

RESOLUTION NO. ____-14

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING THE CLASSIFICATION PLAN OF THE CIVIL SERVICE BY ADDING THE NEWLY ESTABLISHED CLASSIFICATIONS OF PRINCIPAL NETWORK ENGINEER, PRINCIPAL DESIGN AND CONSTRUCTION OPERATOR, AND WPCP CONTROL SYSTEMS INTEGRATOR AND ADDING THE CLASSIFICATION SPECIFICATIONS THEREFORE

WHEREAS, at the request of the Information Technology Department, the Human Resources staff has proposed an amendment to the Classification Plan of the Civil Service of the City of Sunnyvale to add the newly-established job classification of "Principal Network Engineer" and to add the classification specifications therefore; and

WHEREAS, at the request of the Environmental Services Department, the Human Resources staff has proposed an amendment to the Classification Plan of the Civil Service of the City of Sunnyvale to add the following newly-established job classifications of "Principal Design and Construction Operator" and "WPCP Control Systems Integrator" and to add the classification specifications therefore;

WHEREAS, the City Council having considered such proposals and recommendations;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SUNNYVALE THAT:

1. The City Council hereby amends the Classification Plan of the Civil Service by adding the new job classification title of "Principal Network Engineer" and by adding the corresponding classification specification to read as set forth in Exhibit A attached hereto.
2. The City Council hereby amends the Classification Plan of the Civil Service by adding the new job classification title of "Principal Design and Construction Operator" and by adding the corresponding classification specification to read as set forth in Exhibit B attached hereto.
3. The City Council hereby amends the Classification Plan of the Civil Service by adding the new job classification title of "WPCP Control Systems Integrator" and by adding the corresponding classification specification to read as set forth in Exhibit C attached hereto.
3. Except as herein modified, the Classification Plan, Resolution No. 143-77, as amended, shall remain in full force and effect.
4. This resolution shall take effect at the beginning of the first pay period after November 11, 2014.

Adopted by the City Council at a regular meeting held on _____, 2014, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

RECUSAL:

ATTEST:

APPROVED:

City Clerk
(SEAL)

Mayor

APPROVED AS TO FORM:

City Attorney

EXHIBIT A



CITY OF SUNNYVALE
Established Date: TBD

PRINCIPAL NETWORK ENGINEER

Class Code:
2204

Bargaining Unit: Sunnyvale Employees Association

SALARY RANGE

\$53.17 - \$67.86 Hourly
\$4,253.79 - \$5,429.05 Biweekly
\$9,216.55 - \$11,762.94 Monthly
\$110,598.59 - \$141,155.25 Annually

DEFINITION:

Under general direction of the Information Technology Manager, coordinates, monitors, and supports multiple information technology areas that may include one or more citywide systems of data, voice, video networks, and/or server platforms; and performs other duties as assigned.

DISTINGUISHING CHARACTERISTICS

Principal Network Engineer is an advanced journey-level position. Incumbents perform system and network engineering assignments on a wide range of highly complex projects. The Principal Network Engineer is primarily responsible for the communications and computing infrastructure of the City. This classification differs from the classification of Network Engineer in that the latter is responsible for engineering and analysis assignments of moderate scope and complexity under oversight of the Principal Network Engineer. The Principal Network Engineer is responsible for new projects, engineering and analysis assignments including the assessment of new technologies for their appropriate use within the City and the development of processes, procedures, and standards for use of such equipment. Incumbents in the Principal Network Engineer provide lead direction and training to subordinate positions within the unit.

ESSENTIAL JOB FUNCTIONS:

(May include, but are not limited to, the following):

- Oversees the planning, design, installation, and support systems of data, voice, and video network infrastructures, equipment, servers and

EXHIBIT A

- applications to achieve optimum performance.
- Reviews and evaluates technological network related needs and recommends appropriate solutions.
- Communicates effectively with internal clients to identify needs and evaluate alternative business solutions.
- Continually seeks opportunities to increase internal client satisfaction and develop client relationships.
- Manages internal client expectations effectively.
- Monitors project progress in a timely manner.
- Troubleshoots network systems to determine cause(s) of failure and resolves problems
- Designs and recommends changes to the wiring infrastructure.
- Performs structured and complex analyses, designs and develops integrated information flow.
- Provides technical consultation and assistance to users and other technical staff.
- Responsible for inventory management of software licenses, software, hardware, and other IT supplies for server and network infrastructure
- Monitors system capacity and utilization; performs necessary restructure or expansion.
- Installs, upgrades, and manages network operating systems and configures operating systems and layered software.
- Defines standards of appropriate usage and performance of systems in accordance.
- Develops security and integrity of network systems to ensure protection from inappropriate access or destruction.
- Researches, designs, and executes business continuity plans.
- Develops and executes preventative maintenance programs identifying weaknesses of current system to determine critical server issues.
- Develops contract specifications, coordinates services and monitors terms and agreements provided by vendors and independent contractors.
- Evaluates and monitors the acquisition and operational cost of network and server related items to obtain the best results, meet budget guidelines and ensure system compatibility.
- Creates databases and develops benchmarks for operations testing.
- Ensures compliance with industry regulations.
- Facilitates effective team interaction.
- Mentors those with less experience and training.
- Trains other city staff through both formal and informal training programs
- Develops and maintains technical system documentation. Ensures completion of technical documentation by subordinates.
- Develops training programs and materials and provides training to users and other technical staff.
- May provide verbal and written reports in assigned areas of responsibility.

WORKING CONDITIONS

Position requires prolonged sitting, standing, walking, kneeling, crawling,

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squatting and stooping in the performance of daily activities. The position also requires repetitive hand movement and fine motor coordination in performing computer installation and repair and preparing reports using a computer keyboard. Additionally, the position requires both near and far vision when repairing and installing computers, and color vision is required to accurately interpret visual displays and voice and data wiring color code standards. The nature of the work also requires the ability to climb ladders, drive motorized vehicles and work in small spaces. Acute hearing is required when communicating by telephone and in person. The need to lift, drag and push equipment and materials weighing up to 50 pounds is also required. Some of these requirements may be accommodated for otherwise qualified individuals requiring and requesting such accommodation.

MINIMUM QUALIFICATIONS:

Education and Experience:

The minimum qualifications for education and experience can be met in the following way:

A Bachelor of Science degree from an accredited college or university in Computer Engineering or related field, AND

Six (6) years of experience in network and system engineering.

A Masters of Science degree in Computer Engineering or related field may be substituted for one year of experience.

Knowledge of:

- Network traffic and performance parameters.
- Principles of VoIP and standard telephony.
- The installation and management of relational databases.
- Methods and procedures of systems administration and security and integrity maintenance.
- Connectivity, system integration, and network design.
- Structure development, features, and access including configurations protocol and interfacing.
- Current developments and trends of network technologies.
- Principles and methods of system and network storage management.
- Local Area Network wiring and distribution methods.
- Wide Areas Networking Connectivity utilizing leased services, fiber backbone, and wireless transports.

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Skill in:

- Installing and modifying network subsystems and programs.
- Analyzing network/system problems by developing and using appropriate test structures and related diagnostics.
- Assessing the costs of IT operations and developing cost-efficient solutions.
- Operating applicable network equipment and software programs.
- Responding promptly and effectively to requests for service.
- Determining cost effective structure and design for network.
- Configuring network and/or other application programs to provide optimum performance.
- Translating user defined requirements into specifications and features.
- Documenting procedures clearly and accurately.
- Designing and performing server administration activities.
- Assessing and administering network and system performance and utilization.
- Supervising the work of subordinate employees and maintaining functional relationships with a variety of other technical and non-technical staff.

Ability to:

- Establish and maintain effective working relationships; work independently and as a member of a team.
- Effectively organize, prioritize and follow-up on work assignments in order to meet established deadlines.
- Communicate clearly and concisely, both orally and in writing.
- Provide excellent customer service.
- Provide services in different geographical locations throughout the City as requested by users.
- Determine needs for and/or develop administrative/operational policy proposals.
- Perform alternative cost/benefit analysis for network enhancement or replacement.

Licenses/Certificates:

- Possession and continued maintenance of a valid class C California driver's license and a safe driving record, or the ability to provide alternate transportation which is approved by the appointing authority.
- Possession of Cisco Certified Network Administrator (CCNA) certificate
- Possession of Microsoft Certified Systems Engineer (MCSE) 2003 certificate
- VMWare Certified Professional
- SAN Certified Administrator, i.e. Net App, EMC, etc.

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DESIRABLE QUALIFICATIONS

- Possession of Cisco Certified Design Associate (CCDA) certificate
- Possession of Microsoft Certified Enterprise Administrator (MCITP) 2008 certificate.
- Possession of Microsoft Certified Solutions Expert (MCSE) 2012 certificate
- Cisco Certified Network Professional

EXHIBIT B



PRINCIPAL DESIGN & CONSTRUCTION OPERATOR

Class Code:
5730

Bargaining Unit: Sunnyvale Employees Association

CITY OF SUNNYVALE
Established Date: TBD

\$41.73 - \$53.26 Hourly
\$3,338.61 - \$4,261.01 Biweekly
\$7,233.66 - \$9,232.19 Monthly
\$86,803.98 - \$110,786.30 Annually

DEFINITION:

Under the general supervision of the Water Pollution Control (WPC) Plant Division Manager and WPC Operations Manager the Principal Design & Construction Operator (PDCO) provides supervisor level coordination, evaluation and scheduling work for all capital projects related to the reconstruction of the Water Pollution Control Plant (WPCP). The PDCO actively participates and primarily leads the Operations and Maintenance sections in the review, comment and documentation of specific operational and/or maintenance related concerns for all Capital Projects at the Water Pollution Control Plant (WPCP). The PDCO coordinates the review and comment period for system design projects with engineering firm representatives, the WPC Plant Division Manager, Operations and Maintenance Managers and Senior Operators and Mechanics, and performs other duties as assigned.

DISTINGUISHING CHARACTERISTICS

The Principal Design & Construction Operator is an advanced journey-level classification in the water pollution control operator series. Incumbents provide comprehensive insight on proposed and alternate designs for process treatment systems, sequence of construction, staff coordination for various design and construction efforts, holds regular meeting with Plant Management and Senior staff to keep them apprised of project progress, identifies areas of concern and provides sufficient notification of topics that require more attention.

ESSENTIAL JOB FUNCTIONS:

(May include, but are not limited to, the following):

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- Integration of ideas from Operations, Maintenance, Design Engineers, Construction Contractors, City Leaders and other Joint Partners during the design, alternative evaluation, procurement and implementation of construction projects at the WPCP.
- Identification of critical Operations during all phases of design and construction to minimize construction sequencing conflicts that may impact current operation and or the construction of future wastewater treatment systems.
- Scheduled review of various levels of wastewater treatment design documents.
- Organize, document, and submit comment(s) back to the responsible design engineering firm(s) in a timely manner to allow for the incorporation of findings by the PDCO and other stakeholders that have insight on proposed plant system design(s).
- Construction coordination post award of various construction designs to ensure the WPCP can continue to operate with minimal disruption;
- Work with construction management staff, the WPCP staff and construction contractors to minimize risk and coordinate required preparations.
- Visit other wastewater/water treatment facilities as needed to evaluate proposed equipment/processes and compare functionality/application, operation & maintenance concerns/benefits and explore potential alternatives of various proposed new/upgraded process treatment systems.
- Ensure the timely and accurate entry of any new assets being built as part of the construction projects into the Plant's Computerized Maintenance Management System (CMMS) and ensure that new equipment is entered into the CMMS system work orders
- Review and prioritize daily work assignments and work reports; adjust planning schedules as needed; advise supervisors of scheduling problems, priorities, and other concerns regarding each section's activities.
- Direct and participate in a variety of personnel actions including performance evaluations, selections, dismissals, transfers, and disciplinary measures.
- Analyze operating records and costs when appropriate; prepare, maintain, and present routine reports and other special reports as requested.
- Serve as technical advisor to section personnel on difficult or unusual problems; contribute to the operations and other work groups as needed when responding to emergency operations/repairs.
- Conduct initial, routine, and final field inspection for acceptance of new facilities, investigate quality control problems, and identify and support the need for improvement projects.

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- Plan, develop, and participate in employee development and training programs.
- May act as the Designated Operator in Charge for the Water Pollution Control Operations Manager in his/her absence.

WORKING CONDITIONS

Position requires sitting, standing, walking on level, uneven and slippery surfaces, reaching, twisting, turning, kneeling, bending, stooping, squatting, crouching, grasping and making repetitive hand movements in the performance of daily duties. The position also requires near and far vision when operating assigned equipment. Acute hearing is required in both the field and the office. The ability to lift, carry and push tools, equipment and supplies weighing up to 50 pounds is also required. Additionally, the incumbent in this position may work in all weather conditions, including wet, heat, and cold. The incumbent may be exposed to chemicals, hazardous materials, skin irritants, fumes, and solvents. The nature of the work may also require the incumbent to perform confined space entries, climb ladders, use power and noise producing tools and equipment, drive motorized vehicles and work in heavy traffic conditions. All the work at the plant requires the use of appropriate personal protective equipment and/or established safety programs to perform the job. Some of these requirements may be accommodated for otherwise qualified individuals requiring and requesting such accommodations.

MINIMUM QUALIFICATIONS:

Education and Experience:

The minimum qualifications for education and experience can be met in the following way:

Graduation from high school or tested equivalent, AND

Five years of experience in the operation and maintenance of a wastewater treatment plant with at least five years of Shift Supervisor level experience as defined by the State Water Resources Control Board (SWRCB).

Knowledge, Skills and Abilities

Knowledge of:

- Chemistry, biology, mechanical, physical concepts for the operation of: primary treatment, oxidation ponds, fixed growth reactors, dissolved air

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flotation tanks and filtration; polymer addition to plant processes, chlorine gas – sodium hypochlorite – sodium bisulfite chemical additions, and other wastewater and water reclamation technology, equipment and practices.

- Principles, practices and regulatory requirements necessary in the operation of filtration and disinfection for a Water Reclamation Plant.
- Principal, practices and regulatory requirements necessary in the operation of the Power Generation Facility and operation of related equipment.
- Regulatory agency guidelines as they apply to discharges of wastewater for both receiving water and water reclamation discharge.
- Mechanical, electrical and hydraulic principles.
- Safety procedures pertaining to plant operations, including the techniques for handling and storing hazardous chemicals, and responding to and reporting chemical spills and other emergencies.

Skill in:

- The use of PC programs such as Excel, Word and email.
- The use of hand, power, mechanical, electrical and pneumatic tools, parts and support equipment including their proper identification and application.

Ability to:

- Understand proposed treatment processes, and explain data, policies and procedures and communicate/document those concerns appropriately.
- Perform all water pollution control Senior operator duties including, operating centrifugal pumps, piston pumps, valves, sluice gates, blowers, mechanical bar screens, chemical feeders, chlorinators, collectors, aerators, channel masters or grinders; monitors, reads and calculates the flow of water through the Water Pollution Control Plant by meters, gauges and visual inspections
- Assist, plan, organize, and coordinate the work activities of a group of professional, technical and non-technical personnel.
- Apply chemical, mechanical, biological process principles and techniques in the solution of difficult and complex operational problems.
- Evaluate the results of laboratory experiments and studies.
- Oversee, direct, and coordinate the work of lower level staff. Develop work standards, goals, and objectives. Evaluate personnel needs.
- Review the economic feasibility of various operational alternatives and their effectiveness to the overall plant objectives.

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- Prepare correspondence and technical reports, which are complete, clear, and concise.
- Read and interpret drawings, plans, schematics and specifications.
- Keep accurate records and prepare clear and concise reports, correspondence and memoranda.
- Analyze and correct plant operations problems, and ensure continuous safe operation of the plant.
- Perform routine laboratory analysis for treatment and process control evaluation.
- Work as an effective member of a team capable of listening, taking direction and offering support.
- Travel to various and remote locations in and around the Water Pollution Control Plant, surrounding ponds and landfill area.
- Understand and carry out oral and written instructions
- Communicate in a professional manner both orally and in writing.
- Establish and maintain effective working relationships with others.
- Work with, in, and around influents containing industrial wastes, plant process chemicals, hazardous materials, and residential sewage.
- Observe safety principles and work in a safe manner.
- Operate standard office equipment.

Licenses and Certificates

- Possession and continued maintenance of a valid class C California driver's license and a safe driving record, or the ability to provide alternate transportation which is approved by the appointing authority.
- Possession of a valid Grade III Wastewater Treatment Plant Operators Certificate issued by the California State Water Resources Control Board.

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WPCP CONTROL SYSTEMS INTEGRATOR

Class Code:
5435

Bargaining Unit: Sunnyvale Employees Association

CITY OF SUNNYVALE
Established Date: TBD

\$41.45 - \$52.91 Hourly
\$3,316.24 - \$4,232.46 Biweekly
\$7,185.19 - \$9,170.33 Monthly
\$86,222.30 - \$110,043.93 Annually

DEFINITION:

Under direction, supervises and performs control system work of considerable complexity in the planning, design, construction, and operation of facilities for water supply and wastewater treatment utility and performs related work as required. Perform a variety of tasks in modifications and maintenance of the computer control systems; diagnose and correct telemetry problems in programmable logic controllers software and network hardware; maintain programs and documentation for all programmable logic controller cabinets; assist in managing and maintaining the SCADA system.

DISTINGUISHING CHARACTERISTICS

The position of WPCP Control Systems Integrator is a fully qualified journey-level professional classification. Incumbents are expected to independently perform the full scope of duties within their assignment, and may act as lead-worker to paraprofessional and clerical staff. Incumbents demonstrate thorough business knowledge and technical skills to constantly advance and improve the use of the assigned programs and systems and operational technical systems to better facilitate water and wastewater control systems and SCADA functions. The WPCP Control Systems Integrator is distinguished from the higher level Water Pollution Control Plant Maintenance Manager in that the Water Pollution Control Plant Maintenance Manager has overall responsibility for the section. The WPCP Control Systems Integrator is distinguished from the lower level Senior WPC Plant Mechanic in that the Senior WPC Plant Mechanic primary function is supervising personnel engaged in preventative and corrective maintenance of the City's Water Pollution Control Plant and the WPCP Control Systems Integrator is primarily responsible for the most complex instrumentation control system work.

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ESSENTIAL JOB FUNCTIONS:

(May include, but are not limited to, the following):

- Plans, schedules, assigns, reviews, and may supervise the work of subordinate engineers, technicians, and consultants engaged in the preparation of complete designs, plans, specifications, estimates, cost benefit analyses, and reports for instrumentation control systems used to operate and communicate information in water pumping plant and water and wastewater treatment plants and related facilities and equipment.
- Supervises the work of subordinate technicians engaged in the construction, installation, inspection, and testing of major computer based control system applications governing the distribution raw water or the collection and treatment of wastewater.
- Personally performs and supervises the most complex problem diagnosis and resolution of computer server, database, communications network, or computer programming issues associated with control systems.
- Supervises and participates in the preparation of special technical reports, investigations, and economic cost benefit studies related to strategic instrumentation and computer control system improvements.
- Serves as project manager on complex, major engineering projects with multiple elements; oversees the removal, replacement, and enhancement of software, hardware, and communications networks associated with computer based control systems such as OP/NET Supervisory Control and Data Acquisition (SCADA) systems, computerized maintenance management systems (CMMS) and laboratory information management systems (LIMS).
- Analyzes and evaluates bids on specifications for equipment and consultant services; administers contracts and agreements and recommends and negotiates changes to contract terms as required.
- Confers with industry and commercial representatives of instrument and computer control systems regarding design, specifications, performance capabilities, operating and maintenance characteristics, and other equipment attributes; researches current and emerging trends in control system engineering.
- Integrate new applications and modify computer programs and equipment to optimize plant operations, operator convenience, and off-line tasks; design, fabricate, maintain and install electrical and electronic assemblies to enhance computer, telemetry, and instrumentation systems.
- Assist staff in the use of the WPCP, or City's computer control and SCADA, CMMS, LIMS systems; provide guidance in running daily plots,

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checking control loops, validating telemetry inputs and outputs, and assuring proper computer control system operation.

- Confers and works with the Information Technology Department to manage installations, upgrades and maintenance on all related systems.
- Review and/or create instrumentation drawings, plans, and specifications for technical content, accuracy, and proper and desirable computer control system interface.
- Modify and maintain programmable logic computer program files and update for plant and pump station changes.
- Maintain and develop Programmable Logic Controller (PLC) programs and ladder logic to reflect changes in operations and user needs.
- Create Human Machine Interface (HMI) schematics and scripting; train others on system as required.
- Perform related duties as required.

WORKING CONDITIONS

Position requires sitting, standing, walking on level, uneven and slippery surfaces, reaching, twisting, turning, kneeling, bending, stooping, squatting, crouching, grasping and making repetitive hand movements in the performance of daily duties. The position also requires both near and far vision when operating assigned equipment. Acute hearing is required in both the field and the office. The ability to lift, carry and push tools, equipment and supplies weighing up to 50 pounds.. Additionally, the incumbent in this position works in all weather conditions, including wet, heat, and cold. The incumbent may be exposed to fumes, dust chemicals, and air contaminants. The nature of the work may also require the incumbent to climb ladders. Some of these requirements may be accommodated for otherwise qualified individuals requiring and requesting such accommodations.

MINIMUM QUALIFICATIONS:

Education and Experience:

The minimum qualifications for education and experience can be met in the following way:

An Associate's degree or 60 semester units or 90 quarter units from an accredited college or university in information technology, electronics, computer science business administration, public administration or a related field, AND

Five years of journey level experience at comparable to WPC Plant Mechanic

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or Senior WPC Plant Mechanic classifications.

Knowledge, Skills and Abilities

Knowledge of:

- Principles and techniques of repairing and maintaining plant instrumentation.
- Purpose and operation of instruments.
- Electrical, electronic and pneumatic theory.
- Principles and practices of computer programming Programmable Logic Controller (PLC)s.
- Theory and operation of digital computers, PLCs and plant instrumentation.
- Mathematics including algebra, statistics, elementary calculus, trigonometry, and geometry.
- Knowledge of the principles and practices of computerized maintenance management systems and relational databases.
- Knowledge of the principles and practices of Network systems, hardware systems and security systems.
- Safety hazards and appropriate precautions applicable to work assignments.
- Principles, practices, and methods related to the design and implementation of large-scale PLC systems and programming, and troubleshooting techniques.
- PLC network layout and fiber optic and PLC component locations.
- Knowledge of computer system design and programming such as Powershell, Perl, Java, Javascript and Microsoft Windows application development.
- Working knowledge of HMI systems such as Wonderware InTouch and Rockwell Automation.
- Basic knowledge of all phases of wastewater treatment.
- Knowledge of process control, all computer systems packages, and all phases of computer control.
- Knowledge of supervision and training and ability to lead others.

Ability to:

- Ability to generate operator interface screens in SCADA systems such as Wonderware and Rockwell Automation.
- Ability to assist in developing training programs designed for

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presentation to plant personnel.

- Ability to establish and maintain effective working relations with contractors.
- Intermittently analyze data reduction from planned tests, identify wiring and microcircuits, interpret schematics, observe changes, problem solve programs, and explain to operators how programs work.
- Diagnose PLC and computer hardware and software problems and control and instrument problems.
- Troubleshoot electronic circuits.
- Design instrument, analog control, and telemetry installations and simple electronic circuits. Perform flow and instrument related calculations.
- Assist personnel in the use of the control system computer system.
- Establish and maintain cooperative relationships with those contacted in the course of work.
- Learn and observe all appropriate safety precautions as required by the City including, but not limited to, Cal/OSHA General Industry Safety Orders,
- Create HMI schematics and scripting.
- Work shift, on-call, weekends, and holidays as assigned.

Licenses and Certificates

- Possession and continued maintenance of a valid class C California driver's license and a safe driving record, or the ability to provide alternate transportation which is approved by the appointing authority.

DESIRABLE QUALIFICATIONS

Demonstrated control systems development and implementation project management experience.