performs related duties as assigned.

Requirements of Work

- Graduation from an accredited college with a Bachelor of Science Degree in either Civil or Environmental Engineering (or equivalent degreed).
- Knowledge of basic principles involved in computerized drafting and maintenance management software.
- High level knowledge of mathematics and engineering principles.
- Ability to troubleshoot and utilize logic and sound problem solving skills to solve issues.
- Ability to respond to questions and requests of customers and other employees appropriately and accurately.
- Ability to operate a personal computer with the software and programs necessary to perform the work of the District.
- Ability to prepare basic business correspondence.



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- Ability to communicate effectively, both orally and in writing.
 - Ability to establish and maintain effective working relationships with other employees.
 - Skill in dealing with the public and providing good customer service.
 - Skill in the operation of devices using alphanumeric keyboards.
 - Knowledge of business English, grammar, and punctuation.
 - Knowledge of standard office practices, procedures, and equipment.
 - Ability to deal tactfully and effectively with the customers and the general public.
 - Ability to make decisions in accordance with District procedures and regulations and apply these to work problems.

Necessary Special Requirements

None.

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 mostly in an office 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. The employee is occasionally required to walk; sit; climb or balance; stoop, kneel, crouch, or crawl; and smell.

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, or operate objects, tools, or controls; and reach with hands and arms. The employee is frequently required to stand and talk and hear. The employee is frequently required to walk; sit; climb or balance; stoop, kneel, crouch, or crawl; and smell.

The employee must frequently lift and/or move up to 50 pounds and occasionally lift and/or move more than 100 pounds. Specific vision ability required by this job includes close vision, distance vision, color vision, peripheral vision, depth perception and the ability to adjust focus.

The employee will be required to climb ladders and may be required to enter and exit confined spaces, such as manholes and perform critical functions, so long as proper safety training is obtained.

While performing the duties of this job, the employee regularly works in outside weather conditions. The employee is frequently exposed to noisy environments, tight, dusty and sewage and sludge containing spaces, odors, fumes, and vibration.



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