

<b>CITY OF CEDAR RAPIDS POSITION PROFILE</b>	<b>JOB CODE #/TITLE:</b> NB193 Utilities Process & Facilities Engineer I
<b>POSITION #/TITLE:</b> 1040, 2671, 2672 Utilities Process & Facilities Engineer I	<b>Adopted:</b> 10-13
	<b>Revised:</b> 07-16

<b>POSITION DESCRIPTION</b>
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<b>Dept /Division:</b> Utilities/Water Pollution Control & Water	<b>Manager Level:</b> Program Administrator
<b>Salary Plan/Description:</b> NBU/Non-Bargaining Unit	<b>Salary Grade:</b> 14
<b>Reports To Position #/Job Code #/JC Title:</b> 1695/NB067/Water System Engineering Design Manager	<b>Dotted-line Reports To Position #/Job Code #/JC Title:</b>
<b>FLSA Status:</b> Exempt	<b>City Overtime Status (Employee Type):</b> Exempt (Salaried)
<b>Physical Demand Rating:</b> Medium	<b>Work Environment:</b> Controlled
<b>Pre-employment Testing:</b> Drug and health screening after contingent offer.	<b>Position Testing:</b> Job fit assessment
<b>Personal Protective Equipment:</b> Eye, Head, Foot, Hearing, Gas Monitor, Reflective Vest	

<b>General Statement of Duties</b>
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Develops and manages the coordination, design, budgeting, bidding and implementation of engineering plans, construction projects, reports, studies involving water and wastewater treatment processes; updates and uses water system hydraulic model; assists Utility Process & Facilities Engineer II, Water System Engineering Design Manager and/or Process & Facilities Engineering Manager. Performs related work as required.

<b>Distinguishing Features of the Class</b>
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Considerable leeway is granted for the exercise of independent judgment and initiative.

<b>Examples of Essential Work (Illustrative Only)</b>
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Assists with Capital Improvement Projects through design, coordination, bid, document preparation and construction phases;  
 Assists in the preparation of project budget and construction cost estimates;  
 Provides input on policy and practice issues;  
 Assists with the identification of water, water distribution system, and wastewater facility system infrastructure component deficiencies, prepares reports and estimates project costs;  
 Prepares feasibility studies;  
 Prepares capital improvement budgets and assists monitoring expenses and revenues;  
 Develops specifications and designs, and provides design review of in-house capital improvement and construction projects;  
 Provides engineering support to construction, maintenance, and operations at Water Pollution Control and Water plants, and water distribution system;  
 Assists in researching and analyzing contractors extra work proposals;  
 Assists with the evaluation of capital improvement project requests, develops options and recommends engineering actions;

Collects and analyzes data and develops construction and engineering reports for current or planned water plant, water distribution system, and wastewater facility projects;  
Assists with the selection of contract design services, the preparation of Professional Services Agreements and managing consulting engineering contracts;  
Assists with the coordination of projects for public bidding, receiving bids, and preparing construction agreement with Contractors;  
Conducts field review of current and proposed projects to determine project scope, needs and projected resources;  
Coordinates and communicates with Development Services Department regarding Water issues;  
Coordinates distribution system information requests from engineers, developers and other departments;  
Presents and discusses project related issues before interdepartmental project coordination group (example: Public Works and Utilities CIP Manager's Meeting);  
Develops project limits, scope and costs for current and proposed water systems construction activities;  
Outlines project specific issues and prepares design parameters and special provisions for bid documents;  
Makes presentations at Public Information Meetings, communicates with and responds to property owner issues regarding water construction projects;  
Updates and uses water system hydraulic model;  
Determines project surveying needs and coordinates requirements with survey and design personnel;  
Reviews project manual, plans and specifications for Utilities and Public Works projects, prepares review comments and communicates with designer;  
Attends meetings, conferences and workshops;  
Performs all work duties and activities in accordance with City policies, procedures and safety practices;  
Attends work regularly at the designated place and time;  
Supports continuous process improvement initiatives;  
Performs related work as required.

### **Required Knowledge and Abilities**

Thorough knowledge of engineering principles and practices;  
Thorough knowledge of the fundamentals of engineering design;  
Knowledge of and ability to learn, the processes and equipment utilized in the treatment of water and waste water;  
Knowledge of and ability to learn, computer applications for engineering and process modeling, design and mapping;  
Knowledge of and ability to learn, land surveying practices and techniques and field data collection using GPS equipment;  
Ability to interpret and develop engineering plans, specifications and contracts;  
Ability to read and interpret applicable federal, state and local laws and regulations governing municipal water and wastewater treatment standards;  
Ability to communicate effectively and maintain working relationships with other City employees, supervisory personnel, contractors, developers, engineers, property owners and the public both orally and in writing, using both technical and non-technical language;  
Ability to prepare accurate and reliable reports containing engineering calculations and specifications, findings, conclusions and recommendations;  
Knowledge of engineering and construction contract management;  
Ability to understand contractor cost issues and administration of contracts.  
Ability to operate a personal computer using program applications appropriate to assigned duties;  
Ability to quickly learn and put to use new skills and knowledge brought about by rapidly changing information and/or technology.  
Ingenuity and inventiveness in the performance of assigned tasks.

### **Acceptable Experience and Training**

Graduation from an accredited college or university with a Bachelor's Degree in civil, environmental or mechanical engineering or related field; and  
Some experience in water and wastewater mechanical and process system design and construction, or water distribution system engineering design and construction; or  
Any equivalent combination of experience and training which provides the knowledge and abilities necessary to perform the work.

### **Required Special Qualifications**

Certified as an Engineer-In-Training or eligible for Certification within six months of appointment.

### **Essential Physical Abilities**

Requires the following, with or without reasonable accommodation:  
Sufficient clarity of speech and hearing, which permits the employee to communicate effectively;  
Sufficient vision, which permits the employee to perform engineering design and contract management tasks, observe and evaluate projects and processes and produce a variety of written and technical documents;  
Sufficient manual dexterity, which permits the employee to operate computer keyboard and develop engineering designs and specifications;  
Sufficient personal mobility, which permits the employee to inspect engineering and construction projects, including sites characterized by trenching and rough terrain.