



GENERAL SERVICES ADMINISTRATION

Federal Supply Service

Authorized Federal Supply Schedule Price List

Online access to contract ordering information, terms and conditions, up-to-date pricing, and the option to create an electronic delivery order are available through *GSA Advantage!*, a menu-driven database system.

<http://www.GSAAdvantage.gov>

Federal Supply Schedule for

Facilities Maintenance and Management

Contract Number: GS06F0048P

Period of Performance: May 20, 2019 through May 19, 2024

Contractor: Facility Services Management, Inc.
1031 Progress Drive
Clarksville, TN 37040

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CUSTOMER INFORMATION

1. Table of Awarded Special Item Numbers (SINs)

SIN	Description
561210FAC	Complete Facilities Management
561210FAC	Complete Facilities Maintenance
561210FAC	Water Based Fire Suppression System Preventative Maintenance and Repair
561210FAC	Refrigeration, Heating, Ventilation, Air Conditioner, Boiler and Chiller
561210FAC	Maintenance of Utility Systems
561730	Tree Planting/Trimming/Removal
561730	Grounds and/or Cemetery Maintenance
ANCILLARY	Ancillary Supplies and/or Services
ANCRA	Ancillary Repair and Alterations
OLM	Order Level Materials

1.a. Labor Categories: N/A

1.b. Escalation Rates: N/A

1.c. IFF Statement: In accordance with 48 CFR 552.238-74

2. Minimum Order Quantities: N/A

3. Minimum Order Limit: \$100

4. Maximum Order Limit: \$0

5. Geographic Coverage:

SIN	Scope
561210FAC	Worldwide
561730	Worldwide
ANCILLARY	Worldwide
ANCRA	Worldwide
OLM	Worldwide

6. Prompt Payment Discounts: Net 30 Days

7. Basic Discount Terms (All SINs): 2%

8. **Volume Discounts:** 2% with facilities with more than 600,000 sq. ft.; 4% with more than 1M sq. ft.

9. **Government Purchase Cards Accepted:** Yes

10. **F.O.B. Shipping Terms:** Origin

11. **Standard Delivery Terms:** Origin

12. **Emergency Delivery Terms:** Set up at Task Order Level

13. **Warranty Terms:** Satisfaction of Customer

14. **Data Universal Number System (DUNS) Number:** 884999491

15. **Pricing**

SIN #s	Labor Category	Minimum Education/Certification Level	Hourly Rate
561210FAC	Program Manager	Bachelors	\$103.63
561210FAC; 561730	Project Manager	Bachelors	\$ 93.65
561210FAC	Contract Administrator	Associates	\$ 60.96
561210FAC; 561730	On-Site Manager I	Bachelors	\$ 63.64
561210FAC	On-Site Manager II	Associates	\$ 76.17
561210FAC	Secretary III	Associates	\$ 40.73
561210FAC	General Engineer	Bachelors	\$ 67.58
561210FAC	Industrial Engineer	Bachelors	\$ 77.50
561210FAC	Automated Maint. Mgmt. System Operator	High School	\$ 47.19
561210FAC	CADD Operator	Professional Certification	\$ 43.58
561210FAC	Engineering Technician	Professional Certification	\$ 46.70
561210FAC	Estimator	High School	\$ 51.76
561210FAC; 561730	Quality Control Officer	Associates	\$ 73.82
561210FAC; 561730	Safety Officer	Associates	\$ 73.82
561210FAC	Planner/Scheduler	None	\$ 35.25

561210FAC	General Clerk	None	\$ 32.81
561210FAC	Facilities Maintenance Supervisor	Associates	\$ 63.64
561210FAC	Trades Supervisor	None	\$ 50.44
561210FAC	Trades Leader	None	\$ 44.35
561210FAC	HVAC Mechanic (1 st Shift)	Professional Certification	\$ 45.89
561210FAC	Plumber, Maintenance	Professional Certification	\$ 50.78
561210FAC	Electrician, Maintenance	Professional Certification	\$ 60.46
561210FAC	Painter, Maintenance	None	\$ 39.82
561210FAC	General Maintenance Worker (1 st Shift)	None	\$ 38.75
561210FAC	Stationary Engineer (1 st Shift)	Professional Certification	\$ 58.37
561210FAC; 561730	Gardener	None	\$ 30.94
561210FAC; 561730	Grounds Laborer	None	\$ 27.01
561210FAC	Janitor	None	\$ 26.75
561210FAC; 561730	Laborer	None	\$ 27.08
561210FAC	Maintenance Trades Helper	None	\$ 28.36
561210FAC	Painter/Drywall	None	\$ 39.82
561210FAC	Fire Alarm System Mechanic	Professional Certification	\$ 37.19
561210FAC	Fire Extinguisher Repairer	Professional Certification	\$ 41.19
561210FAC	Locksmith	Professional Certification	\$ 34.89
561210FAC	Welder	Professional Certification	\$ 36.54
561210FAC	Civil Engineer Tech		\$ 45.64
561210FAC	Electronics Technician		\$ 47.41
561210FAC	Carpet Layer	None	\$ 43.18
561210FAC	Fire Alarm System Mechanic	Professional Certification	\$ 37.19
561210FAC	Fire Extinguisher Repairer	Professional Certification	\$ 41.19
561730	Gardener	None	\$ 30.94
561730	Grounds Laborer	None	\$ 27.01
ANCILLARY	Lowes		Based on Current Pricing

ANCILLARY	Home Depot		Based on Current Pricing
ANCILLARY	Grainger		Based on Current Pricing
ANCILLARY	Ability Refrigerant		Based on Current Pricing

Labor Category Descriptions

Professional Labor Categories

All SINs

1. Program Manager

Minimum Experience: Eight Years' Experience.

Duties: Provide technical support in conjunction with ongoing Government agency programs to manage facilities, including operating systems and equipment. Develop program management plans, and adhere to established policies and procedures approved and used by the Government to execute system management functions. Provide technical support to the Government via programming in support of various projects. Review and evaluate ongoing and completed project management; determine project schedules and develop plans to track and justify schedules; coordinate schedules and system management activities; provide engineering and/or technical expertise; manage projects from design through completion; coordinate and provide system training. Apply task management skills, principles, and methods to optimize the Government's investment in ongoing projects. Conduct or provide technical support to project assessments. Develop plans for correction/improvement: Short-term (1 year), medium-range (Two Five years), and long-range (more than Five years). Provide plans to customers and staff to effectively manage program assets. Develop a program information collection and evaluation system(s), which incorporate performance objectives, documentation of past projects, analysis techniques, metrics, and process feedback mechanisms to ensure continuous quality improvement of project methods. Assess adequacy of internal communication by contacting customers and getting their input concerning their needs. Develop strategies to optimize the task organizational performance, ensure efficiency, and achieve a high level of customer satisfaction. Shall be responsible for the management and administration; interfacing with Government or other contractor employees. Perform other duties as assigned.

Minimum Education: Bachelor's Degree or Equivalent.

2. Project Manager

Minimum Experience: Five years of experience with experience managing specific work described under Functional Responsibility.

Duties: Provide technical support in conjunction with ongoing Government agency programs to manage facilities, including operating systems and equipment. Develop program management plans, and adhere to established policies and procedures approved and used by the Government to execute system management functions. Provide technical support to the Government via programming in support of various projects. Review and evaluate ongoing and completed project management; determine project schedules and develop plans to track and justify schedules; coordinate schedules and system management activities; provide engineering and/or technical expertise; manage projects from design through completion; coordinate and provide system training. Apply task management skills, principles, and methods to optimize the Government's investment in ongoing projects. Conduct or provide technical support to project assessments. Develop plans for correction/improvement: Short-term (1 year), medium-range (Two Five years), and long-range (more than Five years). Provide plans to customers and staff to effectively manage program assets. Develop a program information collection and evaluation system(s), which incorporate performance objectives, documentation of past projects, analysis techniques, metrics, and process feedback mechanisms to ensure continuous quality improvement of

project methods. Assess adequacy of internal communication by contacting customers and getting their input concerning their needs. Perform other duties as assigned.

Minimum Education: High School Diploma. Six years of experience in the day to day operation and management of work outlined under Functional Responsibility may be substituted.

3. Contract Administrator

Minimum Experience: One Year Experience Required.

Duties: Responsible for preparing, examining, analyzing, negotiating, and revising contracts that involve the purchase or sale of goods or services such as equipment, materials, supplies, or products. Oversee the preparation and revision of contracts that involve the purchase of sale of goods and services. Handle the acquisition, distribution, and store of equipment and supplies. Dispose of unclaimed property. Oversee proposal planning and administration of contracts. Negotiate terms and conditions. Prepare contract briefs and revisions summarizing contractual requirements and budgets. Track authorizations and correspondence. Maintain detailed and organized files. Prepare contract change notices, monitor contractor performance, including the reporting and status of contractor and owner deliverables. Maintain an audit file for each contract which will include original contract, all correspondence, changes/deviations, amendments, clarifications, payment schedules. Prepare and disseminate information to appropriate employees regarding contract status, facilitate contractor meetings. Ensure that contractor is in compliance with legal requirements, owner specifications and government regulations. Perform closing activities as needed. Track payments and deadlines. Analyze and mitigate risk. Provide contract summaries and ensure contract execution in accordance with company policy. Perform other duties as assigned.

Minimum Education: Associates Degree in Business Administration or Similar/Equivalent Field.

4. On-Site Manager I

Minimum Experience: Must have a solid understanding of plumbing and electrical systems as well as carpentry and other crafts; Be well-versed in all maintenance process and health and safety regulations, and have aptitude in undertaking administrative tasks such as reporting, budgeting etc. Minimum Two Years' Experience in O&M.

Duties: He or she will oversee operations on a day-to-day basis, and ensure that work is done safely, on time and within budget and to the right quality standards. Develop maintenance procedures and ensure implementation. Carry out inspections of the facilities to identify and resolve issues. Check electrical and hydraulic systems of buildings to ensure functionality. Plan and oversee all repair and installation activities. Allocate workload and supervise upkeep staff (custodians, janitors etc.). Monitor equipment inventory and place orders when necessary. Monitor expenses and control the budget for maintenance. Manage relationships with contractors and service providers. Keep maintenance logs and report on daily activities. Ensure health and safety policies are complied with. Perform other duties as assigned.

Minimum Education: High School Diploma or Equivalent, Formal Apprenticeship and Training Required.

5. On-Site Manager II

Minimum Experience: Must have a solid understanding of plumbing and electrical systems as well as carpentry and other crafts; Be well-versed in all maintenance process and health and safety regulations, and have aptitude in undertaking administrative tasks such as reporting, budgeting etc. Minimum Five Years' Experience in O&M.

Duties: He or she will oversee operations on a day-to-day basis, and ensure that work is done safely, on time and within budget and to the right quality standards. Develop maintenance procedures and ensure implementation. Carry out inspections of the facilities to identify and resolve issues. Check electrical and hydraulic systems of buildings to ensure functionality. Plan and oversee all repair and installation

activities. Allocate workload and supervise upkeep staff (custodians, janitors etc.). Monitor equipment inventory and place orders when necessary. Monitor expenses and control the budget for maintenance. Manage relationships with contractors and service providers. Keep maintenance logs and report on daily activities. Ensure health and safety policies are complied with. Perform other duties as assigned.

Minimum Education: High School Diploma or Equivalent, advanced training or degree in building maintenance, management, construction, skilled trades or other related subject preferred.

6. Secretary III

Minimum Experience: Four Years' Experience.

Duties: This position provides principal secretarial support in an office to the staff. The Secretary maintains a close and highly responsive relationship to the day-to-day activities of the supervisor and staff, works fairly independently receiving a minimum of detailed supervision and guidance, and performs various clerical and secretarial duties requiring knowledge of office routine and an understanding of the organization, programs, and procedures related to the work of the office. Requires working knowledge of certain office software programs. Uses greater judgment and initiative to determine the approach or action to take in non-routine situations, interprets and adapts guidelines, including unwritten policies, precedents, and practices, which are not always completely applicable to changing situations. Duties include or are comparable to the following: Based on knowledge of the supervisor's views, compose correspondence on own initiative about administrative matters and general office policies for supervisor's approval; Anticipate and prepare materials needed by the supervisor for conferences, correspondence, appointments, meetings, telephone calls, etc., and informs supervisor on matters to be considered; Prepare special or one-time reports, summaries, or replies to inquiries, selecting relevant information from a variety of sources such as reports, documents, correspondence, other offices, etc., under general directions; Advise secretaries in subordinate offices on new procedures; request information needed from the subordinate office(s) for periodic or special conferences, reports, inquiries, etc., and shifts clerical staff to accommodate workload needs. Perform other duties as assigned.

Minimum Education: High School Diploma or Equivalent.

7. General Engineer

Minimum Experience: Seven years of experience.

Duties: Provides engineering, working autonomously or as lead engineer on a project team with minimal guidance to deliver innovative, best-in-class products. Reviews project proposals cross-functionally to drive technical project specifications. Develops and maintains timing and action plans for projects of large scope with guidance from senior Project Managers (PMs) to deliver projects on time, cost, and quality. Leads technical design reviews to ensure engineering tasks are complete. Investigates program success requirements and drives the path forward to achieve success in the timeliest and cost-effective manner. Influences department budget development to ensure appropriate balance of resources across projects. Perform other duties as assigned.

Minimum Education: Bachelor's degree or Eight years of related experience.

8. Industrial Engineer

Minimum Experience: Two Years' Experience.

Duties: Industrial engineers are primarily responsible for maximizing the performance of various areas within a business, such as quality control, management, and logistics. After analyzing a company's current performance and production numbers, they provide solutions to enhance efficiency while at the same time lowering costs. A field industrial engineer requires a bachelor's degree in industrial engineering or other relevant field. Perform other duties as assigned.

Minimum Education: Bachelor's Degree Industrial Engineering or Related Field.

9. Automated Maintenance Management System Operator

Minimum Experience: Two Years' Experience Working in O&M of Commercial or Institutional Facility.

Duties: Responsible for the Building Automation Systems (BAS) and maintains equipment in proper operating condition. The BCO will respond to and make decisions for corrective action to all alarms received on the BAS and performs preventative/predictive maintenance on the facilities support systems. Monitor and control the operation and maintenance of all mechanical systems equipment, including distribution systems, boilers, hot water tanks, ventilation equipment, lab equipment, motors, pumps, valves, compressors, chillers, and related environmental equipment to ensure safe and efficient operation. Monitors equipment to ensure operation is within specified parameters, especially to meet the requirements of conducting project work for clients; adjusts and repairs as necessary; conducts necessary tests and inspects system equipment and components to detect actual and potential mechanical problems that would affect system performance and takes corrective action. Operate the BAS and related software; ensure that system modifications and upgrades maintain or enhance overall system flexibility, responsiveness, and reliability. Repair and adjust mechanical and electrical systems and controls; monitor and record effectiveness of maintenance activities; takes corrective actions when necessary to ensure the safety and reliability of critical mechanical systems in a laboratory environment. Establishes effective standards and procedures for operation of heating, air handling, electrical, and mechanical control systems; makes recommendations to management on the specifics of a site energy savings program; participates in periodic reviews to ensure compliance with applicable safety regulations and Battelle energy conservation guidelines. Start, stop, and adjust operating equipment in response to requests for changes. Troubleshoot and performs minor repairs in response to work orders about inadequate comfort levels. Performs preventative/predictive maintenance, repair, and adjust HVAC equipment to ensure the safety and reliability of critical mechanical systems. Respond to emergency calls during non-business hours and determines corrective actions, contact the appropriate staff member to make work assignments, and conduct necessary follow-up actions. Work overtime for activities related to HVAC, shutdowns, repairs, and emergency situations. Performs self-development activities sufficient to maintain craft specialty skills and certifications required to perform assigned tasks. Performs special tasks requiring similar duties and responsibilities, as assigned. Perform other duties as assigned.

Minimum Education: High School Diploma or Equivalent and One Year Technical College Level Education.

10. CADD Operator

Minimum Experience: One year of experience as a Drafter

Duties: This operator prepares drawings or computer models of simple, easily visualized structures, systems, parts or equipment from sketches or marked-up prints, selects appropriate templates/computer programs or uses a compass and other equipment needed to complete assignments. Drawings and models fit familiar patterns and present few technical problems. Supervisor provides detailed instructions on new assignments, gives guidance when questions arise, and reviews completed work for accuracy. Typical assignments include: Revisions to the original drawings of a plumbing system by increasing pipe diameters. Drawing from sketches, the building floor plans, determining size, spacing and arrangement of freehand lettering according to scale. Perform other duties as assigned.

Minimum Education: High School Diploma plus course work related to a Drafter.

11. Engineering Technician

Minimum Experience: Six years of experience as an Engineering Technician.

Duties: This technician performs simple routine tasks under close supervision or from detailed procedures. Work is checked in progress or on completion. This person performs one or a combination of such typical duties as: Assembling or installing equipment or parts requiring simple wiring, soldering, or connecting; Performing simple or routine tasks or tests such as tensile or hardness tests; operating and adjusting simple test equipment; records test data; Gathering and maintaining specified records of engineering data such as tests, drawings, etc.; performing computations by substituting numbers in specified formulas; plotting data and draws simple curves and graphs. Perform other duties as assigned.

Minimum Education: High School Diploma plus course work related to an Engineering Technician.

12. Estimator

Minimum Experience: Two Years' Experience.

Duties: Responsible for accurately calculating the total costs associated with a construction project or minor renovation/repair project. An estimator may also review bids offered by subcontractors in order to choose the most cost-effective option. assesses the potential development site for its appropriateness for building, checking for variables like plumbing and electrical availability. The next step is to determine the order of operations for expediency and identify the kinds and amounts of materials required. Takes measurements, records data and estimates the quantity of materials needed, and finally, using complex mathematical formulas, determines the final cost of development. Perform other duties as assigned.

Minimum Education: Bachelor of Science Degree.

13. Quality Control Officer

Minimum Experience: Two Years' Experience.

Duties: Ensures the implementation and maintenance of quality control procedures, in-process inspections, and finished product inspections. Reviews and approves maintenance instructions for adequate point of inspection operations; determines appropriate documentation for inspections points. Assists with development of site-specific QC Plan and Procedures Supervises and conducts quality control reviews at established inspection points. Verifies and maintains quality control records. Trains and supports personnel to assure effective and competent performance of O&M duties. Prepares and reviews quality trends. Reports serious or repeated failures. Recommends corrective actions or plans/programs for overall defect reduction. Perform other duties as assigned.

Minimum Education: Bachelors Degree in Science or Business Field.

14. Safety Officer

Minimum Experience: Proven Experience as a Safety Officer, Minimum Two Years' Experience.

Duties: Develop and execute health and safety plans in the workplace according to legal guidelines. Prepare and enforce policies to establish a culture of health and safety. Evaluate practices, procedures and facilities to assess risk and adherence to the law. Conduct training and presentations for health and safety matters and accident prevention. Monitor compliance to policies and laws by inspecting employees and operations. Inspect equipment and machinery to observe possible unsafe conditions. Investigate accidents or incidents to discover causes and handle worker's compensation claims. Recommend solutions to issues, improvement opportunities or new prevention measures. Report on health and safety awareness, issues and statistics. Perform other duties as assigned.

Minimum Education: BS/BA in Safety Management or Relevant Field is Preferred, Associates Degree Required.

15. Planner/Scheduler

Minimum Experience: Prefer two years CMMS experience in O&M, as well as 3-5 years maintenance experience preferred. Need general parts, electrical, plumbing and mechanical equipment understanding. Computer skills and experience with inventory management, CMMS System software necessary.

Duties: Plan and schedule maintenance activities. In depth understanding of CMMS Systems is necessary. Labor, material planning and excellent communication skills are required. Assists the maintenance staff in providing the necessary maintenance resources and record keeping that is required to increase life of equipment and maintenance technician productivity, assist in maintenance work preparations to improve work efficiencies and increase job performance. Responsible for maintaining production equipment availability and performance at satisfactory levels through the planning, scheduling, coordinating and reporting of repair activities. Assure resources are available and adequate to complete these tasks. Must be able to identify and prioritize multiple projects and perform work with a constant awareness of improving processes. Preparation of reports, metrics, and other tracking tools will allow this employee to succeed. The Maintenance Planner Scheduler will support all policies, goals and objectives of the company, and will represent the company in a knowledgeable and professional manner. Perform other duties as assigned.

Minimum Education: High school diploma or Equivalent, OSHA knowledge beneficial.

16. General Clerk

Minimum Experience: One Year Experience Preferred.

Duties: This position follows clearly detailed specific procedures in completing several repetitive clerical steps performed in a prescribed or slightly varied sequence, such as coding and filing documents in an extensive alphabetical file; could involve simple posting to individual accounts, opening mail, calculating and posting charges to departmental accounts, operating basic office equipment, e.g., photocopier, facsimile, multi-line phone/voicemail systems, mailing machines, and minimal computer programs. Little or no subject-matter knowledge is required, but the clerk uses his or her own judgment in choosing the proper procedure for each task. Perform other duties as assigned.

Minimum Education: High school diploma or Equivalent.

17. Facilities Maintenance Supervisor

Minimum Experience: Have knowledge of the following trades/skills: electrical, HVAC, plumbing, carpentry, and general building maintenance and five or more years' experience in building maintenance.

Duties: The Maintenance Supervisor will assist the Project Manager in maintaining the physical condition of property in safe, reliable operating condition including, but not limited to, establishing preventive maintenance programs, performing property and equipment inspections, maintaining the project inventory, supervising personnel, assigning maintenance tasks, and preparing work schedules, and ensuring compliance with all maintenance related policies. As a Maintenance Supervisor, overall responsibility will be to ensure that the units and other property facilities at your assigned location remain in good working order. May perform service requests. Schedule, train, daily supervision, and evaluate all subordinate maintenance personnel. Prioritize work orders, and follow up on assignments to ensure completion. Establish emergency on-call procedures. Responsible for all company owned equipment and small tools. Supervise the make ready of vacated units. Make regular inspections of completed work and work in progress. Establish preventive maintenance procedures. Prepare Purchase Orders and order all parts and supplies. Ensure compliance with company policies and procedures. Assist in all aspects of the project's maintenance, including grounds, custodial, preventive, corrective, deferred, and emergency.

Ensure that unsafe conditions are corrected in a timely manner. Learn and ensure compliance with all company, local, state, and federal safety rules. Perform other duties as assigned.

Minimum Education: High School Diploma or Equivalent, advanced training or degree in building maintenance, management, construction, skilled trades or other related subject preferred.

18. Trades Supervisor

Minimum Experience: Three Years' Experience in O&M

Duties: Coordinate and direct the work of subordinate staff in a variety of repairs or maintenance of state buildings. The work requires knowledge of the principles, building codes, and materials of two or more trades, supervisory techniques, personnel policies, and procedures. May occasionally perform any task assigned to subordinate staff, consistent with any licensing or certification requirements. Conducts surveys and research to determine program needs and to develop more effective policies, practices, and procedures. Evaluates and verifies employee performance through the review of completed work assignments and work techniques. Coordinates activities by scheduling work assignments, setting priorities, and directing the work of subordinate employees. Selects and assigns staff, ensuring equal employment opportunity in hiring and promotion. Identifies staff development and training needs and ensures that training is obtained. Makes requisitions and/or purchases supplies, materials, and tools. Maintains records, prepares reports, and composes correspondence relative to the work. Ensures proper labor relations and conditions of employment are maintained. Estimates cost of materials needed to accomplish tasks. Confirms work specifications with building codes. Inspects buildings and construction sites to determine materials and labor needs by visual observation, gauges, meters, and other test devices. Performs related work as assigned. May occasionally perform any task assigned to subordinate staff, consistent with any licensing or certification requirements. Performs other duties as assigned.

Minimum Education: High School Diploma or Equivalent, Formal Apprenticeship and Training Required

19. Trades Leader

Minimum Experience: One Year Experience in O&M

Duties: Supervise the work of subordinate staff in a variety of repairs or maintenance of buildings. May occasionally perform any task assigned to subordinate staff, consistent with any licensing or certification requirements. Evaluates and verifies employee performance through the review of completed work assignments and work techniques. Coordinates activities by scheduling work assignments, setting priorities, and directing the work of subordinate employees. Makes requisitions and/or purchases supplies, materials, and tools. Maintains records, prepares reports, and composes correspondence relative to the work. Ensures proper labor relations and conditions of employment are maintained. Estimates cost of materials needed to accomplish tasks. Confirms work specifications with building codes. Inspects buildings and construction sites to determine materials and labor needs by visual observation, gauges, meters, and other test devices. Performs other duties as assigned.

Minimum Education: High School Diploma or Equivalent, Formal Apprenticeship and Training Required.

20. HVAC Mechanic (1st Shift)

Minimum Experience: Minimum of Two Years O&M Experience.

Duties: The Heating, Ventilation, and Air-Conditioning Mechanic installs, services and repairs environmental-control systems in residences, department stores, office buildings, and other commercial establishments, utilizing knowledge of refrigeration theory, pipefitting and structural layout, mounts compressor and condenser units on platform or floor, using hand tools, following blueprints or engineering specifications, fabricates, assembles and installs ductwork and chassis parts, using portable metalworking tools and welding equipment, and installs evaporator unit in chassis or in air-duct system,

using hand tools. This mechanic also cuts and bends tubing to correct length and shape, using cutting and bending equipment and tools, cuts and threads pipe, using machine-threading or hand-threading equipment, joins tubing or pipes to various refrigerating units by means of sleeves, couplings or unions, and solders joints, using torch, forming complete circuit for refrigerant, installs expansion and discharge valves in circuit. Connects motors, compressors, temperature controls, humidity controls, and circulating ventilation fans to control panels and connects control panels to power source; installs air and water filters in completed installation, injects small amount of refrigerant into compressor to test systems and adds Freon gas to build up prescribed operating pressure. This mechanic observes pressure and vacuum gauges and adjusts controls to insure proper operation, tests joints and connections for gas leaks, using gauges or soap-and-water solution, wraps pipes in insulation batting and secures them in place with cement or wire bands, replaces defective breaker controls, thermostats, switches, fuses and electrical wiring to repair installed units, may install, repair and service air conditioners, ranging from fifteen to twenty tons cooling capacity in warehouses and small factory buildings.

Minimum Education: High School Diploma or Equivalent, Formal Apprenticeship and Training Required.

21. Plumber, Maintenance

Minimum Experience: Minimum of Two Years O&M Experience.

Duties: The Plumber, Maintenance assembles, installs and repairs pipes, fittings and fixtures of heating, water, and drainage systems, according to specifications and plumbing codes, studies building plans and working drawings to determine work aids required, and sequence of installations. This worker inspects structure to ascertain obstructions to be avoided to prevent weakening of structure resulting from installation of pipe, and locates and marks position of pipe and pipe connections and passage holes for pipes in walls and floors. This worker cuts openings in walls and floors to accommodate pipe and pipe fittings, using hand tools and power tools, cuts and threads pipe, using pipe cutters, cutting torch, and pipe-threading machine, bends pipe to required angle by use of pipe-bending machine, or by placing pipe over block and bending it by hand. The Plumber, Maintenance assembles and installs valves, pipefittings, and pipes composed of metals, such as iron, steel, brass and lead, and nonmetals, such as glass, vitrified clay, and plastic. This person joins pipe by use of screws, bolts, fittings, solder, plastic solvent, and caulks joints, fills pipe system with water or air and reads pressure gauges to determine whether system is leaking, installs and repairs plumbing fixtures, such as sinks, commodes, bathtubs, water heaters, hot water tanks, garbage disposal units, dishwashers, and water softeners. This person repairs and maintains plumbing by replacing washers in leaky faucets, mending burst pipes, and opening clogged drains, and may weld holding fixtures to steel structural members.

Minimum Education: High School Diploma or Equivalent, Formal Apprenticeship and Training Required.

22. Electrician, Maintenance

Minimum Experience: Minimum of Two Years O&M Experience.

Duties: An Electrician performs a variety of electrical trade functions such as the installation, maintenance, or repair of equipment for the generation, distribution, or utilization of electric energy. Work involves most of the following: installing or repairing any of a variety of electrical equipment such as generators, transformers, switchboards, controllers, circuit breakers, motors, heating units, conduit systems, or other transmission equipment; working from blueprints, drawings, layouts, or other specifications, locating and diagnosing trouble in the electrical system or equipment, working standard computations relating to load requirements of wiring or electrical equipment, and using a variety of electrician's hand tools and measuring and testing instruments.

Minimum Education: High School Diploma or Equivalent, Formal Apprenticeship and Training Required.

23. Painter, Maintenance

Minimum Experience: Two Years Painting Experience Preferred; Minimum of One Year Required.

Duties: The Painter, Maintenance paints and redecorates walls, woodwork and fixtures. Work involves the following: knowledge of surface peculiarities and types of paint required for different applications, preparing surface for painting by removing old finish or by placing putty or filler in nail holes and interstices, and applying paint with spray gun or brush. This person may mix colors, oils, white lead and other paint ingredients to obtain proper color or consistency. In general, the work of the maintenance painter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

Minimum Education: High School Diploma or Equivalent.

24. General Maintenance Worker (1st Shift)

Minimum Experience: One Year Experience in O&M

Duties: The General Maintenance Worker performs general maintenance and repair of equipment and buildings requiring practical skill and knowledge (but not proficiency) in such trades as painting, carpentry, plumbing, masonry, and electrical work. Work involves a variety of the following duties: replacing electrical receptacles, wires, switches, fixtures, and motors, using plaster or compound to patch minor holes and cracks in walls and ceilings, repairing or replacing sinks, water coolers, and toilets painting structures and equipment; repairing or replacing concrete floors, steps, and sidewalks, replacing damaged paneling and floor tiles, hanging doors and installing door locks, replacing broken window panes, and performing general maintenance on equipment and machinery.

Minimum Education: High School Diploma or Equivalent

25. Stationary Engineer (1st Shift)

Minimum Experience: Skilled in the repair of electronic control equipment; workers in establishments producing electricity, steam, or heated or cooled air, and Boiler Tenders; have at least one year of related experience to meet the NIULPE certification of a Fourth Class Engineer.

Duties: The Stationary Engineer operates and maintains one or more systems that provide an establishment with such services as heat, air-conditioning (cool, humidify, dehumidify, filter, and circulate air), refrigeration, steam or high-temperature water or electricity. Duties involve: observing and interpreting readings on gauges, meters and charts which register various aspects of the system's operation, adjusting controls to insure safe and efficient operation of the system and to meet demands for the service provided, recording in logs various aspects of the system's operation, keeping the engines, machinery and equipment of the system in good working order. This engineer may direct and coordinate activities of other workers (not stationary engineers) in performing tasks directly related to operating and maintaining the system or systems. The classification excludes head or chief engineers in establishments employing more than one engineer.

Minimum Education: High School Diploma or Equivalent and American Society of Power Engineers Certified Operator, and in some situations must have a National Institute for the Uniform Licensing of Power Engineer (NIULPE)

26. Gardner

Minimum Experience: Proven One Year Experience Preferred.

Duties: Plans and executes small scale landscaping operations and maintains grounds: Participates with laborers in preparing and grading terrain, applying fertilizers, seeding and sodding lawns, and transplanting shrubs and plants, using manual and power-operated equipment. Plants new and repairs established lawns, using seed mixtures and fertilizers recommended for particular soil type and lawn

location. Locates and plants shrubs, trees, and flowers selected by property owner or those recommended for particular landscape effect. Mows and trims lawns, using hand mower or power mower. Trims shrubs and cultivates gardens. Cleans grounds, using rakes, brooms, and hose. Sprays trees and shrubs, and applies supplemental liquid and dry nutrients to lawn and trees. May make repairs to concrete and asphalt walks and driveways.

Minimum Education: High School Diploma or Equivalent.

27. Grounds Laborer

Minimum Experience: One Year Experience as a Grounds Laborer.

Duties: The Laborer, Grounds Maintenance maintains grounds of industrial, commercial or public property such as buildings, camp and picnic grounds, parks, playgrounds, greenhouses, and athletic fields, and repairs structures and equipment, performing one or more of the following tasks: cut grass, using walking-type or riding mowers (less than 2000 lbs.), trim hedges and edges around walks, flowerbeds, and wells, using hedge trimmers, clippers and edging tools, prunes shrubs and trees to shape and improve growth, using shears and other hand tools, sprays lawn, shrubs, and trees with fertilizer or insecticide. Job duties also include the following: planting grass, flowers, trees, and shrubs, watering lawn and shrubs during dry periods, using hose or activating sprinkler system, picks up and burns or carts away leaves, paper or other litter; removing snow from walks, driveways, roads, or parking lots, using shovel and snow blower, spreads salt on walkways and other areas, repairing and painting fences, gates, benches, tables, guardrails, and outbuildings. This Worker assists in repair of roads, walks, buildings, and mechanical equipment, and may clean comfort stations, offices workshop areas, and parking lots by sweeping, washing, mopping and polishing. Performs other duties as assigned.

Minimum Education: High School Diploma or Equivalent

28. Janitor

Minimum Experience: Proven Working Experience as a Janitor, Minimum One Year. Familiarity with Safety Data Sheets and Cleaning Chemicals.

Duties: The Janitor is in charge of keeping buildings clean and in an orderly condition. Clean and supply designated building areas (dusting, sweeping, vacuuming, mopping, cleaning ceiling vents, restroom cleaning etc.). Perform and document routine inspection and maintenance activities. Carry out heavy cleansing tasks and special projects. Notify management of occurring deficiencies or needs for repairs. Make adjustments and minor repairs. Stock and maintain supply rooms. Follow all health and safety regulations. Performs other duties as assigned.

Minimum Education: High School Diploma or Equivalent.

29. Laborer

Minimum Experience: One Year Experience as a Laborer.

Duties: The Laborer performs tasks that require mainly physical abilities and effort involving little or no specialized skill or prior work experience. The following tasks are typical of this occupation: The Laborer loads and unloads trucks, and other conveyances, moves supplies and materials to proper location by wheelbarrow or hand truck; stacks materials for storage or binning, collects refuse and salvageable materials, and digs, fills, and tamps earth excavations, The Laborer levels ground using pick, shovel, tamper and rake, shovels concrete and snow; cleans culverts and ditches, cuts tree and brush; operates power lawnmowers, moves and arranges heavy pieces of office and household furniture, equipment, and appliance, moves heavy pieces of automotive, medical engineering, and other types of machinery and equipment, spreads sand and salt on icy roads and walkways, and picks up leaves and trash. Performs other duties as assigned.

Minimum Education: High School Diploma or Equivalent.

30. Maintenance Trades Helper

Minimum Experience: One Year Experience in O&M.

Duties: The Maintenance Trades Helper assists one or more workers in the skilled maintenance trades by performing specific or general duties of lesser skill such as: keeping a worker supplied with materials and tools, cleaning working area, machine, and equipment; assisting journeyman by holding materials or tools; and performing other unskilled tasks as directed by journeyman. The kind of work the helper is permitted to perform varies from trade to trade. In some trades the helper is confined to supplying, lifting, and holding materials and tools, and cleaning working areas and in others, the worker is permitted to perform specialized machine operations, or parts of a trade that are also performed by workers on a full-time basis. Performs other duties as assigned.

Minimum Education: High School Diploma or Equivalent.

SCA Labor Category Descriptions

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SIN 003

23760 PAINTER, MAINTENANCE

The Painter, Maintenance paints and redecorates walls, woodwork and fixtures. Work involves the following: knowledge of surface peculiarities and types of paint required for different applications, preparing surface for painting by removing old finish or by placing putty or filler in nail holes and interstices, and applying paint with spray gun or brush. This person may mix colors, oils, white lead and other paint ingredients to obtain proper color or consistency.

Minimum Education: High School Diploma or Equivalent

Experience: Requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

Certification/Licenses: N/A

23290 FIRE ALARM SYSTEM MECHANIC

The Fire Alarm System Mechanic inspects, tests, maintains, and repairs installed fire alarm detection and suppression systems in accordance with manufacturer's specifications and National Fire Protection Association standards, inspects fire alarm equipment visually and replaces defective components, tests initiating and signal circuits, detectors, and system transmitter, makes needed repairs, and checks pressure gauges on suppression system storage containers and recharges or replaces containers.

Minimum Education: Associates Degree or postsecondary training through Electronic Security Association (ESA)

Certification/Licenses: National Institute for Certification in Engineering Technologies (NICET) Certification

23310 FIRE EXTINGUISHER REPAIRER

The Fire Extinguisher Repairer performs the following duties: repairs and tests fire extinguishers in repair shops and in establishments, such as factories, homes, garages, and office buildings. Using hand tools and hydrostatic test equipment, this repairer dismantles extinguisher and examines tubings, horns, head gaskets, cutter disks, and other parts for defects, and replaces worn or damaged parts. Using hand tools, this repairer cleans extinguishers and recharges them with materials, (such as soda water and sulfuric acid, carbon tetrachloride, nitrogen or patented solutions); tests extinguishers for conformity with legal specifications using hydrostatic test equipment, and may install cabinets and brackets to hold extinguishers.

Minimum Education: Associates Degree or postsecondary training through Electronic Security Association (ESA)

Certification/Licenses: National Institute for Certification in Engineering Technologies (NICET) Certification

23510 LOCKSMITH

The Locksmith installs, repairs, modifies, and opens a variety of locking mechanisms found on doors, desks, compartments, mobile equipment, safes, and vaults. This worker examines locking mechanism and installs new unit or disassembles unit and replaces worn tumblers, springs, and other parts or repairs them by filing, drilling, chiseling and grinding, opens door locks by moving lock pick in cylinder or opens safe locks by listening to lock sounds or drilling. This worker makes new or duplicate keys, using key cutting machine, changes combination by inserting new or repaired tumblers into lock, and establishes keying systems for buildings.

Minimum Education: High School Diploma or Equivalent, Completion of Training Program or Apprenticeship

Experience: Three Months to Four Years, depending on sector

Certification/Licenses: State Issued License Required

23960 WELDER, COMBINATION, MAINTENANCE

This incumbent welds metal components together to fabricate or repair products, such as machine parts, plant equipment, mobile homes, motors and generators, according to layouts, blueprints or work orders, using brazing and a variety of arc and gas welding equipment. This worker welds metal parts together, using both gas welding or brazing and any combination of arc welding processes, performs related tasks such as thermal cutting and grinding, repairs broken or cracked parts, fills holes and increases size of metal parts, positions and clamps together components of fabricated metal products preparatory to welding. This worker may locate and repair cracks in industrial engine cylinder heads, using inspection equipment and gas torch, may perform repairs only and be required to pass employer performance tests or standard tests to meet certification standards of governmental agencies or professional and technical associations.

Minimum Education: High School Diploma or Equivalent, Completion of Training Program or Apprenticeship

Experience: Three Years' Experience

Certification/Licenses: American Welding Society (AWS) Certification or American Society of Mechanical Engineers (ASME) Certification

30040 CIVIL ENGINEERING TECHNICIAN

This technician assists the Civil Engineer in application of principles, methods, and techniques of civil engineering technology, reviews project specifications and confers with the Civil Engineer concerning assistance required, such as plan preparation, acceptance testing, and evaluation of field conditions, design changes, and reports. This worker conducts materials testing and analysis, using tools and equipment and applying engineering knowledge necessary to conduct tests, prepares reports detailing tests conducted and their results. The Civil Engineering Technician surveys project sites to obtain and analyze topographical details of sites, using maps and surveying equipment, drafts detailed dimensional drawings such as those needed for highway plans, structural steel fabrication, and water control projects. This work involves performing duties as described under Drafter, and calculating dimensions, profile specifications, and quantities of materials such as steel, concrete, and asphalt, using calculator.

Minimum Education: Associates Degree Civil Engineering Technology or Related Field

Experience: Experience in Civil Design

Certification/Licenses: Voluntary Professional Certification

23181 ELECTRONICS TECHNICIAN MAINTENANCE I

The Electronics Technician Maintenance I applies basic technical knowledge to perform simple or routine tasks following detailed instructions, performs such tasks as replacing components, wiring circuits,

repairing simple electronic equipment; and taking test readings using common instruments such as digital multi-meters, signal generators, semiconductor testers, curve tracers, and oscilloscopes. This person works under close supervision receiving technical guidance from supervisor or higher-level technician. Work is checked frequently for accuracy.

Minimum Education: High School Diploma & On-The-Job Training

Certification/Licenses: Electronics Technicians Association Certification Desirable

23140 CARPET LAYER

The Carpet Layer prepares floor by removing old carpet or other covering, stripping, patching, or cleaning floor, measures and cuts carpeting to size, using carpet knife; lays padding and places carpeting on top of padding, cuts, trims, and stretches carpeting to fit along wall edges, openings, and projections, installs metal edging and metal door strips; may lay carpet tiles, applying adhesive to floor, and transport carpeting to installation site.

Minimum Education: High School Diploma or Equivalent

Experience: On-The-Job Training

Certification/Licenses: N/A