

City of Dunedin, Florida
Class Description

Position Title: Senior Engineering Designer
Utilities Department
Engineering Division

GENERAL STATEMENT OF JOB

Under general supervision and direction, provides paraprofessional engineering design and project coordination services for various City projects. Provides information and assistance to contractors, consultants, developers, and the public regarding division projects and activities. Prepares design plans and aids in the management of public works projects. Performs related work as directed. Reports to the City Engineer or designee.

SPECIFIC DUTIES AND RESPONSIBILITIES

ESSENTIAL JOB FUNCTIONS

The duties recorded below are representative of the duties of the class and are not intended to cover all the duties performed by incumbents(s) of any particular position.

Conducts research and field work as required to gather information concerning engineering problems and projects

Conducts technical studies and analyses as required

Works with city and private survey crews and assists as necessary

Assists franchise utilities, contractors and sub-contractors as necessary

Reviews project plans for compliance with applicable codes

Compiles data and assists in the preparation of required reports, records and correspondence

Provides technical information and advice to City staff, other agency staff, contractors, developers, and the general public

Receives and responds to public inquiries, concerns, and complaints regarding department /division activities

Prepares data for design, mapping and/or construction drawings for City projects

Assists other city staff and/or city contractors to prepare design deliverables using appropriate governing standards and software

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Reviews and prepares Official Instruments

Prepares bid documents, cost estimates and project quantities, using advanced quantity manager tools within Computer-aided Design and Drafting (CADD) software and/or Geographic Information Systems

Provides technical and graphic support for City staff as required

Provides support for construction plan preparation and mapping

Reviews and prepares legal descriptions, plats, deeds, etc.

May review and prepare the Official City Limit Map and narrative description

Enters computer data; uses desktop computers and/or mobile devices to maintain design and facility databases and to produce engineering designs, presentation materials, spreadsheets, etc.

Utilizes survey, Graphic Positioning System (GPS), Environmental Systems Research Institute (ESRI) and other database formats for project design, asset management and planning purposes

Maintains scanning program for project archive records and data retrieval

Maintains Graphic Information System (GIS) information for/within CADD drawings with proper placement and standards for importing to ESRI datasets

Utilizes ESRI desktop software to enter project as-built data or populate existing datasets

Performs mapping and/or design tasks such as surface creation analysis, drawing alignments, creating 3D profiles/sections with pipe networks, basic grading capabilities with 3D Polylines/Feature lines and volume calculations, geolocation, point file integration, update features and attributes, departmental graphic support

ADDITIONAL JOB FUNCTIONS

Performs routine office work as required, including but not limited to attending and conducting meetings, answering the telephone, creating reports and correspondence, copying and filing documents, faxing and emailing information, etc.

Performs related duties as required.

MINIMUM TRAINING AND EXPERIENCE

Requires an Associate's degree or Technical degree and/or a certificate in engineering services or CADD software; three years of experience in project design and drafting construction plans

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OR;

Requires an Associate's degree or Technical degree and/or a certificate/license in Geography or Geographic Information Systems software; three years of experience in project design and drafting construction plans and/or mapping production and GIS applications.

An equivalent combination of training and experience which provides the required skills, knowledge and abilities may be considered.

Proficient in the use of Microsoft Office software, specifically, Excel, Access, Word and PowerPoint.

SPECIAL REQUIREMENTS

Must possess valid Florida driver's license.

This is a Category B position for the purposes of Emergency Management. Employees in this category may be assigned to work a variety of schedules, including compulsory work periods in special, emergency, and/or disaster situations. Category B employees are required to stay on premises during a declared state of emergency, or as otherwise mandated.

PERFORMANCE INDICATORS

Knowledge of Job: Has thorough knowledge of the methods, procedures and policies as they pertain to the performance of essential duties of the Sr. Engineering Designer. The ability to generate design and construction drawings and/or interactive, geolocated mapping graphics and systems for roads, storm water, utilities, and needs such as Maintenance of Traffic (MOT). Generate quantity and cost estimations for Capital Improvement Projects (CIP) or asset quantification lists and inventories. Is knowledgeable in the laws, ordinances, standards and regulations pertaining to the specific duties and responsibilities of the position.

Has knowledge of the principles, theories, practices and methodologies of engineering, drafting, geography, mapping and other fields applicable to the requirements of the position. Understands specific City and county ordinances as they apply to the duties and responsibilities of the position. Is able to make sound, educated decisions. Is able to react professionally at all times, dealing with sensitive situations with tact and diplomacy. Clearly understands any occupational hazards and adheres to all safety precautions inherent in performing the essential functions of the work. Has the ability to speak, write and understand the English language.

PERFORMANCE APTITUDES

Data Utilization: Requires the ability to synthesize, hypothesize and/or theorize concerning data and/or information involving modification of existing policies, strategies and/or methods to meet unique or unusual conditions. Requires the ability to do so within the context of existing organizational theories, management principles and

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economic analysis. Is able to assemble and analyze information and make written reports and records in a concise, clear and effective manner. Is able to compile, organize and utilize various financial information necessary in the preparation of the departmental budgets, and knows how to prepare and monitor those budgets.

Human Interaction: Requires the ability to function in a director capacity for a major organizational unit requiring significant internal and external interaction; requires the ability to apply principles of negotiation, and performs such in formal situations within the context of legal guidelines. Is able to coordinate department activities with other City departments and government / private agencies, in order to accomplish goals and complete projects. Knows how to apply supervisory and managerial concepts and principles; has knowledge of administrative principles involved in developing, directing and supervising various programs and related activities. Is able to supervise, motivate and evaluate the performance of a diverse group of employees. Knows how to maintain effective relationships with personnel of other departments, professionals and members of the public through contact and cooperation. Has the ability to negotiate among different constituency groups with diverse interests to achieve a shared understanding and commonality of purpose.

Equipment, Machinery, Tools and Materials Utilization: Has knowledge of and skill in the use of modern office equipment. Has knowledge of and skill in the use of computer-aided design technology. Requires the ability to use, operate and/or handle equipment such as a computer, copier, scientific calculator, telephone, engineers scale, surveying instruments, drafting instruments

Verbal Aptitude: Requires the ability to use conceptual data and information, as well as reference, descriptive, advisory, consulting, synthesis and design data and information. Has the ability to speak, write, and understand the English language.

Mathematical Aptitude: Has the mathematical ability to handle required calculations. Requires the ability to apply advanced algebraic / calculus concept and algorithmic / modeling techniques in areas such as engineering design and alternative cost analysis; to use principles of probability and statistical inference.

Functional Reasoning: Requires the ability to apply principles of logical or conceptual thinking to determine a wide range of both intellectual and practical relationships. Ability to exercise judgment and make decisions to serve as guides and general directives for an entire organization. Is able to read and interpret complex materials pertaining to the responsibilities of the job.

Situational Reasoning: Requires the ability to exercise the judgment, decisiveness and creativity required in critical and/or unexpected situations involving moderate risk to the organization. Is able to plan detailed and complex programs and activities and implement same. Has the ability to assimilate both technical and theoretical concepts from many diverse disciplines and apply the knowledge in creative and intuitive ways to solve unique problems. Must be able to take the initiative to complete all the duties of the position without direct supervision. Has the ability to plan, organize and prioritize daily assignments/ work activities.

ADA COMPLIANCE

Physical Ability: Tasks involve the ability to exert moderate, though not constant physical effort, typically involving some combination of climbing and balancing, stooping, kneeling, crouching and crawling, and which involve some lifting, carrying, pushing and pulling of objects and materials of moderate weight (12-20 pounds). Tasks require sufficient hand/eye coordination to perform semi-skilled / skilled repetitive movements, such as data entry, drafting, filing and/or the use of office equipment or supplies.

Sensory Requirements: Some tasks require visual and auditory perception and discrimination as well as oral communications ability.

Environmental Factors: Office tasks are regularly performed without exposure to adverse environmental conditions. Some field related activities may require temporary and periodic exposure to adverse environmental conditions. Some tasks require exposure to smoke/dusts/pollen, fumes, electric currents, vibrations, machinery hazards, noise extremes, bright/dim light.

The City of Dunedin is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the employer will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer.

Janice "Nan" Bennett

Utilities Director

27 March 2024

Date