

Job Title: Senior Engineer
SCA Equivalent: None
Effective Date: January 1, 2012
Latest Revision: January 1, 2018
AIP Target: 16% of Base Earnings
Profit Centers: 100

Primary Accountability - Responsible for the project planning, design and construction support for large scale and/or multiple projects. Leads team efforts to provide engineering services, including capital upgrades, repairs, replacements, operations and maintenance for water and wastewater facilities, including treatment plants, pump stations and collections. Responsible for leading team efforts for engineering related projects by providing engineering services at the planning, design and construction phases.

Description of Primary Responsibilities

- 1) Supports project planning, design, and construction for multiple projects as required by Operations:
 - a) Prepares designs, plans, specifications, estimates and reports for construction projects,
 - b) Compiles data and prepares/interprets engineering drawings, maps, plans and project specifications,
 - c) Assists in the design and analysis of pipelines, water/wastewater systems and other concrete, steel and timber structures, sanitary sewer systems and lift stations,
 - d) Coordinates capital improvement plan (CIP) and repair and replacement projects,
 - e) Responsible for project schedules and timely completion of projects,
 - f) Responsible for client contact and communications pertaining to projects,
 - g) Serves as lead for client meetings as required,
 - h) Responsible for meeting project financial objectives,
 - i) Supports the maintenance and updates of contract operations' plans, including the quality control plan, service discontinuation plan, and spill response plan,
 - j) Supports the maintenance of the plant library – operations and maintenance manuals and as-built drawings,
 - k) Supports the preparation and maintenance of the detailed records of installations and inspections.
- 2) Supports facility regulatory compliance and permitting as required by Operations:
 - a) Assists with administering facility compliance with regulatory codes,
 - b) Supports the Operations team with facility compliance with environmental permits and regulations, including but not limited to, the NPDES permit and DOH reuse guidelines,
 - c) Supports the Operations team with regulatory agency matters, including Army DPW, Environmental Branch, Hawaii State Department of Health Environmental Division and the EPA.
- 3) CIP and repair and replacement projects (e.g. US Army, alternative energy, etc.):
 - a) Provides engineering support in preparing annual updates of the CIP program as required by the contract,
 - b) Provides engineering support in obtaining budgetary costs,
 - c) Provides engineering support in preparing monthly financial reports.
- 4) Plant operation plans:
 - a) Provides engineering support to plant superintendent in maintaining and updating plant operations plans including the quality control plan, service discontinuation plan and spill response plan.

- b) Provides engineering support in the development and maintenance of plant libraries, operations and maintenance manuals and as-built drawings,
 - c) Provides engineering support in coordinating various programs including the I&I program, pretreatment program and industrial discharge permitting program,
- 5) Provides engineering support:
- a) Provides engineering services during the construction phase of projects,
 - b) Prepares and evaluates the scope of work for projects,
 - c) Prepares engineering agreements for design consultants,
 - d) Oversees the preparation of designs, plans, specifications, estimates and reports for engineering projects by design consultants,
 - e) Reviews and provides comments of engineering drawings, maps, plans, specifications and reports,
 - f) Provides support and generates maps,
 - g) Reviews and verifies maps based on survey specifications,
 - h) Drafts requests for proposals,
 - i) Prepares and reviews budget and cost estimates,
 - j) Makes presentations at general public meetings as required
- 6) Provides construction support:
- a) Prepares design computations and quantity estimates,
 - b) Develops cost estimates; collects quotes and estimates from prospective sub-contractors,
 - c) Performs final review of project invoices,
 - d) Reviews project schedules and monitors construction progress with periodic site visits,
 - e) Coordinates with subcontractors and team members to ensure successful completion of large/complex projects,
 - f) Assists in preparation of request for proposals,
 - g) Assists in reviewing and preparing close out documents.

Description of Primary Attributes

General Development:

- 1) Possesses organizational skills.
- 2) Has the ability to work independently and as part of a team.
- 3) Performs work in response to workflow or ongoing direction by supervisors or others.
- 4) Has the ability to effectively select from both established alternatives and to modify approaches in response to situations encountered.
- 5) Considers the impact of work product on other employees in the work process.
- 6) Has the ability to define problems, collect data, establish facts, and draw valid and reasonable conclusions.
- 7) Has the ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.
- 8) Has the ability to lead multiple projects simultaneously.
- 9) Has the ability to prepare marketing strategies for specific clients and business development activities.
- 10) Has the ability to direct and supervise other engineer's activities.
- 11) Has the ability to handle administration of contracts.

Professional & Technical Knowledge

- 1) Possesses advanced level general skills, including written and verbal communications skills,

computational and computer skills, and mathematical knowledge.

- 2) Possesses a bachelor's degree in engineering from an accredited four-year college or university.
- 3) Possesses thorough knowledge of state and federal regulations related to wastewater, basic operation and maintenance of wastewater treatment plants, pump stations, and collection system.
- 4) Possesses a thorough knowledge of permits required by federal, state and local governmental agencies.

Technical Skills:

- 1) Has the ability to prepare complex documents in Microsoft Word, including creating tables, charts, graphs and other elements.
- 2) Has the ability to use Microsoft Excel to analyze data, including the use of formulas, functions, lookup tables and other standard spreadsheet elements.
- 3) Has the ability to create basic presentations in Microsoft PowerPoint.
- 4) Proficient in the use of engineering/design software used by the department.
- 5) Has the ability to use Microsoft Project scheduling software or another acceptable scheduling software.

Licenses & Certifications:

- 1) Possesses a valid Driver License.
- 2) Possesses a Hawaii Professional Engineer's License.

Communications Skills:

- 1) Effectively communicates opinions and extrapolations of information collected and synthesized/analyzed.
- 2) Has the ability to read, analyze and interpret general business periodicals, professional journals, technical procedures and governmental regulations.
- 3) Convinces others to take actions, or to behave in a specific way desired by the employee.
- 4) Compiles, analyzes and prepares information in an effective written form, including correspondence, reports, articles, or other documentation.
- 5) Has the ability to make effective presentations and respond to questions from groups of managers, clients, customers, regulators and the general public.
- 6) Resolves conflicts that may arise because of disagreements between employees, between employees and customers/clients, or with the public, other legal entities or governmental authorities.

Physical Demands:

- 1) Meets the health and physical condition standards deemed necessary and proper for performance of these duties.
- 2) Exposure to hazardous, filthy and/or obnoxious conditions.
- 3) May also be subject to shift, weekend and holiday work.
- 4) Ability to perform heavy lifting and other manual work under adverse conditions.

Evaluation Guidelines

The following guidelines are used to determine the appropriate contribution assessment and associated pay range position:

Pay Level 1 (Entry-Level) – Demonstrates the ability to perform the following responsibilities and demonstrates the following attributes:

- Primary Responsibilities – 1a-c, 2a, 4a-b, 5a-i, 6a-c,
- Primary Attributes – GD 1-6, PTK 1-2, TS 1-4, LC 1, CS 1-2, PD 1-4.

Pay Level 2 (Developing) – Possesses all of the Pay Level 1 qualifications plus:

- Primary Responsibilities – 6d-f,
- Primary Attributes – CS 3.

Pay Level 3 (Fully Functioning) – Possess all of the Pay Level 2 qualifications plus:

- Primary Responsibilities – 1d-h, 2b, 3a-c, 4a, 6g,
- Primary Attributes – GD 7-11, PTK 3-4, TS 5, CS 4-6.

Pay Level 4 (Added Value) – Possess all of the Pay Level 3 qualifications plus:

- Primary Responsibilities – 1i-k, 2c, 4b-c,
- Primary Attributes – LC2,
- Demonstrated ability to generate new business by adding work for current clients or developing new clients.

Pay Level 5 (Unique) – Possess all of the Pay Level 4 qualifications plus:

- Primary Responsibilities – 5j,
- Recognized as industry expert.

Comments