Classification Notice No. 1324

To: Agency Heads and Employees

From: Jeff Dolan, Career Service Executive Personnel Director

Date: March 17, 2010

Subject: Proposed Change to the Classification and Pay Plan

The proposed change amends the Classification and Pay Plan by adding Materials Laboratory Administrator (813-E) and Senior Project Inspector (812-E), changing the pay grade of Project Inspector from 809-E to 811-E, changing the pay grade of Senior Engineering Associate from 809-E to 811-E and changing the pay grade of Materials Tester from 617-E to 619-E, changing the title and pay grade of Senior Drafter (618-E) to Computer Aided Drafting Technician (620-E). Lastly, we are deleting Drafter (616-E).

CSA has completed the Technical Engineering Study except for one class that will be evaluated in the near future. Based on extensive field work and interviews with employees, CSA is recommending a number of changes including the creation of two new classes, the Materials Laboratory Administrator and the Senior Project Inspector, and pay grade changes. Additionally, all of the class specifications have been revised and updated.

NEW CLASSES

<table>
<thead>
<tr>
<th>Job Code</th>
<th>Classification Title</th>
<th>Pay Grade &amp; Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE2408</td>
<td>Materials Laboratory Administrator</td>
<td>813-E ($63,569 - $101,420)</td>
</tr>
<tr>
<td>CE2409</td>
<td>Senior Project Inspector</td>
<td>812-E ($59,473 - $94,875)</td>
</tr>
</tbody>
</table>

REVISED CLASS SPECIFICATIONS INCLUDING PAY GRADE CHANGES

<table>
<thead>
<tr>
<th>Job Code</th>
<th>Classification Title</th>
<th>Current Pay Grade &amp; Range</th>
<th>Proposed Pay Grade &amp; Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE0418</td>
<td>Materials Tester</td>
<td>617-E ($39,851 - $58,164)</td>
<td>619-E ($43,559 - $63,569)</td>
</tr>
<tr>
<td>CE1474</td>
<td>Senior Engineering Associate</td>
<td>809-E ($48,686 - $77,665)</td>
<td>811-E ($55,631 - $88,755)</td>
</tr>
</tbody>
</table>

REVISED CLASS SPECIFICATION INCLUDING TITLE & PAY GRADE CHANGE

<table>
<thead>
<tr>
<th>Job Code</th>
<th>Classification Title</th>
<th>Current Classification Title</th>
<th>Proposed Classification Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE0430</td>
<td>Senior Drafter</td>
<td></td>
<td>Computer Aided Drafting Technician</td>
</tr>
</tbody>
</table>

Current Pay Grade & Range | Proposed Pay Grade & Range
----------------------------|-----------------------------|
618-E ($41,669 - $60,806) | 620-E ($45,547 - $66,466) |

ABOLISHMENT

<table>
<thead>
<tr>
<th>Job Code</th>
<th>Classification Title</th>
<th>Pay Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE0396</td>
<td>Drafter</td>
<td>616-E</td>
</tr>
</tbody>
</table>
Per Career Service Rule 7-37 A – “If it is determined, as a result of an audit or maintenance study, that changes to the classification and pay plan are necessary, the effective date of any resulting re-allocations shall be the beginning of the first work week following approval by the Board.”

The Career Service Executive Personnel Director shall provide those appointing authorities who are affected with a draft of proposed changes in the plan, and notice shall be posted on appropriate bulletin boards at least thirteen calendar days from the date of this notice.

**Public Notice of Changes:**

The scheduled time for the public hearing is Thursday April 1, 2010 at **5:30 p.m.** in the CSA Board Room, Room 4.F.6, Webb Municipal Building, 201 West Colfax Avenue.

**Note:** Please submit any questions or comments on this proposal in writing to Bruce Backer bruce.backer@denvergov.org, Career Service Authority, in care of Alena Martinez alena.martinez@denvergov.org by 8:00 a.m. on **Tuesday March 30, 2010.** Please include a contact name and phone number so that we may respond directly.

If anyone wishes to be heard by the Board on this item, please call Leon Duran leon.duran@denvergov.org at (720) 913-5168 no later than noon on **Tuesday March 30, 2010.**
GENERAL STATEMENT OF CLASS DUTIES

Performs full performance computer aided drafting (CAD) assignments to create and modify maps and drawings that are spatially accurate and represent technically correct depictions of the city projects and infrastructure.

DISTINGUISHING CHARACTERISTICS

This class performs full performance computer aided drafting assignments. This class is distinguished from the Senior Engineering Associate class that performs a variety of professional assignments that support engineering operations and functions and applies technical engineering knowledge and principles to an area(s) of responsibility.

Guidelines, Difficulty and Decision Making Level:

Guidelines are generally but not always clearly applicable, requiring the employee to exercise judgment in selecting the most pertinent guideline, interpret precedents, adapt standard practices to differing situations, and recommend alternative actions in situations without precedent.

Duties assigned are generally complex and may be of substantial intricacy. Work assignment is performed within an established framework under general instructions but requires simultaneous coordination of assigned functions or projects in various stages of completion.

Employee is responsible for determining time, place, and sequence of actions to be taken. Unusual problems or proposed deviations from guidelines, practices, or precedents may be discussed with the supervisor before being initiated.

Level of Supervision Received and Quality Review:

Under general supervision, the employee receives assignments and is expected to carry them through to completion with substantial independence. Work is reviewed for adherence to instructions, accuracy, completeness, and conformance to standard practice or precedent. Recurring work clearly covered by guidelines may or may not be reviewed.

Interpersonal Communications and Purpose:

Contacts with the public or employees where explanatory or interpretive information is exchanged, defended, and gathered and discretion and judgment are required within the parameters of the job function.
Level of Supervision Exercised:

By position, may perform lead work.

ESSENTIAL DUTIES

Operates CAD software to create, update, and maintain technical, electronic drawings and maps of sewer and storm water systems, transportation infrastructure, and facilities including precise maps and plans.

Creates a variety of engineering drawings using specifications provided by engineers and other available data, prepares detailed drawings for the construction and/or alteration of city infrastructure including evaluating and interpreting survey grading and drainage data, preparing cross-sections, profiles, visual displays, maps, and charts, and combines maps on one scale.

Obtains record information from a variety of agencies and utilities, researches files, drawings, maps of facilities, and other related information, checks assessor’s maps, survey maps, and parcel information for various data, gathers measurements and field notes, and verifies incomplete data in order to complete drawings.

Updates originally recorded engineering drawings, maps, profiles, and plans with new as-built data and edits existing drawings to reflect as-built conditions.

Makes engineering calculations involving elevations and angles related to sewer and sanitary pipe placement to other utility lines.

Supports engineering staff by assisting engineers with research, field inspections, analysis and verification of legal description, and other support duties.

Imports and exports data to and from GIS records.

Organizes and archives old drawings and updates and maintains database records and files.

Creates a variety of custom maps, graphics, and other information.

Performs other related duties as assigned.

Any one position may not include all of the duties listed. However, the allocation of positions will be determined by the amount of time spent in performing the essential duties listed above.

MINIMUM QUALIFICATIONS

Competencies, Knowledge, & Skills:

Cartography – Knowledge of the concepts, principals, theories, and methods related to the research, design, development, or revision of maps, charts, and related cartographic products and photogrammetric and cartographic processing.

Geography – Knowledge of the concepts, principles, theories, and methods for describing the location and distribution of land, sea, and air masses including their physical locations, relationships, characteristics, and what the land supports.
Spatial Orientation – Knows one’s location in relation to the environment, determines where other objects are in relation to one’s self (for example, when using a map).

Surveying – Knowledge of the concepts, principles, theories, and methods used in the measurement or determination of land boundaries, distances, elevations, areas, angles, and other features of the earth’s surface.

Creative Thinking – Uses imagination to develop new insights into situations and applies innovative solutions to problems and designs new methods where established methods and procedures are inapplicable or unavailable.

Technology Application – Uses machines, tools, instruments, and/or equipment effectively and uses computer applications to analyze and communicate information in the appropriate format.

Teamwork – Encourages and facilitates cooperation, pride, trust, and group identity, fosters commitment and team spirit, and works with others to achieve goals.

Integrity/Honesty - Contributes to maintaining the integrity of an organization, displays high standards of ethical conduct, understands the impact of violating these standards on an organization, self, and others, and is trustworthy.

Eye-Hand Coordination – Accurately coordinates one’s eyes with one’s fingers, wrist, or arms to perform job-related tasks (for example, to move, carry, or manipulate objects).

Attention to Detail – Is thorough when performing work and conscientious about attending to detail.

Information Management – Identifies a need for and knows where or how to gather information and organizes and maintains information or information management systems.

Mathematical Reasoning – Solves practical problems by choosing appropriately from a variety of mathematical and statistical techniques.

Diversity – Is sensitive to cultural diversity, race, gender, and other individual differences in the workforce.

Reading - Understands and interprets written material including technical material, rules, regulations, instructions, reports, charts, graphs, or tables and applies what is learned from written material to specific situations.

Writing – Uses correct English grammar, punctuation, and spelling to communicate thoughts, ideas information, and messages in writing.

Oral Communication - Expresses ideas and facts to individuals or groups effectively, makes clear and convincing oral presentations, listens to others, and facilitates an open exchange of ideas.

Technical Competence – Uses knowledge that is acquired through formal training and extensive on-the-job experience to perform one’s job, works with, understands, and evaluates technical information related to the job, and advises others on technical issues.

Problem Solving – Identifies problems, determines accuracy and relevance of information, uses sound judgment to generate and evaluate alternatives, and makes recommendations.
Decision Making - Makes sound, well-informed, and objective decisions, perceives the impact and implications of decisions, commits to action even in uncertain situations to accomplish goals, and causes change.

Customer Service - Works with customers to assess needs, provide assistance, resolves problems, and satisfy expectations, knows products and services, and is committed to providing quality products and services.

Oral Communication - Expresses ideas and facts to individuals or groups effectively, makes clear and convincing oral presentations, listens to others, and facilitates an open exchange of ideas.

Interpersonal Skills - Considers and responds appropriately to the needs, feelings, and capabilities of others, and adjusts approaches to suit different people and situations.

Self Management - Sets well-defined and realistic personal goals, displays a high level of initiative, effort, and commitment towards completing assignments in a timely manner, works with minimal supervision, is motivated to achieve, and demonstrates responsible behavior.

Decision Making - Specifies goals and obstacles to achieving those goals, generates alternatives, considers risks, and evaluates and chooses the best alternative in order to make a determination, draw conclusions, or solve a problem.

Physical Demands (Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs):

- Sitting: remaining in the normal seated position.
- Handling: seizing, holding, grasping, or otherwise working with hands.
- Fingering: picking, pinching, or otherwise working with fingers.
- Talking: expressing or exchanging ideas by means of spoken words.
- Hearing: perceiving the nature of sounds by the ear.
- Repetitive motions: making frequent movements with a part of the body.
- Eye/hand/foot coordination: performing work through using two or more.
- Near acuity: ability to see clearly at 20 inches or less.
- Depth Perception: ability to judge distance and space relationships.
- Field of Vision: ability to see peripherally.
- Accommodation: ability to adjust vision to bring objects into focus.
- Color Vision: ability to distinguish and identify different colors.

Education Requirement:

Associate’s Degree in drafting or a related field.

Experience Requirement:

Two years of experience in engineering drafting including experience with computer aided drafting.
Education/Experience Equivalency:

Additional appropriate experience may be substituted for the minimum education requirement.

Licensure and/or Certification:

By position, possession of a valid driver's license.

CLASS DETAIL

FLSA CODE: Non-Exempt

ESTABLISHED DATE: 09/16/1995

REVISED DATE: Patricia Anderson

REVISED BY: xx/xx/2010

CLASS HISTORY xx/xx/2010 - This class was revised and updated as part of the Technical Engineering Study.
GENERAL STATEMENT OF CLASS DUTIES

Performs supervisory duties over Materials Testers and manages the Materials Testing Laboratory which includes contract administration, ensuring proper testing procedures, and compliance with applicable standards and specifications.

DISTINGUISHING CHARACTERISTICS

This class manages the Materials Testing Laboratory. This class is distinguished from the Materials Tester class that performs full performance work conducting quality control material testing and analysis of soil, asphalt, aggregate, and concrete in a laboratory and at various job sites to ensure compliance with construction specifications. The Materials Laboratory Supervisor is also distinguished from the Engineer/AliArchitect Supervisor class that performs professional and supervisory work over professional, licensed engineers and architects, develops, implements, and evaluates engineering plans, work processes, systems, and procedures to achieve annual goals and objectives, and makes budgetary and resource allocation decisions.

Guidelines, Difficulty and Decision Making Level:

Guidelines are in the form of stated objectives for the section, unit, function, or project.

Work assignment is generally unstructured and employee is responsible for assigning and supervising a variety of functions to achieve the objectives of the section, unit, or project. Duties performed involve weighing and evaluating factors requiring judgment, analytical ability, and problem solving.

Employee is responsible for simultaneous coordination and supervision of several functions, programs, or projects in various stages of completion.

Level of Supervision Received and Quality Review:

Under administrative supervision, the employee has personal accountability for carrying out an assigned function, program, or project within the scope of established guidelines and objectives and is expected to resolve problems that arise in the normal course of the work. Completed work is generally reviewed for soundness of judgment, conclusion, adequacy, and conformance to policy.

Interpersonal Communications and Purpose:

Contacts are of a non-prescribed nature involving the negotiation and resolution of problems and where exceptional degrees of discretion, judgment, and specialized knowledge are required in carrying out the programs and policies of an organization.
**Level of Supervision Exercised:**

Supervises Materials Testers and may supervise other paraprofessional employees.

**ESSENTIAL DUTIES**

Manages the Materials Testing Laboratory including providing technical training and feedback, preparing the work plan for asphalt testing, calibrating equipment, and ensuring field and laboratory testing for construction projects is performed in adherence to city standards and specifications.

Administers contracts for the materials need in the laboratory such as aggregate, cold mix, snow removal materials, and other laboratory equipment and materials and monitors and maintains the quality and quantity of purchased materials.

Conducts geotechnical testing and traffic count data analysis to produce pavement designs for engineering estimates on job costs for capital projects.

Acts as the Radiation Safety Officer for the Materials Testing Laboratory, establishes policies and procedures to ensure state and federal regulations are followed, ensures proper records are kept, monitors employee radiation levels, and oversee proper use, storage, and transportation of radioactive materials.

Acts as a snow manager for Street Maintenance including supervising staff, prioritizing snow routes, deploying personnel and equipment, following up on public and police complaints, and ensuring work is completed.

Develops or modifies work plans, methods, and procedures and determines work priorities.

Assigns and distributes work, reviews work for accuracy and completeness, and returns assignments with recommendations for proper completion.

Resolves problems encountered during daily operations and determines standards for problem resolution.

Develops the performance enhancement plan, documents performance, provides performance feedback, and formally evaluates the work of employees.

Responds to formal and informal employee grievances and prepares written response.

Documents causes for disciplinary action and initiates letters of reprimand and formal recommendations for disciplinary action.

Provides work instruction and assists employees with difficult and/or unusual assignments.

Performs other duties as assigned.

Any one position may not include all of the duties listed. However, the allocation of positions will be determined by the amount of time spent in performing the essential duties listed above.
MINIMUM QUALIFICATIONS

Competencies, Knowledge, & Skills:

- **Materials Testing** – Knowledge of the concepts, principles, theories, and methods related to the composition, structures, and properties of materials, their use, behavior, and performance under environmental influences, and the identification, processing, and manufacture of optimal materials for various applications.

- **Technical Competence** – Uses knowledge that is acquired through formal training or extensive on-the-job experience to perform one’s job, work with, understands, and evaluates technical information related to the job, and advises others on technical issues.

- **Technology Application** – Uses machines, tools, instruments, and/or equipment effectively and uses computer applications to analyze and communicate information in the appropriate format.

- **Mathematical Reasoning** – Solves practical problems by choosing appropriately from a variety of mathematical and statistical techniques.

- **Interpretation** - Skill in independently adapting, interpreting, and applying written guidelines, precedents, and standardized work practices to a variety of unprecedented or problematic situations.

- **Integrity/Honesty** - Contributes to maintaining the integrity of the organization, displays high standards of ethical conduct, understands the impact of violating these standards on an organization, self, and others, and is trustworthy.

- **Reading** - Understands and interprets written material including technical material, rules, regulations, instructions, reports, charts, graphs, or tables and applies what is learned from written material to specific situations.

- **Writing** - Recognizes and uses correct English grammar, punctuation, and spelling, communicates information in a succinct and organized manner, and produces written information which may include technical material that is appropriate for the intended audience.

- **Interpersonal Skills** - Shows understanding, courtesy, tact, empathy, and concern, develops and maintains relationships, may deal with people who are difficult, hostile, and/or distressed, relates well to people from varied backgrounds and situations, and is sensitive to individual differences.

- **Oral Communication** - Expresses information to individuals or groups effectively taking into account the audience and nature of the information, makes clear and convincing oral presentations, listens to others, attends to nonverbal cues, and responds appropriately.

- **Problem Solving** - Identifies problems, determines accuracy and relevance information, and uses sound judgment to generate and evaluate alternatives and to make recommendations.

- **Decision Making** - Makes sound, well-informed, and objective decisions, perceives the impact and implications of decisions, commits to action even in uncertain situations to accomplish program goals, and causes change.
**Teamwork** - Encourages and facilitates cooperation, pride, trust, and group identity, fosters commitment and team spirit, and works with others to achieve goals.

**Diversity** – Is sensitive to cultural diversity, race, gender, and other individual differences in the workforce.

**Customer Service** - Works with customers to assess needs, provide assistance, resolve problems, and satisfy expectations, knows products and services, and is committed to providing quality products and services.

**Flexibility**- Is open to change and new information, adapts behavior or work methods in response to new information, changing conditions, or unexpected obstacles, and deals effectively with ambiguity.

**Teaching Others** - Helps others learn through formal or informal methods, identifies training needs, provides constructive feedback, coaches others on how to perform tasks, and acts as a mentor.

**Conflict Management** - Manages and resolves conflicts, grievances, confrontations, or disagreements in a constructive manner to minimize negative personal impact.

**Attention of Detail** – Is thorough when performing work and conscientious about attending to detail.

**Memory** – Recalls information that has been presented previously.

**Information Management** – Identifies a need for and knows where or how to gather information and organizes and maintains information or information management systems.

Knowledge of supervisory theories and methods sufficient to be able to perform a variety of supervisory functions.

**Physical Demands** (Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs):

Standing: remaining on one’s feet in an upright position.
Walking: moving about on foot.
Carrying: transporting an object, usually by hand, arm, or shoulder.
Pushing: exerting force upon an object so that the object is away.
Pulling: exerting force on an object so that it is moving to the person.
Balancing: maintaining body equilibrium to prevent falling over.
Stooping: bending the body by bending spine at the waist.
Kneeling: bending legs to come to rest on one or both knees.
Reaching: extending the hand(s) and arm(s) in any direction.
Handling: seizing, holding, grasping, or otherwise working with hands.
Fingering: picking, pinching, or otherwise working with fingers.
Feeling: perceiving attributes of objects by means of skin receptors.
Talking: expressing or exchanging ideas by means of spoken words.
Hearing: perceiving the nature of sounds by the ear.
Repetitive motions: Making frequent movements with a part of the body.
Eye/hand/foot coordination: performing work through using two or more.
Lifting: raising or lowering an object 25 – 50 pounds.
Far acuity: ability to see clearly at 20 feet or more.
Near acuity: ability to see clearly at 20 inches or less.
Depth Perception: ability to judge distance and space relationships.
Field of Vision: ability to see peripherally.
Accommodation: ability to adjust vision to bring objects into focus.
Color Vision: ability to distinguish and identify different colors.

**Working Environment:**

- Extreme Heat: temperature hot enough to cause marked bodily discomfort
- Temperature Changes: variations in temperature from hot to cold.
- Wet: frequent contact with water or other liquid.
- Noise: sufficient noise to cause distraction or possible hearing loss.
- Atmospheric Conditions: conditions that affect the skin or respiratory system.
- Exposed to hazards from electro/mechanical/power equipment.
- Working with and possible exposure to radiation hazards.
- Subject to injury from moving parts of equipment.

**Education Requirement:**

Bachelor’s Degree in engineering, science, or a related field.

**Experience Requirement:**

Three years of experience at the type and level of Materials Tester.

**Education/Experience Equivalency:**

Additional appropriate experience may be substituted for two years of the minimum education requirement.

**Licensure and/or Certification:**

Possession of a valid driver’s license at the time of application.

Must maintain the City’s license for Radioactive Materials issued by the State of Colorado Public Health and Safety Department.

**CLASS DETAIL**

**FLSA CODE:** Exempt

**ESTABLISHED DATE:** xx/xx/2010

**ESTABLISHED BY:** Patricia Anderson

**REVISED DATE:**
**CLASS HISTORY**

xx/xx/2010 - This is a new class. This class specification was created as part of the Technical Engineering Study (2010).
GENERAL STATEMENT OF CLASS DUTIES

Performs full performance work conducting quality control material testing and analysis of soil, asphalt, aggregate, and concrete in a laboratory and at various job sites to ensure compliance with construction specifications.

DISTINGUISHING CHARACTERISTICS

This class conducts quality control material testing and analysis. This class is distinguished from the Materials Laboratory Supervisor class that performs supervisory duties over Materials Testers and manages the Materials Testing Laboratory which includes contract administration, ensuring proper testing procedures, and compliance with applicable standards and specifications.

Guidelines, Difficulty and Decision Making Level:

Guidelines are generally but not always clearly applicable, requiring the employee to exercise judgment in selecting the most pertinent guideline, interpret precedents, adapt standard practices to differing situations, and recommend alternative actions in situations without precedent.

Duties assigned are generally complex and may be of substantial intricacy. Work assignment is performed within an established framework under general instructions but requires simultaneous coordination of assigned functions or projects in various stages of completion.

Employee is responsible for determining time, place, and sequence of actions to be taken. Unusual problems or proposed deviations from guidelines, practices, or precedents may be discussed with the supervisor before being initiated.

Level of Supervision Received and Quality Review:

Under general supervision, the employee receives assignments and is expected to carry them through to completion with substantial independence. Work is reviewed for adherence to instructions, accuracy, completeness, and conformance to standard practice or precedent. Recurring work clearly covered by guidelines may or may not be reviewed.

Interpersonal Communications and Purpose:

Contacts with the public or employees where explanatory or interpretive information is exchanged, defended, and gathered and discretion and judgment are required within the parameters of the job function.
Level of Supervision Exercised:
Performs no supervisory duties.

ESSENTIAL DUTIES

Conducts field and laboratory performance tests to determine material properties such as content, gradations, and density.

Advises inspectors, contractors, or plant operator in aspects of choosing, approving, using, modifying, and quality verification of materials.

Prioritizes field job calls and lab work according to importance, time schedule, and distance.

Drills and cores materials for testing and analysis and coordinates and verifies locations of utilities.

Cleans, checks, and maintains proper calibration of equipment.

Calibrates nuclear density gauge and ensures proper storage and handling of radioactive material.

Maintains records of all testing and prepares reports.

By position, coordinates hauling of aggregates to stockpiles with the aggregate supplier to maintain sufficient quantities for plant operation, processes billing tickets of aggregate, and compiles aggregate haul records.

Performs other related duties as assigned or requested.

Any one position may not include all of the duties listed. However, the allocation of positions will be determined by the amount of time spent in performing the essential duties listed above.

MINIMUM QUALIFICATIONS

Competencies, Knowledge, & Skills:

Soil Science – Knowledge of the concepts, principles, or theories of soil composition, formation, classification, mapping, testing and management including erosion, pollution, conservation, and watershed management.

Building and Construction – Knowledge of the materials, methods, systems and the tools used to construct objects, structures, and buildings.

Teamwork – Encourages and facilitates cooperation, pride, trust, and group identity, fosters commitment and team spirit, and works with others to achieve goals.

Integrity/Honesty - Contributes to maintaining the integrity of an organization, displays high standards of ethical conduct, understands the impact of violating these standards on an organization, self, and others, and is trustworthy.
Attention to Detail – Is thorough when performing work and conscientious about attending to detail.

Diversity – Is sensitive to cultural diversity, race, gender, and other individual differences in the workforce.

Reading - Understands and interprets written material including technical material, rules, regulations, instructions, reports, charts, graphs, or tables and applies what is learned from written material to specific situations.

Writing - Uses correct English grammar, punctuation, and spelling to communicate thoughts, ideas, information, and messages in writing.

Oral Communication - Expresses ideas and facts to individuals or groups effectively, makes clear and convincing oral presentations, listens to others, and facilitates an open exchange of ideas.

Technical Competence – Uses knowledge that is acquired though formal training and extensive on-the-job experience to perform one’s job, works with, understands, and evaluates technical information related to the job, and advises others on technical issues.

Technology Application – Uses machines, tools, instruments, and/or equipment effectively and uses computer applications to analyze and communicate information in the appropriate format.

Problem Solving – Identifies problems, determines accuracy and relevance of information, uses sound judgment to generate and evaluate alternatives, and makes recommendations.

Decision Making - Makes sound, well-informed, and objective decisions, perceives the impact and implications of decisions, commits to action even in uncertain situations to accomplish goals, and causes change.

Arithmetic/Mathematical Reasoning - Performs computations such as addition, subtraction, multiplication, and division correctly, solving practical problems by choosing appropriately from a variety of mathematical techniques such as formulas and percentages.

Reasoning - Identifies rules, principles, or relationships that explain facts, data, or other information, analyzes information, and makes correct inferences or draws accurate conclusions.

Customer Service - Works with customers to assess needs, provide assistance, resolves problems, and satisfy expectations, knows products and services, and is committed to providing quality products and services.

Interpersonal Skills - Shows understanding, friendliness, courtesy, tact, empathy, cooperation, concern, and politeness to others and relates well to different people from varied backgrounds and different situations.

Physical Demands (Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs):

Standing: remaining on one’s feet in an upright position.
Walking: moving about on foot.
Carrying: transporting an object, usually by hand, arm, or shoulder.
Pushing: exerting force upon an object so that the object is away.
Pulling: exerting force on an object so that it is moving to the person.
Balancing: maintaining body equilibrium to prevent falling over.
Stooping: bending the body by bending spine at the waist.
Kneeling: bending legs to come to rest on one or both knees.
Reaching: extending the hand(s) and arm(s) in any direction.
Handling: seizing, holding, grasping, or otherwise working with hands.
Fingerling: picking, pinching, or otherwise working with fingers.
Feeling: perceiving attributes of objects by means of skin receptors.
Talking: expressing or exchanging ideas by means of spoken words.
Hearing: perceiving the nature of sounds by the ear.
Repetitive motions: Making frequent movements with a part of the body.
Eye/hand/foot coordination: performing work through using two or more.
Lifting: raising or lowering an object 25 – 50 pounds.
Near acuity: ability to see clearly at 20 feet or more.
Near acuity: ability to see clearly at 20 inches or less.
Depth Perception: ability to judge distance and space relationships.
Field of Vision: ability to see peripherally.
Accommodation: ability to adjust vision to bring objects into focus.
Color Vision: ability to distinguish and identify different colors.

**Working Environment:**

- Extreme Heat: temperature hot enough to cause marked bodily discomfort
- Temperature Changes: variations in temperature from hot to cold.
- Wet: frequent contact with water or other liquid.
- Noise: sufficient noise to cause distraction or possible hearing loss.
- Atmospheric Conditions: conditions that affect the skin or respiratory system.
- Exposed to hazards from electro/mechanical/power equipment.
- Working with and possible exposure to radiation hazards.
- Subject to injury from moving parts of equipment.

**Education Requirement:**

- Graduation from high school or GED Certificate including or supplemented by completion of course work in Algebra, Geometry, and Trigonometry.

**Experience Requirement:**

- Two years of experience in sub professional engineering including one year of experience in construction working with concrete, asphalt, soil or related materials.

**Education/Experience Equivalency:**

- Additional appropriate education may be substituted for the minimum experience requirement except for the one year of experience in construction working with concrete, asphalt, soil, or related materials.
Licensure and/or Certification:

Possession of a valid driver's license at the time of application.

CLASS DETAIL

FLSA CODE:  Non-Exempt

ESTABLISHED DATE:  09/16/1995

REVISED DATE:  xx/xx/2010

REVISED BY:  Patricia Anderson

CLASS HISTORY  xx/xx/2010 - This class specification was revised and updated as part of the Technical Engineering Study (2010).
GENERAL STATEMENT OF CLASS DUTIES

Performs full performance technical work inspecting work quality and materials used on a variety of projects including construction, repair, maintenance, and/or alterations and ensures that work performed by contractors/developers is in compliance with established standards, codes, plans, and specifications.

DISTINGUISHING CHARACTERISTICS

This class performs full performance technical work inspecting work. This class is distinguished from the Senior Project Inspector class that performs advanced level full performance technical inspection work, acts as a subject matter expert in a specialty area of construction such as fabrication, coatings, welding, bolting, erection of structural steel, and/or other specialized technical areas, and ensures that work performed by contractors/developers is in compliance with established standards, codes, plans, and specifications.

The Project Inspector is distinguished from the Senior City Inspector that performs full performance inspection work ensuring compliance with City standards and ordinances, enforces compliance, and issues citations, notices, orders, summons, and permits on projects involving public and private entities. Additionally, Project Inspectors work on projects that involve contracts and incumbents process and approve pay applications.

Guidelines, Difficulty and Decision Making Level:

Guidelines are generally but not always clearly applicable, requiring the employee to exercise judgment in selecting the most pertinent guideline, interpret precedents, adapt standard practices to differing situations, and recommend alternative actions in situations without precedent.

Duties assigned are generally complex and may be of substantial intricacy. Work assignment is performed within an established framework under general instructions but requires simultaneous coordination of assigned functions or projects in various stages of completion.

Employee is responsible for determining time, place, and sequence of actions to be taken. Unusual problems or proposed deviations from guidelines, practices, or precedents may be discussed with the supervisor before being initiated.

Level of Supervision Received and Quality Review:

Under general supervision, the employee receives assignments and is expected to carry them through to completion with substantial independence. Work is reviewed for adherence to instructions, accuracy, completeness, and conformance to standard practice or precedent. Recurring work clearly covered by guidelines may or may not be reviewed.
Interpersonal Communications and Purpose:

Contacts with the public or employees where explanatory or interpretive information is exchanged, defended, and gathered and discretion and judgment are required within the parameters of the job function.

Level of Supervision Exercised:

By position, performs lead work.

ESSENTIAL DUTIES

Inspects a full range of construction projects and acts as the main point of contact for the city with utilities, other departments, contractors, and sub-contractors for the duration of a project.

Reviews plans and specifications during the design phase of a project and attends design meetings to provide input to the project design team including constructability issues, utility conflicts, and legal issues.

Conducts and/or participates in pre-construction meetings for construction projects with the contractor/developer, project manager, and other related parties, clarifies and reviews city procedures, standards, and specifications with contractor(s), and provides technical guidance by answering questions and exchanging information.

Schedules informational meetings in areas affected by projects, develops plans that minimize the impact of a project on a community/neighborhood, attends meetings to provide information and answer questions, and informs every resident and business affected by a project.

Observes and inspects work quality, materials, and equipment used during various stages of construction and coordinates with other inspectors and/or testers to ensure compliance with contract documents, standard details, specifications, approved plans, and other project directives.

Attends job site meetings with the contractor(s) and project manager to discuss problems and possible solutions and recommends and oversees the repair and/or replacement of non complying work.

Evaluates the safety of workers, the work site, and the public to ensure safety guidelines are followed, workers have required personal safety equipment, and that local traffic control plans are effective and ensures that any safety violations are corrected.

Reviews, assesses, confirms, and processes contractor pay applications to ensure contract specifications are met, monitors project schedule and budget, and recommends modifications when necessary.

Reviews as-built drawings at the completion of a project for accuracy and completeness, schedules a final walk through of the site, and ensures that all work is acceptable and in compliance.

Prepares reports on construction progress and inspections and maintains files and reports regarding inspections and plan check activities and findings.

Performs other related duties as assigned.

Any one position may not include all of the duties listed. However, the allocation of positions will be determined by the amount of time spent in performing the essential duties listed above.
MINIMUM QUALIFICATIONS

**Competencies, Knowledge, & Skills:**

**Building and Construction** – Knowledge of the materials, methods, systems and the tools used to construct objects, structures, and buildings.

**Quality Management** – Knowledge of the principles, methods, and tools of quality assurance, quality control, and reliability used to ensure that a project, system, or product fulfills requirements and standards.

**Soil Science** – Knowledge of the concepts, principles, or theories of soil composition, formation, classification, mapping, testing and management including erosion, pollution, conservation, and watershed management.

**Teamwork** – Encourages and facilitates cooperation, pride, trust, and group identity, fosters commitment and team spirit, and works with others to achieve goals.

**Integrity/Honesty** - Contributes to maintaining the integrity of an organization, displays high standards of ethical conduct, understands the impact of violating these standards on an organization, self, and others, and is trustworthy.

**Attention to Detail** – Is thorough when performing work and conscientious about attending to detail.

**Diversity** – Is sensitive to cultural diversity, race, gender, and other individual differences in the workforce.

**Reading** - Understands and interprets written material including technical material, rules, regulations, instructions, reports, charts, graphs, or tables and applies what is learned from written material to specific situations.

**Writing** - Uses correct English grammar, punctuation, and spelling to communicate thoughts, ideas, information, and messages in writing.

**Oral Communication** - Expresses ideas and facts to individuals or groups effectively, makes clear and convincing oral presentations, listens to others, and facilitates an open exchange of ideas.

**Technical Competence** – Uses knowledge that is acquired though formal training and extensive on-the-job experience to perform one’s job, works with, understands, and evaluates technical information related to the job, and advises others on technical issues.

**Technology Application** – Uses machines, tools, instruments, and/or equipment effectively and uses computer applications to analyze and communicate information in the appropriate format.

**Public Safety and Security** – Knowledge of occupational health and safety, investigation and inspections techniques, rules, regulations, and prevention techniques for the protection of people, data, and property.

**Problem Solving** – Identifies problems, determines accuracy and relevance of information, uses sound judgment to generate and evaluate alternatives, and makes recommendations.
Decision Making - Makes sound, well-informed, and objective decisions, perceives the impact and implications of decisions, commits to action even in uncertain situations to accomplish goals, and causes change.

Arithmetic/Mathematical Reasoning - Performs computations such as addition, subtraction, multiplication, and division correctly, solving practical problems by choosing appropriately from a variety of mathematical techniques such as formulas and percentages.

Reasoning - Identifies rules, principles, or relationships that explain facts, data, or other information, analyzes information, and makes correct inferences or draws accurate conclusions.

Customer Service - Works with customers to assess needs, provide assistance, resolves problems, and satisfy expectations, knows products and services, and is committed to providing quality products and services.

Interpersonal Skills - Shows understanding, friendliness, courtesy, tact, empathy, cooperation, concern, and politeness to others and relates well to different people from varied backgrounds and different situations.

Physical Demands (Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs):

Standing: remaining on one’s feet in an upright position.
Walking: moving about on foot.
Sitting: remaining in the normal seated position.
Carrying: transporting an object, usually by hand, arm, or shoulder.
Pushing: exerting force upon an object so that the object is away.
Pulling: exerting force on an object so that is moving to the person.
Climbing: ascending or descending objects usually with hands/feet.
Balancing: maintaining body equilibrium to prevent falling over.
Stooping: bending the body by bending spine at the waist.
Kneeling: bending legs to come to rest on one or both knees.
Crouching: bending body downward and forward by bending legs.
Crawling: moving about on hands and knees or hands and feet.
Reaching: extending the hand(s) and arm(s) in any direction.
Handling: seizing, holding, grasping, or otherwise working with hand(s).
Fingering: picking, pinching, or otherwise working with fingers.
Talking: expressing or exchanging ideas by means of spoken words.
Hearing: perceiving the nature of sounds by the ear.
Repetitive motions: making frequent movements with a part of the body.
Eye/hand/foot coordination: performing work through using two or more.
Lifting: raising or lowering an object 10-25 pounds.
Far Acuity: ability to see clearly at 20 feet or more
Near Acuity: ability to see clearly at 20 inches or less.
Depth Perception: ability to judge distances and space relationships.
Field of Vision: ability to see peripherally.
Accommodation: ability to adjust vision to bring objects into focus.
Color Vision: ability to distinguish and identify different colors.
**Working Environment:**

Temperature Changes: variations in temperature from hot to cold.
Humid: conditions with high moisture content to cause bodily reactions.
Hazards: conditions where there is danger to life, body, and/or health.
Atmospheric Conditions: conditions that affect the skin or respiratory system.
Exposed to hazards from electro/mechanical/power equipment.
Pressure due to multiple calls and inquiries.
Subject to injury from moving parts of equipment.
Subject to many interruptions.
Subject to varying and unpredictable situations.
Works in precarious or high locations (ladders, scaffolding, etc.).

**Education Requirement:**

Bachelor's Degree.

**Experience Requirement:**

Three years of experience in construction management and/or project engineering.

**Education/Experience Equivalency:**

Additional appropriate experience may be substituted for the minimum education requirement.

**Licensure and/or Certification:**

Possession of a valid driver’s license at the time of application.

**CLASS DETAIL**

**FLSA CODE:** Exempt

**ESTABLISHED DATE:** 09/16/1995

**REVISED DATE:** xx/xx/2010

**REVISED BY:** Patricia Anderson

**CLASS HISTORY** xx/xx/2010 - This class specification was revised and updated as part of the Technical Engineering Study (2010).
Career Service Authority

Senior Engineering Associate

GENERAL STATEMENT OF CLASS DUTIES

Performs a variety of professional assignments that support engineering operations and functions and applies technical engineering knowledge and principles to an area(s) of responsibility.

DISTINGUISHING CHARACTERISTICS

This class performs a variety of professional assignments that support engineering operations and functions. This class is distinguished from the Project Manager I class that performs professional level project management work on projects from inception to completion by managing and coordinating departmental projects which includes organizing, administering, and monitoring one or more projects.

A Senior Engineering Associate performs some of the same duties as a Project Manager I; however, employees in this Senior Engineering Associate class generally work on on-going, single-focused maintenance projects/contracts. Whereas, a Project Manager I works on projects that are carefully planned and an organized effort to accomplish a specific one-time effort/endeavor and undertaken to achieve a particular aim. Project management includes developing a project plan, defining project goals and objectives, specifying tasks, determining how goals will be achieved and what resources are needed, and associating budgets and timelines for completion. It also includes implementing the project plan along with careful controls to stay on the “critical path” that is to ensure the plan is being managed according to the plan. Project management usually follows major phases including project planning, implementation, evaluation, and support/maintenance.

Guidelines, Difficulty and Decision Making Level:

Guidelines are generally but not always clearly applicable, requiring the employee to exercise judgment in selecting the most pertinent guideline, interpret precedents, adapt standard practices to differing situations, and recommend alternative actions in situations without precedent.

Duties assigned are generally complex and may be of substantial intricacy. Work assignment is performed within an established framework under general instructions but requires simultaneous coordination of assigned functions or projects in various stages of completion.

Employee is responsible for determining time, place, and sequence of actions to be taken. Unusual problems or proposed deviations from guidelines, practices, or precedents may be discussed with the supervisor before being initiated.

Level of Supervision Received and Quality Review:

Under general supervision, the employee receives assignments and is expected to carry them through to completion with substantial independence. Work is reviewed for adherence to instructions, accuracy, completeness, and conformance to standard practice or precedent. Recurring work clearly covered by guidelines may or may not be reviewed.
Interpersonal Communications and Purpose:

Contacts with the public or employees where explanatory or interpretive information is exchanged, defended, and gathered and discretion and judgment are required within the parameters of the job function.

Level of Supervision Exercised:

By position, supervises technical staff.

By position, performs lead work over technical and/or clerical staff.

**ESSENTIAL DUTIES**

Provides support to engineering functions/operations by coordinating work and managing contracts, confers with managers/engineers to establish the scope of work, develops bid documents and cost estimates, prepares contract documents and specifications, determines work schedules, and prepares work orders, change orders, and notices to proceed documents.

Monitors the progress of contractors’ work as it related to engineering and city design specifications, coordinates work with other city agencies, inspects work to ensure compliance with regulations, codes, and standards, and processes payment applications and final acceptance documents.

Conducts studies and/or investigations to identify hazardous/unsafe conditions and establishes priorities for contracts based on public safety and the most efficient use of available resources.

Conducts detailed plan review of complex development and/or capital improvement construction plans and drawings to ensure accuracy and compliance with applicable laws, codes, design specifications, and standards, recommends adjustments/changes to bring plans into compliance, calculates charges and fees, and issues permits.

Participates in the design and development of system components and utilizes computer modeling software in the preparation of construction plans.

Assists in evaluating and analyzing various city systems to ensure systems are properly installed and maintained and recommends potential systems improvement.

Coordinates work assignments with affected utilities, other city agencies, outside governmental municipalities, business and/or community groups, the public, and other stakeholders.

Prepares various reports and maintains files and records related to the assigned area(s).

By position, performs supervisory duties including evaluating employees’ performance, resolving problems, training, assigning and reviewing work, and other elements of supervision.

By position, performs lead work including providing performance feedback, furnishing information for the formal performance evaluation, solving problems, and assigning and reviewing work.
Performs other related duties as assigned.

Any one position may not include all of the duties listed. However, the allocation of positions will be determined by the amount of time spent in performing the essential duties listed above.

MINIMUM QUALIFICATIONS

**Competencies, Knowledge, & Skills:**

- **Quality Management** – Knowledge of the principles, methods, and tools of quality assurance, quality control, and reliability used to ensure that a project, system, or product fulfills requirements and standards.

- **Teamwork** – Encourages and facilitates cooperation, pride, trust, and group identity, fosters commitment and team spirit, and works with others to achieve goals.

- **Integrity/Honesty** - Contributes to maintaining the integrity of an organization, displays high standards of ethical conduct, understands the impact of violating these standards on an organization, self, and others, and is trustworthy.

- **Attention to Detail** – Is thorough when performing work and conscientious about attending to detail.

- **Diversity** – Is sensitive to cultural diversity, race, gender, and other individual differences in the workforce.

- **Reading** - Understands and interprets written material including technical material, rules, regulations, instructions, reports, charts, graphs, or tables and applies what is learned from written material to specific situations.

- **Writing** - Uses correct English grammar, punctuation, and spelling to communicate thoughts, ideas, information, and messages in writing.

- **Oral Communication** - Expresses ideas and facts to individuals or groups effectively, makes clear and convincing oral presentations, listens to others, and facilitates an open exchange of ideas.

- **Technical Competence** – Uses knowledge that is acquired though formal training and extensive on-the-job experience to perform one’s job, works with, understands, and evaluates technical information related to the job, and advises others on technical issues.

- **Technology Application** – Uses machines, tools, instruments, and/or equipment effectively and uses computer applications to analyze and communicate information in the appropriate format.

- **Public Safety and Security** – Knowledge of occupational health and safety, investigation and inspections techniques, rules, regulations, and prevention techniques for the protection of people, data, and property.

- **Problem Solving** – Identifies problems, determines accuracy and relevance of information, uses sound judgment to generate and evaluate alternatives, and makes recommendations.
Decision Making - Makes sound, well-informed, and objective decisions, perceives the impact and implications of decisions, commits to action even in uncertain situations to accomplish goals, and causes change.

Mathematical Reasoning – Solves practical problems by choosing appropriately from a variety of mathematical and statistical techniques.

Reasoning - Identifies rules, principles, or relationships that explain facts, data, or other information, analyzes information, and makes correct inferences or draws accurate conclusions.

Customer Service - Works with customers to assess needs, provide assistance, resolves problems, and satisfy expectations, knows products and services, and is committed to providing quality products and services.

Interpersonal Skills - Shows understanding, friendliness, courtesy, tact, empathy, cooperation, concern, and politeness to others and relates well to different people from varied backgrounds and different situations.

Physical Demands (Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs):

- Sitting: remaining in the normal seated position.
- Handling: seizing, holding, grasping, or otherwise working with hands.
- Fingering: picking, pinching, or otherwise working with fingers.
- Talking: expressing or exchanging ideas by means of spoken words.
- Hearing: perceiving the nature of sounds by the ear.
- Eye/hand/foot coordination: performing work through using two or more.
- Lifting: raising or lowering an object from one level to another
- Far acuity: ability to see clearly at 20 feet or more.
- Near acuity: ability to see clearly at 20 inches or less.
- Depth Perception: ability to judge distance and space relationships.
- Field of Vision: ability to see peripherally.
- Accommodation: ability to adjust vision to bring objects into focus.
- Color Vision: ability to distinguish and identify different colors.

Working Environment:

Pressure due to multiple calls and inquiries.
Subject to many interruptions.

Education Requirement:

Bachelor's Degree.

Experience Requirement:

Three years of technical engineering experience.
Education/Experience Equivalency:

Additional appropriate experience may be substituted for the minimum education requirement.

Licensure and/or Certification:

By position, possession of a valid driver’s license at the time of application.

CLASS DETAIL

FLSA CODE: Exempt

ESTABLISHED DATE: 10/1/1999

REVISED DATE: xx/xx/2010

REVISED BY: Patricia Anderson

CLASS HISTORY xx/xx/2010 - This class specification was revised and updated as part of the Technical Engineering Study (2010).
PERFORMANCE OF CLASS DUTIES

Performs advanced level full performance technical inspection work, acts as a subject matter expert in a specialty area of construction such as electrical, fabrication, coatings, welding, bolting, erection of structural steel, and/or other specialized technical areas, and ensures that work performed by contractors/developers is in compliance with established standards, codes, plans, and specifications.

DISTINGUISHING CHARACTERISTICS

This class performs advanced level full performance technical inspection work and acts as a subject matter expert. This class is distinguished from the Project Inspector class that performs full performance technical work inspecting work quality and materials used on a variety of projects including construction, repair, maintenance, and/or alterations and ensures that work performed by contractors/developers is in compliance with established standards, codes, plans, and specifications.

Guidelines, Difficulty and Decision Making Level:

Guidelines are generally in the form of stated objectives only with issues and factors largely undefined requiring the employee to exercise creativity and ingenuity in devising criteria, techniques, strategy, and methodologies for approaching assigned functions or projects.

Duties performed involve concepts, theories, and concrete factors to be evaluated and weighed requiring a high degree of analytical ability, independent judgment, and decision-making.

Work assignment is generally unstructured and employee is responsible for organizing complex, varied, and simultaneous coordination of several functions, programs, or projects in various stages of completion.

Level of Supervision Received and Quality Review:

Under administrative supervision, the employee has personal accountability for carrying out an assigned function, program, or project within the scope of established guidelines and objectives and is expected to resolve problems that arise in the normal course of the work. Completed work is generally reviewed for soundness of judgment, conclusion, adequacy, and conformance to policy.

Interpersonal Communications and Purpose:

Contacts are of a remedial nature involving the resolution of problems and where some degree of discretion and judgment are required in carrying out a major program and/or function of the organization.
**ESSENTIAL DUTIES**

Performs complex technical inspection work and acts as a subject matter expert on engineering quality control standards in the areas of compliance with engineering guidelines, tolerance standards, materials, bolts, cables, electrical, welding, coatings, and/or other specialized areas.

Participates as a member of the design review team that reviews blueprints, plans, and designs and assists engineers in negotiating the terms of a final contract for construction development to ensure quality construction, detailed contingency plans, special provisions when needed, and detailed information concerning quantities and costs of materials.

Advices consultants and project managers on technical specifications for welding, coatings, fabrication, steel structures, and/or other specialized technical areas.

Implements quality control/quality assurance programs in specific areas of expertise such as structural steel welding, electrical, and/or erection.

Identifies inconsistencies, defects, potential pitfalls, and substandard work in the construction process, determines acceptable methods to correct situations with a contractor and project manager, and oversees the repair and/or replacement of non-complying work.

Evaluates the safety of workers, the work site, and the public to ensure safety guidelines are followed, workers have required personal safety equipment, and that local traffic control plans are effective and ensures that any safety violations are corrected.

Reviews, assesses, confirms, and processes contractor pay applications to ensure contract specifications are met, monitors project schedule and budget, and recommends modifications when necessary.

Reviews as-built drawings at the completion of a project for accuracy and completeness, schedules a final walk through of the site, and ensures that all work is acceptable and in compliance.

Prepares reports on construction progress and inspections and maintains files and reports regarding inspections and plan check activities and findings.

Performs other related duties as assigned.

Any one position may not include all of the duties listed. However, the allocation of positions will be determined by the amount of time spent in performing the essential duties listed above.

**MINIMUM QUALIFICATIONS**

**Competencies, Knowledge, & Skills:**

**Building and Construction** – Knowledge of the materials, methods, systems and the tools used to construct objects, structures, and buildings.
Quality Management – Knowledge of the principles, methods, and tools of quality assurance, quality control, and reliability used to ensure that a project, system, or product fulfills requirements and standards.

Soil Science – Knowledge of the concepts, principles, or theories of soil composition, formation, classification, mapping, testing and management including erosion, pollution, conservation, and watershed management.

Teamwork – Encourages and facilitates cooperation, pride, trust, and group identity, fosters commitment and team spirit, and works with others to achieve goals.

Integrity/Honesty - Contributes to maintaining the integrity of an organization, displays high standards of ethical conduct, understands the impact of violating these standards on an organization, self, and others, and is trustworthy.

Attention to Detail – Is thorough when performing work and conscientious about attending to detail.

Diversity – Is sensitive to cultural diversity, race, gender, and other individual differences in the workforce.

Reading - Understands and interprets written material including technical material, rules, regulations, instructions, reports, charts, graphs, or tables and applies what is learned from written material to specific situations.

Writing - Uses correct English grammar, punctuation, and spelling to communicate thoughts, ideas, information, and messages in writing.

Oral Communication - Expresses ideas and facts to individuals or groups effectively, makes clear and convincing oral presentations, listens to others, and facilitates an open exchange of ideas.

Technical Competence – Uses knowledge that is acquired though formal training and extensive on-the-job experience to perform one’s job, works with, understands, and evaluates technical information related to the job, and advises others on technical issues.

Technology Application – Uses machines, tools, instruments, and/or equipment effectively and uses computer applications to analyze and communicate information in the appropriate format.

Public Safety and Security – Knowledge of occupational health and safety, investigation and inspections techniques, rules, regulations, and prevention techniques for the protection of people, data, and property.

Problem Solving – Identifies problems, determines accuracy and relevance of information, uses sound judgment to generate and evaluate alternatives, and makes recommendations.

Decision Making - Makes sound, well-informed, and objective decisions, perceives the impact and implications of decisions, commits to action even in uncertain situations to accomplish goals, and causes change.

Arithmetic/Mathematical Reasoning - Performs computations such as addition, subtraction, multiplication, and division correctly, solving practical problems by choosing appropriately from a variety of mathematical techniques such as formulas and percentages.
**Reasoning** - Identifies rules, principles, or relationships that explain facts, data, or other information, analyzes information, and makes correct inferences or draws accurate conclusions.

**Teaching Others** – Helps others learn through formal or informal methods, identifies training needs, provides constructive feedback, coaches others on how to perform tasks, and acts as a mentor.

**Customer Service** - Works with customers to assess needs, provide assistance, resolves problems, and satisfy expectations, knows products and services, and is committed to providing quality products and services.

**Interpersonal Skills** - Shows understanding, friendliness, courtesy, tact, empathy, cooperation, concern, and politeness to others and relates well to different people from varied backgrounds and different situations.

**Physical Demands** (Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs):

- Standing: remaining on one’s feet in an upright position.
- Walking: moving about on foot.
- Sitting: remaining in the normal seated position.
- Carrying: transporting an object, usually by hand, arm, or shoulder.
- Pushing: exerting force upon an object so that the object is away.
- Pulling: exerting force on an object so that is moving to the person.
- Climbing: ascending or descending objects usually with hands/feet.
- Balancing: maintaining body equilibrium to prevent falling over.
- Stooping: bending the body by bending spine at the waist.
- Kneeling: bending legs to come to rest on one or both knees.
- Crouching: bending body downward and forward by bending legs.
- Crawling: moving about on hands and knees or hands and feet.
- Reaching: extending the hand(s) and arm(s) in any direction.
- Handling: seizing, holding, grasping, or otherwise working with hand(s).
- Fingering: picking, pinching, or otherwise working with fingers.
- Talking: expressing or exchanging ideas by means of spoken words.
- Hearing: perceiving the nature of sounds by the ear.
- Repetitive motions: making frequent movements with a part of the body.
- Eye/hand/foot coordination: performing work through using two or more.
- Lifting: raising or lowering an object 10-25 pounds.
- Far Acuity: ability to see clearly at 20 feet or more.
- Near Acuity: ability to see clearly at 20 inches or less.
- Depth Perception: ability to judge distances and space relationships.
- Field of Vision: ability to see peripherally.
- Accommodation: ability to adjust vision to bring objects into focus.
- Color Vision: ability to distinguish and identify different colors.

**Working Environment:**

- Temperature Changes: variations in temperature from hot to cold.
- Humid: conditions with high moisture content to cause bodily reactions.
- Hazards: conditions where there is danger to life, body, and/or health.
- Atmospheric Conditions: conditions that affect the skin or respiratory system.
- Exposed to hazards from electro/mechanical/power equipment.
Pressure due to multiple calls and inquiries.
Subject to injury from moving parts of equipment.
Subject to many interruptions.
Subject to varying and unpredictable situations.
Works in precarious or high locations (ladders, scaffolding, etc.).

**Education Requirement:**
Bachelor’s Degree.

**Experience Requirement:**
Three years of experience in construction management and/or project engineering. (Positions will require experience in a specialized area.)

**Education/Experience Equivalency:**
Additional appropriate experience may be substituted for the minimum education requirement.

**Licensure and/or Certification:**
Possession of a valid driver's license at the time of application.

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**CLASS DETAIL**

**FLSA CODE:** Exempt

**ESTABLISHED DATE:** xx/xx/2010

**ESTABLISHED BY:** Patricia Anderson

**REVISED DATE:**

**REVISED BY:**

**CLASS HISTORY** xx/xx/2010 - This class specification was revised and updated as part of the Technical Engineering Study (2010).