MAINTENANCE SERVICES AGREEMENT

This Maintenance Services Agreement ("Agreement") is dated June 22, 2022 ("Effective Date") and is between District No. 2, DIR Agency ID Number 100010096, a county sanitation district organized and existing under the County Sanitation District Act, Health and Safety Code Section 4700 *et seq.*, (the "District") and Johnson Controls, Inc. ("Contractor"), DIR Registration Number 1000000593 Expiration date June 30, 2024. The District and the Contractor are collectively referred to in this Agreement as the "Parties."

The District requested proposals for contractors to provide maintenance services of the heating, ventilation and air conditioning (HVAC) systems at the Joint Administration Office, San Jose Creek Water Reclamation Plant Laboratory, and Central Plant. Contractor's proposal to provide such services under this Agreement is set forth in Exhibit "A" to this Agreement (the "Proposal"). The services to be provided by Contractor are set forth in the District's Request for Proposals Number 03976R ("RFP") (Exhibit "B" to this Agreement) and constitute the "Work."

The DIR Project Number for this Work is: 420490

The Parties therefore agree as follows:

1. Agreement

The RFP and the Proposal are incorporated into this Agreement. In the event that there is any conflict or inconsistency between the provisions of the RFP, the Proposal and/or this Agreement, the provisions of this Agreement will prevail.

This Agreement may be executed in any number of counterparts and all such counterparts shall constitute a single instrument. Delivery of an executed counterpart by facsimile or electronic transmission (in .pdf format or other electronic imaging) shall have the same force and effect as delivery of an original counterpart.

2. Term

The Contractor's initial term for the performance of the Work shall commence on July 1, 2022 and expires on June 30, 2025. The term of this Agreement may be extended up to two additional years in accordance with Section 16 of the RFP by written amendment signed by both Parties.

3. Contractor's Services

3.1 Scope of Services by Contractor. The Contractor shall provide maintenance services as described in this Agreement. In performance of the Work, Contractor shall comply with all applicable Federal, State and local laws, rules, regulations, ordinances, and industry practices.

3.2 Contractor's Standard of Care. The standard of care applicable to Contractor's Work under the Agreement will be the degree of skill and diligence ordinarily employed by contractors performing the same or similar services, under the same or similar circumstances, in the State of California. The Contractor shall re-perform any Work not meeting this standard without additional compensation.

4. District's Obligations

4.1 District-Provided Information and Services. The District shall furnish the Contractor available drawings, operation and maintenance manuals, service reports and other data pertinent to Contractor's services and obtain or authorize Contractor to obtain additional records and data as required. The Contractor is entitled to use and rely upon all such information and services provided by the District

or others in performing Contractor's services under the Agreement except as otherwise stated by the District in connection with the information and services provided.

4.2 Access. The District shall arrange for access to and make all provisions for Contractor to enter upon public and private property as required for Contractor to perform services hereunder. Contractor shall comply with all applicable laws and with the District's requirements for persons on the District's premises.

5. Compensation and Payment to Contractor

5.1 Contractor's Compensation: In consideration of the full and satisfactory performance of this Agreement, the District shall pay the Contractor according to the following items. The total not-to-exceed budget for all Work performed by the Contractor is $2,475,312.34. The breakdown of expenses shall be as follows:

Item 1 –	Cost for Central Plant, including, but not limited to, Chillers, Boilers, Pumps, and Condenser Water Pump Station:	$320,604.12
Item 2 –	Costs for the Joint Administration Office, Board Room and Guard Shack, including, but not limited to, Air Handling Units, Pumps, Fans, Fan Coils, and Dedicated AC Units:	$641,208.60
Item 3 –	Cost for the San Jose Creek Laboratory, including, but not limited to, Air Handling Units, Pumps, Fans, and Dedicated AC Units:	$961,811.64
Item 4 –	Cost for the Installation of two relative humidity sensors as described in Section 6.11 of the RFP:	$2,187.98
Item 5 –	Cost of two hundred and fifty (250) hours of unexpected night or weekend work per Section 6.5 of the RFP:	$49,500.00
Item 6 –	Cost of major repairs per Section 6.6 of the RFP; mold testing per Section 6.4 of the RFP; and additional maintenance, repair, and system modification work not covered by the scope of the RFP:	$500,000.00

Items 1 through 3 shall be paid in equal monthly installments subject to District's acceptance of the required Work and fulfillment of all administrative requirements in accordance with the RFP. Item 4 shall be paid in total upon completion of the respective work and acceptance of the work by the District. Items 5 and 6 shall be paid on an as needed basis. Contractor shall receive authorization from the District prior to commencing work on, or procuring materials for, any work associated with Items 5 and 6. Failure to make payments when due, assuming all conditions precedent have been met by Contractor, will give Contractor, without prejudice to any other right or remedy, the right to stop performing any Services, withhold deliveries of Equipment and other materials, terminate or suspend software licenses, require go-forward cash in advance payment and/or terminate this Agreement.

6. Prevailing Wage

Pursuant to applicable provisions of the California Labor Code and requirements of Exhibit B, RFP Number 03976R, and this Agreement, the Contractor shall pay all workers employed on the Work by the Contractor, or by any subcontractor doing or contracting to do any part of the Work, not less than the general prevailing rate of per diem wages, and not less than the general prevailing rate of per diem wages for legal holiday

and overtime work, for each craft or type of worker needed to perform the Work, as set forth within the RFP.

Contractor shall mail certified payroll records no less than monthly to:

Los Angeles County Sanitation Districts
1955 Workman Mill Road
Whittier, California 90601
ATTN: Bed Dawadi

7. Delay

Contractor shall perform the Work with due diligence and agrees to use its best efforts to timely complete the Work. The Contractor shall immediately advise the District of any delay resulting from causes within or beyond its control. In the event of any such delay by causes within the Contractor's control, the Contractor shall promptly outline and implement appropriate actions required to overcome such delay, including, but not limited to, one or more of the following:

- Assignment of additional personnel to the Work;
- Utilization of overtime at no increase in compensation by the District; and
- Change in management structure or approach.

The foregoing is not intended to relieve the Contractor of responsibility for delay for which it would be responsible under this Agreement.

In the event of delay by causes beyond its control, the Contractor shall promptly provide the District with written notice of the delay and take all reasonable action to mitigate the effect of such delay. If the delay is beyond Contractor's control and without its fault or negligence, the time for the performance of its services may be equitably adjusted by written amendment subject to the District's approval of the extent of such delay.

8. Personnel Assignment

Contractor agrees to utilize the key technicians as submitted to the District in its Proposal (Exhibit "A"), including its Project Manager. The Project Manager will be the primary contact for the District and should have a thorough knowledge of all aspects of the Work and its status. During the term of this Agreement, no replacement of the Project Manager or any of the key personnel of Contractor's team or its sub-contractors may be made without the written approval of the District, which approval will not be unreasonably withheld. Nothing in this Section is intended to or may be construed to prevent Contractor from employing or hiring as many employees as Contractor deems necessary for the proper and efficient performance of its services.

The District may request a change in the assignment of the key personnel. Contractor shall change key personnel to the satisfaction of the District within 30 days following written direction to change by the District.

9. Notices

All notices or other communications regarding this Agreement to either party by the other shall be deemed given when made in writing and delivered or mailed (not e-mailed) to such party at their respective addresses as follows:

Los Angeles County Sanitation Districts
1955 Workman Mill Road
Whittier, California 90601
ATTN: Samuel Espinoza

Johnson Controls, Inc.
5770 Warland Dr
Cypress, CA 90630
Office: 866-819-0230
ATTN: David Wagoner, Ronan O'Mahoney

Either party may change its address or representative for such purpose by giving notice thereof to the other in the same manner.

10. Governing Law, Dispute Resolution and Litigation

Contractor's performance of this Agreement shall be governed and construed in accordance with the laws of the State of California. Except as provided with respect to termination in Section 16 of the RFP, if any dispute arises between the Parties with respect to the Work, compensation for the Work, or any other matter with respect to this Agreement, the Parties shall, if both agree, submit the matter to non-binding mediation. If the mediation does not resolve the dispute, the dispute shall be resolved through litigation. Venue for any action relating to this Agreement will be in the County of Los Angeles, State of California.

11. Entire Agreement

This Agreement represents the entire understanding between District and Contractor as to those matters contained herein. No prior oral or written understanding is of any force or effect with respect to those matters covered in this Agreement.

12. Action by Chief Engineer

Except as otherwise provided in this Agreement, the Chief Engineer and General Manager of the District ("Chief Engineer") may take all actions on behalf of the District in connection with any approvals or actions required of or by the District under this Agreement, and Contractor may rely on any such actions by the Chief Engineer as having been approved or required by the District under all applicable laws.

13. Indemnification

Contractor agrees to indemnify the District for all damages, losses and expenses with respect to any third-party claims against the District for personal injury, including death, or tangible property damage, but only to the extent such damages, losses and expenses are caused by the negligent acts or willful misconduct of Contractor in fulfilling its obligations under this Agreement.

14. Limitation of Liability

In no event shall Contractor and its affiliates and their respective personnel, suppliers and vendors be liable in the aggregate for any damages relating to the Agreement or the services contemplated thereby in any amount exceeding three million ($3,000,000), regardless of the cause and whether arising in contract, tort (including negligence) or otherwise. Notwithstanding anything to the contrary contained herein, the limitation of liability in this section will not apply to Contractor's gross negligence, fraud or willful misconduct.

15. Mutual waiver for consequential damages

In no event, whether in contract, tort or otherwise (including breach of warranty, negligence, product liability and strict liability in tort), will the Parties and their affiliates and their respective personnel, suppliers and vendors be liable to the other Party (directly or indirectly) under any cause of action or theory of liability arising from, relating to, or in connection with this Agreement, even if advised of the possibility of such damages, for any: (a) special, incidental, consequential, punitive, or indirect damages (b) lost profits, revenues, data, customer opportunities, business, anticipated savings, or goodwill; (c) business interruption; or (d) data loss or other losses arising from viruses, ransomware, cyberattacks or failures or interruptions to network systems.

16. Warranty

Contractor warrants that the equipment (as opposed to any software) furnished by Contractor is free from defects in materials and workmanship for a period of 365 days from the date the services were completed (the "Warranty Period"). If during the Warranty Period, any part of the equipment does not function as warranted and provided, as a condition precedent, that the District notifies Contractor during the Warranty Period, Contractor will determine, at its sole discretion, to either i) repair the equipment; or ii) replace it with a new or functionally operative part.

Contractor warrants that Services will be performed in a good and workmanlike manner during the Warranty Period. If services are not performed as warranted and Contractor is notified as a condition precedent, in writing by the District within the Warranty Period, Contractor will re-perform the non-conforming services. THESE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THOSE OF MERCHANTABILITY AND FITNESS FOR A SPECIFIC PURPOSE. All other warranties are expressly disclaimed and waived. THE DISTRICT'S EXCLUSVE REMEDY WITH RESPECT TO ANY AND ALL LOSSES OR DAMAGES RESULTING FROM ANY CAUSE WHATSOEVER, INCLUDING CONTRACTOR'S NEGLIGENCE, IS REPAIR OR REPLACEMENT OR AS SPECIFIED ABOVE.

Contractor's warranties will be voided by misuse, accident, damage, abuse, alteration, modification, failure to maintain proper physical or operating environment, use of unauthorized parts or components, improper District maintenance or repair by District or third parties without the supervision of and prior written approval of Contractor, or if Contractor's serial numbers or warranty date decals have been removed or altered. District must promptly report any failure of the Equipment to Contractor in writing.

JOHNSON CONTROLS, INC.

Nicolas D'Alessandro

Signature

Nicolas D'Alessandro

Name

Area Construction Sales Manager

Title

DISTRICT NO. 2 OF THE

LOS ANGELES COUNTY SANITATION DISTRICTS

By: _____

Chairperson

Attest:

_____

Secretary

Approved as to Form:

Lewis Brisbois Bisgaard & Smith LLP

By: _____

District Counsel

EXHIBIT A – CONTRACTOR'S PROPOSAL

LOS ANGELES COUNTY WATER SANITATION DISTRICTS

RFP No. 03976R/QuestCDN No. 8151267
Maintenance and Service of the Heating, Ventilation, and Air Conditioning (HVAC) Systems at the Joint Administration Office, San Jose Creek Laboratory, and Central Plant

November 10, 2020

Submitted by:
David Wagoner, Ronan O'Mahoney
Johnson Controls
Strategic Accounts Management
5770 Warland Dr
Cypress, CA 90630
Office: 866-819-0230
Cell: 714-837-0547 | 657-465-9881
David.wagoner@jci.com |
Ronan.joseph.omahony@jci.com
Toll-free Service Line 866-866-0885
www.johnsoncontrols.com

Presented to:
LACSD Procurement team
Attn: Gina Schmitt, Bed Dawadi
LA County Sanitation Districts
1955 Workman Mill Road
Whittier, CA 90601
562-908-4288 office
bids@lacsd.org

Dear Los Angeles County Sanitation Districts (LACSD),

At Johnson Controls (JCI), we believe that a well-designed maintenance plan is the foundation of a well-managed site and facility. That is why we have created an operations & maintenance (O&M) program that will enable LACSD to focus resources on your core business activities instead of on managing and maintaining your facility. To benefit LACSD and ensure the lowest possible price, we have also leveraged our Sourcewell Agreement # 030817-JHN (HVAC Systems, Installation, and Service with Related Products and Supplies) in our response.

Due to the complexity of the type and amount of information required for effective operations which varies according to facility usage, age, and size, our maintenance management plan guides facility professionals to make consistent decisions and act in accordance with federal, state, and local laws, including applicable regulatory agencies. LACSD will benefit from our on-site team, qualifications, management controls, technical expertise, and our high quality, comprehensive O&M programs.

Our approach provides LACSD the flexibility and on-site management commitment required to adapt to changing requirements and new challenges. Our team has the experience and ability to ensure your assets are protected, maintained, and will provide a comfortable environment to your employees and visitors. Using our building and equipment expertise, we will recommend improvements and solutions to support your capital projects while saving energy and costs.

For this contract, we offer the following elements of our management approach:

Staffing & Tasking – Johnson Controls ensures efficient, effective, timely execution of assigned tasks by determining the team size, skill selection, and schedule based on work requirements. Our team has O&M delivery experience, which enables them to provide timely resource allocation, escalation points, and conflict resolution. We provide the right person for the right task.

Procedures – Our program implements proven procedures specific to your equipment and systems to ensure proper execution, consistency, availability, efficiency, reduced costs, and the extension of their useful life.

Data-based Decision Making - JCI leverages technologies like Predictive Analysis and historically derived tasking algorithms to supplement our maintenance strategy by proactively and intelligently driving specific countermeasures for improvement.

Scheduling & Asset Management - Our knowledge of various CMMS systems ensures that we accomplish maintenance, recurring work, emergencies, routine repairs, and indefinite quantity work in a timely and cost-effective manner.

Partnership - Working with LACSD, we will align our global resources in support of your goals to exceed your objectives and build a trusted relationship driving transparency and accountability.

Thank you for the opportunity to submit our proposal. Please feel free to call us if you would like to discuss in further detail. We look forward to the opportunity to discuss the maintenance program and ways to control and reduce the cost of ownership throughout the term of the agreement. We look forward to the next steps in the process and working together to deliver the best solution for LACSD.

David Wagoner, Ronan O'Mahony, George Gonzales

Table of Contents

Executive Summary

Like LACSD, Johnson Controls shares your committment to facility improvements and interest in new and innovative maintenance programs that drive operational savings and protect valuable assets.

This is why we are including information about our **Operations and Maintenance (O&M) program** in addition to the rates requested in RFP 03976R. We are currently providing an O&M program to your sister site at the Detroit Water and Sewerage Department (see References) with 5 full-time employees that are dedicated to the site. Our proposal will describe our capabilities and provide LACSD with a vision for how we would care for your facility.

For LACSD, we would develop a customized solution that focuses on supporting your facility through the complete Life-Cycle of your critical assets, allowing you to perform today while planning for tomorrow. Our holistic strategy to deliver this level of service would be multi-tiered, including:

- The development of a robust maintenance strategy to protect and optimize your HVAC assets
- Deploying technology such as Predictive Services and a new CMMS to support and document these activities
- Leveraging that information to allow LACSD to make informed strategic decisions in the use of your Operational and Capital funding
- Increase the pandemic readiness of your facility

JCI is uniquely qualified to implement an O&M program that drives down your Total Cost of Asset Ownership. We have a proven 132 year track record of bringing operational innovation and creativity to water treatment facilities worldwide. Many local Southern California customers have leveraged our O&M capabilities, such as **Detroit Water and Sewerage Department**, **LAX**, and **Multiple Refineries**. Our recommendation of this program will show that we exceed the minimum qualifications outlined in the RFP.

How our O&M Program can Benefit LACSD

Our proven O&M program integrates people, processes, and technology to respond effectively and efficiently to your business plan.

- Our experienced and qualified **people** provide the direction and commitment to execute our approach.
- We weave proven and standardized **processes** into our work routines and service delivery tasks to ensure that our planning, scheduling, execution, and work analysis aligns with your operations.
- Continual investments in **technology** enable our teams to leverage competency-enhancing systems and ensure efficient and effective performance and outcomes.

Optimizing a Customized Plan for LACSD

Our program starts with the development of a robust maintenance strategy built around your HVAC assets, leveraging the appropriate technical resources and the latest in predictive technology.

Maintenance optimization is achieved by applying the right level of maintenance to equipment, based on its age, condition and criticality to the facility, and the investment you've made in that equipment. Our Maintenance Optimization process will guide you to developing the right customized maintenance strategy.

Through this process we will develop a customized maintenance solution for LACSD that will focus on maximizing your plant asset utilization / reliability and reduce the overall cost of production while executing the strategy with world class safety.

Predictive Technology to Proactively Find and Fix Problems

Predictive Technologies such as Vibration/Oil/Refrigerant Analysis, Infrared scanning Laser Alignment, Balancing Services, and Root Cause Failure Analysis enable us to monitor equipment, gather and analyze data, forecast failure, and determine the root cause of existing equipment conditions.

Through Predictive Technologies we can identify equipment issues proactively and address them before they become problems. By collecting and utilizing this information, we can further extend the useful life of your equipment, prevent or minimize unplanned shutdowns, and reduce costs resulting from catastrophic equipment failures.

Predictive Technologies have been shown to produce long term reductions in Total Cost of Asset Ownership.

The Expertise of an EOM Service Provider

When failures do occur, Johnson Controls is also an HVAC equipment & controls manufacturer and owns many subisidary equipment providers; meaning we can manufacture, install, and maintain LACSD HVAC equipment, giving you a single point of accountability for equipment and system uptime and operational performance.

By consolidating HVAC maintenance, repair, & retrofit with Johnson Controls, LACSD will improve its facility, while lowering the cost of procurement, coordination, and administration. Johnson Controls is one of the largest Mechanical and Controls Service Companies in the world. We are the premier manufacturer of York HVAC equipment and Metasys Controls systems. We can provide a Planned Replacement Program based on your service history to deliver consistent pricing and implementation.

We have access to engineering, manufacturing, installation, and service resources that no other company can match. This means you can expect a higher degree of factory-level expertise, responsiveness, and safety.

Additionally, we have highly trained, on-site skilled professionals who are qualified to work on all manufacturers' equipment – and are CFC-certified and widely recognized as the most capable in the industry will perform your service work. Our local **Johnson Controls Los Angeles office** is fully staffed and able to support the delivery and maintenance services for your facility. We have over 120+ local employees, 90+ of which are field technicians, located at 5770 Warland Drive in Cypress, CA.

Intelligent Lifecycle Management Capabilities

We can provide a tightly structured program for all of your mechanical needs. Our ability to track asset history and expenditures, along with the reporting tools available, will enable LACSD and Johnson Controls to make well- informed major repair and capital retrofit or replacement decisions.

We can provide LACSD with a new, easy to use **Computer Maintenance Management System** (CMMS) to schedule and document service task execution, record equipment condition, as well as capture repair activities, downtime and associated unplanned costs. Alternatively, we can also use your current CMMS because our team has experience working with nearly every type of CMMS on the market.

By recording and trending your equipment condition and total cost of operation, Johnson Controls will be able to provide the LACSD team with the data necessary to make strategic equipment investment decisions. By utilizing LACSD's existing CMMS system or implemening JCI's CMMS (Sprocket), we will manage your HVAC infrastructure to keep your facilities up and running to ensure upmost indoor air quality, minimizing downtime and improving response times.

Our Service Delivery Approach

To ensure quality Johnson Controls employs a rigorous **Relationship/Service Delivery Plan** in which assigned personnel (Account Manager, Dedicated On-Site Administrator, Service Manager, or Lead Technician) are responsible for providing supervision, management, support, and reporting. Beginning with a thorough Service Kick-Off meeting, customer touch points are scheduled in advance to ensure on-time delivery and the complete fulfillment of all contracted services. Our intent is that you not only find value in our methodical approach to meeting our obligations, but also find additional quality in our people and the personal relationships we encourage them to build with our customers.

All of the services we perform on your equipment are aligned with **"The 5 Values of Planned Maintenance,"** and our technicians understand how the work they perform can help you accomplish your business objectives.

We believe that a strong partnership between LACSD and Johnson Controls will offer the optimum customer experience and value. We will provide the industry's most qualified HVAC service technicians to support your existing and evolving needs as you concentrate on your core business.

Our intent within this document is to provide LACSD with the information requested, along with highlighting our offerings and capabilities that can deliver beneficial results for your facilities.

Meeting your Future Needs

Successfully managing the future means getting results you can count on. Whatever you're looking for – improving occupant comfort, enhancing property values, reliability, reduced energy consumption, increased asset life, or more – we'll make sure that the mission of your mechanical systems matches up with your business objectives. At Johnson Controls, we don't just perform tasks, we deliver outcomes

A customized service plan, with a combination of reactive, planned and predictive maintenance strategies, maximizes your return and minimizes your risk. Johnson Controls offers to develop a Technical O&M Agreement, built around your exact building performance requirements and business needs, keeping HVAC, controls, security (Tyco) and fire (SimplexGrinnell), mechanical, plumbing and electrical systems - efficiently performing at peak levels.

In Summary

Our strategic program for LACSD will be focused on your desired business outcomes, COVID-19 HVAC readiness, optimizing asset utilization, reducing mean time to repair, and keeping LACSD customers happy. Everything we do is focused on achieving these business results, including the development of a robust maintenance strategy, the predictive technologies that we implement, and the full-time on-site dedicated employees responsible for the execution. We certainly welcome the opportunity to meet with your team (virtually) to bring further clarity and insight into our approach.

Company Overview

Johnson Controls, a publicly held corporation, was founded in 1885 and trades on the New York Stock Exchange under ticker symbol JCI.

Johnson Controls, a 132+ year Global Fortune 500 Company, is a global leader in delivering integrated building control systems, mechanical equipment, fire alarm and life safety products, physical security systems, and both mechanical and technical services. We also provide solutions designed to improve the comfort, safety, and energy efficiency of non-residential buildings and residential properties.

Johnson Controls operated under two former names: Johnson Electric Service Company July 31, 1900, to July 10, 1902, Johnson Service Company July 10, 1902 to November 11, 1974. Our company merged with Tyco International in 2016 as Johnson Controls International, PLC and operates as Johnson Controls.

Building Technologies & Solutions sells its integrated control systems, security systems, fire-detection systems, equipment, and services primarily through the Company's extensive global network of sales and service offices, with operations in approximately 60 countries. Significant sales are also generated through global third-party channels, such as distributors of air-conditioning, security, fire-detection, and commercial HVAC systems. In fiscal 2017, approximately 27% of our sales originated from its service offerings.

Our Building Efficiency headquarters is located in Milwaukee, Wisconsin.

Dun and Bradstreet Number:
00-609-2860

S&P Credit Rating:
BBB+

Federal Tax ID:
39-0380010

State of organization:
WI C Corp

North American Industry Classification Code:
332911, 336512, 238210, 238220

We are a local and global leader that brings ingenuity to the places where people live, work, and travel. The company has more than 105,000 employees across all business divisions, serving customers from 1,500 office locations in 150 countries. Nationally, we have over 120 HVAC branches with 6,000 factory certified technicians to provide full service and response capabilities. We create a more comfortable, safe, and sustainable world through our products and services for more than 200 million vehicles, 12 million homes, and 1 million commercial buildings.

The Company's large base of current customers leads to significant repeat business for the retrofit and replacement markets. In addition, the new commercial construction market is also important.

Trusted Buildings brands, such as YORK®, Hitachi Air Conditioning, Metasys ®, Ansul, Ruskin® , Titus®, Frick®, PENN®, Sabroe®, Simplex® and Grinnell® give the Company the most diverse portfolio in the building technology industry.

O&M (Operations and Maintenance) Capabilities

Johnson Controls provides O&M services through a dedicated, on-site team that is 100% focused on achieving your goals. We can develop a program customized to your facilities, your equipment, and your goals. We can provide LACSD with building O&M services for the following areas:

- Mechanical and electrical – Contractor license CA-22445, C20, C10, DIR 1000000592
- Heating and ventilation
- Building services control and management systems
- Energy management
- Fire protection systems
- Fire alarm and detection systems
- IT and telecommunication
- Plumbing

The following sections describe many of the services we can perform through a Technical O&M Agreement. With planned service from Johnson Controls, you will get a value-driven solution that can help optimize your building controls and equipment performance, providing dependability, sustainability and energy efficiency. You will get a solution that fits your specific goals, delivered with the attention of a local service company backed by the resources of a global organization.

An Optimized Maintenance Management Program

A comprehensive maintenance program that is correctly implemented maximizes a facilities value by extending the useful life of the facilities systems and maintaining operating efficiency. Studies have shown that optimizing your maintenance approach with JCI allows you to minimize repair costs and downtime while maximizing the value of your preventive maintenance program.

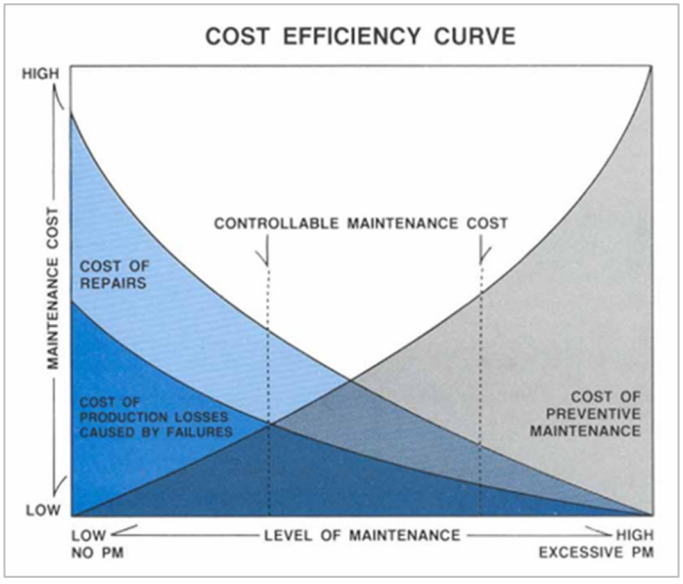


Figure 1. Maintenance Cost Efficiency Curve

Johnson Controls' maintenance optimization is achieved by applying the right level of maintenance to equipment, based on its age, condition and criticality to the facility, and the investment you've made in that equipment. Our Maintenance Optimization process will guide you to developing the right customized maintenance strategy; (see Figure 2).

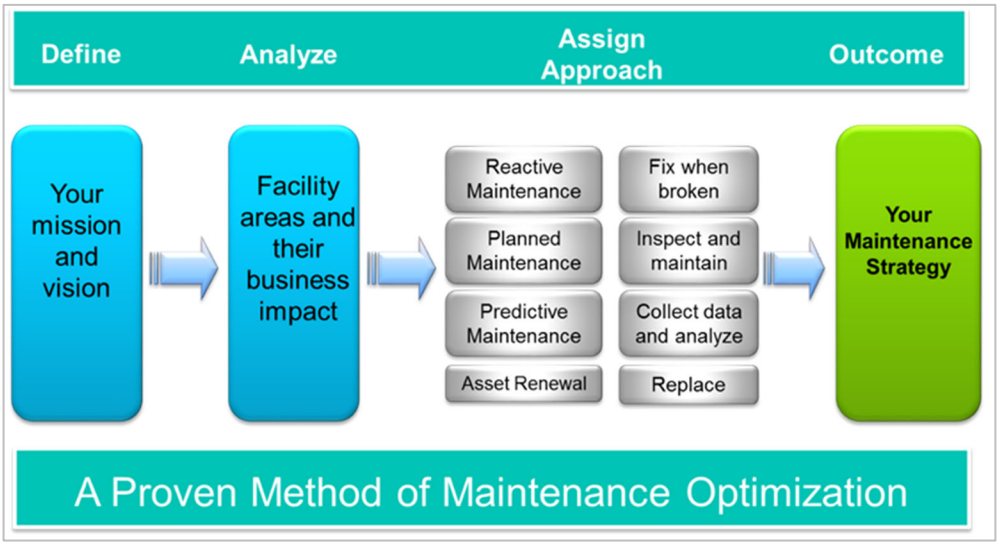


Figure 2. Maintenance Optimization Process

Through this process we will develop a customized maintenance solution for LACSD that will focus on maximizing your plant asset utilization / reliability and reduce the overall cost of production while executing the strategy with world class safety.

Planning

A well-designed maintenance plan is the foundation of a well-managed site and facility. The type and amount of information required to execute an effective operation varies according to the facility usage, age and size. Johnson Controls' maintenance management plan guides facility professionals in making consistent decisions, acting in accordance with federal, state, and local laws along with applicable regulatory agencies while exceeding the customers' expectations.

The purpose of the Johnson Controls Maintenance Management Plan is to:

- Align maintenance and operations with LACSD's missions and objectives
- Establish standards that can be used to measure performance
- Implement programs that assist in improving the LACSD Metro Detroit facilities performance and value
- Develop a sustainable maintenance program that will extend asset life and reduce overall facility operations costs; (see Figure 1).

Because the organizational size, scope, mission, and structure of a project is unique, Johnson Controls' Plan does not assume or recommend a single facilities organizational approach. Rather, it uses a functional (systems) approach to describe processes that can be included in any facility maintenance management system. The program includes:

- A Maintenance Management Plan for LACSD will establish a plan that defines a scope of maintenance through a collaborative effort with the LACSD leadership
- Identify the operational effectiveness level required to accomplish the maintenance program
- Provide an understanding of the maintenance functions and processes as they relate to system and tool applications
- Develop performance evaluation criteria and benchmark goals
- Define an organizational structure that best meets the customers' requirements and achieves key results

Managing the Lifecycle of Your Assets

Our core business philosophy at Johnson Controls is supporting clients through the Life-Cycle of their facilities and the assets that are crucial to long term business success. We approach HVAC asset life extension through our comprehensive and predictive maintenance strategies where we match and align the appropriate maintenance programs and dollars with the business criticality of the equipment.

As the equipment and assets age past their usable life, Johnson Controls further supports our clients through the **Capital Planning replacement process**. Our differentiator in this Capital Planning process is we take a holistic approach to ensuring we not only are taking into account current and future business requirements, but always looking for more cost effective, reliability improvement and energy efficient solutions versus a like-for-like replacement. In the end, it's all about keeping the equipment running with the minimal amount of operational expenditures and ensuring the most value out of your capital budget expenditures.

Utilizing Intelligent Predictive Technologies

The implementation of a comprehensive and predictive maintenance program will improve the performance, reliability, and life span of your existing equipment. We will match and align the appropriate skillsets, tasks, and dollars with the business criticality of each piece of equipment based on the operational insight of your staff, and our knowledge, experience, and tools.

An O&M program with Predictive Services improves the frequency, reliability, quality, and value of a typical Preventative Maintenance program through a hybrid maintenance optimization program driven by predetermined, outcome-based objectives. We offer a true integrated Preventive Maintenance and Predictive Maintenance approach that scrutinizes an asset to determine the right set of tasks to apply, and at what frequency, based on the customer's business activities. Our service features a cloud-based, portable vibration tool for fans and pumps that can provide immediate reports and recommendations using a smart phone or tablet.

Effective deployment of predictive technologies in maintenance and repair strategies allows incorporation of proactive strategies that lower costs and increase reliability. We designed this sustainable maintenance optimization program in order to extend asset life through and bring predictability to budgeting. Using predictive technologies to drive maintenance is critical to optimizing facility performance.

Additionally, Predictive Technologies have been shown to produce long term reductions in Total Cost of Asset Ownership, (see Figure 3). We have provided actual historical Predictive Maintenance reports in Appendix B for reference.

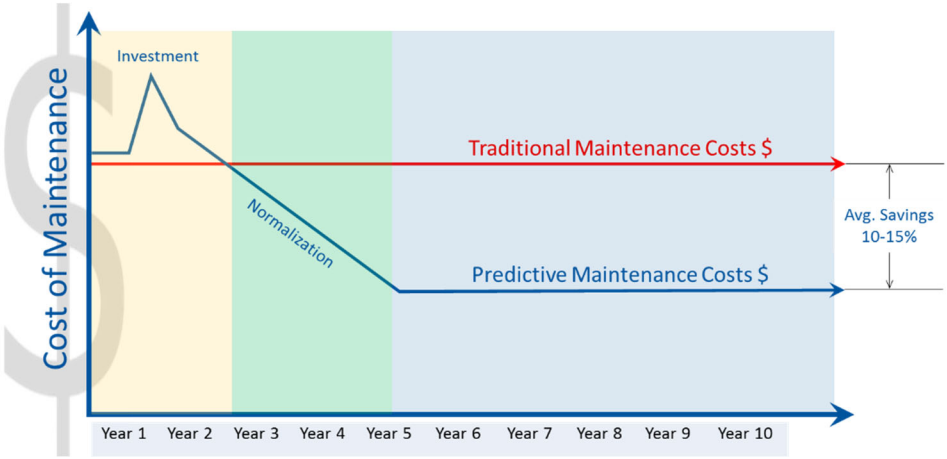


Figure 3. A Johnson Controls Predictive Maintenance program lowers your Total Cost of Ownership by 10-15%.

Computer Maintenance Management Systems (CMMS)

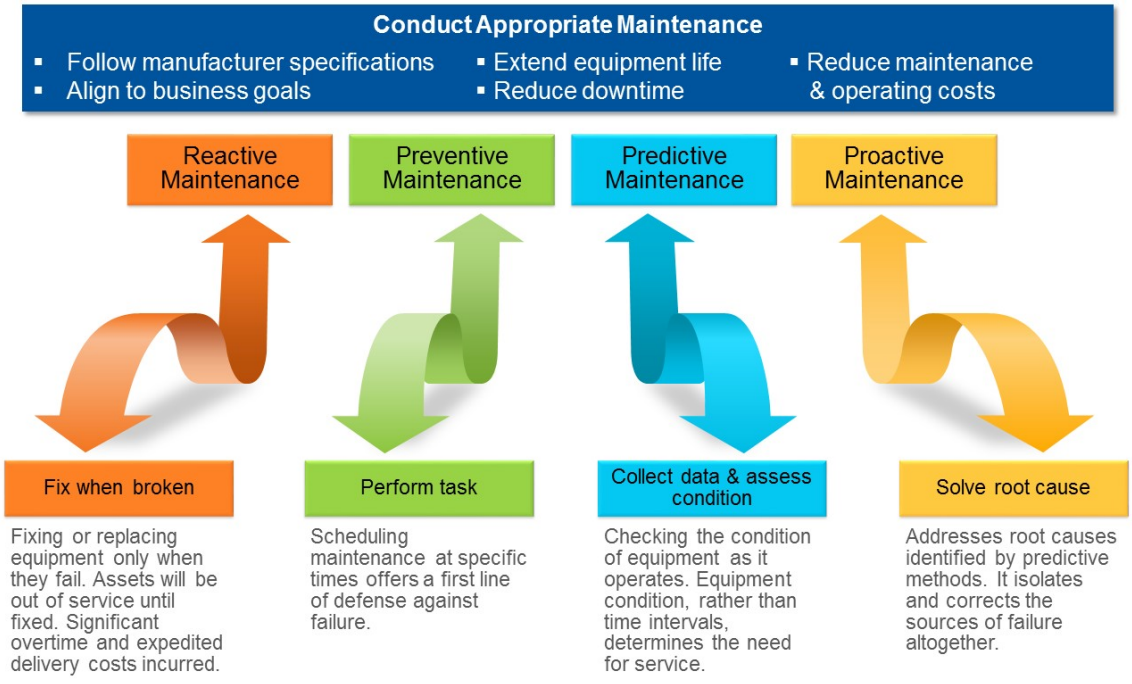
With a record of demonstrated proficiency in the facilities maintenance arena, Johnson Controls is uniquely positioned to assure that your facility will be operated and maintained in peak condition for the term of our contract. To accomplish this, our approach to providing facility maintenance services will be based on proven management principles that serve as the underpinning of our success on other full-service HVAC contracts.

To implement our approach, we would provide:

- Knowledgeable, experienced personnel in management and hourly positions ensuring professional completion of tasks
- Defined work procedures, ensuring task performance complies with applicable standards, is consistent, is thorough, is documented, satisfies quality requirements, and contributes to a more reliable facility
- Task information using Unifier or similar CMMS for Work control and tracking, giving management visibility over the workload
- A comprehensive quality control program, instilling quality consciousness in every level of the organization, ensuring work meets quality standards for facilities maintenance, identifying problems before they manifest themselves, and developing corrective actions to return the process to efficient and effective operational condition
- Management techniques, such as review and analysis sessions ensuring that facilities maintenance provides objective and measurable results
- Recommendations and guidance to help you meet your performance goals and prepare for future needs

A Customized Level of Maintenance

We can customize a facility maintenance plan to address the manufacturer's recommended preventative maintenance tasks for all your equipment. An effective strategy applies an optimum mix of different approaches based on the risk impact or cost and consequences of failure. Establishing this proper mix and focusing on continuous improvement are equally important in a successful strategy.



Routine maintenance, such as lubrication, cleaning, and tightening connections, can be performed depending on the type of equipment being serviced. Routine maintenance is one of the keys to the five values of maintenance – it can help identify energy saving opportunities, reduce future repair costs, extend asset life, ensure productive environments, and promote health and safety.

Emergency Services-1 866-819-0230

Emergency service is provided 7/24/365 days a year. **LACSD will have a dedicated service line.** During normal business hours, emergency service will be coordinated by the Customer Service Agent. After hours, weekends and holidays, the **dedicated LACSD service number** transfers to the Johnson Controls after-hours call center; a Johnson Controls after hour specialist, will work with you and gather appropriate information and on-call technicians are dispatched as needed.

Johnson Controls service team provides emergency and/or call-as-needed service. Dispatched through our **24-hour operation center**, professional tradesmen and technicians are available whenever and wherever needed. In most North American locations, we have the capability to answer emergency calls **within two hours** of the original call if required by the customer. Once issues are logged via our 24-hour emergency number, a record of the emergency is made for tracking purposes, and a service team member or members will be dispatched to the site of the issue.

In addition to the service required, our technicians will suggest ways to improve conditions, as well as alternate methods of operations. If needed, they will contact other specialists to assist with the issues at hand and provide you with written documentation.

We deliver unparalleled OEM service support for our products, as well as the expertise to service **any competitive brand** of equipment, including chillers, boilers, HVAC mechanical equipment, fire and security equipment, and controls systems.

For example, we service McQuay, Siemens, Trane, Carrier, and more.

We provide customers with the expertise, resources, professionalism, and results expected from a global industry leader – with the attention to detail and commitment to community of a local service provider.

Our service branches are certified to service a wide range of facility infrastructures including the following:

- Building automation control systems
- Chiller and refrigeration equipment
- Boilers and associated heating systems
- Air handling equipment and large fans
- Hydronic equipment including pumps and cooling towers
- Pneumatic air systems (control and process)
- Fire alarm systems
- Security and card access control systems
- Low and high voltage electrical systems
- Packaged rooftop units and unitary heat/cooling equipment

Our service team provides:

- Highly skilled, experienced, factory-trained technicians
- Project managers and engineers who develop solutions to reduce operational costs and improve environmental conditions
- Fast response times
- Consistent service delivery, accountability, and communication
- Flexible service solutions that meet your requirements and budget
- Innovative, industry-leading technologies
- Risk mitigation to protect your investments

Implementing the LACSD O&M Program

This section describes what an O&M program for LACSD would look like. We collaborate with you each step of the way to ensure the program is customized to your needs, goals, and budget.

Immediately upon notification of award, Johnson Controls will schedule a meeting with LACSD to address the transition period and the implementation of planned changes. The assigned Service Manager will lead the team and draw on both our existing staff as well as corporate and partner resources.

Once the contract and financial agreements are completed, we commence developing the work management processes, tools, and CMMS implementation as required. Our team will collaborate with LACSD to create a transition plan that will include planning tasks, a scope document detailing the deliverables, and engagement of Human Resources, Safety, Training, and Quality teams. We will develop a complete project schedule to detail the tasks and deliverables.

An O&M program for LACSD would provide the following services:

- Development of preventative maintenance strategy and plan
- Development of a corrective maintenance strategy and plan
- Develop Key Performance Indicators (KPI) reported out monthly during an Account Management Plan Review with LACSD to include (See Sample Report Appendix C:)
  - Manpower total monthly hours used for PM and CM WO issues
  - PM and CM WO Assigned and Completed
  - Total Costs for PM and CM WO completed
  - Service Reports for Repairs
  - Additional Recommended Services
- Participate in short-term and long-term operation and capital planning
- Manage critical spare part inventory for all systems covered under this agreement
- Document Management – As Built Drawings, O&M Manuals, Warranty Letters
- CMMS implementation
- Daily Check in Meetings and Progress Reports-Sign In at site

Scope of Work

As your operations and maintenance service provider, Johnson Controls' primary role is to preserve the system and equipment and ensure their safe and reliable operation. Based upon the RFB's requirement of Journeymen hours and Controls expertise, the maintenance effort will consist of Johnson Controls providing:

- Full-time Journeymen and Full-time Alternate and as needed one Apprentice/Tradesmen to provide preventive and predictive maintenance during the normal working hours of 6:00 AM to 10:00 AM (minimum) Monday thru Friday. Exceptions to these hours will be negotiated and accepted by both LACSD and Johnson Controls.
- The provided Mechanical Journeymen shall have sufficient skills, experience, and certifications to provide effective service of the equipment listed in LACSD RFB. They will have a minimum five (5) years' experience in the trade.
- A provided Controls expert technician to assist the lead technician as needed. Our vast team of experienced and certified controls technicians will also be available to assist as needed. We have two additional technicians in process of being certified in the Carrier CS system.
- A Technical Team Lead-Mechanical Journeyman shall supplement services by supervising, coaching, training onsite personnel as well as providing estimates/support for more complicated CM repairs.
- Preventative maintenance shall be performed per the equipment specific tasking as indicated in section "Equipment Tasking", or per manufacture's recommendations if not listed.

- All required materials needed to perform normal scheduled operational and comprehensive maintenance shall be purchased with approval per RFB requirements.
- Any controller or controls hardware failure, along with software subscription services will be considered beyond the scope of this RFP and will be quoted to your instructions and our recommendations.

Integrating Maintenance Activities

Johnson Controls strategy consists of numerous maintenance activities, each with different levels of importance. Preventive Maintenance will be considered as priority to Corrective Measures (CM). Major failures, special events, and other unplanned work occasionally interrupt normally scheduled maintenance activities. If required, we will supplement services to handle critical repairs that the normal team would handle with local branch team members. They will meet the Journeyman or labor requirements as specified in the RFB.

Our team will schedule and coordinate preventive, corrective, and demand maintenance so that maintenance tasks are conducted in the proper sequence, efficiently, and within prescribed time limits. An outage schedule will provide for work completion and testing and should provide your management with information necessary to control outage activities. The output of our scheduling and planning activities will be realistic, workable, well-coordinated schedules that identify all the needed resources for the job.

O&M Staffing Plan

Johnson Controls can provide a workplace management solution tailored to your needs and designed to adapt to changing requirements. Our staffing solution provides a platform for achieving facility performance goals consistent with your financial and operational objectives.

The labor provided as part of this Agreement is to be performed during normal business hours that are approved by both LACSD and Johnson Controls. These hours will not exceed a normal 40-hour workweek unless otherwise approved by and paid for by LACSD or unless otherwise stated within this Agreement. Johnson Controls' employees at the Facility will be afforded all the rights and privileges accrued and provided by Johnson Controls Benefits Plan inclusive of JCI vacations, sick days, holidays and personal time.

Our on-site Customer Business Manager, Supervisor, or Lead Technician (to be determined in collaboration with LACSD) will own the maintenance management plan and strategy, provide capital planning assistance and reporting, and ensure that the team achieves your uptime, Service Level Agreements (SLAs), and other Key Performance Indicators (KPIs).

Key personnel for implementation of this contract:

Dave Wagoner – Account Manager- 714-837-0547

Ronan O'Mahony- Sales Manager- 657-465-9881

George Gonzales- Sales Manager- 714-951-4690

Steven Madrigal- Service Manager- 714-391-5375

Johnny Vasquez- Lead Foreman- 714-699-6701

Miriam Lopez- Dispatch- 562-328-1071

Alyssa Felix- Accounting – 562-594-3237

Ed Stewart- Controls Manager- 562-254-0474

Michael Anderson- Branch Manager- 562-572-0929

24 Hour Dispatch- 866-819-0230

Key Personnel Roles

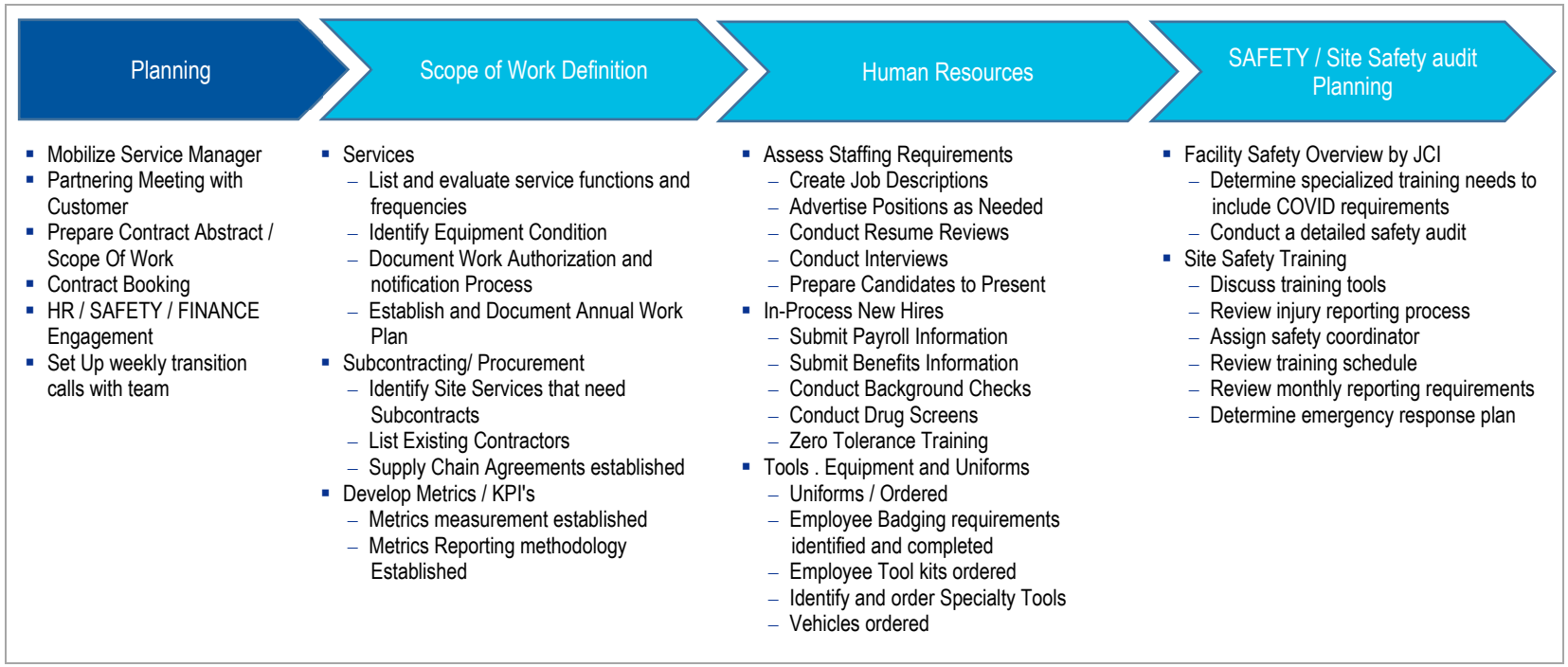
The key personnel for your project will include the following on-site and off-site team members. Resumes for all key personnel available upon request.

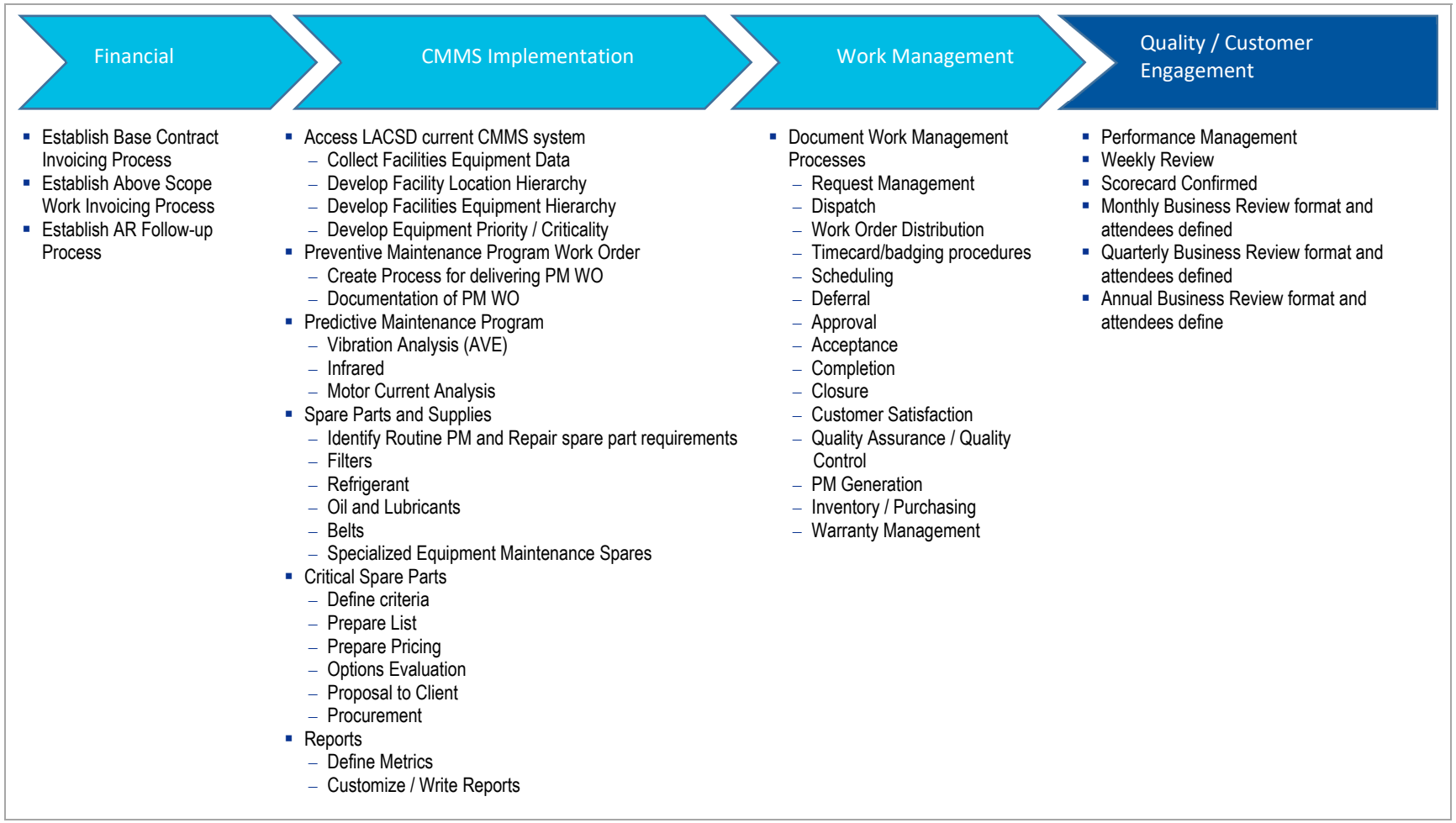
Title	Job Description
Account Manager/s	Point of Contact to manage the relationship between LACSD and the local Johnson Controls branch. Tasked with project development and strategy development/execution.
Branch Service Manager	Manages all site and support employees to ensure delivery and quality of services and accomplishment of LACSD's KPI's
Technical Team Lead	Supervises, coaches, trains on site team. Provides estimates for more complicated CM repairs.
Dedicated Account Administrator	We have administrative resources at our branch that will provide support to the LACSD, focusing on accurate reporting, and timely communication between our support team and yours. PM & LM WO monthly reporting to include summary of services provided.
Journeyman Technician	Mechanic certified and licensed to perform all HVAC & controls, operation, maintenance, and repair for HVAC equipment. Together with Dedicated On-Site Administrator, plans and schedules the day-to-day activities of the operations and maintenance staff in an effective and efficient manner. Minimum of 6 years trade experience.
Helper and Apprentice	Under direction of Journeyman technician, performs mechanical service, repairs and installation.
Controls Technician	Review existing controls systems and provide support. Also support upgrading the existing system to a common platform. Create on-going software strategy for BMS.

Mobilization and Start-up

We will address the following actions during mobilization and start-up of the facility:

- Finalizing SOW's for all services
- Creating work processes for PM, Corrective and Reactive work
- Accessing the CMMS with critical site equipment information and work processes
- Establishment of work plans, financial controls
- Establishment of emergency procedures
- Training of on-site Johnson Controls and LACSD employees in use of CMMS –as required


Planning
Scope of Work Definition
Human Resources
SAFETY / Site Safety audit Planning
Mobilize Service Manager
Partnering Meeting with Customer
Prepare Contract Abstract / Scope Of Work
Contract Booking
HR / SAFETY / FINANCE Engagement
Set Up weekly transition calls with team
Services
List and evaluate service functions and frequencies
Identify Equipment Condition
Document Work Authorization and notification Process
Establish and Document Annual Work Plan
Subcontracting/ Procurement
Identify Site Services that need Subcontracts
List Existing Contractors
Supply Chain Agreements established
Develop Metrics / KPI's
Metrics measurement established
Metrics Reporting methodology Established
Assess Staffing Requirements
Create Job Descriptions
Advertise Positions as Needed
Conduct Resume Reviews
Conduct Interviews
Prepare Candidates to Present
In-Process New Hires
Submit Payroll Information
Submit Benefits Information
Conduct Background Checks
Conduct Drug Screens
Zero Tolerance Training
Tools . Equipment and Uniforms
Uniforms / Ordered
Employee Badging requirements identified and completed
Employee Tool kits ordered
Identify and order Specialty Tools
Vehicles ordered
Facility Safety Overview by JCI
Determine specialized training needs to include COVID requirements
Conduct a detailed safety audit
Site Safety Training
Discuss training tools
Review injury reporting process
Assign safety coordinator
Review training schedule
Review monthly reporting requirements
Determine emergency response plan


Financial
CMMS Implementation
Work Management
Quality / Customer Engagement
Establish Base Contract Invoicing Process
Establish Above Scope Work Invoicing Process
Establish AR Follow-up Process
Access LACSD current CMMS system
Collect Facilities Equipment Data
Develop Facility Location Hierarchy
Develop Facilities Equipment Hierarchy
Develop Equipment Priority / Criticality
Preventive Maintenance Program Work Order
Create Process for delivering PM WO
Documentation of PM WO
Predictive Maintenance Program
Vibration Analysis (AVE)
Infrared
Motor Current Analysis
Spare Parts and Supplies
Identify Routine PM and Repair spare part requirements
Filters
Refrigerant
Oil and Lubricants
Belts
Specialized Equipment Maintenance Spares
Critical Spare Parts
Define criteria
Prepare List
Prepare Pricing
Options Evaluation
Proposal to Client
Procurement
Reports
Define Metrics
Customize / Write Reports
Document Work Management Processes
Request Management
Dispatch
Work Order Distribution
Timecard/badging procedures
Scheduling
Deferral
Approval
Acceptance
Completion
Closure
Customer Satisfaction
Quality Assurance / Quality Control
PM Generation
Inventory / Purchasing
Warranty Management
Performance Management
Weekly Review
Scorecard Confirmed
Monthly Business Review format and attendees defined
Quarterly Business Review format and attendees defined
Annual Business Review format and attendees define

Service Delivery

Johnson Controls will work with you and detail a schedule of service for the agreement term. This schedule will be complete with task lists associated with each piece of equipment. Prior to our scheduled service visits, our Dedicated On-Site Administrator will contact the appropriate department/site confirming the dates and time of our planned maintenance. After confirming the dates, we will provide a work order of service to our dedicated technician(s) assigned to the contract.

Our approach to service delivery is embodied in the following **8 Simples Rules of Service**:

To ensure quality, Johnson Controls employs a rigorous Relationship/Service Delivery Plan in which assigned service managers and branch personnel are responsible for tracking the performance of our contracts and reporting to our customers.

Beginning with a Service Kick-Off meeting, each of the Monthly and Quarterly Business Reviews are scheduled in advance, to ensure on time delivery and the complete fulfilment of all contracted services. Our intent is that you not only find value in our methodical approach to meeting our obligations, but also find

additional quality in our people and the personal relationships we encourage them to build with our customers.

Methodologies include:

- Best Business Practices (BBP)
- Business Process Improvement (BPI)
- Eight Disciplines (8D)
- Just Do It (JDI)
- Kepner-Tregoe (KT)
- Lean/JCMS
- Lean Product Development BBP
- Materials Best Business Practices (MBBP)
- Product Design for Six Sigma (PDfSS)
- Six Sigma
- Value Analysis / Value Engineering (VA/VE)

Johnson Controls delivers the technical engineering solutions, which improve the reliability and efficiency of plants and systems. Through planned preventive maintenance regimes and new technology, we deliver the optimum working environment, while also reducing maintenance costs and complying with statutory regulations and compliance.

As part of our overall philosophy, we offer substantial benefits through our breadth of professional services, which are extremely effective when combined with our state-of-the-art processes and technology. Through these best practices and proven methodologies, Johnson Controls will provide quality service for a Capital Replacement Strategy, Controls retrofits and a Preventative Maintenance Program.

Tasking and Scheduled Service (Preventive Maintenance and Corrective Maintenance)

Tasking represents the equipment manufacturers recommended monthly, quarterly, and annual inspection procedure. Service mechanics perform this service according to the maintenance schedule. All scheduled tasks will be completed for each inspection.

When our technicians find issues during inspections a separate service ticket will be opened for tracking purposes and equipment will be repaired under the agreement in a timely manner. If necessary, for critical equipment we will work nights and weekend to get your equipment back up and running. With our factory trained service technicians, we have proven with our past performance and references that we have and will take care of your equipment and exceed your expectation in doing so. See the sample tasking sheets in the Appendix B.

Working On-Site

Upon arrival at the site, the technician(s) (properly uniformed and badged) will check in, wear personal protective equipment, perform the LACSD PM or LM WO scheduled maintenance task(s) as assigned, confirm the Equipment is operating at peak efficiency and make repairs or adjustments as necessary. Upon completion, the technician(s) will check out with on-site personnel and provide service details to the Dedicated On-Site Administrator. A detailed work order/service report will be provided during the monthly review of services and sent with invoicing documents.

Approval Process for LM Work Orders

Johnson Controls will adhere to your approval process. No work will be performed outside of the agreement scope without prior approval. Johnson Controls will work with you closely to ensure your procurement process is followed before any non-covered item work is started.

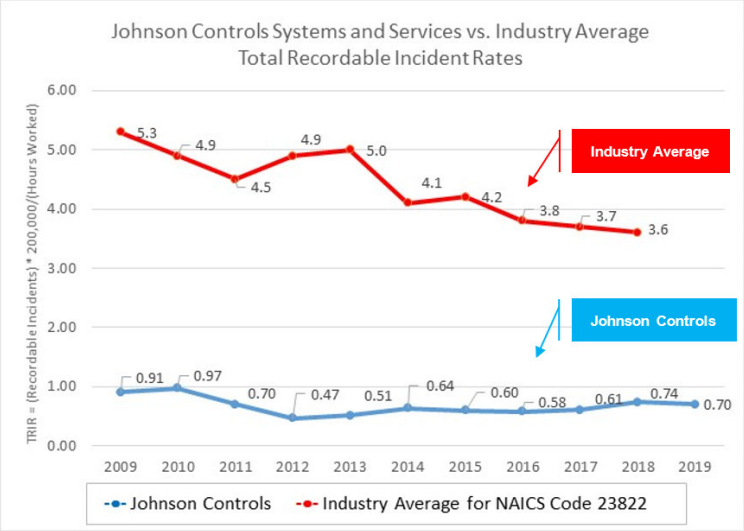
Our Commitment to Safety

Compared to the industry averages for Total Recordable Injury Rate (TRIR) and Lost Time Injury Rate (LTIR), Johnson Controls is leading the way in safety. In fact, our **current safety record** surpasses the published **future safety goals** of most industrial leaders.

Safety is a major priority for us, and we will work in a manner that promotes the safety of your staff, Johnson Controls, subcontractor employees, the public, and the environment.

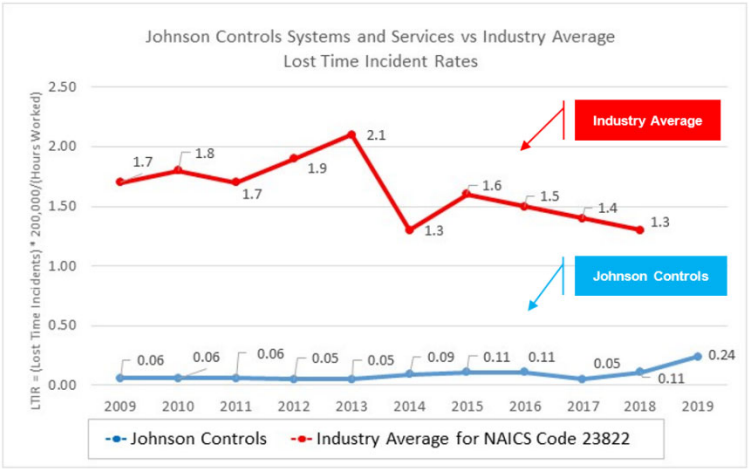
The Service Manager and Dedicated On-Site Administrator administers and oversees the safety program for all Johnson Controls and subcontracted staff on a project.

Our corporate safety department will audit the project periodically for compliance with Johnson Controls and governmental safety guidelines.



* 2019 industry average data is not currently available from the U.S. Bureau of Labor Statistics

The safety of employees, the public, subcontractors, and company operations are of paramount importance and shall take precedence over expediency or short cuts. Every attempt will be made to prevent accidents and to provide safe working conditions. Johnson Controls, Inc. will comply with all safety laws and regulations, and all pertinent provisions. Safety is everyone's responsibility at all levels of Johnson Controls including our subcontractors' organizations.



* 2019 industry average data is not currently available from the U.S. Bureau of Labor Statistics

Our fully engaged employees are empowered, trained, and equipped to make safe choices. Our leadership teams are committed to preventing all injuries. Our focus on safety will make Johnson Controls the best choice for all of your maintenance needs.

Our employees take ownership of their actions and view safety as a responsibility to themselves, their families, and their customers. We conduct jobsite and vehicle audits and monitor driver safety. Our local leadership teams are held accountable for the results of these audits, demonstrating just how important safety is to Johnson Controls.

The major elements of the safety program are as follows:

- Documentation, investigation, and reporting of occupational injuries in accordance with Johnson Controls, customer site, and OSHA guidelines
- Posting of OSHA worker safety guidelines and right-to-know information
- Conducting weekly site safety meetings

- Training personnel on the site safety policy, right-to-know, and personal protective equipment
- Issuance and control of safety-related work permits
- Control of work site access to alleviate work area congestion
- Maintaining an all-inclusive record of material safety data and a log of all hazardous materials on site
- Implementation of lock-out and tag-out procedures
- Enforcement of fall protection education
- Identification/monitoring of confined space
- Hazardous material identification and abatement coordination

Training

As a value-added feature of selecting Johnson Controls, the staff assigned to LACSD will receive on the job training simply because of our desire to meet and exceed the expectations of LACSD. Training, in conjunction with our service offering, is designed to protect our clients' investment while maximizing the efficiency of their operations.

Project Experience

Johnson Controls has extensive experience in maintenance programs that provide for preventive and corrective maintenance work on all equipment and systems, plan the work to minimize impact on the staff, provide the time necessary for corrective maintenance, ensure satisfaction of warranties and manufacturer's recommended service levels, and use detailed job plans to deliver consistent and comprehensive maintenance work.

Some of the facilities we have current or recent complete coverage contracts with are listed below:

- Chevron Phillips Chemical Group
- Tesoro Refinery
- Los Angeles International Airport (LAX)
- Olin Chemical
- LACSD Wilmington Refinery
- Fulton County Jail
- Hanford Department of Energy
- Methodist LeBonheur Healthcare
- ExxonMobil Baytown S&F
- General Motors CUC
- 29 Palms Marine Base
- Adventure Aquarium
- Straub Honolulu Clinic
- Georgia Pacific Corporation Consumer Products
- Airbus America, Inc.
- Westrock MWV
- Howard University Campus
- Miller Park
- Morgan State University
- Dow Chemical Union Carbide
- Marine Corps Base Camp LeJeune
- Bon Secours Baltimore Health Corporation
- Bridgestone Americas Tire Operations L.L.C.
- Boise Cascade, L.L.C.
- Naval Hospital Camp LeJeune
- Sinai Hospital of Baltimore Inc.
- PMUSA Manufacturing Center
- Rand Corporation
- E.I. De Nemours & Co.
- Naval Surface Warfare Center Indian Head
- MUSC
- GTAA BMS
- University of Irvine
- UCLA
- Johns Hopkins University
- USC

References:

LAX- York, Carrier, Trane equipment- central plant, Metasys controls- 15+ years

Ramesh Seeram, (310) 872-4468

29 Palms Marine Base- York, Carrier equipment- central plant, Metasys controls- 27 years

Gary Gordon, (760) 361-7446

Detroit Water & Sewage Department, Carrier, Trane, York equipment, Carrier controls- central plant- 15 years

Ericka Williams, (313) 949-0948

Dow Corning, York, Trane, Carrier, Aaon equipment, Metasys controls- 12 years

David Hackett, (989) 636-1813

Exxon Mobile, York, Carrier, Trane, Metasys controls- 22 years

Gloria Duckett, (310) 212-4005

List of Qualified Staff Members and corresponding licenses and certifications for LACSD Team

	Names	Certifications/Licenses
Mechanical Engineer/Controls	Hrach Arezuran	PE, 32613, LEED AP, Metasys Master Controls
Field Supervisor-Journeyman	John Vasquez	Local 250 Journeyman, YORK Master Technician, Mitsubishi Split Systems, Raypak Boilers, ABB Drives, DataAir, OSHA Certified, EPA, Carrier Controls in-process
	Brandon Davis	Local 250 Journeyman, YORK Master Technician, Mitsubishi Split Systems, Raypak Boilers, ABB Drives, Vibration Alignment and balancing, Eaton Drives, Refrigerant Monitor Calibration DataAir, OSHA Certified, EPA
	Harold Leib	Local 250 Journeyman, YORK Master Technician, Mitsubishi Split Systems, Raypak Boilers, ABB Drives, DataAir, OSHA Certified, EPA, YORK Master Technician
Journeyman	Hector Galvez	Local 250 Journeyman, YORK Master Technician, Mitsubishi Split Systems, Raypak Boilers, ABB Drives, DataAir, OSHA Certified
	John Vasquez	YORK Master Technician, Mitsubishi Split Systems, Raypak Boilers, ABB Drives DataAir, Local 250 Journeyman, OSHA Certified, EPA
	Brandon Davis	Mitsubishi Split Systems, YORK Master Technician, Raypak Boilers, ABB Drives, Vibration Alignment and balancing, Eaton Drives Refrigerant Monitor Calibration, DataAir Local 250 Journeyman, OSHA Certified, EPA
	Steve Fenton	Local 250 Journeyman, YORK Master Technician, ADD Certified, Start Up Certified Daikin Certified, Eaton Papon Certified, ECO 2YL Certified Leibert Air, Vertie, Mitsubishi Split Systems, Raypak Boilers ABB Drives, Verasys Certified, Vibration Certified VSD, Emerson/Leibert Certified, OSHA 10, OSHA 30 Certified
	Harold Leib	Local 250 Journeyman, YORK Master Technician, Mitsubishi Split Systems Raypak Boilers, ABB Drives, DataAir, OSHA Certified, EPA
	Charles Jones	Local 250 Journeyman, YORK Master Technician, Leibert, Vertie, Raypak Boilers, Danfoss VFD, OSCA Certified, OSHA Certified
Apprentice	Jade Ramos	Raypak Boilers, YORK Master Technician, ABB Drives, OSHA Certified, EPA
	Eduardo Silva-Felix	Raypak Boilers, YORK Master Technician, ABB Drives, DataAir, OSHA Certified,EPA
Energy MGMT Programmer	Patrick Gallegos	Metasys, York-master level

Appendix A

At this time, we do not anticipate utilizing any sub-contractors directly. We will assist LACSD with contracting with a mold mediation company as that is not in our purview. We have worked with some mold companies with other projects and can recommend the best ones to LACSD.

Appendix B

Tasking Reports-SAMPLES

Tasking Report

Account:
LACSD

Chiller, Air Cooled, Screw, <150 Tons

Vibration Analysis	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Record equipment specific information for reference Install pads and labels (if applicable) Install sensors in proper location. Start equipment and run at normal operating conditions. Record readings and remove sensors. Submit readings for report generation and deliver to customer with recommendations. Document tasks performed during visit and report any observations to appropriate customer representative
Operational	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Review control panel for proper operation and recorded fault histories Check for proper chilled water flow Check system pressures and temperatures Check refrigerant charge (sight glass) Check oil separator level Check for proper capacity control operation Check for proper oil temperature and pressure Check for visual signs of refrigerant/oil leak(s) Check for unusual noise and vibration Check for proper condenser fan operation Check overall condition of unit Record and log all operating parameters Document tasks performed during visit and report any observations to appropriate customer representative
Condenser Coil Cleaning	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work

	Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Spray coil(s) with chemical solution Rinse coil(s) thoroughly with water Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Comprehensive	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants Use and follow the JCI process for handling and working with Used Oil All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Review control panel for proper operation and recorded fault histories Check for visual signs of refrigerant/oil leak(s) Conduct refrigerant leak check Check oil separator level Verify oil heater operation Perform lock-out and tag-out procedure Inspect condenser fan and compressor contactors for wear Check and tighten electrical connections Perform preventative procedures to flow proving devices Check for unusual noise and vibration Check overall condition of unit Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Oil Analysis (2 Circuits)	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants Use and follow the JCI process for handling and working with Used Oil All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Remove sample in approved container Drop off for analysis Label and complete paperwork indicating present operating conditions Document tasks performed during visit and report any observations to appropriate customer representative

Chiller, Air Cooled, Scroll, 61-100 Tons

Operational	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery

	Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Review control panel for proper operation and recorded fault histories Check for proper chilled water flow Check system pressures and temperatures Check refrigerant charge (sight glass) Check for proper capacity control operation Check for proper crank case heater operation (if applicable) Check for visual signs of refrigerant/oil leak(s) Check for unusual noise and vibration Check for proper condenser fan operation Check overall condition of unit Record and log all operating parameters Document tasks performed during visit and report any observations to appropriate customer representative
Oil Sample and Analysis	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants Use and follow the JCI process for handling and working with Used Oil All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Remove sample in approved container Drop off for analysis Label and complete paperwork indicating present operating conditions Document tasks performed during visit and report any observations to appropriate customer representative
Condenser Coil Cleaning	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Spray coil(s) with chemical solution Rinse coil(s) thoroughly with water Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Comprehensive	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants Use and follow the JCI process for handling and working with Used Oil All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Review control panel for proper operation and recorded fault histories Check for visual signs of refrigerant/oil leak(s) Conduct refrigerant leak check

	Check for proper crank case heater operation (if applicable) Perform lock-out and tag-out procedure Inspect condenser fan and compressor contactors for wear Check and tighten electrical connections Perform preventative procedures to flow proving devices Check for unusual noise and vibration Check overall condition of unit Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative

Heat Pump, Water Cooled, 0-5 Tons

Cooling Comprehensive	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Review control panel for proper operation and recorded fault histories (if applicable) Check and tighten electrical connections Check contactor(s) Check condition of evaporator coil Check for proper condenser water flow Check blower motor operation Lubricate blower and motor bearings Check condition and alignment of pulley and belts Check condition of filters Clean condensate pan and clear drain line Check for visual signs of refrigerant/oil leak(s) Check for unusual noise and vibration Record and log all operating parameters Check overall condition of unit Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Belt Change	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Perform belt change procedures Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Operational (Mid-Season)	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts All work must be performed in accordance with Johnson Controls safety policies

	Check with appropriate customer representative for operational deficiencies Review control panel for proper operation and recorded fault histories (if applicable) Check condition of evaporator coil Check for proper condenser water flow Check blower motor operation Check condition of pulley and belts Check heating operation (when applicable) Check condition of filters Check condensate drain Check for visual signs of refrigerant/oil leak(s) Visually inspect electrical connections Check for unusual noise and vibration Check overall condition of unit Document tasks performed during visit and report any observations to appropriate customer representative
Heating Comprehensive	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Review control panel for proper operation and recorded fault histories (if applicable) Check operation of heating mode Check for proper condenser water flow Check and tighten electrical connections Check contactor(s) Check condition of evaporator coil Check blower motor operation Lubricate blower and motor bearings Check condition and alignment of pulley and belts Check condition of filters Check for visual signs of refrigerant/oil leak(s) Check for unusual noise and vibration Record and log all operating parameters Check overall condition of unit Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Return Air Filter Change	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Turn equipment off Remove dirty filters Install new filters Turn equipment on Dispose of dirty filter appropriately Document tasks performed during visit and report any observations to appropriate customer representative

Ice Making Machine

Operational	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Check with appropriate customer representative for operational deficiencies Check condenser Check pressures Check electric connections Check and clear ice machine draining system (drain vent and trap) Check coil(s) Check for visible leaks Check for unusual noise and vibration Clean area around equipment Complete any required maintenance checklists, report observations to appropriate customer representative
Comprehensive	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Check with appropriate customer representative for operational deficiencies Check and tighten electrical connections Check and clear ice machine draining system (drain vent and trap) Clean coils Check for leaks Run ice machine cleaner through unit as required Check for unusual noise and vibration Clean area around equipment Complete any required maintenance checklists, report observations to appropriate customer representative

Packaged, Commercial, Self Contained, 40-59 Tons

Belt Change	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Perform belt change procedures Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Operational	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Check for proper condenser water flow Check condition of evaporator coil Check blower motor operation

	Check condition of pulley and belts
	Check condition of filters
	Check condensate drain
	Check for visual signs of refrigerant/oil leak(s)
	Visually inspect electrical connections
	Check for unusual noise and vibration
	Check overall condition of unit
	Document tasks performed during visit and report any observations to appropriate customer representative
Condenser Coil Cleaning	Use appropriate eye protection in work environment
	Use appropriate Head protection on worksite
	Use appropriate hand gloves on worksite
	Use and follow the JCI safety policy for Fall Protection while performing work
	Use and follow the JCI Ladder Safety processes while performing work
	Use and follow the JCI Lock-out Tag-out on all electrical machinery
	Use appropriate Arc/flash personal protective equipment on voltages over 240 volts
	Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Spray coil(s) with chemical solution
	Rinse coil(s) thoroughly with water
	Remove and dispose any debris from any maintenance activity
	Document tasks performed during visit and report any observations to appropriate customer representative
Comprehensive	Use appropriate eye protection in work environment
	Use appropriate Head protection on worksite
	Use appropriate hand gloves on worksite
	Use and follow the JCI safety policy for Fall Protection while performing work
	Use and follow the JCI Ladder Safety processes while performing work
	Use and follow the JCI Lock-out Tag-out on all electrical machinery
	Use appropriate Arc/flash personal protective equipment on voltages over 240 volts
	Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants
	All work must be performed in accordance with Johnson Controls safety policies
	Check with appropriate customer representative for operational deficiencies
	Check and tighten electrical connections
	Check VFD operation and clean cooling fan intake (if applicable)
	Check contactor(s)
	Check for proper condenser water flow
	Check condition of evaporator coil
	Check blower motor operation
	Lubricate blower and motor bearings
	Check condition and alignment of pulley and belts
	Check condition of filters
	Clean condensate pan and clear drain line
	Check for visual signs of refrigerant/oil leak(s)
	Check for unusual noise and vibration
	Record and log all operating parameters
	Check overall condition of unit
	Remove and dispose any debris from any maintenance activity
	Document tasks performed during visit and report any observations to appropriate customer representative
Air Filter Change	Use appropriate eye protection in work environment
	Use appropriate Head protection on worksite
	Use appropriate hand gloves on worksite
	Use and follow the JCI safety policy for Fall Protection while performing work
	Use and follow the JCI Ladder Safety processes while performing work
	Use and follow the JCI Lock-out Tag-out on all electrical machinery

	All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Turn equipment off Remove dirty filters Install new filters Turn equipment on Dispose of dirty filter appropriately Document tasks performed during visit and report any observations to appropriate customer representative

Packaged, Commercial, Self-Contained, <40 Tons

Belt Change	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Perform belt change procedures Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Operational	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Check for proper condenser water flow Check condition of evaporator coil Check blower motor operation Check condition of pulley and belts Check condition of filters Check condensate drain Check for visual signs of refrigerant/oil leak(s) Visually inspect electrical connections Check for unusual noise and vibration Check overall condition of unit Document tasks performed during visit and report any observations to appropriate customer representative
Condenser Cleaning	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI Ground Fault Circuit Interrupter safety process while working with electrical tool and equipment All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Isolate tubes Drain water from tubes Remove head Mechanically brush tubes

	Replace gasket Replace head Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Evaporator Coil Cleaning	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Clean condensate drain (if necessary) Spray coil(s) with chemical solution Rinse coil(s) thoroughly with water Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Comprehensive	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Check and tighten electrical connections Check VFD operation and clean cooling fan intake (if applicable) Check contactor(s) Check for proper condenser water flow Check condition of evaporator coil Check blower motor operation Lubricate blower and motor bearings Check condition and alignment of pulley and belts Check condition of filters Clean condensate pan and clear drain line Check for visual signs of refrigerant/oil leak(s) Check for unusual noise and vibration Record and log all operating parameters Check overall condition of unit Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Air Filter Change	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Turn equipment off Remove dirty filters Install new filters Turn equipment on Dispose of dirty filter appropriately Document tasks performed during visit and report any observations to appropriate customer

representative

Refrigeration, Freezer Walk-in

Operational	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Check with appropriate customer representative for operational deficiencies Check condenser Check pressures Inspect door(s) Check coil(s) Check electrical connections Check operating temperatures Inspect defrost systems for proper operation Check for unusual noise and vibration Clean area around equipment Complete any required maintenance checklists, report observations to appropriate customer representative
Comprehensive	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants Use and follow the JCI process for handling and working with Used Oil Check with appropriate customer representative for operational deficiencies Inspect door(s) Clean coil(s) Check and tighten electrical connections Check safeties Check for leaks Check operating temperatures Check drain lines and heaters Inspect defrost systems for proper operation Check for unusual noise and vibration Clean area around equipment Complete any required maintenance checklists, report observations to appropriate customer representative

Split System, Cooling with Electric Heat, 7.5-15 Tons

Cooling Comprehensive	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Check and tighten electrical connections Check contactor(s)

	Check condition of condenser coil Check condenser fan motors and blades Check blower motor operation Lubricate blower and motor bearings (if applicable) Check condition and alignment of pulley and belts (if applicable) Check condition of filters Clean condensate pan and clear drain line (if readily accessible) Check for visual signs of refrigerant/oil leak(s) Check for unusual noise and vibration Record and log all operating parameters Check overall condition of unit Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Electric Heating Comprehensive	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Check and tighten electrical connections Check contactor(s) Check blower motor operation Check condition of pulley and belts (if applicable) Check heat strip operation (coordinate with customer) Check condition of filters Check for unusual noise and vibration Check overall condition of unit Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Operational (Mid-Season - Cooling/Heating)	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Check condition of condenser coil Check condenser fan motors and blades Check condensing unit electrical connections and contactor(s) Check blower motor operation Check heating operation (when applicable) Check condition of filters Check condition of pulley and belts (if applicable) Check condensate system Check for visual signs of refrigerant/oil leak(s) Check for unusual noise and vibration Check overall condition of unit Document tasks performed during visit and report any observations to appropriate customer representative

Split System, Cooling with Electric Heat, <7.5 Tons

Cooling Comprehensive	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Check and tighten electrical connections Check contactor(s) Check condition of condenser coil Check condenser fan motors and blades Check blower motor operation Lubricate blower and motor bearings (if applicable) Check condition and alignment of pulley and belts (if applicable) Check condition of filters Clean condensate pan and clear drain line (if readily accessible) Check for visual signs of refrigerant/oil leak(s) Check for unusual noise and vibration Record and log all operating parameters Check overall condition of unit Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Belt Change	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Perform belt change procedures Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Condenser Coil Cleaning	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Spray coil(s) with chemical solution Rinse coil(s) thoroughly with water Remove and dispose any debris from any maintenance activity Document tasks performed during visit and report any observations to appropriate customer representative
Operational (Mid-Season - Cooling/Heating)	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery Use appropriate Arc/flash personal protective equipment on voltages over 240 volts Use and follow the JCI safety policy for working with CFC, HCFC and HRC refrigerants

	All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Check condition of condenser coil Check condenser fan motors and blades Check condensing unit electrical connections and contactor(s) Check blower motor operation Check heating operation (when applicable) Check condition of filters Check condition of pulley and belts (if applicable) Check condensate system Check for visual signs of refrigerant/oil leak(s) Check for unusual noise and vibration Check overall condition of unit Document tasks performed during visit and report any observations to appropriate customer representative
Air Filter Change	Use appropriate eye protection in work environment Use appropriate Head protection on worksite Use appropriate hand gloves on worksite Use and follow the JCI safety policy for Fall Protection while performing work Use and follow the JCI Ladder Safety processes while performing work Use and follow the JCI Lock-out Tag-out on all electrical machinery All work must be performed in accordance with Johnson Controls safety policies Check with appropriate customer representative for operational deficiencies Turn equipment off Remove dirty filters Install new filters Turn equipment on Dispose of dirty filter appropriately Document tasks performed during visit and report any observations to appropriate customer representative

Appendix C: Sample Monthly Reporting

Monthly Manpower Report.

A report is provided weekly to note who will be on site. This site requires 6 “core” personnel daily.

DWSD - All Sites	ALL SITES	9/1/20-9/30/20	George Podlaski Journeyman	Alan Bodeis MES	Andrew Lord Apprentice	Spurgeon Rouse MES	Daryl Brydie	Stanley Collins MES	James Nader Apprentice	Jeremiah Swinson	Jerry Welsing Journeyman
	9/1/2020	6	CS	CS	CS	CS	CS	CS			
	9/2/2020	6	CS	CS	CS	CS	CS	CS			
	9/3/2020	6	CS	CS	CS		CS	CS		CS	
	9/4/2020	6	CS	CS	CS	CS	CS	CS			
	9/5/2020	0									

Summary of Services for the Month

Planned services agreement services performed:
Labor & materials for September 1 to September 30, 2020 at the West Yard

	PM	Repairs
Sub Total - Labor Spurgeon Rouse	16	0
TOTAL - LABOR	16	0

Labor	$	1,525.60
Subcontract	$	-
Materials	$	-
Total	$	1,525.60

Planned services agreement services performed:
Labor & materials for September 1 to September 30, 2020 at the Water Board.

	PM	Repairs
Sub Total - Labor Daryl Byrdie	16	
Sub Total - Labor Andrew Lord	40	
Sub Total - Labor Stanley Collins	56	
TOTAL - LABOR	112	0

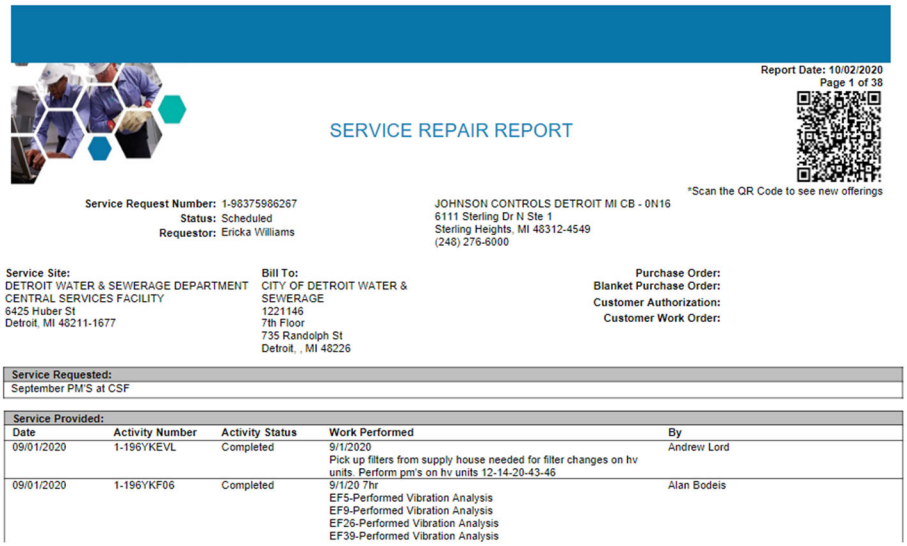
Labor	$	9,317.20
Subcontract	$	-
Materials	$	27.35
Total	$	9,344.55

Planned services agreement services performed: Labor & materials for September 1 to September 30, 2020 at the Central Services Facility

	PM	Repairs
Sub Total - Labor George Podlaski	166	
Sub Total - Labor Alan Bodeis	70	65
Sub Total - Labor Spurgeon Rouse	49.5	76.5
Sub Total - Labor James Nader	24	15
Sub Total - Labor Wayne Thompson		2
Sub Total - Labor Andrew Lord	53.5	42.5
Sub Total - Labor Jeremiah Swinson	36	23.5
Sub Total - Labor Daryl Byrdie	56.25	94.75
Sub Total - Labor Jerome Welsing	42	20
Sub Total - Labor Stanley Collins	77	34
TOTAL - LABOR	574.25	373.25

Labor	$	85,747.38
Subcontract	$	-
Materials	$	6,412.21
Total	$	92,159.59

Service Report-PM



SERVICE REPAIR REPORT

Report Date: 10/02/2020
Page 1 of 38

*Scan the QR Code to see new offerings

Service Request Number: 1-98375986267
Status: Scheduled
Requestor: Ericka Williams

JOHNSON CONTROLS DETROIT MI CB - 0N16
6111 Sterling Dr N Ste 1
Sterling Heights, MI 48312-4549
(248) 276-6000

Service Site:
DETROIT WATER & SEWERAGE DEPARTMENT
CENTRAL SERVICES FACILITY
6425 Huber St
Detroit, MI 48211-1677

Bill To:
CITY OF DETROIT WATER & SEWERAGE
1221146
7th Floor
735 Randolph St
Detroit, , MI 48226

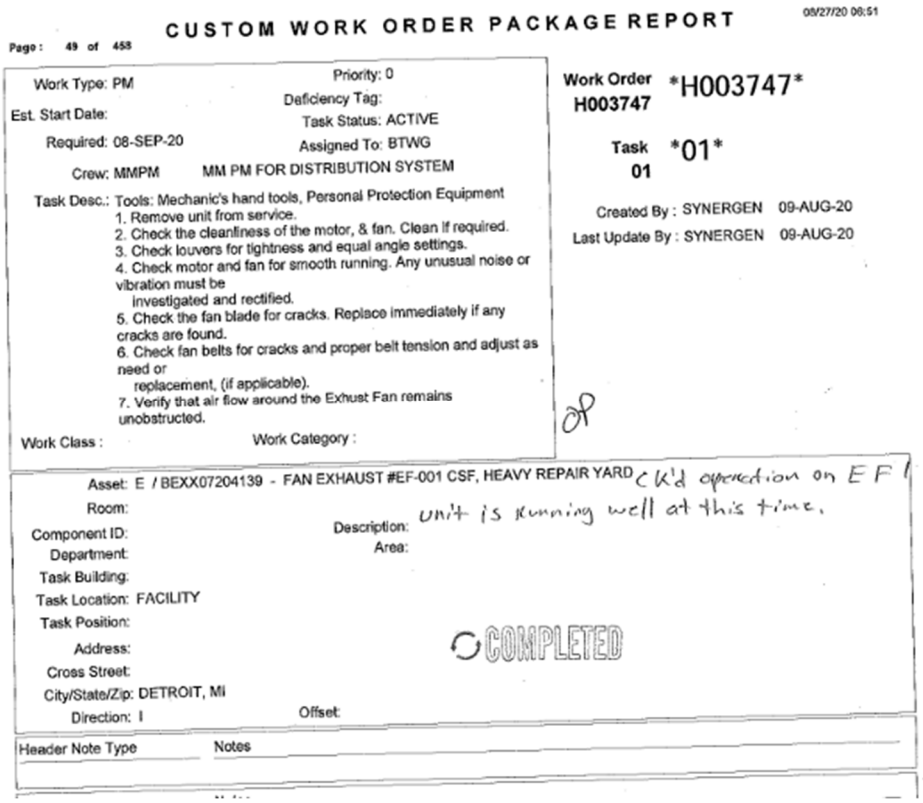
Purchase Order:
Blanket Purchase Order:
Customer Authorization:
Customer Work Order:

Service Requested:
September PM'S at CSF

Service Provided:

Date	Activity Number	Activity Status	Work Performed	By
09/01/2020	1-196YKEVL	Completed	9/1/2020 Pick up filters from supply house needed for filter changes on hv units. Perform pm's on hv units 12-14-20-43-46	Andrew Lord
09/01/2020	1-196YKF06	Completed	9/1/20 7hr EF5-Performed Vibration Analysis EF9-Performed Vibration Analysis EF26-Performed Vibration Analysis EF39-Performed Vibration Analysis	Alan Bodeis

PM Work Order



CUSTOM WORK ORDER PACKAGE REPORT

08/27/20 08:51

Page: 49 of 458

Work Type: PM
Priority: 0
Est. Start Date:
Deficiency Tag:
Required: 08-SEP-20
Task Status: ACTIVE
Crew: MMPM
Assigned To: BTWG
MM PM FOR DISTRIBUTION SYSTEM

Task Desc.: Tools: Mechanic's hand tools, Personal Protection Equipment
1. Remove unit from service.
2. Check the cleanliness of the motor, & fan. Clean if required.
3. Check louvers for tightness and equal angle settings.
4. Check motor and fan for smooth running. Any unusual noise or vibration must be investigated and rectified.
5. Check the fan blade for cracks. Replace immediately if any cracks are found.
6. Check fan belts for cracks and proper belt tension and adjust as need or replacement, (if applicable).
7. Verify that air flow around the Exhust Fan remains unobstructed.

Work Class :
Work Category :

Work Order H003747 *H003747*

Task 01 *01*

Created By : SYNERGEN 09-AUG-20
Last Update By : SYNERGEN 09-AUG-20

Asset: E / BEXX07204139 - FAN EXHAUST #EF-001 CSF, HEAVY REPAIR YARD
Room:
Component ID:
Department:
Task Building:
Task Location: FACILITY
Task Position:
Address:
Cross Street:
City/State/Zip: DETROIT, MI
Direction: I
Description: Ck'd operation on EF1 unit is running well at this time.
Area:
Offset:

COMPLETED

Header Note Type | Notes

Service Repair Report -CM

Report Date: 10/02/2020
Page 1 of 42

SERVICE REPAIR REPORT

*Scan the QR Code to see new offerings

Service Request Number: 1-98420382267
Status: Scheduled
Requestor: Ericka Williams

JOHNSON CONTROLS DETROIT MI CB - 0N16
6111 Sterling Dr N Ste 1
Sterling Heights, MI 48312-4549
(248) 276-6000

Service Site:
DETROIT WATER & SEWERAGE DEPARTMENT
CENTRAL SERVICES FACILITY
6425 Huber St
Detroit, MI 48211-1677

Bill To:
CITY OF DETROIT WATER & SEWERAGE
1221146
7th Floor
735 Randolph St
Detroit, , MI 48226

Purchase Order:
Blanket Purchase Order:
Customer Authorization:
Customer Work Order:

Service Requested:
September Billable Activities for 9/1-9/30 CFS

Service Provided:

Date	Activity Number	Activity Status	Work Performed	By
09/01/2020	1-197OYD0P	Completed	75 Ton- Shut unit down and locked out unit so the roofers can complete work around the unit. Returned to unlock and start unit back up.	Spurgeon Rouse
09/02/2020	1-197WCEUU	Completed	Today we troubleshot AC13. We found a blown main fuse and multiple contactors damaged. Last week we had a few brown outs in the building. I can't say that was the problem, but it is work mentioning. We created a parts/materials list and then went to pick it up. After we got the materials back to CSF, we installed all components. We then installed and wired in a phase monitor and fuse block to help protect the unit from possible power fluctuations in the future. We will be back to program the phase monitor.	Alan Bodeis
09/02/2020	1-197WCEZ5	Completed	Pick up parts from multiple supply houses. Arrive back at CSF, replace bad contactors on ac-13, install phase monitor, and fuse block. Wire it all up.	Andrew Lord

Summary of PO Balance -Monthly

Detroit Water Invoicing Status vs PO as of 9-22-20
PO# 3044005/Contract 6002217 Agreement 1-96849323133

	Central Services	West Yard Stores	Westside Customer Services	Eastside Customer Services	Water Board Building	Total Invoices	PO Amount	Balance on PO
Labor	$ 388,675.92	$ 16,887.23	$ 381.40	$ -	$ 27,840.05	$ 433,784.60		
Material	$ 59,985.18	$ 4,769.47	$ -	$ -	$ 8,958.03	$ 73,712.68		
Quoted	$ -	$ -	$ -	$ -	$ 22,000.00	$ 22,000.00		
Projects	$ -	$ -	$ -	$ -	$ -	$ -		
Total	$ 448,661.10	$ 21,656.70	$ 381.40	$ -	$ 58,798.08	$ 529,497.28	$ 1,321,657.00	$ 792,159.72

CERTIFICATE OF JOBSITE WALK-THROUGH ATTENDANCE

This is to certify that

DAVID WAGONER
(Name, Print)

ACCOUNT EXECUTIVE
(Title)

JOHNSON CONTROLS INC.
(Company Name)
has attended the job site walk-through at:

Joint Administration Office
1955 Workman Mill Road
Whittier, California 90601

and, received all available Operational and Maintenance Manuals of JAO and SJC Lab HVAC system.

County Sanitation Districts of Los Angeles County representative:

Name: Bed Dawadi

Signature: [signature]

Title: Civil Engineer

Date: 3/23/2022

THIS DOCUMENT TO BE RETURNED WITH QUALIFICATIONS PACKAGE

REFERENCE LIST

Reference No. 1

Company Name: LAX

Contact person: Ramesh Seeram Title: Dir of Facilites

Telephone No.: 310-872-4468 Email: r.seeram@lawa.com

Job Description: Manages facilities and central plant for LAX

Reference No. 2

Company Name: 29 Palms Marine Base

Contact person: Gary Gordon Title: Facilities

Telephone No.: 760-361-7446 Email: ggordon@usmc.gov

Job Description: Oversee operations and facilities

Reference No. 3

Company Name: Detroit Water and Sewage Department

Contact person: Ericka Williams Title: Maintenance Liason

Telephone No.: 313-949-0948 Email: ericka.williams@dwsd.org

Job Description: Manages central plant facilities and vendors

COMPLETE AND INCLUDE THIS FORM ONLINE WITH PROPOSAL.

LIST OF PROPOSED SUBCONTRACTORS

In compliance with the provisions of Public Contract Code §4104, the prime contractor shall list the name, the location of the place of business, the California License Number, and the type of work of each subcontractor that will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement in an amount in excess of one-half of one percent of the prime contractor's total bid.

Subcontractor	Location	License Number	DIR Number	Type of Work
N/A				

COMPLETE AND INCLUDE THIS FORM ONLINE WITH PROPOSAL.

Non-Collusion Declaration

(Public Contract Code §7106)

I, Andrew Beggs, declare, as follows:

I am the Area Owner Sales Manager of Johnson Controls Inc., the party making the attached bid.

I know of my own personal knowledge and declare under penalty of perjury, that the attached bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone will refrain from bidding; that the bidder has not in any manner, directly or indirectly sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted its bid price or any breakdown of the bid price, or the contents of his bid, or divulged information or data relative to its bid, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent of any such corporation, partnership, company, association, organization, or bid depository to effectuate a collusive or sham bid.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

April 13, 2022
(Date)

Cypress, CA
(Location)

Andrew W Beggs
(Signature of Bidder)

COMPLETE AND INCLUDE THIS FORM ONLINE WITH PROPOSAL.

CONTRACTOR'S CERTIFICATE REGARDING WORKERS' COMPENSATION

Labor Code Section 3700, in relevant part, provides:

"Every employer except the state shall secure the payment of compensation in one or more of the following ways:

a) By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this State.
b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his or her employees,..."

I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of this contract. I shall supply the Owner with certificates of insurance evidencing that Workers' Compensation Insurance is in effect and providing that the Owner will receive thirty (30) days' notice of cancellation.

Name: Andrew Beggs Title: Area Owner Sales Manager

Signature: Andrew W Beggs Date: April 13, 2022

(In accordance with Article 5 [commencing at Section 1860], Chapter 1, Part 7, Division 2 of the Labor Code, the above certificate must be signed and filed with the awarding body prior to performing any work under this contract.

COMPLETE AND INCLUDE THIS FORM ONLINE WITH PROPOSAL.

SAMPLE

Johnson Controls

SCAQMD Annual Refrigerant Audit

An annual refrigerant audit is required on all equipment containing Class I (CFC) refrigerants with per circuit charges exceeding 50 lbs.

I. Facility Information

Facility Name: AT&T Services
Facility Phone: (310) 200-5323
Street Address: 12800 Culver Blvd
Facility Contact: Darren Rugh
City, State, ZIP: Los Angeles CA 90066
Signature/Date: 6/16/2021

II. Equipment Information

Make: YORK
Model: YCAV0247VA46VACBXT
Serial: RESM018665
Unit ID: 5
Refrigerant Type: **R-134A**
Total charge: 400 LBS
Are leaks present? NO

III. When leaks are found

Nature of leaks:

LEAK TEST METHOD : ELECTRONIC

Date	Employer Name, Address, Phone #	Date leak detected	Date leak repaired	Total days to repair	Refrigerant recovered (lbs.)	Refrigerant added (lbs)
6/16/2021	JOHNSON CONTROLS 5770 Warland Dr, Cypress CA 90630	N/A	N/A	N/A	N/A	N/A
		Determine Annual Leak Rate: Refrigerant added X 100 / Total charge = _____ % Leak Rate				

IV. EPA Certified Technician Information

EPA Certified Technician Name: Justin Macias	EPA ID # 1565495093	Signature: Justin Macias

COST PROPOSAL FORM

Johnson Controls, Inc.
(COMPANY NAME, TYPED)

The Contractor shall submit the breakdown of the total proposal according to the items below. In case the total sum value has not been filled, the added sum of the individual amounts shall be the total proposal amount. In case of any discrepancy between the sum of the breakdown items and the total, the sum of the individual breakdown items shall govern. "Cost" refers to the cost of performing all work specified in the RFP and all **Appendices.**

Item 1 — Cost for Central Plant, including Chillers, Boilers, Pumps, and Condenser Water Pump Station, the lump sum of:

= $ 8,905.67 / Month x 36 Months = $ 320,604.12

Item 2 — Cost for the Joint Administration Office, Board Room and Guard Shack, including Air Handling Units, Pumps, Fans, Fan Coils, and Dedicated AC Units, the lump sum of:

= $ 17,811.35 / Month x 36 Months = $ 641,208.60

Item 3 — Cost for the San Jose Creek Laboratory, including Air Handling Units, Pumps, Fans, and Dedicated AC Units, the lump sum of:

= $ 26,716.99 / Month x 36 Months = $ 961,811.64

Item 4 — Cost for the installation of two (2) relative humidity sensors as described in Section 6.11 of the RFP, the lump sum of:

= $ 2,187.98

FOR ITEMS 5 AND 6 ONLY: *The District reserves the right to use all or none or any portion of the bid item without negotiation of the bid price*

Item 5 — Cost for two hundred and fifty (250) hours of unexpected night or weekend work per Section 6.5 of the RFP, the lump sum of:

= $ 198.00 / Hour x 250 Hours = $ 49,500.00

Item 6 — Cost for major repairs per Section 6.6 of the RFP; mold testing per Section 6.4 of the RFP; and additional maintenance, repair, and system modification work not covered by the scope of this RFP, the lump sum of:

= $ 500,000.00

TOTAL OF ITEMS 1 THROUGH 6 ABOVE: = $2,475,312.34

LINE ITEMS TOTAL SHALL INCLUDE ALL APPLICABLE TAXES

Authorized Signature Andrew W Beggs

Print Name Andrew Beggs

EXHIBIT B –
DISTRICT'S REQUEST FOR PROPOSALS

LOS ANGELES COUNTY
SANITATION DISTRICTS
Converting Waste Into Resources

Robert C. Ferrante
Chief Engineer and General Manager

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
(562) 699-7411 • www.lacsd.org

March 10 ,2022

Dear Prospective Proposer,

The Los Angeles County Sanitation Districts invites your firm to submit a proposal for:

Maintenance and Service of the HVAC Systems at the Joint Administration Office, San Jose Creek Laboratory, and Central Plant

in accordance with the enclosed documents.

The Districts will only receive electronic proposals submitted through QuestCDN. All proposals are due no later than 11:00 a.m., Thursday, April 7, 2022. The Districts will not accept late proposals; all documents must be fully transmitted by the due date and time. The QuestCDN digital clock is the official time. Non-acknowledgement may automatically remove your name from future proposals.

Inquiries in reference to the Request for Proposal (RFP) should be directed per the instructions listed within the RFP by the specified date and time.

Very truly yours,

Gina Schmitt

Gina Schmitt
Buyer

GS:cr
Enclosure

DOC 6480777

LOS ANGELES COUNTY
SANITATION DISTRICTS
Converting Waste Into Resources

REQUEST FOR PROPOSALS

Maintenance and Service of HVAC Systems at the Joint Administration Office, San Jose Creek Laboratory, and Central Plant

RFP No. 03976R
QUESTCDN No. 8151267

CONTACT: Gina Schmitt, Buyer

LAST DAY TO SCHEDULE MANDATORY
MANDATORY PRE-PROPOSAL JOB WALK: March 11 - 16, 2022
LAST DAY FOR QUESTIONS: Wednesday, March 23, 2022
DUE DATE & TIME: Thursday, April 7, 2022 at 11:00 a.m.

Robert C. Ferrante
Chief Engineer and General Manager

Los Angeles County Sanitation Districts | Purchasing Section | 1955 Workman Mill Road | Whittier, CA 90601
Phone: 562-908-4288 ext. 1400 | Email: bids@lacsd.org

Table of Contents

REQUIRED FORMS

Cost Proposal Form
Certificate of Job Walk Attendance
Reference List
List of Proposed Subcontractors
Non-Collusion Declaration
Contractor's Certificate Regarding Workers' Compensation

APPENDICES

RFP NO. 03976R/QUESTCDN NO.8151267
REQUEST FOR PROPOSALS
FOR
MAINTENANCE AND SERVICE OF
HVAC SYSTEMS AT THE JOINT ADMINISTRATION OFFICE, SAN JOSE CREEK LABORATORY, AND CENTRAL PLANT

March 2022

The County Sanitation Districts of Los Angeles County (Districts) are a partnership of 24 independent special districts that service about 5.3 million people in Los Angeles County. The Districts' service area covers approximately 800 square miles and encompasses 78 cities and unincorporated territory within the County.

The Districts protect public health and the environment through innovative and cost-effective wastewater and solid waste management, and in doing so convert waste into resources such as recycled water, energy, and recycled materials.

1. PURPOSE

The purpose of this Request for Proposals (RFP) is to solicit proposals from qualified heating, ventilation, and air conditioning (HVAC) service companies to provide maintenance and repair of the Districts' HVAC systems at the Joint Administration Office (JAO), San Jose Creek Laboratory, and Central Plant. The successful Proposer, also referred to as the Contractor in this RFP, shall be responsible for the service, maintenance, and repair of all HVAC systems and equipment for a period of three (3) years including any activities needed to keep the systems in proper working order. Under this contract, the successful Proposer will be completely responsible for furnishing all parts and labor required to perform the service, maintenance, and repair activities, unless noted otherwise. This will include service, maintenance, and replacement as necessary of all equipment and components on an emergency and non-emergency basis, including routine inspections, preventative maintenance, and equipment repairs as specified in this RFP.

2. FACILITY DESCRIPTION

2.1. General

The JAO is an approximately 140,000 square foot, 3-story (including basement) office building located at **1955 Workman Mill Road, Whittier, CA 90601**. The San Jose Creek (SJC) Laboratory and Central Plant are located adjacent to the JAO at the Districts' San Jose Creek Water Reclamation Plant (WRP). The Central Plant provides chilled water and hot water for the major HVAC equipment at the JAO and SJC Laboratory. A site plan of the facilities is shown in **Appendix C-1**.

An itemized list of the equipment to be maintained and serviced is provided in **Appendices A-1 and A-2**. The list is intended to be a representation of all HVAC equipment to be maintained by the Contractor, but it may not enumerate all appurtenant components, fittings, etc., that are associated with each equipment. Equipment locations have been identified by building or area name. The drawings in **Appendices C-1 and C-2** show the general locations of the buildings and equipment covered by this RFP. The descriptions in this section of the RFP are a summary of the major equipment only. See **Appendices A-1, A-2, C-1 and C-2** for the additional equipment that is to be maintained by the Contractor.

2.2. Central Plant

The Central Plant includes chillers, boilers, pumps, and appurtenant equipment needed to produce and distribute chilled water and hot water to the campus HVAC equipment. This includes three centrifugal chillers for producing the chilled water used by the campus. There are two (2) 1,000-ton chillers that operate in a duty-standby fashion and are equipped with variable frequency drives, a 350-ton backup chiller, and two (2) 2,400 gallons per minute (gpm) chilled water pumps. The chillers are cooled by a once thru cooling system that utilizes treated water from the San Jose Creek WRP. The condenser water pump station is located near the Central Plant.

There are three (3) 3.0 Millions of British Thermal Units per Hour (MMBTU/hr) boilers for producing approximately 180 °F hot water used by the campus. Two (2) 300 gpm hot water pumps that are equipped with variable frequency drives operate in a duty-standby fashion and distribute the hot water to the campus HVAC equipment. The Central Plant is shown in **Appendix C-1**.

The chilled water and hot water produced at the Central Plant is utilized at the air handlers located at the Joint Administration Office building and the San Jose Creek Laboratory buildings.

2.3. The Joint Administration Office (JAO)

The JAO was originally constructed in 1974 and was expanded in 1995. There are three (3) Air Handling Units (AHUs) at the JAO. AHUs 1 and 2, installed in 2016, are located on the JAO building roof as shown in **Appendix C-1**. AHUs 1 and 2 supply cold and hot air as part of a dual duct – constant volume system that serves approximately 75,000 square feet of the JAO. There are approximately 148 mixing boxes that mix the cold and hot air before it is distributed to the various zones in the building. The majority of mixing boxes are pneumatically controlled. The air compressor and dryer that supply pressurized air to the pneumatic components (i.e. thermostats and mixing box dampers) are located on the second floor of the JAO as shown in **Appendix C-1**. In 2016, fifteen (15) mixing boxes were replaced with electrically actuated dampers and electronic thermostats.

AHU 3 is part of a single duct - variable volume system that serves approximately 65,000 square feet of the JAO. AHU 3 is located in the basement of the JAO building as shown in **Appendix C-1**. There are approximately 78 electrically actuated variable air volume (VAV) boxes that control the volume of air distributed to the various zones of the single duct system. Fifty-three (53) VAV boxes have a reheat coil with heat provided by the campus hot water loop.

There are nine (9) fan coils in the JAO building with connections to the chilled and hot water loops. Fan Coils 1 through 8 serve the cafeteria area. Fan Coil 9 is located in the basement and is for heating only. There are also two (2) chilled water and two (2) hot water booster pumps in the basement of the JAO.

Several areas within the JAO building house critical processes and are served by dedicated split systems. These split systems are listed in **Appendix A-1** and shown in **Appendix C-1**. There are also two packaged rooftop units for the Districts' Board Room building that is adjacent to the JAO.

2.4. San Jose Creek WRP Laboratory

The SJC Laboratory is comprised of two buildings: the Main Laboratory Building and the Annex Building. There is also an interconnected basement floor connecting the two buildings. The HVAC needs of the two laboratory buildings are serve by a variety of air handling units, chilled water and hot water pumps, packaged units, exhaust fans, split systems, and walk-in coolers. The HVAC equipment for the laboratory buildings is listed in **Appendix A-2** and the locations of the equipment are shown in **Appendix C-2**. There are four (4) AHUs at the Main Laboratory Building (two are dual duct and two are single duct) with approximately 17 mixing boxes, and one (1) AHU at the Annex Building with approximately 15 mixing boxes.

Existing Phoenix exhaust systems at the SJC Laboratory buildings discharge air from certain laboratory spaces. The exhaust fans and valves associated with the Phoenix systems are maintained by others and not included in this contract.

2.5. Control Systems

The HVAC control system consists mainly of Carrier controllers at the JAO, SJC Laboratory, and the Central Plant. These include Carrier Comfort Network (CCN) controllers, as well as more current Carrier open protocol controllers. There are also some local equipment controllers that include: Innotech controllers at AHUs 1 and 2, and the local boiler controllers. In 2016, a Carrier i-Vu Web Appliance was installed for monitoring and operation of the Districts' HVAC system.

3. EQUIPMENT MANUALS & DRAWINGS

Equipment Operation & Maintenance (O&M) manuals for all major equipment as well as background controls information are available for download through QuestCDN. One hard copy of the O&M manuals and relevant project drawings will be made available at the Districts' offices for the Contractor's use after award of the contract. An electronic copy of project drawings can be furnished upon request.

4. PRE-PROPOSAL JOBSITE WALK-THROUGH

Each Proposer shall attend a **MANDATORY** jobsite walk-through to examine all the existing conditions and ascertain all necessary work included in this RFP. By submitting a proposal for this work, the Proposer confirms that they are familiar with and accept all conditions of the project site. Any adjustments required shall be made at no expense to the Districts.

Due to COVID-19 social distancing measures, the Districts will conduct individual job walks by appointment only. To schedule an appointment, contact Bed Dawadi at beddawadi@lacsd.org The last day to request a job walk appointment is Wednesday, March 16, 2022. To attend the jobsite walk-through, each attendee shall submit a signed copy of the Districts' "COVID-19 Self-Screening Policy", which will be provided to each attendee when they arrive at the site. Attendees must also wear face masks and practice social distancing at all times.

Only Proposers who have attended the jobsite walk-through will be qualified to submit a proposal. Proposers shall submit a copy of the signed walk-through certificate with their proposal packages. A copy of the attendance certificate is attached to this RFP.

5. AGREEMENT DOCUMENTS

This RFP, the O&M manuals and controls data that are available on QuestCDN, the Contractor's Technical and Cost Proposals, and the signed Agreement will become part of the Agreement Documents. All the requirements of all the documents apply.

6. SCOPE OF WORK

6.1. General Requirements

The scope of work will be performed by the Contractor for **three (3)** years beginning on the effective date of the Agreement and will include all labor, parts, tools, materials, and equipment needed to keep the Districts' HVAC system in proper and efficient working order. The Districts' HVAC system includes, but is not limited to, equipment, components, controls, instrumentation, and wiring. The **Appendices** list the items that the Contractor is responsible for maintaining under this contract.

The work of the Contractor will be coordinated by two designated "Districts' Representatives." One representative will be assigned for the JAO and Central Plant. A separate representative will be assigned for the SJC Laboratory. The Contractor shall maintain effective communication with the Districts' Representatives at all times during the term of the contract, and all required inspections, reports, questions, and proposed system changes shall be submitted to the Districts' Representatives for acceptance.

6.2. Technician Requirements

The Contractor shall provide one (1) person to be designated as the lead technician and one as an alternate (either is referred to as the "lead technician"). The lead technicians shall be journeyman level HVAC technicians and shall have a minimum of five (5) years of verifiable HVAC service experience. The lead technicians must be reachable by cell phone at all times. If the Contractor must send someone other than the lead technicians to the site, the Contractor shall first submit the resume of the proposed technician and receive Districts' acceptance at least 1 week in advance.

The lead technicians will be provided with photo identification cards from the Districts' Human Resources Department that will permit access to all areas that require service.

The Contractor shall provide qualified controls technicians as needed to assist the lead technicians. The controls technicians shall have received Carrier Comfort System (CS) and i-Vu System (IS) certifications. The controls technicians shall be properly trained to investigate, troubleshoot, and resolve controls and instrumentation issues and shall have a minimum of ten (10) years of verifiable HVAC service experience. The controls technicians may be provided by a subcontractor.

A boiler technician(s) will be required to perform the boiler maintenance activities as well as perform repairs on the boiler and ancillary components. The boiler service and repairs may be provided by a subcontractor.

6.3. Working Hours and Daily/Weekly Inspection and Maintenance Requirements

The JAO is normally occupied from 6:00 a.m. to 5:00 p.m. during weekdays. The SJC Laboratory is normally occupied from 6:00 a.m. to 5:00 p.m. seven days a week. The lead technician shall be onsite a minimum of four (4) hours every workday between 6:00 a.m. and 10:00 a.m., Monday through Friday. While four (4) hours is the minimum amount of time that the lead technician should be onsite on a given day, the Districts expect that the Contractor will have to spend additional time to ensure that all contract requirements, such as routine and preventative maintenance, are being performed. The precise start time is negotiable, but must be in the morning so that the Contractor can resolve any critical unknown issues first thing in the morning. Occasional changes to the start time will be allowed with approval in advance by the Districts' Representative.

The Districts observe twelve (12) holidays per calendar year: New Year's Day, Dr. Martin Luther King Jr.'s Birthday, Presidents' Day, Cesar Chavez' Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, Day after Thanksgiving, and Christmas Day. The Contractor may elect to schedule work on holidays with 1-week advance notice to the Districts' Representative. The Contractor shall not be entitled to additional compensation for work it elects to perform on holidays, however emergency work that falls on a holiday may be billed in accordance with **Section 6.5** of this RFP.

The lead technician shall perform the following DAILY:

- Check status of major equipment (e.g. chillers, boilers, pumps, air handlers, packaged systems, split systems, and critical SJC Laboratory exhaust fans)
- Any emergency action necessary to ensure occupant comfort
- Check alarm logs and note issues that require further attention
- Log chiller parameters according to manufacturer's recommendations
- Site walk
- Brief equipment inspection (proper lead/lag operation, temperatures, pressures, flows, drain pneumatic system dryers, etc.)
- Troubleshoot and address occupant non-emergency comfort issues brought to the attention of the Contractor
- Address any previous problems noted by Districts' personnel
- Verbal report to Districts' Representative of current system status, notification of new maintenance issues observed by the Contractor, and the status of outstanding maintenance issues

The lead technician shall perform the following WEEKLY:

- Check chilled water system pressure. Notify District Representative and add water if low.
- Record water usage for hot water system from the meter. Include hot water count in Weekly Service Report.
- Check UV lights on AHUs 1 and 2
- Check condensate pans on AHUs and ensure proper drainage
- Check on other equipment, such as fan coils and exhaust fans, on a weekly rotating basis to ensure that all equipment is inspected at least once a month.

Although JAO and the SJC Laboratory is normally occupied from 6:00 a.m. to 5:00 p.m., the HVAC systems are run 24 hours per day, 7 days per week. The HVAC systems for the Board Room are only turned on when meetings or training is scheduled, which normally occur between 6:30 a.m. and 5:00 p.m., Monday through Friday. A few times per year, the Districts have special functions

at the JAO and the Board Room and need the HVAC systems functioning for these facilities during the weekend or after working hours during the week. The Contractor will be notified of these special function dates in advance and no maintenance may be done during these times that would shut down the HVAC systems or disrupt the Districts' special function.

6.4. Routine Inspection and Maintenance

General Inspection and Maintenance Requirements

All systems and equipment to be covered under this service and maintenance contract are listed in **Appendices A-1 and A-2**. The frequency of, and the minimum required work for, routine inspections and periodic preventive maintenance is defined in **Appendices A-1, A-2 and B** as well as in the equipment O&M manuals. Routine preventative maintenance does not need to be performed on the VAV boxes and mixing boxes unless needed when responding to comfort/zone issues. The Contractor shall note that equipment data is not available in **Appendix A-2** for the SJC Laboratory mixing boxes, but this equipment is to be covered under the contract. When there is a conflict in the maintenance requirements between this RFP and the O&M manuals, the more stringent requirements shall apply. All routine Inspection and Maintenance work described in this Section 6.4 shall be covered under Bid Item Nos. 1, 2 and 3 as applicable based on the unit's location.

An abbreviated general list of preventative maintenance activities is as follows:

- MERV 13 filter changes (excluding SJC Laboratory equipment)
- Carbon filter changes
- Chemical addition and system testing
- Ion tube changes
- UV light changes
- Belt changes (once per year unless noted otherwise)
- Instrument calibrations
- Bearing lubrication
- Coil washes

The Contractor shall monitor the operating parameters and alarm log for all system components. The Contractor is expected to proactively identify issues that require resolution for the system to work in proper and efficient order. This includes mechanical components, controls, and instrumentation. Reliance upon the Districts to identify issues that require resolution is not acceptable.

Filter Changes

Appendix A-1 lists the prefilter and carbon filter changeout frequency for equipment at the JAO, Board Room, and Central Plant.

The Contractor will be responsible for only the carbon filter changeouts for equipment at the SJC Laboratory. Districts staff will furnish and perform the prefilter changeouts. **Appendix A-2** lists the carbon filter changeout frequency for equipment at the SJC Laboratory. The Contractor shall note that carbon filter changeouts for the air handling unit and six (6) 100% outside air units on the roofs of the SJC Laboratory buildings will only require replacement of the carbon filters two (2) times during the three-year contract. See below for additional details.

Replacement of Equipment at SJC Laboratory by Others

There is one (1) air handling unit (507LBAH03) and six (6) 100% outside air units (Carrier Model 62D) that will be replaced under a separate contract during the first year of the contract. The new units will be furnished with new carbon filters. Therefore, the Contractor will only be responsible for replacing the carbon filters on this equipment during the second and third years of the contract.

The Contractor shall assume responsibility for maintenance of the new equipment once it is installed and commissioned. The Contractor shall also be responsible for repairs of the new equipment and shall plan on providing labor for any warranty items. The replacement units will be sized the same as the existing units. The Districts anticipate that maintenance and repair costs for the new equipment will not be materially different from the existing equipment. Therefore, no additional compensation to the Contractor is expected. However, if unforeseen circumstances require a material increase in maintenance or repair services, the Contractor may discuss covering the incremental cost with the Districts under Bid Item No. 6 as discussed in **Section 6.6** of this RFP.

Mold Inspection and Testing for the JAO

The Contractor shall visually inspect for mold in the HVAC system at the JAO and the Board Room on a quarterly basis. The Contractor shall perform the inspection in accessible areas, which include all AHU compartments, the walk-in plenums of the JAO dual duct system on the 2nd floor, and the supply air duct immediately downstream of AHU 3. If a substance is suspected to be mold, the Contractor shall provide immediate written notice to the Districts' Representative. The Contractor shall collect a sample and test the substance for the presence of mold. The Contractor shall provide a separate quarterly report that documents the mold inspection, and if required, testing. The report shall include locations and inspection dates, as well as photos documenting the condition of the surfaces. If sampling and testing is required, the report shall include the test results.

The inspection work shall be covered under Bid Item No. 2. Any testing work that is required shall be covered under Bid Item No. 6.

Timing of Inspection and Maintenance

Any shutdowns for repairs of equipment that will affect the operation of the system shall be done after the specified Districts working hours or on weekends unless there is a redundant piece of equipment and/or system that will keep the HVAC system functional. Redundant equipment for the JAO and Central Plant is identified in **Appendix A-1**. Allowable times for performing maintenance on equipment at the SJC Laboratory is indicated in **Appendix A-2**. The Contractor shall not be entitled to additional compensation for maintenance activities that must be scheduled outside of normal working hours. Shutdowns scheduled during working hours may only occur with the prior written consent of the Districts' Representative. The Proposer shall notify the Districts of any such work at least 5 business days in advance, unless the repair is critical for the system and needs immediate attention, in which case a 48-hour advance notice is sufficient.

Several rooms within the JAO have dedicated HVAC units to cool sensitive electronic equipment and require that their dedicated HVAC units be operational 24 hours per day, 7 days per week. Two of those rooms, the Computer Data Center and the UPS Room, have two (2) 100% capacity HVAC units each so only one unit can be shut down at a time. Two other rooms, the Telephone Room and 1st Floor Electrical Room, only have one HVAC unit. When the dedicated HVAC systems for those rooms must be shut down for maintenance, the Contractor must provide and install temporary cooling as approved by the Districts, such as using portable fans or portable AC units, that will keep the room below 76 degrees F.

6.5. Compensation for Off Hours Work

During the course of operation of the Districts' HVAC system, there may be unplanned emergency events that the Contractor will need to respond to during off hours (nights or weekends). A common example is the repair of leaking hot water valves associated with the VAV boxes at the JAO. This repair work must be completed during off hours because the system must be shut down and the hot water piping must be partially drained from the building to perform the repair. Another common example is a chiller trip. The Districts' system includes redundant chillers, however the Districts consider chilled water to be of critical importance and may initiate an emergency service call to restore full redundancy during an off hours chiller trip, even when the standby chiller activates properly.

The unexpected off hours labor shall be billed under Bid Item No. 5. This Bid Item is for two hundred fifty (250) hours of night or weekend work in response to an unexpected maintenance request or shut down. Material and equipment shall be covered as stated elsewhere in this RFP. Bid Item No. 5 shall not be used for off hours work to perform required inspections and preventative maintenance activities as noted in **Sections 6.3** and **6.4** of this RFP.

6.6. Parts and Component Replacement

The shutdown requirements detailed in **Section 6.4** of this RFP also apply to parts and component replacement activities, unless immediate action is required to bring a system into proper working order.

Minor Repairs

The Contractor shall furnish all parts, components, labor, tools and equipment needed to make minor repairs totaling $10,000.00 or less. This work shall be covered under Bid Items 1, 2 and 3 as applicable based on the unit's location.

Major Repairs

Any repairs greater than $10,000.00 shall be paid under Bid Item No. 6. The Contractor shall notify the Districts' Representative of the proposed labor and materials costs, and the schedule for completing the repair. The Contractor is entitled to a 15% markup on material costs. The Contractor and the Districts' Representative shall agree on the cost and schedule prior to commencing the repair work. Bid Item No. 6 includes $500,000.00 for major repairs over the 3-year contract term. Any repairs that will exceed the available funds under this bid item will be addressed by a separate agreement.

Preexisting Equipment Failures

The Contractor shall survey the existing HVAC systems and identify equipment, components, or instruments that have failed or are malfunctioning. The Contractor will have 60 days from the effective date of the Agreement to identify these items and provide pricing for repair or replacement. This work shall be paid under Bid Item No. 6. The Contractor shall be responsible for repairs not identified within 60 days.

6.7. Control System Maintenance

Carrier Corporation's i-Vu software application is used to monitor the Districts' HVAC system. It will be the Contractor's responsibility to monitor the operation of the Districts' instrumentation and control systems through the Carrier i-Vu software. The Contractor must be capable of generating reports at the Districts' request and adjusting any instruments, alarms, setpoints, and control logic that may optimize the operation of the system. Additional information on the control system including control system architecture, wiring diagrams, and control narratives are available as downloadable references in QuestCDN.

The Contractor shall calibrate all instrumentation at intervals recommended by the manufacturer and shall replace any instruments not functioning properly. The Contractor shall maintain the i-Vu Web Appliance and ensure that it stays in proper working order.

The Contractor shall provide qualified controls technicians to respond to controls issues for non-emergencies within 5 business days. The Districts may secure controls services from another entity if the Contractor is not able to respond within the above timeframe and the cost for those services shall be borne by the Contractor and will be deducted from the monthly payment.

The Contractor shall obtain the concurrence of the Districts' Representative prior to making any control parameter adjustments unless an emergency requires immediate action. The Contractor shall maintain a Control Parameter Change Log of all control parameter changes and provide written updates to the Districts' Representative within 24-hours of operational adjustments. The updated information shall also be included in Weekly Service Report.

6.8. Weekly Service Reports and Maintenance Tracking Log

The Contractor shall provide a Weekly Service Report to the Districts' Representative. The Weekly Service Report shall be submitted in electronic form, but may contain handwritten entries. Any handwritten entries must be clearly legible. The Weekly Service Report shall include a description of work for each day. At a minimum, the daily description of work shall include the following:

- Name of the technician(s),
- Tasks performed,
- Identification of the equipment that was serviced beyond routine inspections,
- Status of outstanding issues previously brought to the Contractor's attention,
- New issues identified by the technician,
- Upcoming maintenance activities,
- Chemical counts in the chilled water and hot water systems (monthly),
- Specific location and replacement date of ion tubes and UV lights,
- Changes of pre-filters and carbon filters, and
- Any other pertinent information.

The Weekly Service Report shall include the Maintenance Tracking Log and the Control Parameter Change Log as described in **Sections 11.8** and **6.7** respectively of this RFP. These logs shall be provided each week regardless of whether any changes were made.

The Weekly Service Report is due on the 3rd business day following the work week. Submittal of the Weekly Service Report is required to document the work performed by the qualified technicians maintaining the Districts' HVAC system.

The Contractor shall utilize Unifier™, a Web-based project management application hosted by Oracle, Inc. (http://www.oracle.com), to transmit all required service reports, inspection reports and log files. The Unifier system shall be utilized to submit the relative humidity sensor installation plan as required by **Section 6.10** of this RFP. The Districts will provide a maximum of two (2) Unifier™ user licenses to the Contractor for the purpose of transmitting and receiving documents and information to and from the Districts.

Submission of acceptable Weekly Service Reports for a given invoice period is also a condition precedent to payment of the Contractor. Payment will only be made to the Contractor once acceptable Weekly Service Reports, including the Maintenance Tracking and Control Parameter Change logs, for the invoice period have been received and accepted.

6.9. Onsite Inventory

The Contractor shall keep an inventory of frequently replaced items onsite at the JAO and/or Central Plant. Apart from frequently replaced items, the Contractor shall also keep inventory of items including, but not limited to, five (5) ion tubes, six (6) UV lights, and a complete set of MERV 13 filters for AHUs 1, 2, and 3 (total of 78). Use of inventory items stored at the JAO shall be limited to emergency purposes and replaced within 10 calendar days of their use, and Contractor shall leave inventory items stored at JAO at the end of the Contract period.

6.10. Installation of Humidity Sensors

The Contractor shall install two (2) relative humidity sensors for monitoring the relative humidity in the cold deck of the JAO dual duct system. A sensor shall be installed in each of the cold deck supply plenums of AHU 1 and AHU 2 on the 2nd floor of the JAO within 3 months of the Agreement being executed.

The humidity sensor shall be Kele 3% Duct Mount RH Transmitter Model KHD3 or equal. The relative humidity sensors shall be connected to the i-Vu system via Control Panel CP-AHS-2 located on the second floor of the JAO. The proposed locations of the sensors are included in **Appendix C-1**. The installation shall be after Districts' working hours and/or on weekends. The sensor reading shall be displayed on the AHU graphics and configured as a potential alarm source. The Contractor shall submit an installation plan for review and acceptance within 20 working days after the Effective Date of the Agreement. After the installation of the relative humidity sensors, the Contractor shall maintain the sensors per the manufacturer's recommendation for the life of the contract. This work shall be billed under Bid Item No. 4.

7. HEALTH AND SAFETY AND CONFINED SPACE ENTRY PROGRAM

7.1. General

It is the responsibility of the Contractor to protect its employees, subcontractors, and suppliers,

and to provide a safe place of employment. The Districts is not establishing or enforcing safety practices for the benefit of the Contractor. However, the Districts' Representative has the right to protect Districts' personnel from non-compliant hazardous work conditions created by the Contractor. The Contractor shall abate any such hazards immediately upon the direction of the Districts' Representative. The Districts has established health and safety programs for the protection of its employees. The Contractor can request any health and safety program information by contacting the Districts' Environmental Health and Safety Section through the Districts' Representative.

7.2. Health and Safety Information

In accordance with regulatory requirements, the Contractor shall maintain written health and safety program information at the work site. In addition, the Contractor shall maintain at the work site any programs requested on the "Contractor Safety — Request for Safety Program Information" checklist in **Attachment A of Appendix D**. The Contractor shall also maintain at the work site Material Safety Data Sheets (MSDS's) for all chemicals, substances, and hazardous material used by the Contractor at the work site.

The Contractor shall use the completed checklist in **Attachment A of Appendix D** as a cover sheet for the submitted health and safety programs and information.

As required in **Attachment A of Appendix D**, the Contractor shall submit an Infection Control Plan to the Districts for review and acceptance. The Contractor shall include signed copies of the District's "COVID-19 Self-Screening Policy" (**Attachment F of Appendix D**) that have been reviewed and signed by ALL of the Contractor's employees that plan to enter any Districts' facility. Any employee of the Contractor that has not signed the "COVID-19 Self-Screening Policy" will not be permitted to enter a District's facility. The Contractor is also required to submit the "COVID-19 Infection Notification Form" (**Attachment E of Appendix D**) to notify the Districts of any known or suspected cases of COVID-19 to ensure the Districts have the necessary information to assess potential risks to Districts' staff.

7.3. Confined Space Entry Program

Air handling unit compartments are considered confined spaces. The Contractor shall, when performing entry into a Districts' confined space, implement, administer and maintain a Confined Space Entry Program in accordance with all regulatory requirements including Section 5157, 5158 and 5166, Title 8, of the California Code of Regulations. Prior to starting work, the Contractor shall prepare and submit its comprehensive, written Confined Space Entry Program for the Districts' review and acceptance. The Confined Space Entry Program must address all potential physical and environmental hazards and contain procedures for safe entry into confined spaces, including, but not limited to the following:

1. Training of personnel

2. Purging and cleaning the space of materials and residue
3. Potential isolation and control of energy and material inflow
4. Controlled access to the space
5. Atmospheric testing of the space
6. Ventilation of the space
7. Special hazards consideration
8. Personal protective equipment
9. Rescue plan provision

The Contractor's submittal must include the names of its personnel, including subcontractor personnel, assigned to the contract who will have Confined Space Entry Program responsibilities, their Confined Space Entry Program training, and their specific assignment and responsibility in carrying out the program.

The Contractor shall, when performing work requiring lockout/blockout/tagout (LOBOTO) of existing Districts' equipment, follow its LOBOTO procedures. The Contractor shall submit its LOBOTO procedures for District review and acceptance within two (2) weeks of the Effective Date of the Agreement.

7.4. Kickoff Safety Meeting

Prior to the start of work under the contract, the Contractor shall meet with representatives of the Districts in a Kickoff Safety Meeting for the purpose of reviewing safety procedures and other pertinent safety information that will aid in ensuring safe work practices. During the Kickoff Safety Meeting, the Districts and the Contractor will review and complete the following:

- Contractor Safety - Potential Hazard Notification Form (**Attachment B of Appendix D**)
- Health and Safety Information Sheets (**Attachment C of Appendix D**)
- Kickoff Safety Meeting Checklist (**Attachment D of Appendix D**)

8. CONTRACTOR RESPONSE TIME

The Contractor shall respond to calls from the Districts 24 hours a day, 7 days a week (24/7). The response time (time elapsed between the Districts placing the phone call and the Contractor's arrival at the site) shall not be greater than four (4) hours.

The Contractor shall provide 24/7 immediate emergency response for any unscheduled chiller outage. Other redundant systems, such as redundant pumping systems, can be repaired on the next business day. In the event that adequate chilled or hot water cannot be delivered from the Central Plant, for any reason, to any and all coils in the system or if any of the air handling units are inoperable, the Contractor's response time shall not be greater than two (2) hours.

The Contractor shall provide all labor, equipment and materials necessary, if any failure occurs that results in the inability of the system to deliver chilled water to any or all cooling coils covered under this contract or hot water to any or all heating coils, to return the system to operating condition within 24 hours of the Districts' initial call for repair. The Contractor's response shall, if necessary, include renting an auxiliary equipment/system, and to maintain and operate that equipment/system as required. The auxiliary cooling equipment will include, but will not be limited to: a 600 ton electric chiller; a cooling tower including condenser pumps or other approved heat rejection equipment; a generator (if power is not available); temporary piping to the supply and return lines; and a chilled water pump (in case Central Plant pumps are inoperable) capable of providing no less than 3,000 gpm and 125 feet of head to deliver chilled water to all coils in the system. The auxiliary heating equipment will include, but will not be limited to: two 3.0 MMBTU/hr natural gas fired boilers capable of providing 200 degree F water; a generator (if power is not available); temporary piping to the supply and return lines; and a hot water pump (in case Central Plant pumps are inoperable) capable of no less than 300 gpm and 100 feet of head to deliver hot water to all coils in the system.

The Districts will pay for the auxiliary equipment rental and all the labor of the Contractor associated with the setup, operation, and maintenance of the system upon the presentation of actual invoices by the Contractor if it has been ascertained that said failure is not the fault of the Contractor.

9. PROPOSAL REQUIREMENTS

Proposals must follow the format outlined below and must supply all requested information. Failure by a Proposer to submit its proposal in the required format may result in the elimination of the Proposer from the evaluation process.

Each Proposer shall prepare a Technical Proposal package to be submitted along with a Cost Proposal package. The Technical Proposal and the Cost Proposal packages must be uploaded as separate files to QuestCDN. The Technical Proposal information will be utilized to determine if the Proposer has appropriate HVAC service and engineering qualifications and experience.

Both the Technical Proposal and Cost Proposal will include a signature page to be signed by a duly authorized officer of the Proposer. The signature page will include the statement: *By submitting proposals in response to the RFP, the Corporation or Partnership acknowledges that the scope of work, and the terms and conditions of the RFP and the submitted Technical and Cost Proposals represents the entire understanding between the Corporation or Partnership and the Districts and that no prior oral or written understanding is of any force of effect.*

9.1. Technical Proposal

The Proposer will respond to all of the Districts' requests for information in **Section 11,** Required Qualifications, in the order in which they appear in that Section. All information, calculations,

footnotes, comments, text, advertising literature, etc., submitted must be in the English language and English engineering units. To assist in the continuity of review, each new section of the Technical Proposal must contain the key words of the Districts' section as a label or title. The pdf file shall be bookmarked and indexed properly. All pages must be numbered consecutively. Attachments in the appendices need not be numbered consecutively, but they must be tabbed to cross-reference whatever section they are supplementing. The Districts reserve the right to request any and all documentation necessary to verify that the claims made in response to this request are complete and accurate.

The Districts intend to keep the costs of preparing the Technical Proposal as reasonable as possible. Concise language and direct answers are preferred to lengthy discussions and irrelevant information. Any duplicate and/or irrelevant information will be disregarded during the evaluation.

9.2. Cost Proposal

The Cost Proposal consists of the signature page, as discussed above, and a completed Cost Proposal Form found at the end of this RFP.

9.2.1 **Prevailing Wages Requirements and DIR Registration of Contractors and Subcontractors**

Contract is a Public Work. The work under this Contract constitutes a "public work" within the meaning of the California Labor Code (the "Labor Code") section 1720 and is subject to the prevailing wage laws applicable to the locality in which the work is to be performed.

Prevailing Wage Compliance Required. Not less than the general prevailing rate of per diem wages, and not less than the general prevailing rate of per diem wages for legal holiday and overtime work, for each craft or type of workman needed to execute the work contemplated by this contract, as ascertained by the Director of the DIR, must be paid to all workers employed on the contract by any contractor or subcontractor, of any tier, performing any portion of the work. The Districts will have on file copies of the general rate of per diem wages for each craft, classification, or type of work needed to execute the work at its principal office and at each job site, which shall be made available to any interested party upon request. Alternatively, general prevailing wage rates may be obtained from the DIR online at "https://www.dir.ca.gov/Public-Works/Prevailing-Wage.html. In accordance with Labor Code Section 1773.2, the Contractor shall also post a copy of the general rate of per diem wages for each craft, classification, or type of work needed to execute the work at each job site. In addition, the Districts are attaching hereto at **Appendix E** additional requirements of **Labor Practices** and a listing of all known and anticipated general rate of per diem wages for each craft, classification, or type of work needed to execute the work.

Certified Payroll. Pursuant to §1776 of the Labor Code, all contractors and subcontractors shall keep an accurate payroll record showing the name, address, social security number, work classification, and straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed in connection with the Work. All payroll records as specified in Labor Code §1776 shall be certified and furnished directly to the Labor Commissioner in accordance with Labor Code §1771.4(a) (3) on a monthly basis (or more frequently if required by the Districts or the Labor Commissioner) and in a format prescribed by the Labor Commissioner. Payroll records as specified in Labor Code §1776 shall be certified and submitted to the Districts in hard copy (not electronic) with each application for payment or invoice. All payroll records shall be available for inspection at all reasonable hours at the principal office of all contractors and subcontractors.

DIR Registration of Contractor and Subcontractors. Contractors and subcontractors shall not be qualified to bid on, be listed in a bid proposal, or engage in performance of any work unless currently registered and qualified to perform public work in accordance with Labor Code sections 1725.5 and 1771.1. Contractors and subcontractors must be properly and currently registered with the DIR, and qualified to perform public works pursuant to Labor Code section 1725.5, throughout the duration of the contract. Failure to be properly registered with DIR at all times during performance of the contract constitutes immediate disqualification to work on this contract and will be a material breach of the Contract and subject to termination for cause. An affirmative and ongoing obligation of all contractors is the verification that all subcontractors of any tier are at all times during performance of the work in full and strict compliance with the DIR registration requirements. Contractors shall not permit or allow any subcontractor of any tier to perform any work without the contractor's verification that all subcontractors are in full and strict compliance with DIR registration requirements. Any subcontractors of any tier not properly registered with DIR shall be substituted in accordance with Labor Code section 1771.1. Neither contractors nor subcontractors shall be entitled to any additional costs or time arising from or in any way related to compliance with any requirements implemented by the Labor Code or DIR.

Monitoring. This contract is subject to compliance monitoring and enforcement by the DIR under Labor Code section 1771.4.

Violations. The Districts reserve the right to withhold contract payments if the Districts are notified, or determine as a result of their own investigation, that any contractors or subcontractors are in violation of any requirements as set forth in Labor Code section 1720 et seq. at no penalty or cost to the Districts. All contractors and subcontractors agree to indemnify, defend, save and hold harmless the Districts and its agents, servants and employees, against any and all claims, costs, demands, causes of action, suits, losses, expense or other detriment or liability arising from or out of their failure to be properly registered with the DIR or otherwise comply in all respects with California prevailing wage laws applicable to Districts' contracts.

9.3. Grounds for Rejection

A proposal may be rejected if:

- It is received any time after the exact date and time set for receipt of proposals
- It is not prepared in the format prescribed
- It does not include the signature page with the Technical Proposal and the Cost Proposal

9.4. Disposition of Proposals

The Districts reserve the right to reject any or all proposals if the Districts deem it in their best interest to do so. All proposals will become the property of the Districts.

10. PROPOSAL DUE DATE

The Proposal shall be uploaded no later than **11:00 A.M. PST on Thursday, April 7, 2022** to QuestCDN.com. **The Technical Proposal and Cost Proposal must be uploaded as separate files.**

QuestCDN.com bid clock is the official time. All proposals must be fully transmitted by the due date and time. The Districts are not responsible for internet transmission interruptions. The RFP documents are available at the following link:

https://qap.questcdn.com/qap/projects/prj_browse/ipp_browse_grid.html?projType=all&provider=7047059&group=7047059

The Districts has only authorized QuestCDN to distribute the RFP Documents, in electronic formats, for use by proposers. The Districts does not warrant the accuracy or completeness of RFP Documents obtained from any source other than QuestCDN, unless otherwise noted, and any use of such documents by prospective proposers or others for any purpose is solely at the proposers' risk. Only those proposers that have obtained and properly downloaded the RFP Documents from QuestCDN will appear on the Plan Holders list and may submit a proposal.

Proposals will **ONLY** be received and accepted via the online electronic bid service through QuestCDN.com. **Paper/email proposals will not be accepted**.

Late submissions will not be accepted. It is the proposer's responsibility to ensure its proposal is **fully transmitted** by the due date and time. THE DISTRICTS IS NOT RESPONSIBLE FOR ELECTRONIC OR INTERNET SERVICE PROVIDER (ISP) TRANSMISSION DELAYS OF ANY KIND. Any Proposals submitted after the above time and date, or to any other person or address will be rejected.

Last day for questions is Wednesday, March 23, 2022. Questions shall be in writing and addressed to Gina Schmitt at gschmitt@lacsd.org. All inquiries must reference the RFP number

and title. Responses will be posted on QuestCDN.

11. PROPOSAL EVALUATION AND CONTRACTOR SELECTION

A committee of Districts' staff will evaluate the proposals. A single total score, with a maximum possible score of 100, will be assigned by each evaluator for the Technical Proposal. The Districts reserve the right to delete any services it feels are redundant or not necessary in each service category as proposed by each Proposer. The Districts may make, at its discretion, telephone checks and other investigations to verify information contained in a Technical Proposal. During the evaluation process, the evaluation panel may wish to interview some Proposers for clarification purposes only. No new material submission will be permitted at this time. The final scores from each evaluator will be averaged and will be the basis for ranking each Proposer. There is no minimum or maximum number of acceptable Proposers nor is there a pre-set cutoff score. A Proposer will be disqualified if the composite opinion of the committee is that the Proposer presented insufficient engineering and technical evidence at the time of evaluation to warrant awarding a contract to the Proposer. The Districts' evaluation will be final and the disqualified Proposers will not be reconsidered. Proposers that provide an acceptable Technical Proposal will be considered for the opening of the Cost Proposals.

Once the technical qualifications of the Proposers have been scored, the Cost Proposals of all the Proposers will be opened. The Districts reserve the right to negotiate the final contract amount with the most qualified Proposer to reach a mutually agreeable price. If the Districts cannot reach an agreement with the most qualified Proposer, negotiations will terminate, and the second most qualified Proposer will be contacted for negotiations. The above procedure will be repeated until an acceptable Contractor is selected and an agreement is executed.

12. REQUIRED QUALIFICATIONS

The Proposer's qualification package shall address each of the categories listed below. Each of the categories listed below shall carry maximum points as specified.

12.1. Proposer Experience and References

Contractor License, DIR Registration and General Experience

Each Proposer shall possess a "C-20" Contractor License issued by the State of California and be registered with the California Department of Industrial Relations. Each Proposer must have been performing full maintenance contracts for servicing and maintaining air conditioning and central plant systems, including air handling units, hot water or steam boilers, absorption, screw and centrifugal chillers and pumps for no less than the past ten (10) years in Southern California and shall list the actual number of years in which it has been involved in such an operation.

Past Experience

Each Proposer shall list the number of contracts in the past five (5) years in which it has taken the entire responsibility for the system and for which it has performed substantially the same kind of complete service maintenance and operation contract with at least one boiler/heater, one electric centrifugal chiller, an air handling unit and pumps included in the contract. The Proposer shall have performed as the Contractor in charge of operation and maintenance of the entire air conditioning system with all related equipment and controls. If the Proposer has not had total responsibility for any job in the past, it shall list the percentage of the entire job for which it has been responsible. The Proposer shall list the equipment brand names serviced, the period of each contract, and the percentage of work that it subcontracted. Each Proposer shall provide reference names and phone numbers of owners. The Districts may contact the entities listed as references.

The Proposer shall separately list each different kind of equipment that it has operated and maintained in the past five (5) years. The Proposer shall provide a list consisting of the generic name of the product, the manufacturer's name, model number and the number of serviced years for that particular product. Each Proposer shall list the name and manufacturer of different types of controls that it has maintained and serviced in the past five (5) years. Each Proposer shall list the continuous duration during which it has serviced each control system.

Present Service Contracts

Each Proposer shall provide at least four (4) references for systems that it is presently servicing. These references ideally should have systems similar to the Districts' systems. The current contact names and phone numbers shall be provided for each reference. The Districts reserve the right to verify all references at its discretion. The valid references must have had a service contract with the Proposer for at least 12 months.

This part carries a maximum score of 20 points.

12.2. 24-Hour Telephone Access

Each Proposer shall list a toll-free telephone number which shall be in operation 24 hours a day, 7 days a week. This number shall be handled either by an operator or shall page the lead technician assigned to the Districts' service contract. The Districts will regularly verify that the number is operational.

This part carries a maximum score of 10 points.

12.3. Office Location, Support Staff & Warehouse

Each Proposer should have its servicing office in Los Angeles County or Orange County, no more than 25 miles away from the Districts' JAO. Each Proposer shall provide the number of qualified full-time office support personnel, with names and years of experience with the Proposer, who

will be supporting the field personnel in contract administration. The Proposer shall provide the name and background information for the person who will be the main contact for the administration of the contract. The Proposer shall list the names of any contracts they have managed, the name of the owner and a contact person for each contract.

Each Proposer shall have a spare parts warehouse (preferably close to the jobsite) that contains frequently used spare parts that could be used in executing this contract (list address).

This part carries a maximum score of 5 points.

12.4. Technician Experience and References

Lead Technicians

Each Proposer shall provide the names and detailed experience of the lead technicians who will be assigned to the Districts' contract if the Proposer is awarded the contract. The Proposer shall list the number of years it has employed each technician. The Proposer shall provide a minimum of three reference names and phone numbers for each technician and information regarding the contracts they have worked on. The Proposer shall list all the equipment operated and/or serviced by each technician for the references. The assignment of different technicians after award without the acceptance of the Districts' Representative is not acceptable and may be grounds for the cancellation of the contract. The Proposer shall identify the specific technicians that will be assigned to the contract as the lead technician and as the alternate.

Controls Technicians

Each Proposer shall provide the names and detailed experience of the controls technicians who will be assigned to the Districts' contract if the Proposer is awarded the contract. The Proposer shall list the number of years it, or its subcontractor, has employed each controls technician.

Carrier Corporation's i-Vu software is used to monitor and control the Districts' HVAC systems. In addition, the majority of controllers throughout the Districts' HVAC system are manufactured by Carrier. The Proposer shall list the technicians' experience with controllers and software manufactured by Carrier Corporation or other similar equipment. This shall include components the technician has worked on, software the technician has used, and duties performed. Each Proposer shall submit a record of successful training completion for the Carrier Comfort System (CS) and i-Vu System (IS) certifications. with the date of completion clearly listed for each controls technician.

The Proposer shall provide a minimum of three references for each controls technician. This shall include the name of the customer, address, project/contract, reference name, email address and phone number, information regarding the systems they have worked on, and duties performed.

The trained controls technicians shall be employed by the Proposer or its subcontractor at the time the proposal is submitted and shall remain as such during the service period unless another controls technician is accepted by the Districts. The assignment of different technicians after award without the acceptance of the Districts' Representative is not acceptable and may be grounds for the termination of the Agreement. Each Proposer shall preferably have two or more trained controls technicians assigned to this contract. The controls technicians may also be the lead technicians but are required to meet the full requirements for both sets of duties.

This part carries a maximum score of 30 points.

12.5. Boiler Technicians

Each Proposer shall provide the names and detailed experience of the boiler technicians who will be assigned to the Districts' contract if the Proposer is awarded the contract. The Proposer shall list the number of years it, or its subcontractor, has employed each boiler technician. The Proposer shall include relevant information to demonstrate experience with the operation, tuning, inspection, maintenance, cleaning, and repair of low NOx boilers for HVAC hot water production. The Districts boilers were manufactured by AJAX Boiler Inc. The Proposer shall list the technicians' experience with equipment manufactured by Ajax Boiler or other similar equipment.

The Proposer shall provide a minimum of three references for each boiler technician. This shall include the name of the customer, address, project/contract, reference name, email address and phone number, information regarding the systems they have worked on, and duties performed.

This part carries a maximum score of 10 points.

12.6. Chlorofluorocarbon (CFC) Recycling

Each Proposer shall have all required certifications and submit copies with the proposal of all California Environmental Protection Agency (EPA) and South Coast Air Quality Management District (SCAQMD) certificates for the recovery and recycling of CFC's. Each Proposer shall submit the names of all full-time employees who have such certificates. Each Proposer shall list the quantity of all certified CFC recovery and recycling equipment it owns. All CFC recycling/recovery equipment must be certified under California EPA/SCAQMD requirements and a copy of the certificate shall be submitted to the Districts. Each Proposer shall submit equipment data complying with the requirements of Table 1 of 40 CFR, Part 82, Subpart F, latest edition. The submittal will include the manufacturer's name and model number of each item of equipment and a copy of the certificate of registration as required by the California EPA/SCAQMD. The Proposer shall be certified and licensed to perform the annual SCAQMD CFC audit of any equipment requiring an audit that is included in its performance of this contact. Each Proposer must submit a copy of the certificate/license.

This part carries a maximum score of 5 points.

12.7. Subcontractors

Each Proposer shall specify the percentage of the contract that will be subcontracted to other firms. Each proposal shall include a list of all services that will be subcontracted; the name, contractor's license number, and DIR Registration Number for each subcontractor; 24/7 service contact information; name and contact information (telephone and email) of account manager, service manager, field technicians. Proposers with no subcontractors will receive the maximum score.

This part carries a maximum score of 10 points.

12.8. Maintenance Tracking Log & Additional Services Not Listed

Each Proposer shall develop a Maintenance Tracking Log based on the equipment and requirements listed in this RFP. The Maintenance and Tracking Log shall list all routine and preventative maintenance activities for all equipment and include fields where the Contractor shall record the dates that the maintenance activities are completed. It shall be completed and submitted to the Districts each month to track all preventative maintenance activities and to ensure compliance with the requirements as described in **Section 6.8** of this RFP. The Proposer shall provide the Maintenance and Tracking Log form as part of the Technical Proposal Package.

Each Proposer shall add any additional services that it feels are necessary and which are required for safe and trouble-free operation of all equipment listed in **Appendix B**. Each Proposer shall attach a copy of the corresponding **Appendix B** services sheets with the additional services listed on the same sheets or on a separate sheet to the Technical Proposal part of the package. The additional services listed must be necessary and non-redundant. The Districts' review committee will disregard any non-pertinent and duplicated services listed by the Proposer.

This part carries a maximum score of 10 points.

13. QUALIFICATIONS VERIFICATION

The Districts will regularly monitor the Contractor to verify that it currently complies with all of the requirements listed in this RFP. The Contractor shall keep current the certificates for annual SCAQMD CFC audits. The Districts will periodically verify the licenses of the auditors employed by the Contractor.

If the Contractor does not comply with these requirements, the Districts may terminate the Agreement or may procure the appropriate services and back-charge the Contractor for actual cost incurred.

14. INSURANCE

Upon notification of the award, the Contractor shall submit proof of insurance coverage that meets the following minimum limits:

General Liability

Each Occurrence Limit	$3,000,000
Products/Completed Operations Aggregate Limit	$3,000,000
General Aggregate Limit (other than Products/Completed Operations)	$3,000,000
Automotive	$1,000,000

Pursuant to Sections 1860 and 3700 of the Labor Code, the Contractor shall secure, pay for, and maintain in full force for the duration of the Contract, worker's compensation insurance. The insurance company shall have a policy rating equal to or better than that of the California State Compensation Insurance Fund (SCIF). The Districts, its officers, employees, and agents, shall not be held responsible for any claims in law or equity occasioned by failure of the Contractor to comply with this requirement.

15. PAYMENT METHOD

The Agreement amount in Bid Item Nos. 1, 2 and 3 will be paid to the Contractor in thirty-six (36) equal monthly installments, payable in arrears. The Agreement amount will be the final negotiated amount. The Contractor shall submit monthly invoices to invoices@lacsd.org that clearly refer to the original negotiated Bid Item prices and the Contract Number issued by the Districts.

The submission of acceptable Weekly Service Reports as described in **Section 6.8** of this RFP and all other inspection reports and maintenance required by this RFP for the invoice period are conditions precedent to the payment of each monthly invoice. Contractor will submit all Certified Payroll Records to Los Angeles County Sanitation Districts, PO Box 4998, Whittier, CA 90607. The Contract Number must appear on all invoices and payroll records.

16. AGREEMENT TERM AND RENEWAL

The duration of the Agreement will be **three (3) years** with no price adjustments beginning on the effective date of the executed Agreement. The effective date is anticipated to be June 1, 2022, but is subject to change at the Districts' sole discretion. If agreed by the Districts and the Contractor, the Agreement can be renewed up to two (2) additional years at the same price adjusted by the CPI-U (Urban Consumers) in the Los Angeles/Long Beach/Anaheim area, as published by the Department of Labor Statistics, for the previous 12 month period immediately preceding the Agreement expiration month, or five percent, whichever is less.

The Districts may cancel the Agreement during the initial three (3)-year duration upon no less than 60 days prior written notice based upon unsatisfactory performance of the Contractor as determined solely by the Districts in its reasonable discretion.

17. MINORITY BUSINESS PARTICIPATION

The Districts support and encourage the participation of businesses owned and controlled by minorities or women (MBE/WBE) and small business enterprises in Districts' contracts. The Districts accept certifications from the Federal Government's Small Business Administration 8(a) program and the State of California's office of Small and Minority Business, and the following agencies:

- City of Los Angeles, Department of Public Works
- WMBE Clearinghouse, Los Angeles, California (California Public Utilities Commission)
- California Department of Transportation (CALTRANS)
- Los Angeles County Metropolitan Transportation Authority (MTA)
- County of Los Angeles Office of Affirmative Action

COST PROPOSAL FORM

_____
(COMPANY NAME, TYPED)

The Contractor shall submit the breakdown of the total proposal according to the items below. In case the total sum value has not been filled, the added sum of the individual amounts shall be the total proposal amount. In case of any discrepancy between the sum of the breakdown items and the total, the sum of the individual breakdown items shall govern. "Cost" refers to the cost of performing all work specified in the RFP and all **Appendices**.

Item 1 — Cost for Central Plant, including Chillers, Boilers, Pumps, and Condenser Water Pump Station, the lump sum of:

= $_____/ Month x 36 Months = $_____

Item 2 — Cost for the Joint Administration Office, Board Room and Guard Shack, including Air Handling Units, Pumps, Fans, Fan Coils, and Dedicated AC Units, the lump sum of:

= $_____/ Month x 36 Months = $_____

Item 3 — Cost for the San Jose Creek Laboratory, including Air Handling Units, Pumps, Fans, and Dedicated AC Units, the lump sum of:

= $_____/ Month x 36 Months = $_____

Item 4 — Cost for the installation of two (2) relative humidity sensors as described in Section 6.11 of the RFP, the lump sum of:

= $_____

FOR ITEMS 5 AND 6 ONLY: *The District reserves the right to use all or none or any portion of the bid item without negotiation of the bid price*

Item 5 — Cost for two hundred and fifty (250) hours of unexpected night or weekend work per Section 6.5 of the RFP, the lump sum of:

= $_____/ Hour x 250 Hours = $_____

Item 6 — Cost for major repairs per Section 6.6 of the RFP; mold testing per Section 6.4 of the RFP; and additional maintenance, repair, and system modification work not covered by the scope of this RFP, the lump sum of:

= $ 500,000.00

TOTAL OF ITEMS 1 THROUGH 6 ABOVE:

= $_____

LINE ITEMS TOTAL SHALL INCLUDE ALL APPLICABLE TAXES

Authorized Signature_____

Print Name_____

CERTIFICATE OF JOBSITE WALK-THROUGH ATTENDANCE

This is to certify that

_____
(Name, Print)

_____
(Title)

_____
(Company Name)
has attended the job site walk-through at:

Joint Administration Office
1955 Workman Mill Road
Whittier, California 90601

and, received all available Operational and Maintenance Manuals of JAO and SJC Lab HVAC system.

County Sanitation Districts of Los Angeles County representative:

Name:_____

Signature:_____

Title:_____

Date:_____

THIS DOCUMENT TO BE RETURNED WITH QUALIFICATIONS PACKAGE

REFERENCE LIST

Reference No. 1

Company Name:_____

Contact person: _____ Title:_____

Telephone No.: _____ Email: _____

Job Description: _____

_____

Reference No. 2

Company Name:_____

Contact person: _____ Title:_____

Telephone No.: _____ Email: _____

Job Description: _____

_____

Reference No. 3

Company Name:_____

Contact person: _____ Title:_____

Telephone No.: _____ Email: _____

Job Description: _____

_____

COMPLETE AND INCLUDE THIS FORM ONLINE WITH PROPOSAL.

LIST OF PROPOSED SUBCONTRACTORS

In compliance with the provisions of Public Contract Code §4104, the prime contractor shall list the name, the location of the place of business, the California License Number, and the type of work of each subcontractor that will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement in an amount in excess of one-half of one percent of the prime contractor's total bid.

Subcontractor	Location	License Number	DIR Number	Type of Work

COMPLETE AND INCLUDE THIS FORM ONLINE WITH PROPOSAL.

Non-Collusion Declaration

(Public Contract Code §7106)

I,_____, declare, as follows:

I am the_____of_____, the party making the attached bid.

I know of my own personal knowledge and declare under penalty of perjury, that the attached bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone will refrain from bidding; that the bidder has not in any manner, directly or indirectly sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted its bid price or any breakdown of the bid price, or the contents of his bid, or divulged information or data relative to its bid, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent of any such corporation, partnership, company, association, organization, or bid depository to effectuate a collusive or sham bid.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

_____
(Date)

_____
(Location)

_____
(Signature of Bidder)

COMPLETE AND INCLUDE THIS FORM ONLINE WITH PROPOSAL.

CONTRACTOR'S CERTIFICATE REGARDING WORKERS' COMPENSATION

Labor Code Section 3700, in relevant part, provides:

"Every employer except the state shall secure the payment of compensation in one or more of the following ways:

a) By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this State.
b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his or her employees,…"

I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of this contract. I shall supply the Owner with certificates of insurance evidencing that Workers' Compensation Insurance is in effect and providing that the Owner will receive thirty (30) days' notice of cancellation.

Name: _____Title: _____

Signature:_____Date: _____

(In accordance with Article 5 [commencing at Section 1860], Chapter 1, Part 7, Division 2 of the Labor Code, the above certificate must be signed and filed with the awarding body prior to performing any work under this contract.

COMPLETE AND INCLUDE THIS FORM ONLINE WITH PROPOSAL.

APPENDICES

Appendix A-1	Equipment List - JAO and Central Plant
Appendix A-2	Equipment List - SJC Laboratory
Appendix B	Routine and Annual Service Requirements and Schedule
Appendix C-1	Roof and Floor Plans – JAO and Central Plant
Appendix C-2	Roof and Floor Plans – SJC Laboratory
Appendix D	Health and Safety Requirements
Appendix E	Labor Practices

ADDITIONAL REFERENCES

1. Control System Architectural
2. JAO Controller Schematics and Point List
3. JAO Loop/Point to Point Diagrams and Instrument List
4. JAO Control Narrative
5. O & M Manuals

2022

APPENDIX A

EQUIPMENT LISTS

APPENDIX A-1
EQUIPMENT LIST – JAO AND CENTRAL PLANT

APPENDIX A-2
EQUIPMENT LIST – SJC LABORATORY

Appendix A - 1
Equipment List - JAO and Central Plant

Building	Location	Description	Tag Number	Redundant Equipment (Y/N)	Drawing # /PO #	Date Commissioned	Make	Model #	Serial #	Size	Belt Size	Belt Quantity	Belt Change Freq per Yr	Filter Size	Filter Quantity	Change Freq per Yr	Refrigerant	Notes
JAO	Roof	Air Handling Unit 1	AHU-1	N	JO-g-1212	8/1/2016	Alliance	4SV-58-AS-PF-E	2057AHU001	Supply=4x25hp Return=4x10hp total=38,000 cfm cooling=105tons heating=560,000BTU/hr	none	NA	NA	Prefilter=24x24x4 &12x24x4 Carbon=4x24x12 &12x24x12	20 5 20 5	4x 4x 1x 1x	NA	with Plasma Air ion generators & UV lamps.
	Roof	Air Handling Unit 2	AHU-2	N	JO-g-1212	8/1/2016	Allinace	4SV-58-AS-PF-E	2057AHU002	Supply=4x25hp Return=4x10hp total=38,000 cfm cooling=105tons heating=560,000BTU/hr	none	NA	NA	Prefilter=24x24x4 &12x24x4 Carbon=4x24x12 &12x24x12	20 5 20 5	4x 4x 1x 1x	NA	with Plasma Air ion generators & UV lamps.
	Roof	Bathroom Exhaust Fan	EF-RR-1	N	JO-g-1212	4/1/2016	Greenheck	CUBE-220-5-X	14023907-15B	1/2 hp & 3000 cfm	4L370	1	1x	none	NA	NA	NA	
	Roof	Penthouse Exhaust Fan	EF-PH-1	N	JO-g-1212	4/1/2016	Greenheck	CW-070-D-X	14024108-15B	1/30 hp & 258 cfm	none	NA	NA	none	NA	NA	NA	
	Roof	Emergency Exhaust Fan (Telephone Room)		N	PO #1560939	6/1/2016	Greenheck	G-095-DGEX-QD	14381458=15K	1/4 hp & 860 cfm	none	NA	NA	none	NA	NA	NA	
	Roof	2nd Floor Electrical Room Exhaust Fan		N	JO-g-598	2/1/1974								none	NA	NA	NA	
	Basement Loading Dock	Dock Exhaust Fan	EF-1	N	JO-g-901	12/16/1992	CentriMaster	PWB223HU	QR8963711	3/4 hp & 3555 cfm	A38	1	1x	none	NA	NA	NA	
	Cafeteria Smoking Room	Cafeteria Exhaust Fan	EF-3	N	JO-g-901	12/16/1992				1/4 hp & 350 cfm				none	NA	NA	NA	
	Cafeteria Upper (West)	Cafeteria Exhaust Fan	EF-4	N	JO-g-901	12/16/1992				3/4 hp & 990 cfm				Carbon=24x24x12	3	1x	NA	Filters on 1st floor level (sheet M203)
	Cafeteria Upper (East)	Cafeteria Exhaust Fan	EF-5	N	JO-g-901	12/16/1992				3/4 hp & 3350 cfm				Carbon=24x24x12	3	1x	NA	Filters on 1st floor level (sheet M203)
	Roof	Bathroom Exhaust Fan	EF-6	N	JO-g-901	12/16/1992	CentriMaster	PNN200F	QRB963705	1/3 hp & 2130 cfm				none	NA	NA	NA	
	Roof	Kitchen Dishwasher Exhaust Fan	EF-7	N	JO-g-901	12/16/1992	CentriMaster	PNN1303	QRBR63707	1/4 hp & 600 cfm				none	NA	NA	NA	
	Roof	Kitchen Short Order Exhaust Fan	EF-8	N	JO-g-901	12/16/1992	CentriMaster		QRB863709	2 hp & 4000 cfm				none	NA	NA	NA	
	Roof	Kitchen Prep Area Exhaust Fan	EF-9	N	JO-g-901	12/16/1992	CentriMaster	PUB300MU	QRB963701	3 hp & 5125 cfm				none	NA	NA	NA	
	Kitchen Bathroom	Bathroom Exhaust Fan	EF-10	N	JO-g-901	12/16/1992				0.1 hp & 125 cfm				none	NA	NA	NA	
	Roof	Kitchen Make-Up Air Heater	MU-1	N	JO-g-901	12/16/1992	Greenheck	KSU-112-A-2-20	93F03995	2 hp & 3300 cfm 275000BTU/HR							NA	Gas fired air heater
	Roof	Kitchen Make-Up Air Heater	MU-2	N	JO-g-901	12/16/1992	Greenheck	KSU-112-A-2-30	93F03290	3 hp & 4200 cfm 275000BTU/HR							NA	Gas fired air heater
	Computer Data Center	Split System Fan Coil A		Y		1/1/1997	Liebert	FH199AUAAM	348458-002	15 tons	B42	2	1x	18x24x4 24x24x4	1 3	2x	R-22	
	Roof	Split System Condenser Unit A		Y		1/1/1997	Liebert	CDF205LA	97120065	15 tons	none	NA	NA	none	NA	NA	R-22	
	Computer Data Center	Split System Fan Coil B		Y		1/1/1997	Liebert	FH199AUAAM	348458-001	15 tons	B42	2	1x	18x24x4 24x24x4	1 3	2x	R-22	
	Roof	Split System Condenser Unit B		Y		1/1/1997	Liebert	CDF205LA	97120066	15 tons	none	NA	NA	none	NA	NA	R-22	
	Computer Control Room	Split System Fan Coil C		N	JO-g-1193	1/1/2009	Liebert	DH125AUAAES		10 tons	B42	2	1x	24x24x4	3	2x	R-22	Not is use.
	Roof	Split System Condenser Unit C		N	JO-g-1193	1/1/2009	Liebert	DCDF205-A	0902C18377	10 tons	none	NA	NA	none	NA	NA	R-22	Not in use.
	UPS Room	Split System Fan Coil 1		Y			Carrier	40QAC036301	1806V22704	3 tons	none	NA	NA	washable		4x	R-410A	
	On ground north of JAO	Split System Condenser Unit 1		Y			Carrier	38HDR036-601	2906X93332	3 tons	none	NA	NA	none	NA	NA	R-410A	
	UPS Room	Split System Fan Coil 2		Y			Carrier	40QAC036301	1806V22705	3 tons	none	NA	NA	washable		4x	R-410A	
	On ground north of JAO	Split System Condenser Unit 2		Y			Carrier	38HDR036-601	2906X93337	3 tons	none	NA	NA	none	NA	NA	R-410A	
	Electrical Room	Split System Fan Coil		N			Carrier	40QAB048320	2797404826	4 tons	none	NA	NA	washable		4x	R-22	
	On ground north of JAO	Split System Condenser		N			Carrier	38HDC048610	4696X35649	4 tons	none	NA	NA	none	NA	NA	R-22	
	#976430							A-1							RFP/HVAC Systems Maintenance and Service			
	Carpool Room	Window Heat Pump		N			LG	LWHD1807HR	804TAJD01500	1.5 tons				washable		4x	R-22	

Appendix A - 1
Equipment List - JAO and Central Plant

Building	Location	Description	Tag Number	Redundant Equipment (Y/N)	Drawing # /PO #	Date Commissioned	Make	Model #	Serial #	Size	Belt Size	Belt Quantity	Belt Change Freq per Yr	Filter Size	Filter Quantity	Change Freq per Yr	Refrigerant	Notes
	Cafeteria	Fan Coil Unit 1	FC-1	N	JO-g-901	12/16/1992	Carrier	39L		1 hp & 1600 cfm cooling=6tons heating=40,600MBTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Cafeteria	Fan Coil Unit 2	FC-2	N	JO-g-901	12/16/1992	Carrier	39L		1 hp & 1600 cfm cooling=6tons heating=40,600MBTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Cafeteria	Fan Coil Unit 3	FC-3	N	JO-g-901	12/16/1992	Carrier	39L		1 hp & 1600 cfm cooling=6tons heating=40,600MBTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Cafeteria	Fan Coil Unit 4	FC-4	N	JO-g-901	12/16/1992	Carrier	39L		1 hp & 1600 cfm cooling=6tons heating=40,600MBTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Cafeteria	Fan Coil Unit 5	FC-5	N	JO-g-901	12/16/1992	Carrier	39L		1 hp & 1600 cfm cooling=6tons heating=40,600MBTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Cafeteria	Fan Coil Unit 6	FC-6	N	JO-g-901	12/16/1992	Carrier	39L		1 hp & 1600 cfm cooling=6tons heating=40,600MBTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Cafeteria	Fan Coil Unit 7	FC-7	N	JO-g-901	12/16/1992	Carrier	39L		2 hp & 2675 cfm cooling=10tons heating=93,000BTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Cafeteria	Fan Coil Unit 8	FC-8	N	JO-g-901	12/16/1992	Carrier	39L		2 hp & 2675 cfm cooling=10tons heating=93,000BTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Basement Mech. Room	Air Handling Unit 3	AHU-3	N	JO-g-901	12/16/1992	Carrier	39NXH921NVL	0993T31402	Supply=60hp Return=30hp total=48,860 cfm cooling=118tons heating=785,000BTU/hr	Supply= 5VX1120 Return= 5VX1000	3 2	2x 2x	24x24x4 12x24x4 24x24x2 24x24x1	15 8 24 288	4x 4x 1x 1x	NA	charcoal
	Basement Mech. Room	VFC for Supply Fan of AHU-3	VFC-SF-AHU3	Y	JO-g-1212	4/1/2016	ABB	ACH550-PCR-09		60 hp	none	NA	NA	washable		4x	NA	
	Basement Mech. Room	VFC for Return Fan of AHU-3	VFC-RF-AHU3	Y	JO-g-1212	4/1/2016	ABB	ACH550-PCR-04		30 hp	none	NA	NA	washable		4x	NA	
	Basement Mech. Room	Motor for Supply Fan of AHU-3		N	JO-g-901	12/1/1992	Magnetek	6-358657-03		60 hp	5VX1120	3	2x	none	NA	NA	NA	
	Basement Mech. Room	Motor for Return Fan of AHU-3		N	JO-g-901	12/1/1992	Magnetek	6-342154-03		30 hp	5VX1000	2	2x	none	NA	NA	NA	
	Basement Mech. Room	CW Pump 2	P-2	Y	JO-g-1212	4/1/2016	Aurora	3804-5x6x11	15-2441817-1	30 hp & 1000 gpm	none	NA	NA	none	NA	NA	NA	
	Basement Mech. Room	CW Pump 4	P-4	Y	JO-g-1212	4/1/2016	Aurora	3804-5x6x11	15-2441817-2	30 hp & 1000 gpm	none	NA	NA	none	NA	NA	NA	
	Basement Mech. Room	HW Pump 1	P-1	Y	JO-g-1212	4/1/2016	Aurora	3804-2x2.5x9.5	15-2441808-1	7.5 hp & 210 gpm	none	NA	NA	none	NA	NA	NA	
	Basement Mech. Room	HW Pump 3	P-3	Y	JO-g-1212	4/1/2016	Aurora	3804-2x2.5x9.5	15-2441808-2	7.5 hp & 210 gpm	none	NA	NA	none	NA	NA	NA	
	Basement Mech. Room	VFC for CW Pump 2	VFC-P2	Y	JO-g-1212	4/1/2016	ABB	ACH550-PCR-04	2151404844	30 hp	NA	NA	NA				NA	
	Basement Mech. Room	VFC for CW Pump 4	VFC-P4	Y	JO-g-1212	4/1/2016	ABB	ACH550-PCR-04	2151404837	30 hp	NA	NA	NA				NA	
	Basement Mech. Room	VFC for HW Pump 1	VFC-P1	Y	JO-g-1212	4/1/2016	ABB	ACH550-PCR-01	2151404865	7.5 hp	NA	NA	NA				NA	
	Basement Mech. Room	VFC for HW Pump 3	VFC-P3	Y	JO-g-1212	4/1/2016	ABB	ACH550-PCR-01	2151404862	7.5 hp	NA	NA	NA				NA	
	Basement Mech. Room	dP transmitters		N/A			U.E.	J21K-515QB9519			none	NA	NA	none	NA	NA		quanity = 4
	Basement Mech. Room	Fan Coil Unit 9	FC-9	N	JO-g-901	12/16/1992	Carrier	39L		1 hp & 3555 cfm heating=122.9MBTU/hr	AX32	1	1x	16x20x2	6	4x	NA	pleated
	Reproduction Room	Fan Coil #1		N		1/1/2000?	MagicAire	60BHW-6-A	W001265906	5 tons	A47			20x20x2	2		NA	
	Reproduction Room	Fan Coil #2		N		1/1/2000?	MagicAire	60BHW-6-A	W001263902	5 tons	A47			20x20x2	2		NA	
	Instrument Repair Shop (by library)	Split System Fan Coil #1		N		1/1/2000?	Carrier	40QKB036-3	4298100176	3 tons	none	NA	NA	washable		4x	R-22	
	Instrument Repair Shop (by library)	Split System Fan Coil #2		N		1/1/2000?	Carrier	40QKB036-3	4298100178	3 tons	none	NA	NA	washable		4x	R-22	
	On grond south of JAO	Split System Condenser Unit		N		1/1/2000?	Carrier	38HDS048311	0499X58264	4 tons	none	NA	NA	none	NA	NA	R-22	
	2nd Floor Mech. Room	Dual Air Compressors with Tank	C-1	Y		Compressors=6-1-2015 OtherParts=1-1-1996?	Quincy	QR01506D00013	5117970		B54	2	1x				NA	For pneumatic actuators on 134 mixing boxes
	2nd Floor Mech. Room	Air Dryer		N		6/1/2015	Hankison	HRP5-10	H510A1151404074	10 scfm	none	NA	NA				NA	
	2nd Floor Mech. Room	Pressure Relief Valve		N/A			Ultra Air	JAC20P-03		NA	none	NA	NA	none	NA	NA	NA	
	2nd Floor Mech. Room	Thermostats		N/A			Powers	192-202		NA	none	NA	NA	none	NA	NA	NA	quantity = ?
	Telephone Room	iVu Web Appliance		N	JO-g-1206	12/31/2015	Carrier	MP65-DU	CCP18671662268002	NA	none	NA	NA	none	NA	NA	NA	
	#976430							A-2							RFP/HVAC Systems Maintenance and Service			
	Telephone Room	Split System Fan Coil		N	PO #1560939	4/20/2016	Carrier	40MKCB54F--3	4515V00075	4.4 tons	none	NA	NA	washable		4x	R-410A	

Appendix A - 1
Equipment List - JAO and Central Plant

Building	Location	Description	Tag Number	Redundant Equipment (Y/N)	Drawing # /PO #	Date Commissioned	Make	Model #	Serial #	Size	Belt Size	Belt Quantity	Belt Change Freq per Yr	Filter Size	Filter Quantity	Change Freq per Yr	Refrigerant	Notes
	Roof	Split System Condenser Unit		N	PO #1560939	4/20/2016	Carrier	24AHA460A003	4815X99037	4.4 tons	none	NA	NA	none	NA	NA	R-410A	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-1	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-2	N	JO-g-1212	4/1/2016	Price	DDS5000-10"		10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-3	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-4	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-5	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-6	N	JO-g-1212	4/1/2016	Price	DDS5000-8"		8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-6A	N						10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-7	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-8	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-9	N	JO-g-1212	4/1/2016	Price	DDS5000-8"		8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-10	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-11	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-12	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-13	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-14	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-15	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-15A	N						6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-16	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-17	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-18	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-18A	N	JO-g-1212	4/1/2016	Price	DDS5000-4"		4"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-19	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-20	N	JO-g-1212	4/1/2016	Price	DDS5000-8"		8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-21	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-22	N	JO-g-1212	4/1/2016	Price	DDS5000-10"		10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-23	N	JO-g-1212	4/1/2016	Price	DDS5000-10"		10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-24	N	JO-g-1212	4/1/2016	Price	DDS5000-10"		10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-25	N	JO-g-1212	4/1/2016	Price	DDS5000-10"		10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-26	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-27	N	JO-g-1212	4/1/2016	Price	DDS5000-10"		10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-28	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-29	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-30	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-31	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-32	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-33	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-34	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-34A	N						6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-35	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-36	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-37	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-38	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-39	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-40	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-41	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-42	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-43	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-44	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-45	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-46	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-47	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-48	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-49	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-50	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-51	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-52	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-53	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-54	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-55	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-56	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-57	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-58	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-59	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-60	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-61	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-62	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-63	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-64	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-65	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	

Appendix A - 1
Equipment List - JAO and Central Plant

Building	Location	Description	Tag Number	Redundant Equipment (Y/N)	Drawing # /PO #	Date Commissioned	Make	Model #	Serial #	Size	Belt Size	Belt Quantity	Belt Change Freq per Yr	Filter Size	Filter Quantity	Change Freq per Yr	Refrigerant	Notes
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-66	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-67	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-68	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-69	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-70	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-71	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-72	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-73	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-74	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-75	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-76	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-77	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-78	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-79	N	JO-g-1212	4/1/2016	Price	DDS5000-10"		10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-79A	N						5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-80	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-81	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-81A	N						7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-82	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-83	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-84	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-85	N	JO-g-1212	4/1/2016	Price	DDS5000-8"		8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-86	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-87	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-88	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-89	N	JO-g-598	2/1/1974	Anemostat			4"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-90	N	JO-g-598	2/1/1974	Anemostat			14"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-91	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-92	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-93	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-94	N	JO-g-1212	4/1/2016	Price	DDS5000-12"		12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-95	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-96	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-97	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-98	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-98A	N						8" (cold only)	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-99	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-100	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-101	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-102	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-103	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-103A	N						6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-104	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-105	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-106	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-107	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-108	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-108A	N						6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-109	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-109A	N						10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-110	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-111	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-112	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-113	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-114	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-114A	N						7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-114B	N						14" (cold only)	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-115	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-116	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-117	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-118	N	JO-g-1212	4/1/2016	Price	DDS5000-14"		14"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-119	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-120	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-121	N	JO-g-598	2/1/1974	Anemostat			14"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-122	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-123	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-124	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-125	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-126	N	JO-g-598	2/1/1974	Anemostat			4"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-127	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-128	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-129	N	JO-g-598	2/1/1974	Anemostat			14"	none	NA	NA	none	NA	NA	NA	

Appendix A - 1
Equipment List - JAO and Central Plant

Building	Location	Description	Tag Number	Redundant Equipment (Y/N)	Drawing # /PO #	Date Commissioned	Make	Model #	Serial #	Size	Belt Size	Belt Quantity	Belt Change Freq per Yr	Filter Size	Filter Quantity	Change Freq per Yr	Refrigerant	Notes
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-130	N	JO-g-598	2/1/1974	Anemostat			14"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-131	N	JO-g-598	2/1/1974	Anemostat			14"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-132	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-133	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-134	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-134A	N						10"	none	NA	NA	none	NA	NA	NA	
	Basement (new JAO)	Variable Air Box (above ceiling tile)	T-1	N	JO-g-901	12/1/1992	Carrier	35DV		10"	none	NA	NA	none	NA	NA	NA	
	Basement (new JAO)	Variable Air Box (above ceiling tile)	T-2	N	JO-g-901	12/1/1992	Carrier	35DV		10"	none	NA	NA	none	NA	NA	NA	
	Basement (new JAO)	Variable Air Box (above ceiling tile)	T-3	N	JO-g-901	12/1/1992	Carrier	35DV		6"	none	NA	NA	none	NA	NA	NA	
	Basement (new JAO)	Variable Air Box (above ceiling tile)	T-4	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	Basement (new JAO)	Variable Air Box (above ceiling tile)	T-5	N	JO-g-901	12/1/1992	Carrier	35DV		8"	none	NA	NA	none	NA	NA	NA	
	Basement (new JAO)	Variable Air Box (above ceiling tile)	T-6	N	JO-g-901	12/1/1992	Carrier	35DV		6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-7	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-8	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-9	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-10	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-11	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-12	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-13	N	JO-g-901	12/1/1992	Carrier	35DV		8" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-14	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-15	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-16	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-17	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-18	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-19	N	JO-g-901	12/1/1992	Carrier	35DV		12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-20	N	JO-g-901	12/1/1992	Carrier	35DV		12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-21	N	JO-g-901	12/1/1992	Carrier	35DV		12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-22	N	JO-g-901	12/1/1992	Carrier	35DV		8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-23	N	JO-g-901	12/1/1992	Carrier	35DV		6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-24	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-26	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-27	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-28	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-29	N	JO-g-901	12/1/1992	Carrier	35DV		8" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-30	N	JO-g-901	12/1/1992	Carrier	35DV		6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-31	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-32	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-33	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-34	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-35	N	JO-g-901	12/1/1992	Carrier	35DV		12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-36	N	JO-g-901	12/1/1992	Carrier	35DV		10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-37	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-38	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-39	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-40	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-41	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-42	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-43	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-44	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-45	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-46	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-47	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-48	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-49	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-50	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-51	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-52	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-53	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-54	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-55	N	JO-g-901	12/1/1992	Carrier	35DV		6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-56	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-57	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-58	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-59	N	JO-g-901	12/1/1992	Carrier	35DV		12" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-60	N	JO-g-901	12/1/1992	Carrier	35DV		14" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-61	N	JO-g-901	12/1/1992	Carrier	35DV		14" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-63	N	JO-g-901	12/1/1992	Carrier	35DV		8" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-64	N	JO-g-901	12/1/1992	Carrier	35DV		10" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-65	N	JO-g-901	12/1/1992	Carrier	35DV		10" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-66	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-67	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-68	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	

Appendix A - 1
Equipment List - JAO and Central Plant

Building	Location	Description	Tag Number	Redundant Equipment (Y/N)	Drawing # /PO #	Date Commissioned	Make	Model #	Serial #	Size	Belt Size	Belt Quantity	Belt Change Freq per Yr	Filter Size	Filter Quantity	Change Freq per Yr	Refrigerant	Notes
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-69	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-70	N	JO-g-901	12/1/1992	Carrier	35DV		8" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-71	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-72	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-73	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-74	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	Y-75	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-76	N	JO-g-901	12/1/1992	Carrier	35DV		12" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-77	N	JO-g-901	12/1/1992	Carrier	35DV		10" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-78	N	JO-g-901	12/1/1992	Carrier	35DV		12" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-79	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-80	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor Room K	Cold Deck Branch Damper		N		5/1/2018	Zonex	STMPD		8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor Room K	Thermostat		N		5/1/2018	Zonex	SAMOD II			none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Automatic air vent valves (2)		N/A		12/1/1992	Hoffman				none	NA	NA	none	NA	NA	NA	
Guard Shack	Guard Shack	Window Heat Pump		N		8/10/2016	GE			1.5 tons	none	NA	NA	washable		4x	R-410A	
Board Room	Roof	Air Conditioner #1		N	JO-g-1192	6/1/2009	Carrier	50PG-C14-D-6	0909G20011	12.5 TONS		1	2x	Prefilter=24x24x1 &12x24x1 Carbon=24x24x2 &12x24x2	8 8 8 8	4x 4x 1x 1x	R-410A	
Board Room	Roof	Air Conditioner #2		N	JO-g-1192	6/1/2009	Carrier	50PG-C14-D-6	0909G20012	12.5 TONS		1	2x	Prefilter=24x24x1 &12x24x1 Carbon=24x24x2 &12x24x2	8 8 8 8	4x 4x 1x 1x	R-410A	
Board Room	Roof	Bathroom Exhaust Fan (south)	EF-11	N	JO-g-901	12/16/1992	CentriMaster	PU135E2	QRB963702	1/4 hp & 500 cfm	3L210	1	NA	none	NA	NA	NA	
Board Room	Roof	Bathroom Exhaust Fan (north)	EF-12	N	JO-g-901	12/16/1992	CentriMaster	PU135E2	QRB963702	1/4 hp & 500 cfm	3L210	1	NA	none	NA	NA	NA	

Appendix A - 1
Equipment List - JAO and Central Plant

Building	Location	Description	Tag Number	Redundant Equipment (Y/N)	Drawing # /PO #	Date Commissioned	Make	Model #	Serial #	Size	Belt Size	Belt Quantity	Belt Change Freq per Yr	Filter Size	Filter Quantity	Change Freq per Yr	Refrigerant	Notes
Central Plant	Chiller Room	Chiller #1	Chiller #1	Y	JO-g-1136	6/1/2005	Carrier	19XR7777556EK	4604Q69713	1000 tons	none	NA	NA	none	NA	NA	R-134A	
	Chiller Room	Chiller #2	Chiller #2	Y	JO-g-1136	6/1/2005	Carrier	19XR7777556EK	4604Q69714	1000 tons	none	NA	NA	none	NA	NA	R-134A	
	Chiller Room	Chiller #3	Chiller #3	Y	JO-g-1049	7/28/1999	Carrier	19XR3231204BH	5298J59060	350 tons	none	NA	NA	none	NA	NA	R-134A	
	Chiller Room	Chilled Water Pump #1	CHWP-1	Y	JO-g-1136	6/1/2005	Flowserve	8LR-12B	0804-4978A	100 hp & 2400 gpm	none	NA	NA	none	NA	NA	NA	
	Chiller Room	Chilled Water Pump #2	CHWP-2	Y	JO-g-1136	6/1/2005	Flowserve	8LR-12B	0804-4978B	100 hp & 2400 gpm	none	NA	NA	none	NA	NA	NA	
	Chiller Room	Exhaust Fan #1	EF-1	N	JO-g-901	12/1/1992	CentriMaster	XB300K	GR8963714	1.5 hp & 7800 cfm	AX80	1	1x	none	NA	NA	NA	
	Chiller Room	Chilled Water Expansion Tank		N	JO-g-1136	6/1/2005	Taco	NATL 80-82217	K10147	150 psi	none	NA	NA	none	NA	NA	NA	
	Chiller Room	Refrigerant Monitoring System		N	JO-g-1136	6/1/2005	Sherlock	60-0036-4	05F-404-4-00100D		none	NA	NA	none	NA	NA	NA	
	Chiller Elec Building	VFC for Chiller #1	VFC-1	Y	JO-g-1136	6/1/2005	Toshiba	G3+8481KC81	040800071		none	NA	NA	none	NA	NA	NA	
	Chiller Elec Building	VFC for Chiller #2	VFC-2	Y	JO-g-1136	6/1/2005	Toshiba	G3+8481KC81	040800072		none	NA	NA	none	NA	NA	NA	
	Chiller Elec Building	Split System Fan Coil		N	JO-g-1136	6/1/2005	Liebert	DH125AUAA01	681518-001	10 tons	B42	2	1x	24x24x4	3	4x	R-22	
	Outside Elec Building	Split System Condenser Unit		N	JO-g-1136	6/1/2005	Liebert	DCDF205-A	0504C75290		none	NA	NA				R-22	
	Roof of Elec Building	Exhaust Fan (backup to AC unit)	EF-3	N	JO-g-1136	6/1/2005	Greenheck	LB-36-50-X	05C00197	5 hp & 614 cfm			NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Automatic air vent valve		N/A		12/1/1992	Hoffman				none	NA	NA	none	NA	NA	NA	
Central Plant	Boiler Room	Boiler #1	B-59A-01	Y	JO-g1211	8/1/2012	Ajax (now ACE)	WCP-300I-N	71732	3 MM BTU/hr	none	NA	NA	none	NA	NA	NA	
	Boiler Room	Boiler #2	B-59A-02	Y	JO-g1211	8/1/2012	Ajax (now ACE)	WCP-300I-N	71733	3 MM BTU/hr	none	NA	NA	none	NA	NA	NA	
	Boiler Room	Boiler #3	B-59A-03	Y	JO-g1211	8/1/2012	Ajax (now ACE)	WCP-300I-N	71734	3 MM BTU/hr	none	NA	NA	none	NA	NA	NA	
	Boiler Room	Hot Water Expansion Tank		N	JO-g-901	12/1/1992	Amtrol	2000L	94-2186	125 psi	none	NA	NA	none	NA	NA	NA	
	Boiler Room	Hot Water Pump #1	P-59B-01	Y	JO-g1211	8/1/2012	Patterson	3x2.5M	SC-C0108148-01	50 hp & 300 gpm	none	NA	NA	none	NA	NA	NA	
	Boiler Room	Hot Water Pump #2	P-59B-02	Y	JO-g1211	8/1/2012	Patterson	3x2.5M	SC-C0108148-02	50 hp & 300 gpm	none	NA	NA	none	NA	NA	NA	
	Boiler Room	VFC for Hot Water Pump #1	VFC-59B-01	Y	JO-g1211	8/1/2012	Eaton	SVX-9000	ELAG245	50 hp	none	NA	NA	none	NA	NA	NA	
	Boiler Room	VFC for Hot Water Pump #2	VFC-59B-02	Y	JO-g1211	8/1/2012	Eaton	SVX-9000	ELAG245	50 hp	none	NA	NA	none	NA	NA	NA	
	Boiler Room	Air Separator	AS-59B-00	N	JO-g1211	8/1/2012				NA	none	NA	NA	none	NA	NA	NA	
	Boiler Room	Exhaust Fan #2	EF-2	N	JO-g-901	12/1/1992	CentriMaster	XB300K	RRB963714	1.5 hp & 7800 cfm	AX80	1	1x	none	NA	NA	NA	
	Boiler Room	Water Softener		N			Pentair				none	NA	NA	none	NA	NA	NA	
	Boiler Room	Sump Pump #1		N	JO-g-901	12/1/1992												
	Boiler Room	Sump Pump #2		N	JO-g-901	12/1/1992												
	Boiler Room	Combustible Gas Monitoring System (control panel in Chiller Room)		N														Sensidyne SensAlert Plus
	Control Room	Split System Fan Coil	none	N	PO #1560939	4/1/2016	Carrier	40MKCB18C--3		1.5 tons	none	NA	NA	washable		4x	R-410A	
	Outside Control Room	Split System Condenser Unit	none	N	PO #1560939	4/1/2016	Carrier	24AHA418A300	4615X90878		none	NA	NA	none	NA	NA	R-410A	
	2nd Floor (new JAO)	Automatic air vent valve		N/A		12/1/1992	Hoffman				none	NA	NA	none	NA	NA	NA	
	Filter Gallery	Condenser Water Pump #1	CWP-1	Y	JO-g-901	12/1/1992	ITT A-C Pump	12 x 10 x 12 Type	1-23999-02-1	75 hp	none	NA	NA	none	NA	NA	NA	Crane to access gallery. New impellers in 6-05 JO-g-1136
	Filter Gallery	Condenser Water Pump #2	CWP-2	Y	JO-g-901	12/1/1992	ITT A-C Pump	12 x 10 x 12 Type	1-23999-02-2	75 hp	none	NA	NA	none	NA	NA	NA	Crane to access gallery. New impellers in 6-05 JO-g-1136

Appendix A - 2
Equipment List - SJC Laboratory

EQUIPMENT ID	SIZE/TYPE	MANUFACTURER	MODEL/SERIAL NO.	QTY	LOCATION	CARBON FILTER SIZE	CARBON FILTER QTY	CARBON FILTER CHANGE FREQUENCY
			AC UNITS					
5-AC-01	PACKAGE	CARRIER	62DB9038RV4D3C-ECR	1	ROOF TOP	TBD	TBD	2X DURING 3-YR CONTRACT
5-AC-02	PACKAGE	CARRIER	62DB9038RV4D3C-ECR	1	ROOF TOP	TBD	TBD	2X DURING 3-YR CONTRACT
5-AC-03	PACKAGE	CARRIER	50HCCE14D3M6-OAIGO	1	ROOF TOP			
5-AC-04	PACKAGE	TRANE	WSC060E4ROA	1	ROOF TOP			
5-AC-05	PACKAGE	CARRIER	62DB9030RT4D3C-ECR	1	ROOF TOP	TBD	TBD	2X DURING 3-YR CONTRACT
5-AC-06	PACKAGE	CARRIER	62DB9030RT4D3C-ECR	1	ROOF TOP	TBD	TBD	2X DURING 3-YR CONTRACT
5-AC-07	PACKAGE	CARRIER	50HCCB07D2A602340	1	ROOF TOP			
7-AC-01	PACKAGE	CARRIER	62DB9034RV4D3C-ECR	1	ROOF TOP	TBD	TBD	2X DURING 3-YR CONTRACT
7-AC-02	PACKAGE	CARRIER	62DB9034RV4D3C-ECR	1	ROOF TOP	TBD	TBD	2X DURING 3-YR CONTRACT
507LBA08	5TON PACKAGE	CARRIER	50HJQ005-601-1097G20232	1	ROOF TOP (SR)			
Q.A TRAILER AC	PACKAGE	BARD	W4242/ S#314K	1	TRAILER			
S.R. TRAILER AC	PACKAGE	BARD	W4242/ S#400D	1	TRAILER			
			SPLIT UNITS					
#13	SPLIT SYSTEM	SANYO	C2462R (S#0014031)	1	ROOF TOP			
507LBAC04	SPLIT SYSTEM	SANYO	C3622 (S#011896)	1	ROOF TOP			
	SPLIT SYSTEM	SANYO	C3632A (S#0056142)	1	ROOF TOP			
LBAC08	SPLIT SYSTEM	SANYO	3632 (S#0076994)	1	ROOF TOP			
	SPLIT SYSTEM	PANASONIC	CU-KS36NKUA	1	ROOF TOP			
	SPLIT SYSTEM	DAKIN INDUST	RXN12KEVJU5/ S#G670	1	ROOF TOP			
	SPLIT SYSTEM	DAKIN INDUST	RXN12KEVJU5/ S#G1747	1	ROOF TOP			
BIO AC	SPLIT SYSTEM	SAMSUNG	MISSING	1	ROOF TOP			
			AIR HANDLERS					
507LBAH01	AIR HANDLER	CARRIER	39TH61AA	1	BASEMENT	20x20x4 20X25X4	12 6	ONCE PER YEAR
507LBAH02	AIR HANDLER	CARRIER	39TV09BCHAU	1	BASEMENT			

507LBAH03	AIR HANDLER	CARRIER		1	ROOF TOP	24X24X1	24	2X DURING 3-YR CONTRACT
507LBAH05	AIR HANDLER	CARRIER		1	BASEMENT			
507LBAH06	AIR HANDLER	CARRIER	39NXS615NVR	1	BASEMENT	24X24X2	60	ONCE PER YEAR
		HOT & CHILLED WATER PUMP						
507CHPU01	CHW PUMP	PACO		1	BASEMENT			
507CHPU02	CHW PUMP	PACO		1	BASEMENT			
507CHPU03	CHW PUMP	MARATHON		1	BASEMENT			
507CHPU04	CHW PUMP	MARATHON		1	BASEMENT			
507HWPU05	HW PUMP	PACO		1	BASEMENT			
507HWPU06	HW PUMP	PACO		1	BASEMENT			
507HWPU07	HW PUMP	BALDOR		1	BASEMENT			
507HWPU08	HW PUMP	BALDOR		1	BASEMENT			
507CHPU15	CHW PUMP	LINCOLN	10 HP	1	ANNEX BS			
507CHPU16	CHW PUMP	LINCOLN	10 HP	1	ANNEX BS			
507HWPU17	HW PUMP	LINCOLN	3 HP	1	ANNEX BS			
507HWPU18	HW PUMP	LINCOLN	3 HP	1	ANNEX BS			
		EXHAUST FANS						
5-EF-01	EXHAUST FAN	M.K. PLASTICS	2450	1	ROOF TOP			
5-EF-02	EXHAUST FAN	M.K. PLASTICS	2450	1	ROOF TOP			
5-EF-03	EXHAUST FAN	M.K. PLASTICS	2450	1	ROOF TOP			
5-EF-04	EXHAUST FAN	M.K. PLASTICS	2450	1	ROOF TOP			
5-EF-05	EXHAUST FAN	M.K. PLASTICS	180CPV	1	ROOF TOP			
5-EF-06	EXHAUST FAN	M.K. PLASTICS	180CPV	1	ROOF TOP			
507EXFN08	EXHAUST FAN	M.K. PLASTICS	80CPV	1	ROOF TOP			
507EXFN14	EXHAUST FAN	COOK	100C2B	1	ROOF TOP			
507EXFN15	EXHAUST FAN	COOK	100C2B	1	ROOF TOP			
507EXFN16	EXHAUST FAN	COOK	100C2B	1	ROOF TOP			
507EXFN17	EXHAUST FAN	COOK		1	ROOF TOP			
507EXFN18	EXHAUST FAN	M.K. PLASTICS	70CPV	1	ROOF TOP			
507EXFM20	EXHAUST FAN	COOK	100C2B	1	ROOF TOP			

507EXFN21	EXHAUST FAN	M.K. PLASTICS	70CPV	1	ROOF TOP			
507EXFN23	EXHAUST FAN		PMCCB14	1	ROOF TOP			
507EXFN24	EXHAUST FAN		PMCCB16	1	ROOF TOP			
507EXFN26	EXHAUST FAN			1	ROOF TOP			
507EXFN28	EXHAUST FAN	AMERICAN	SMB-12	1	ROOF TOP			
507EXFN29	EXHAUST FAN	M.K. PLASTICS	80CPV	1	ROOF TOP			
507EXFN51	EXHAUST FAN	GREENHECK	FJC-315-B1	1	ROOF TOP			
507SPFN25	SUPPLY FAN	GREENHECK		1	ROOF TOP			
7-EF-01	EXHAUST FAN	M.K. PLASTICS	2450	1	ROOF TOP			
7-EF-02	EXHAUST FAN	M.K. PLASTICS	2450	1	ROOF TOP			
507SPFN16 (EF34)	EXHAUST FAN	COOK	120CPA	1	ROOF TOP			
		WALK-IN COOLER						
507WAIN01 507WAIN02	CONDENSER RACK	TRENTON	T030MI-HT3	2	ROOF TOP			
507WAIN01 507WAIN02	WALK-IN COOLER	LARKIN	GA6260BBX2	2X2	ANNEX BASEMENT			
507WAIN03	CONDENSER RACK	TRENTON	T020M2-HT3	1	ROOF TOP			
507WAIN03	ENVIROMENTAL CHAMBER	MagicAire	36-BHX-3940284670	1	ANNEX BASEMENT CEILING			
507WAIN04	CONDENSER RACK	TRENTON	T020M2-HT3	1	ROOF TOP			
507WAIN04	ENVIROMENTAL CHAMBER	COULD NOT READ	ECP61752L	1	ANNEX BASEMENT			
507WAIN05	CONDENSER RACK	TECUMSEH	AWG45245EXNXM	1	ROOF TOP			
507WAIN05	WALK-IN COOLER	LARKIN	ACPB-102-2	2	ANNEX BUILDING			
507WAIN06	CONDENSER RACK	TRENTON	TESA0216-HT38-F	1	FLOOR LEVEL			
507WAIN07	CONDENSER RACK	TRENTON	TESA025H8-HT38-B	1	FLOOR LEVEL			
507WAIN06/07	WALK-IN COOLER	WITT/ TRENTON	COULD NOT READ/ TPLP423MASIBRGE	1	FLOOR LEVEL			
507WAIN09	CONDENSER RACK		MISSING TAG	1	ROOF TOP			
507WAIN09	WALK-IN COOLER	RUSSELL	AL36-92	1	SAMPLE REC. AREA			

VARIABLE FREQUENCY DRIVE								
5-EF-01 VFD	VFD	ABB		1	BASEMENT			
5-EF-02 VFD	VFD	ABB		1	BASEMENT			
5-EF-03 VFD	VFD	ABB		1	BASEMENT			
5-EF-04 VFD	VFD	ABB		1	BASEMENT			
7-EF-01 VFD	VFD	ABB		1	BASEMENT			
7-EF-02 VFD	VFD	ABB		1	BASEMENT			
5-AH-01 VFD	VFD	ABB		1	BASEMENT			
7-AH-06 VFD	VFD	ABB		1	BASEMENT			

Special Color Coded Notes:

1. Maintenance can be completed during business hour with notice.
2. Maintenance must be completed after 4:30pm any day of the week.
3. Maintenance can be completed anytime during the weekend or after 4:30pm M-F.

2022

APPENDIX B

ROUTINE AND ANNUAL SERVICE REQUIREMENTS AND SCHEDULE

APPENDIX B

ROUTINE AND ANNUAL SERVICE REQUIREMENTS AND SCHEDULE

1. GENERAL

As a minimum, the Contractor shall perform the routine operating/maintenance inspections and annual maintenance tasks specified by the Districts in the RFP and this **Appendix B**. Each Proposer shall identify additional items to be serviced on the identified equipment based on their past experience and shall list them separately on the "Routine Inspections and Maintenance" and "Annual Preventive Maintenance" lists, as appropriate. It shall be understood that all the additional listed items shall be included in the price quoted by the Proposer in the Cost Proposal. These additional items will be evaluated and will enhance the Proposer's Technical Qualifications score. Each Proposer shall confirm all the necessary actions listed in this appendix as a minimum, and shall add the additional items at the bottom of each corresponding service sheet or a separate sheet and shall submit with the Technical Qualifications Package. The equipment shall not be shut down or the system disturbed during routine inspections if performed during working hours, unless there is a redundant piece of equipment and/or system that will keep the HVAC system functional.

2. ROUTINE INSPECTION AND MAINTENANCE

The Contractor shall perform several routine inspections/maintenance per year. The minimum requirements and the frequency for the routine inspections/maintenance on each group of similar equipment has been identified in this **Appendix B**. Note that sizes and frequency of belt and filter changes are listed in Appendix A. All filter changes shall be completed with MERV 13 filters. No equipment and/or system shall be shut down during routine inspections/maintenance unless there is a redundant piece of equipment and/or system that will keep the HVAC system functional. Routine inspections/maintenance shall not cause any disturbance of the system or burden the personnel of the Districts during working hours. Any such shutdowns for repairs of equipment that will affect the operation of the system shall be done after the specified Districts working hours or on weekends. The Proposer shall notify the Districts of any such work at least five (5) business days in advance, unless the repair is critical for the system and needs immediate attention, in which case a 48-hour advance notice is sufficient.

3. ANNUAL PREVENTIVE MAINTENANCE

The Contractor shall perform one annual preventive or major maintenance on all the equipment listed in **Appendices A-1 and A-2** and as identified in this **Appendix B**. The service will ensure that all equipment will operate efficiently, reliably and trouble-free during peak demand hours during the ensuing year. This service shall consist of shutting down, as necessary, each individual piece of equipment and performing the items listed in this **Appendix B** as a minimum. The system shall be brought back to operation immediately after the service has been completed and before the next business day. The annual preventive maintenance shall be performed after working hours of the Districts or on weekends with at least two (2) weeks advance notice unless there is a redundant piece of equipment and/or system that will keep the HVAC system functional. Receipt of the Weekly Service Reports is a condition precedent of the initiation of payment.

4. RAIN EVENTS

The transformer secondary containment (next to the Central Plant) may fill up with rain water. If it is raining during normal business hours or has rained during the previous weekend, the Contractor shall drain the secondary containment of rain water by running the existing sump pump by plugging it into a 110 volt outlet at the Central Plant.

5. EQUIPMENT CYCLING

Major pieces of equipment have been installed in pairs for redundancy and are scheduled to rotate at the beginning of each month. The following table lists the equipment and their operating schedules. The Contractor shall verify that the proper equipment is operating on daily site walks after the first of each month.

ODD Months	EVEN Months	Location
Chiller #1	Chiller #2	Central Plant
Chilled Water Pump #1	Chilled Water Pump #2	Central Plant
Condenser Water Pump #1	Condenser Water Pump #2	Filter Gallery
Hot Water Pump #1	Hot Water Pump #2	Central Plant
JAO Chilled Water Pump #2	JAO Chilled Water Pump #4	JAO Basement
JAO Hot Water Pump #1	JAO Hot Water Pump #3	JAO Basement
Air Compressor #1*	Air Compressor #2*	JAO Mechanical Room*
UPS Room Unit #1*	UPS Room Unit #2*	JAO UPS Room*

* The lead air compressor and lead unit for the JAO UPS Room must be set manually each month by the Contractor

Equipment with different operating schedules are listed below.

JAN, APR, JUL, OCT	FEB, MAY, AUG, NOV	MAR, JUN, SEP, DEC
Hot Water Heater #1	Hot Water Heater #2	Hot Water Heater #3
Operates DAY SHIFT	**Operates NIGHT SHIFT**	
Data Center Unit B	Data Center Unit A	

CENTRIFUGAL CHILLERS

ROUTINE INSPECTIONS/MAINTENANCE

Routine inspection items, to be performed on each individual chiller four(4) times a year equally apart, shall include but shall not be limited to the following:

1.	Check general machine operation
2.	Check control, power and piping
3.	Check refrigerant charge
4.	Check gauges/indicator lights
5.	Check water flow
6.	Perform Zero Offset Calibration for refrigerant monitors (every 6 months)
7.	Log CHW in temperature (daily)
8.	Log CHW out temperature (daily)
9.	Log CHW flow dP (daily)
10.	Log CHW pump dP (daily)
11.	Log cooler refrigerant temperature (daily)
12.	Log cooler refrigerant pressure (daily)
13.	Log CDW in temperature (daily)
14.	Log CDW out temperature (daily)
15.	Log CDW flow dP (daily)
16.	Log CDW pump dP (daily)
17.	Log condenser refrigerant temperature (daily)
18.	Log condenser refrigerant pressure (daily)
19.	Log condenser subcooler temperature (daily)
20.	Log oil level (daily)
21.	Log oil pump current (daily)
22.	Log oil supply pressure (daily)
23.	Log oil sump temperature (daily)
24.	Check and log approaches through calculation
	Note that all log data listed above shall be maintained in a Microsoft Excel file and contain all previously recorded information including dates so the long term graph of each data point can be reviewed in one report.
25.	Check for leaks
26.	Lubricate as needed
27.	Make equipment and control adjustments as necessary
28.	Dispose of any waste oil generated at the Central Plant at the San Jose Creek WRP Waste Oil Room. Contractor to coordinate disposal with Districts personnel. Waste oil shall not be stored at the Central Plant for any length of time.

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

CENTRIFUGAL CHILLERS

ANNUAL PREVENTIVE MAINTENANCE

Before every annual preventive maintenance, a complete routine inspection shall be performed on each chiller. Annual preventive maintenance items shall be performed once a year and shall include but shall not be limited to the following:

1.	Leak check with leak detector
2.	Calibrate flow switches
3.	Log motor amps
4.	Secure circuits, lockout and tag
5.	Check starter wiring and contact
6.	Review and evaluate log readings
7.	Pull oil sample for analysis
8.	Check gauges and indicator lights
9.	Replace refrigerant oil filter
10.	Replace oil filter
11.	Remove condenser head
12.	Brush condenser tubes
13.	Re-install condenser head
14.	Check starter wiring and contacts
15.	Check variable frequency drive
16.	Megger compressor motor
17.	Restore power
18.	Leak check disassembled joints
19.	Run Chiller #3 for approximately 1 week each year during winter months
20.	Perform eddy current testing of the condenser tubes one time during the three-year service contract and provide a report to the District for review. District may request to perform the test at any time during the 3-year contract duration. The Maintenance Tracking Log to be submitted every month shall include this information.

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

BOILERS

ROUTINE INSPECTIONS/MAINTENANCE

Routine inspection items, to be performed on each individual boiler four(4) times a year equally apart, shall include but shall not be limited to the following:

1.	Check general machine operation
2.	Check control, power and piping
3.	Test operating temperature controls
4.	Check safety/operating controls
5.	Check pilot and main flame signal
6.	Check gauges/indicator lights
7.	Check condensate drain system
8.	Observe condition of main flame
9.	Leak test for gas valve, pilot assembly and blower (semi-annually)
10.	Coordinate with Districts' air emissions testing company by adjusting firing rate for multiple emissions tests.
11.	Make equipment and control adjustments as necessary
12.	Log start counts (weekly)
13.	Log HHW in temperature
14.	Log HHW out temperature
15.	Log HHW flowrate
16.	Log HHW pump dP
17.	Log gas line pressure
	Note that all log data listed above shall be maintained in a Microsoft Excel file and contain all previously recorded information including dates so the long term graph of each data point can be reviewed in one report.
18.	Calibrate Combustible Gas Transmitters (semi-annually)

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

BOILERS

ANNUAL PREVENTIVE MAINTENANCE

Before every annual preventive maintenance, a complete routine inspection shall be performed on each boiler. Annual preventive maintenance items shall be performed once a year and shall include but shall not be limited to the following:

1.	Disconnect and remove heads, plugs or hand hole plates from both ends as needed.
2.	Wash and flush out heater tubes. Check for damage or corrosion.
3.	Inspect and clean firebox area.
4.	Inspect refractory, point up and wash-coat all refractories.
5.	Provide insulating fire brick and insulation, close and seal fire box door.
6.	Inspect burner for damage and clean as necessary.
7.	Reinstall heads, plugs, or hand hole plates using new gaskets.
8.	Fill unit to proper level and inspect for leaks.
9.	Remove gas pilot assembly. Clean pilot assembly and install in accordance with Factory recommended specifications and tolerances.
10.	Check flame Safeguard Control for pilot and main flame ignition.
11.	Open and check water level controls and piping.
12.	Check Safety Relief Valve and advise.
13.	Check operation of gas valves and vents.
14.	Check and adjust all heater limit pressuretrols and running interlocks.
15.	Check burner, pilot and main flame ignition.
16.	Check and calibrate the heater/burner for optimum air/fuel mixture and firing to be fine tuned and adjusted to its maximum efficiency level. Conduct flue gas analysis and monitor temperature, O2, CO2, CO and excess air to be within required limits.
17.	Perform combustion and efficiency testing and record all firing rates of heater burner capacity. Combustion efficiency will be calculated and recorded.
18.	Coordinate with Districts' air emissions testing company by adjusting firing rate for multiple emissions tests for the annual South Coast Air Quality Management District (AQMD) test.
19.	Perform pilot turndown test
20.	Perform pilot spark pickup test
21.	Examine vent system
22.	Check vent on air separator
23.	Check operation of boiler room sump pumps

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

ROOFTOP PACKAGE UNITS

ROUTINE INSPECTIONS/MAINTENANCE

Routine inspection items, to be performed on each individual rooftop package four (4) times a year equally apart, shall include but shall not be limited to the following:

1.	Check capacity control components
2.	Check condenser fans
3.	Check condition of coils
4.	Check temperature differentials
5.	Check electrical components
6.	Check filters
7.	Check for leaks
8.	Check general operating conditions
9.	Check heat exchangers
10.	Check humidifier components
11.	Check motor amperage
12.	Check oil level
13.	Check belt(s) condition
14.	Check condensate components
15.	Check fan rotation
16.	Calibrate operating controls
17.	Calibrate safety controls
18.	Clean up work station
19.	Visual inspections of mold in accessible areas.

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

ROOFTOP PACKAGE UNITS

ANNUAL PREVENTIVE MAINTENANCE

Before every annual preventive maintenance, a complete routine inspection shall be performed on each rooftop package. Annual preventive maintenance items to be performed once a year, shall include but shall not be limited to the following:

1.	Stop equipment as needed
2.	Secure all circuits, lockout and tag
3.	Clean metal air filters
4.	Replace or clean filters
5.	Check capacity control components
6.	Check condenser fans
7.	Chemically clean coils and check their condition
8.	Check temperature differentials
9.	Check electrical components
10.	Check filters
11.	Check for leaks
12.	Check general operating conditions and clean the intake plenum of dirt and debris
13.	Check heat exchangers
14.	Check humidifier components
15.	Check motor amperage and grease bearings
16.	Check oil level
17.	Check refrigerant for water, acid, and proper charge
18.	Replace belts
19.	Calibrate operating controls and instruments
20.	Calibrate safety controls and instruments
21.	Check controller and VFD for alarms and proper operation
22.	Verify damper linkages move freely and lubricate
23.	Check reversing valve, heat pump for proper operation
24.	Inspect and clean all drain pans and drain piping.
25.	Restore power
26.	Clean up work station

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

AIR-COOLED SPLIT SYSTEMS

ROUTINE INSPECTIONS/MAINTENANCE

Routine inspection items, to be performed on each individual air-cooled split systems four (4) times a year equally apart, shall include but shall not be limited to the following:

1.	Check capacity control components
2.	Check condenser fans
3.	Check condition of coils
4.	Check temperature differentials, wash condenser coils if needed (minimum twice per year)
5.	Check electrical components
6.	Check filters
7.	Check for leaks
8.	Check general operating conditions
9.	Check for vibration
10.	Check humidifier components
11.	Check motor amperage
12.	Check air-cooled condenser components, including condensate pump
13.	Check belt(s) condition
14.	Calibrate operating controls
15.	Calibrate safety controls
16	Change filters and belts. See **Appendix A** for sizes and frequency.
17.	Clean up work station

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

AIR-COOLED SPLIT SYSTEMS

ANNUAL PREVENTIVE MAINTENANCE

Before every annual preventive maintenance, a complete routine inspection shall be performed on each air-cooled split system. Annual preventive maintenance items to be performed once a year shall include but shall not be limited to the following:

1.	Check capacity control components
2.	Check condenser fans
3.	Check condition of coils
4.	Check temperature differentials
5.	Check electrical components
6.	Check filters
7.	Check for leaks
8.	Check general operating conditions
9.	Check for vibration
10.	Check humidifier components
11.	Check motor amperage
12.	Check air-cooled condenser components
13.	Check drain lines for obstructions and clear as necessary
14.	Calibrate operating controls
15.	Calibrate safety controls
16	Inspect and clean all drain pans and drain piping.
17.	Clean up work station

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

AIR HANDLING UNITS

ROUTINE INSPECTIONS/MAINTENANCE

Routine inspection items, to be performed on each individual JAO air handling unit 12 times a year equally apart, shall include but shall not be limited to the following:

1.	Check general operating condition
2.	Check all drain pans and drain piping
3.	Check all coils for leaks
4.	Check filter condition
5.	Replace MERV 13 filters if differential pressure is high, otherwise per filter sizes and replacement schedule found in Appendix A
6.	Log coil air differential temperature
7.	Log coil water differential temperature
8.	Note that all log data listed above shall be maintained in a Microsoft Excel file and contain all previously recorded information including dates so the long term graph of each data point can be reviewed in one report.
9.	Clean up work station
10.	Check and clean Ionization tubes and sock every 6 months. Replace the sock and install tube(s) if not working.
11.	Check UV lights. Replace UV light(s) if not working properly
12.	Replace ionization tubes if ion level drops below recommended level
13.	Lubricate fan and motor bearings
14.	Inspect and clean smoke detectors at each filter change
15.	Inspect and clean all drain pans and drain piping
16.	Check for dust on VFD heat sinks; VFD cabinet filters and clean/replace if necessary
17.	Visual inspections for mold and testing of substances suspected to be mold. Contractor shall provide a monthly visual inspection and testing report for this task.
18.	Monitor indoor air quality to verify HVAC system performance and provide monthly written feedback.
19.	Monitor carbon dioxide (CO_2) at various strategic locations to ensure adequate outdoor/supply air flow to maintain CO_2 at or below 800-1000 ppm. At minimum, CO_2 shall be monitored at main return air plenum, main supply airstream, large conference room, crowded office areas and locations maintenance contractor deem appropriate. Contractor to include in service reports.
20.	Monitor and control humidity to prevent the appearance of mold, specifically in cold supply ducts and plenums.

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

AIR HANDLING UNITS

ANNUAL PREVENTIVE MAINTENANCE

Before every annual preventive maintenance, a complete routine inspection shall be performed on each JAO air handling unit. Annual preventive maintenance items to be performed once a year, shall include but shall not be limited to the following:

1.	Stop equipment
2.	Check general operating condition
3.	Replace belts
4.	Check air dampers for proper operation
5.	Check sheave alignment
6.	Clean coil surfaces if differential pressure is high
7.	Clean the intake plenum of dirt and debris
8.	Replace filters (prefilters replaced monthly by the Districts)
9.	Replace UV lights (Quantity of 6 on each AHU 1 and 2 at JAO)
10.	Replace Ionization tubes only on AHU 1 and 2 at JAO (Quantity of 30 on each AHU) * One-time replacement during the 3-year contract
11.	Check VFD for alarms and proper operation
12.	Log fan motor bearing temperature
13.	Lubricate fan and motor bearings
14.	Check starter wiring and controls
15	Blow down all line strainers and drain lines
16	Inspect and clean drain pans and drain piping
17	Check water control valves for corrosion and proper operation
18.	Tighten fasteners
19.	Start equipment
20.	Log water differential pressure of all coils
21.	Log air differential pressure of all coils
22.	Log water differential temperature of all coils
23.	Log air differential temperature of all coils
24.	Log filter differential pressure Note that all log data listed above shall contain all previously recorded information including dates so the long term trend of each data point can be reviewed in one report.
25.	Check fan vibration
26.	Check humidity operations
27.	Check all fan safeties
28.	Verify damper linkages move freely and lubricate
29.	Calibrate instruments

30.	Clean up work station

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

CHILLED WATER AND HOT WATER PUMPS
ROUTINE INSPECTIONS/MAINTENANCE

Routine inspection items, to be performed on each individual pump six (6) times a year equally apart, shall include but shall not be limited to the following:

1.	Check for leaks
2.	Check for unusual vibration
3.	Check differential pressure at a known flow and at full speed
4.	Check mechanical seals for leakage

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

CHILLED WATER AND HOT WATER PUMPS

ANNUAL PREVENTIVE MAINTENANCE

Before every annual preventive maintenance, a complete routine inspection shall be performed on each pump. Annual preventive maintenance items to be performed once a year, shall include but shall not be limited to the following:

1.	Secure and tag all circuits
2.	Isolate suction and discharge valves
3.	Lubricate pump and motor bearings
4.	Inspect and clean strainers
5.	Clean up work station
6.	Restore power
7.	Restore flow through suction and discharge valves

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

EXHAUST FANS AND SUPPLY FANS

ROUTINE INSPECTIONS/MAINTENANCE

Routine inspection items, to be performed on each fan four (4) times a year equally apart, shall include but shall not be limited to the following:

1.	Inspect the general condition
2.	Check spring vibration isolators
3.	Check and tighten electrical connections
4.	Lubricate fan and motor bearings
5.	Properly clean all components
6.	Clean up workstation

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

EXHAUST FANS AND SUPPLY FANS

ANNUAL PREVENTATIVE MAINTENANCE

Annual preventive maintenance items to be performed once a year, shall include but shall not be limited to the following:

1.	Inspect the general condition
2.	Replace belts
3.	Properly clean all components
4.	Check and tighten electrical connections
5.	Check sheave alignment
6.	Lubricate fan and motor bearings
7.	Check spring vibration isolators
8.	Clean up workstation

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

SJC LABORATORY WALK-IN COOLER REFRIGERATION SYSTEMS

ANNUAL PREVENTATIVE MAINTENANCE

Annual preventive maintenance items to be performed once a year, shall include but shall not be limited to the following:

1.	Check capacity control components
2.	Check condenser and evaporator fans
3.	Clean coils and check condition
4.	Check temperature differentials
5.	Check electrical components
6.	Check cooler doors and insulation
7.	Check for leaks
8.	Check general operating conditions
9.	Flush condensate drain
10.	Check defrost timers and heaters
11.	Check motor amperage and lubricate
12.	Check air-cooled condenser components
13.	Check refrigerant for acid, water, and proper charge
14.	Check cooler floor drains
15.	Calibrate operating controls
16.	Calibrate safety controls
17.	Inspect compressor operation
18.	Clean up workstation

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

VARIABLE FREQUENCY DRIVES (VFD'S)

ANNUAL PREVENTATIVE MAINTENANCE

Annual preventive maintenance items to be performed once a year, shall include but shall not be limited to the following:

1.	Inspect the general condition
2.	Check cooling fans
3.	Replace or clean filters per the manufacturer's instructions
4.	Properly clean all components including heat sinks
5.	Check and tighten electrical connections
6.	Check for alarms
7.	Test drive operations
8.	Clean up workstation

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

JAO DUPLEX AIR COMPRESSOR

ROUTINE INSPECTIONS/MAINTENANCE

Routine inspection items, to be performed on the JAO duplex air compressor six (6) times a year equally apart, shall include but shall not be limited to the following:

1.	Inspect compressed air system
2.	Check automatic drain operation
3.	Check automatic vent operation
4.	Check belts for wear (replace if necessary). Adjust belt tension.
5.	Check compressor sheave alignment
6.	Log amperage draw
7.	Log run time
	Note that all log data listed above shall be maintained in a Microsoft Excel file and contain all previously recorded information including dates so the long term graph of each data point can be reviewed in one report.
8.	Check differential pressure across air filter (change every 3 months)
9.	Check overall air drier operation
10.	Clean up work station
11.	Replace compressor oil every six months

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

JAO DUPLEX AIR COMPRESSOR

ANNUAL PREVENTIVE MAINTENANCE

Before every annual preventive maintenance, a complete routine inspection shall be performed on JAO duplex air compressor. Annual preventive maintenance items to be performed once a year, shall include but shall not be limited to the following:

1.	Check alternator operation
2.	Check high pressure relief valve
3.	Check low pressure switch
4.	Drain air receiver tank and conduct air dryer maintenance
5.	Clean up work station

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

JAO THERMOSTATS

ROUTINE INSPECTIONS/MAINTENANCE

Routine inspection items, to be performed on the JAO thermostats as necessary, shall include but shall not be limited to the following:

1.	Confirm control operations
2.	Visually inspect controls
3.	Review data of setpoint or calibration
4.	Verify air pressure if applicable
6.	Confirm control reaction/pressure change
7.	Document any corrective actions

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

JAO FAN COILS

ROUTINE INSPECTIONS/MAINTENANCE

Routine inspection items, to be performed on the JAO fan coils six (6) times a year equally apart, shall include but shall not be limited to the following:

1.	Adjust minimum and maximum damper settings
2.	Check general operating condition
3.	Check balancing reports
4.	Check air filter condition
5.	Check for water leakage
6.	Log static pressure
	Note that all log data listed above shall be maintained in a Microsoft Excel file and contain all previously recorded information including dates so the long term graph of each data point can be reviewed in one report.
7.	Change filters and belts. See **Appendix A** for sizes and frequency.
8.	Clean up work station

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

JAO FAN COILS

ANNUAL PREVENTIVE MAINTENANCE

Before every annual preventive maintenance, a complete routine inspection shall be performed on JAO fan coil units. Annual preventive maintenance items to be performed once a year, shall include but shall not be limited to the following:

1.	Secure circuits, lockout and tag
2.	Calibrate operating controls
3.	Adjust minimum and maximum damper settings
4.	Check air filter condition
5.	Check balancing reports
6.	Check general operating condition
7.	Inspect internal components
8.	Lubricate equipment
9.	Check water leakage
10.	Log static pressure
11.	Restore power

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

CARRIER i-Vu SYSTEM

ROUTINE INSPECTIONS/MAINTENANCE

This system consists of Carrier's i-Vu control and instrumentation system interconnected through a network. This system includes all the individual and equipment mounted instruments, network cables, electrical and control wiring, Field Installed Devices, Product Integrated Controls, and all the related power supplies, boosters and black boxes. Routine inspections on the i-Vu system to be performed three(3) times a year equally apart shall include but shall not be limited to the following:

1.	Confirm control operation and reaction
2.	Visually inspect controls
3.	Adjust calibration, if necessary
4.	Check the integrity of wiring and connections
5.	Compare readings to the actual instrument values
6.	Repair and/or replace any controls, wiring and instruments if necessary

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

CARRIER i-Vu SYSTEM

ANNUAL MAJOR OPERATING INSPECTION/MAINTENANCE

Before every annual major operating inspection and maintenance, a complete routine inspection shall be performed on the i-Vu system. The annual major operating inspection items to be performed once a year, shall include but shall not be limited to the following:

1.	Confirm control reactions
2.	Determine revised calibrations
3.	Run applicable diagnostic routines
4.	Repair and/or replace any controls, wiring and instruments if necessary

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

CENTRAL PLANT COMPUTER AND PRINTER

ROUTINE INSPECTIONS

The computer and printer located at the Central Plant shall be inspected at least six(6) times a year for any impending problems either visually or through its routine diagnostics as recommended by the computer manufacturer and Carrier's i-Vu software.

ADDITIONAL WORK TO BE PERFORMED AND WHICH IS INCLUDED IN THE PROPOSAL PRICE:

CENTRAL PLANT WATER CHEMICAL TREATMENT SYSTEMS

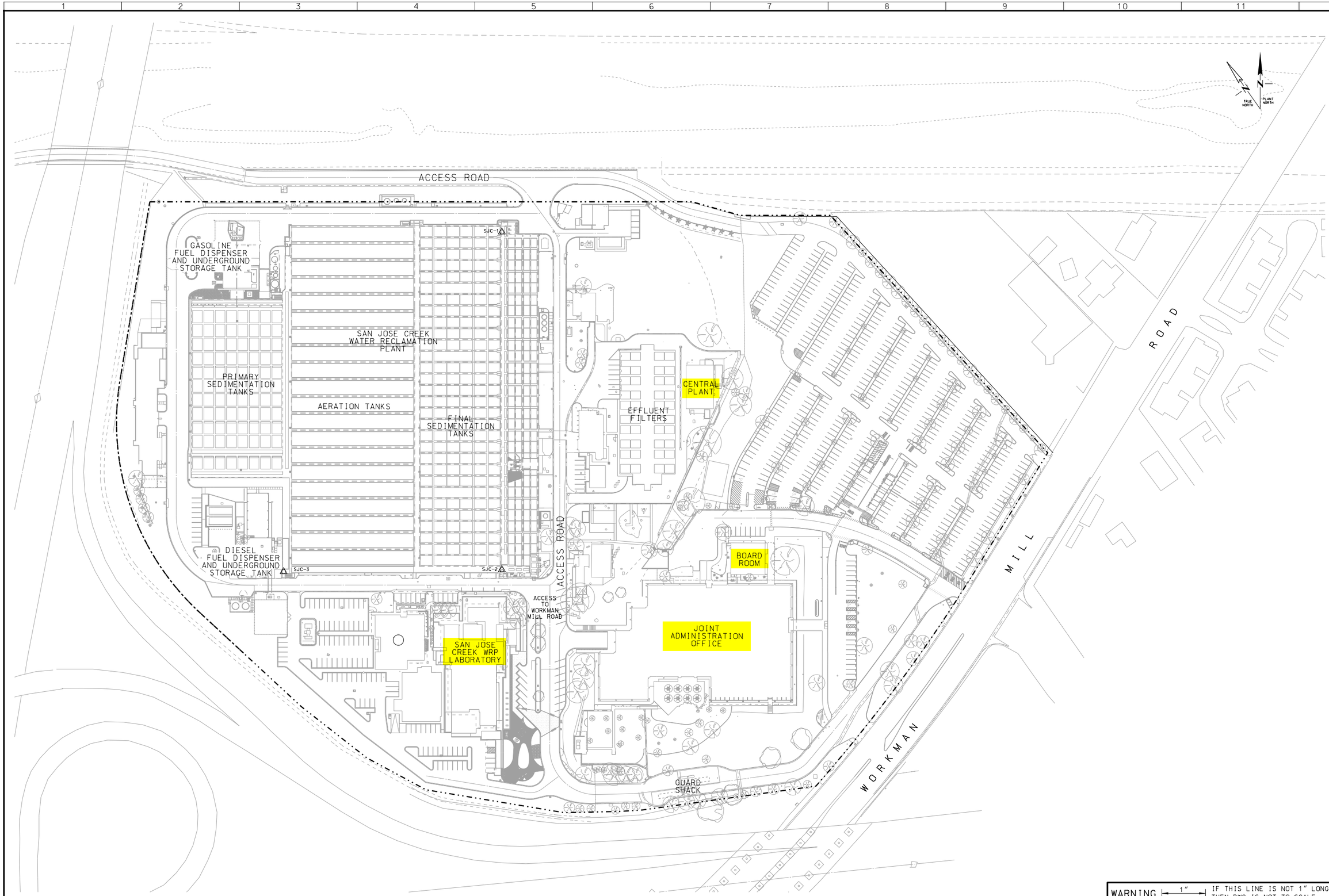
The two, closed loop water systems which consist of chilled water and hot water, each contain a chemical pot feeder. The Contractor shall collect a sample of each system once a month and shall run a complete chemical analysis. The nitrite level shall be maintained at approximately 1,200 ppm in each the chilled water loop and hot water loop. Chemicals shall be added to the systems, as necessary, per a reputable water treatment chemical company's recommendation. All the results of the water analyses of all the systems and the quantity and type of chemical added to each system per chemical treatment company's recommendation shall be submitted to the Districts every month.

As a minimum, the chemical treatment company shall test conductivity, pH, nitrite, iron, and Bio count (for sulfate reducing bacteria). The Contractor shall submit the interpretation of the results of the chemical analyses and shall state the causes of the variation of the results to that of normal values. Note that all log data listed above shall contain all previously recorded information including dates so the long term trend of each data point can be reviewed in one report.

2022

APPENDIX C-1

ROOF AND FLOOR PLAN – JAO AND CENTRAL PLANT



WARNING 1" IF THIS LINE IS NOT 1" LONG, THEN DWG IS NOT TO SCALE.

NO.	REVISIONS	INITIALS	DATE

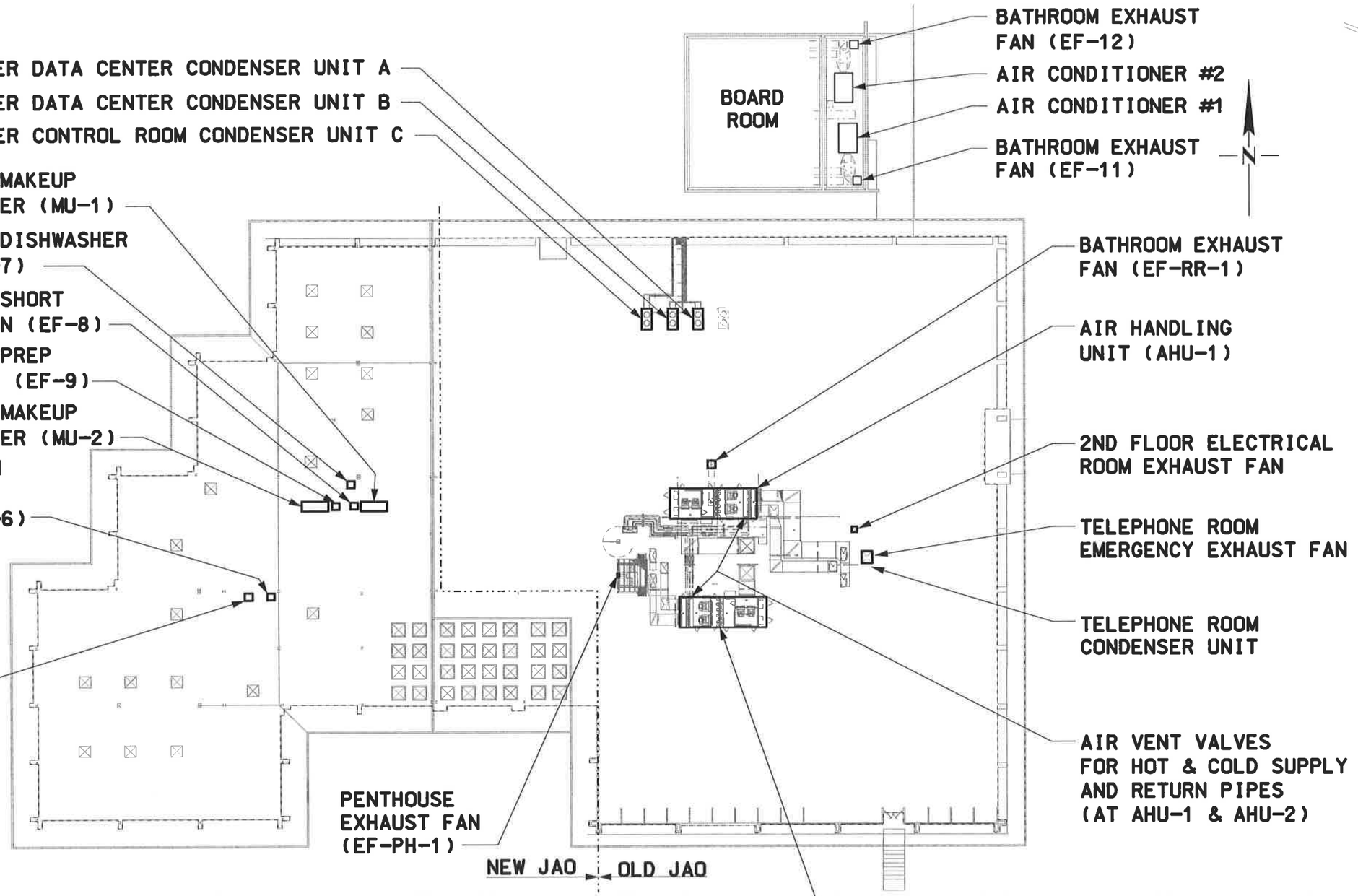
COUNTY SANITATION DISTRICT NO. 2
OF LOS ANGELES COUNTY, CALIFORNIA

DESIGNED ____ DATE ____
DRAWN R. RAMIREZ DATE ____
CHECKED ____ DATE ____
REVIEWED ____ DATE ____

JOINT ADMINISTRATION OFFICE

SITE PLAN ATTACHMENT 1

SCALE: 1"=80'
SHEET NO. ATCH-1
DWG. NO. LACSD



COUNTY SANITATION DISTRICT NO. 2
OF LOS ANGELES COUNTY, CALIFORNIA

		DATE
DESIGNED		JAN 2016
DRAWN	J. CRUZ	JAN 2016
CHECKED		JAN 2016
REVIEWED		JAN 2016

JOINT ADMINISTRATION OFFICE

ROOF PLAN
ATTACHMENT 2

SCALE:

SHEET NO. ATCH-2

DWG. NO.

WARNING |← 1" →| IF THIS LINE IS NOT 1" LONG. THEN DWG IS NOT TO SCALE.

REVISIONS | NO. | INITIALS | DATE

SPECIAL PROVISIONS DOC NO.

S:\TEMP\Cruz-J\CAMPUS HVAC FOR JOE SMISKO\ATTACHMENT 1.DGN -- MODEL= Default

IPLOT: ##jc760#ME-LZR-11-IPLOT * LZR-11.pen

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LA259 03 10-15-2014

COLD DUCT PRESSURE TRANSMITTER PT-CDA02

AIRVENT VALVES FOR HOT AND COLD SUPPLY & RETURN PIPES (4) (ABOVE CEILING TILES)

AUTOMATIC AIR VENT VALVES

COLD DUCT PRESSURE TRANSMITTER (NEW JAO)

CONTROL PANEL CP-AHS-2

PROPOSED RELATIVE HUMIDITY SENSOR AHU 1

COLD DUCT PRESSURE TRANSMITTER PT-CDA01

SWITCH BOARD 1A3F FOR AHU 1&2, COMPRESSOR, AND BATHROOM EXHAUST FAN

PANEL BOARD 2D

IVU WEB APPLIANCE

TELEPHONE ROOM FAN COIL

AIR COMPRESSOR & DRYER

CAFETERIA EXHAUST FAN (EF-5)

CAFETERIA EXHAUST FAN (EF-4)

NEW JAO | OLD JAO

PROPOSED RELATIVE HUMIDITY SENSOR AHU 2

COUNTY SANITATION DISTRICT NO. 2 OF LOS ANGELES COUNTY, CALIFORNIA

	INITIALS	DATE
DESIGNED		JAN 2016
DRAWN	J. CRUZ	JAN 2016
CHECKED		JAN 2016
REVIEWED		JAN 2016

REVISIONS | NO.

SECOND FLOOR PLAN ATTACHMENT 3

SCALE:

SHEET NO. ATCH-3

DWG. NO.

WARNING 1" IF THIS LINE IS NOT 1" LONG, THEN DWG IS NOT TO SCALE.

SPECIAL PROVISIONS DOC NO.

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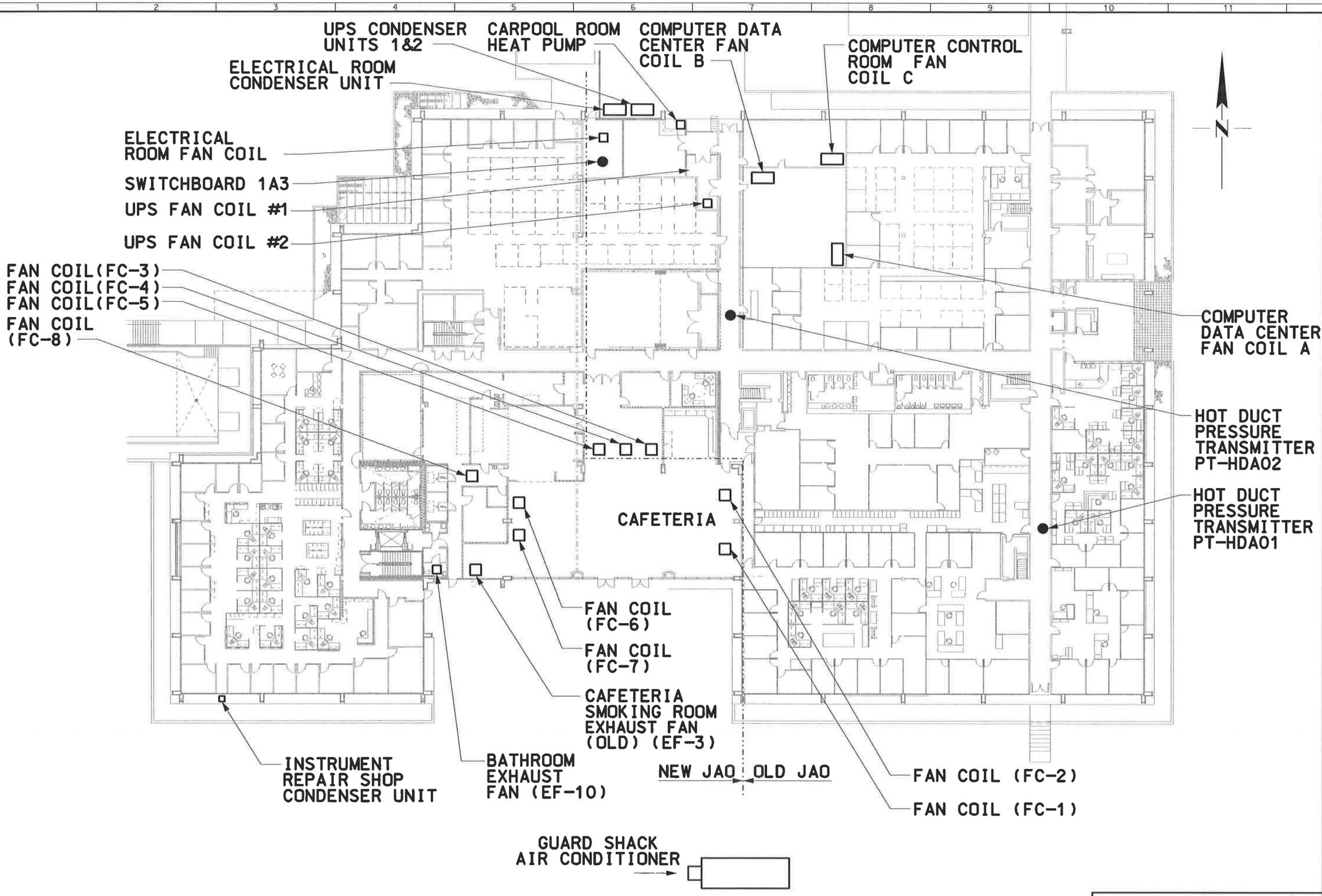
20-JUN-2016 15:04 joecruz

LACSD 03 10-15-2014



COUNTY SANITATION DISTRICT NO. 2
OF LOS ANGELES COUNTY, CALIFORNIA

DESIGNED		JAN 2016
DRAWN	J. CRUZ	JAN 2016
CHECKED		JAN 2016
REVIEWED		JAN 2016

NO.	REVISIONS	INITIALS	DATE

SPECIAL PROVISIONS DOC NO.

FIRST FLOOR PLAN ATTACHMENT 4

SCALE:

SHEET NO. ATCH-4

DWG. NO.

WARNING 1" IF THIS LINE IS NOT 1" LONG. THEN DWG IS NOT TO SCALE.

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LASD 03 10-15-2014

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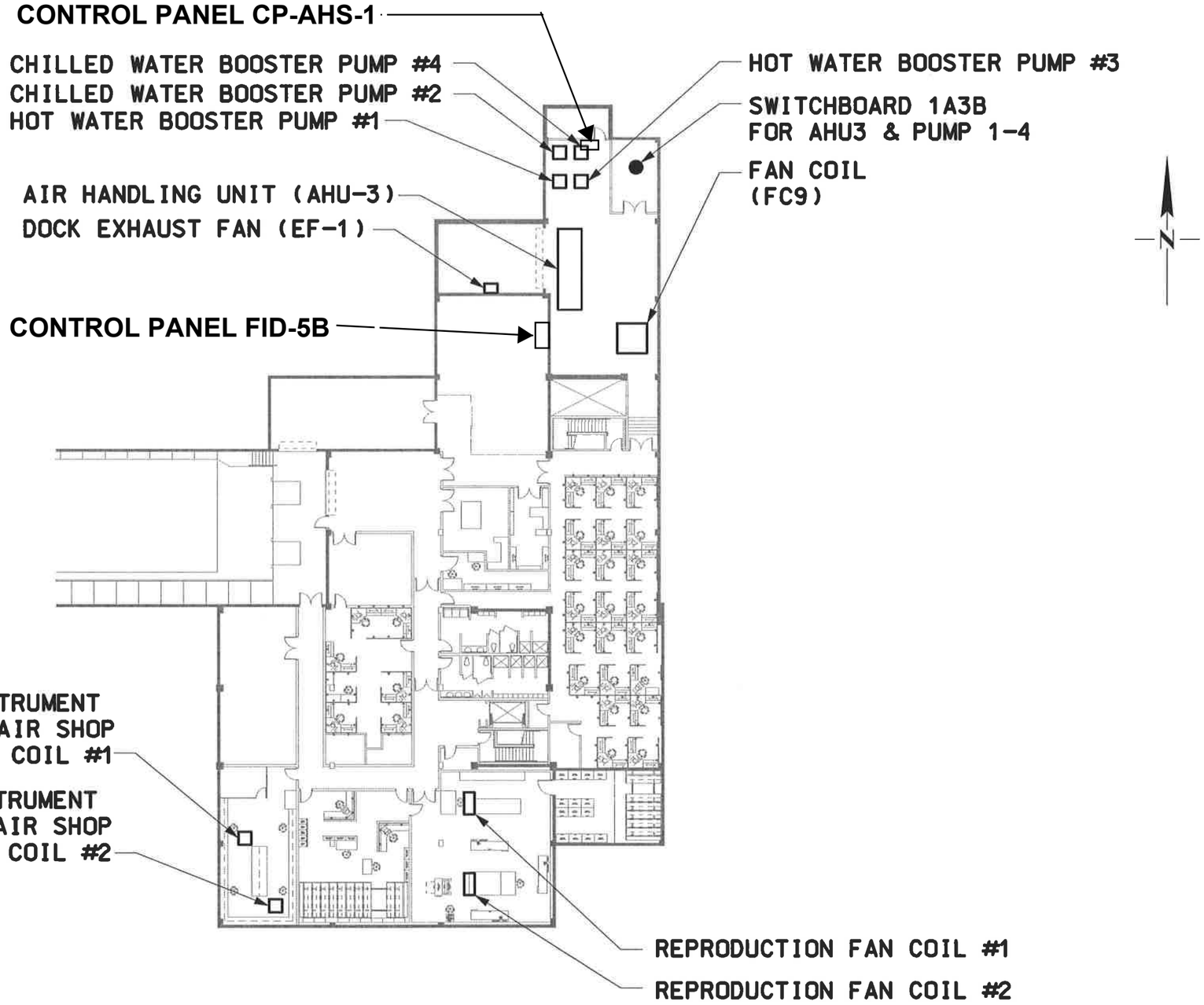

COUNTY SANITATION DISTRICT NO. 2
OF LOS ANGELES COUNTY, CALIFORNIA

DESIGNED — DATE JAN 2016
DRAWN J. CRUZ — DATE JAN 2016
CHECKED — DATE JAN 2016
REVIEWED — DATE JAN 2016

NO.	REVISIONS	INITIALS	DATE

BASEMENT FLOOR PLAN
ATTACHMENT 5

SCALE:

SHEET NO. ATCH-5

DWG. NO.

WARNING 1" IF THIS LINE IS NOT 1" LONG, THEN DWG IS NOT TO SCALE.

SPECIAL PROVISIONS DOC NO.

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LAC50 03 10-15-2014

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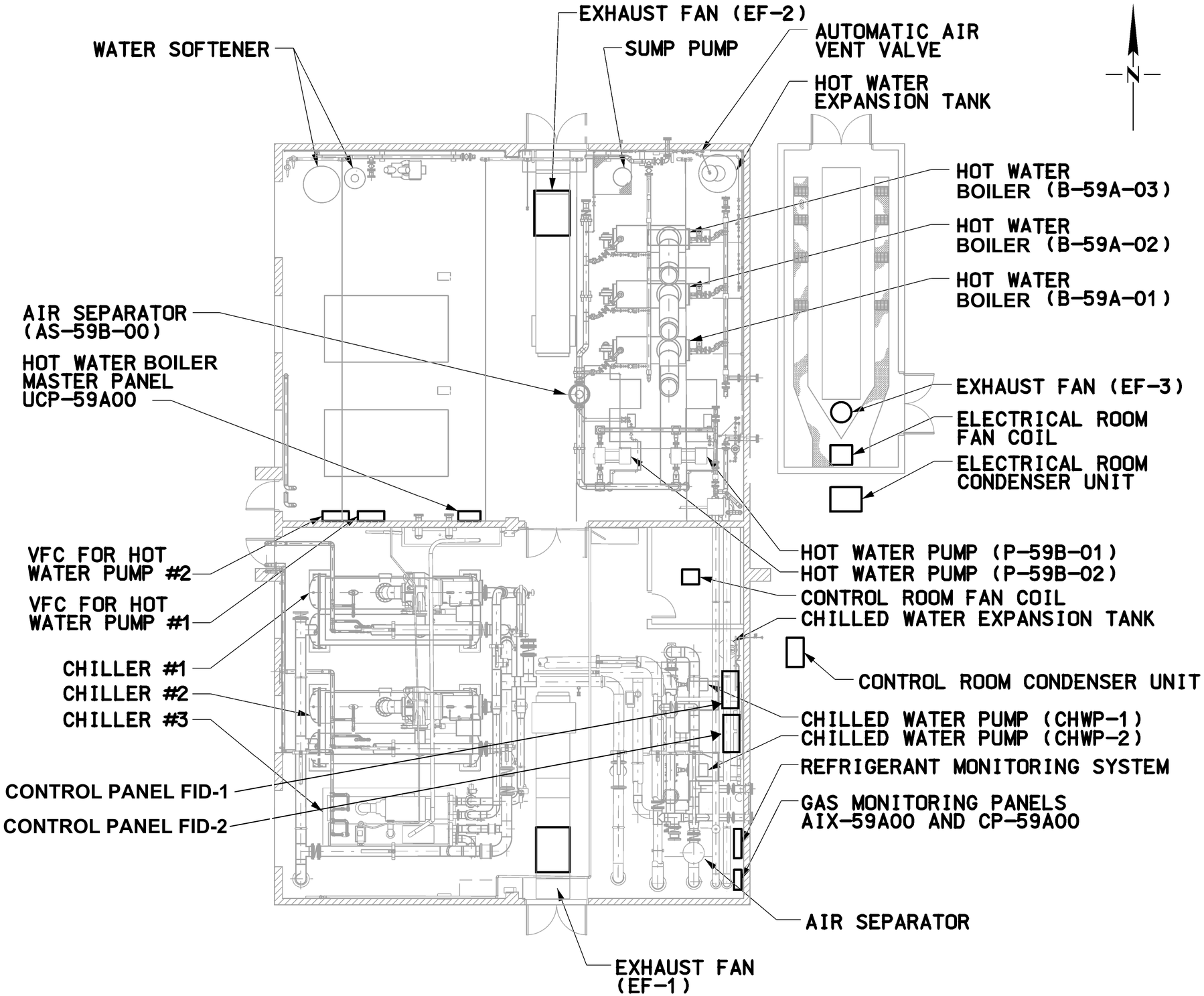

COUNTY SANITATION DISTRICT NO. 2
OF LOS ANGELES COUNTY, CALIFORNIA

		DATE
DESIGNED		JAN 2016
DRAWN	J. CRUZ	JAN 2016
CHECKED		JAN 2016
REVIEWED		JAN 2016

NO.	REVISIONS	INITIALS	DATE

JOINT ADMINISTRATION OFFICE

CENTRAL PLANT CHILLER AND BOILER ROOMS
ATTACHMENT 6

SCALE:

SHEET NO. ATCH-6

DWG. NO.

WARNING 1" IF THIS LINE IS NOT 1" LONG, THEN DWG IS NOT TO SCALE.

SPECIAL PROVISIONS DOC NO.

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LACSD 03 10-15-2014

MSTN: * JAO_Full-Gray.pen

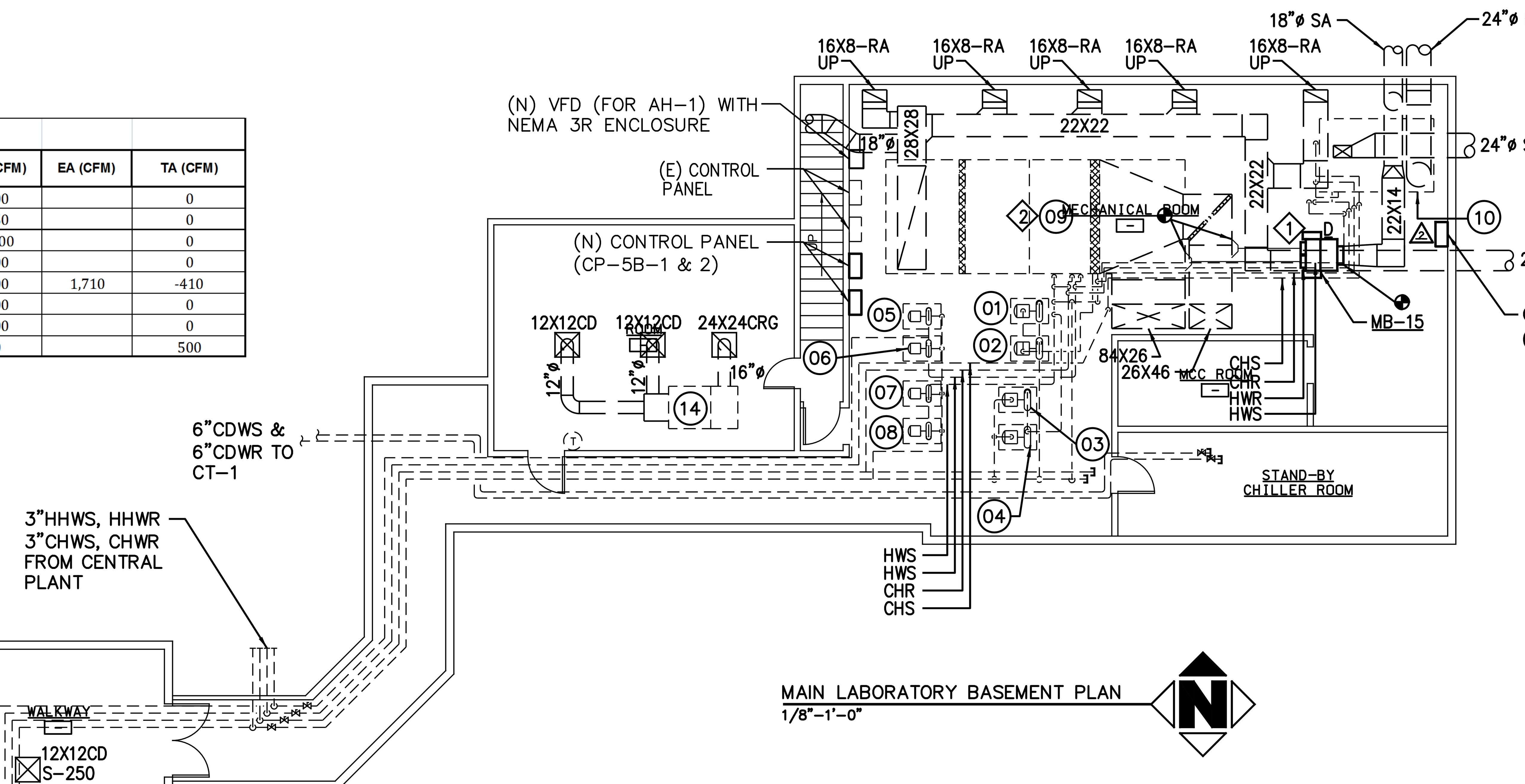
20-JUN-2016 15:10 Josecruz

2022

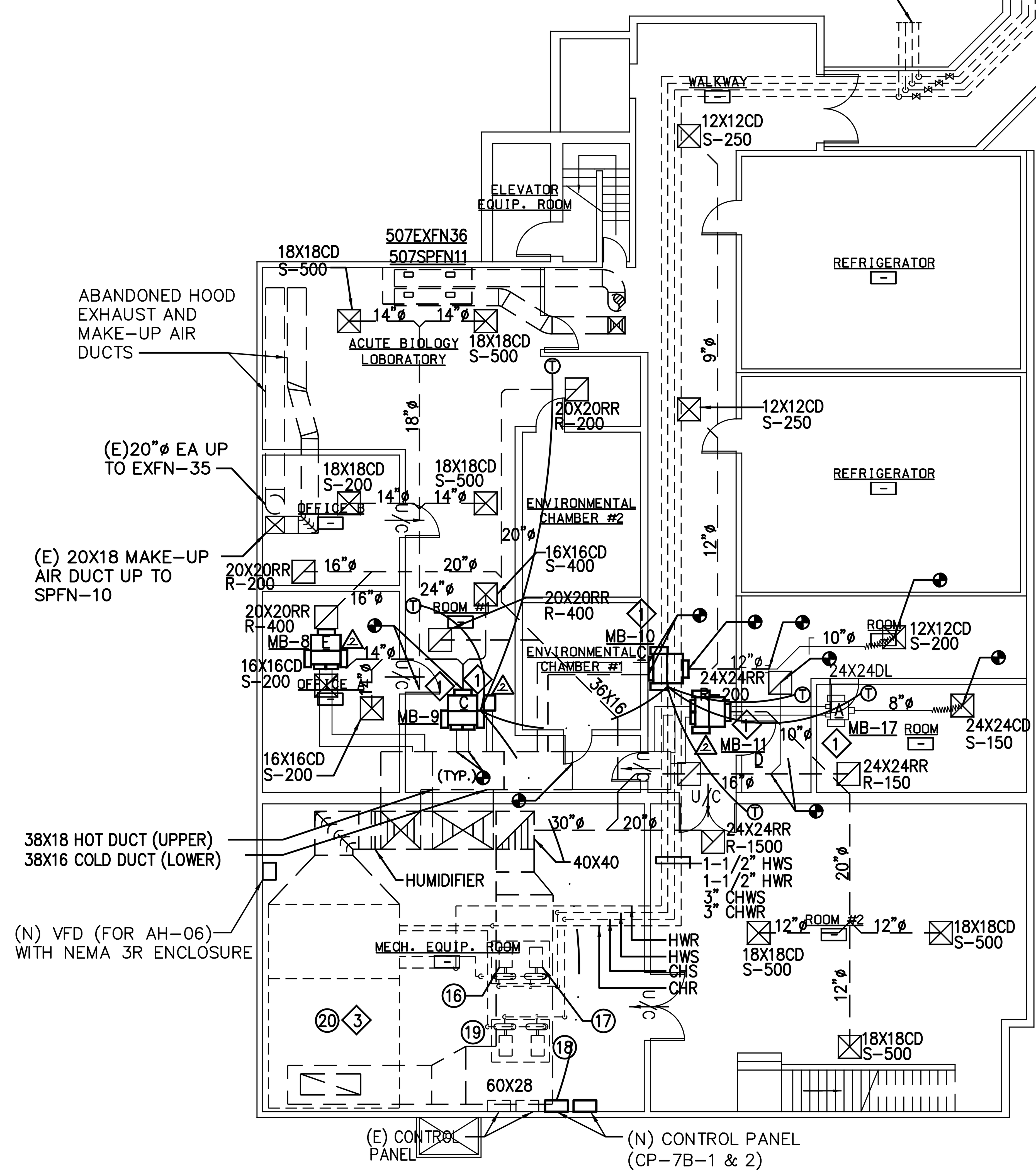
APPENDIX C-2

ROOF AND FLOOR PLAN – SAN JOSE CREEK LABORATORY

ANNEX BUILDING BASEMENT AIR BALANCE TABLE							
Room Name	Room Area (sq. ft.)	Ceiling High (ft)	ACH	SA (CFM)	RA (CFM)	EA (CFM)	TA (CFM)
Room North	256	8.33	5.6	200	200		0
Room South	196	8.33	5.5	150	150		0
Room #2	791	8.33	13.7	1,500	1,500		0
Room #1	355	8.33	8.1	400	400		0
Acute Biology Laboratory	439	8.33	24.6	1,500	200	1,710	-410
Office #A	218	8.33	13.2	400	400		0
Office #B	138	8.33	10.4	200	200		0
Walkway	630	8.33	5.7	500	0		500



MAIN LABORATORY BASEMENT PLAN
1/8"-1'-0"



(01) P-1 (507CHPU01)	(06) P-6 (507HWPU06)
(02) P-2 (507CHPU02)	(07) P-7 (507CHPU07)
(03) P-3 (507CHPU03)	(08) P-8 (507CHPU08)
(04) P-4 (507CHPU04)	(09) AH-1 (CARRIER)
(05) P-5 (507HWPU05)	(10) AH-2 (CARRIER)
(13) NOT USED	(14) 507LBAH05 (CARRIER)

GENERAL NOTES

1. SEE SHT. M-8 FOR EXISTING HVAC PLAN AND EXISTING EQUIPMENT IDENTIFICATION.
2. REBALANCE (E)CEILING DIFFUSER AND RETURN GRILLE TO AIR QUANTITY SHOWN.

REMODEL NOTES

1. NEW MB – CONNECT (N) MIXING BOX INLETS TO (E) MAIN DUCTS. REPLACE EXISTING THERMOSTAT AT RETURN AIR DUCT. WIRE NEW THERMOSTAT TO NEW BACnet CONTROLLER.
2. REFURBISH EXISTING AH-1 – CLEAN COILS, REPLACE DRAIN PAN, REPLACE MOTOR, BELT AND SHEAVE. ADD NEW VFD. TEST CONTROL SYSTEM. ADJUST SUPPLY AIR FLOW TO REQUIRED CFM.
3. REFURBISH EXISTING AH-6 – CLEAN COILS, REPLACE DRAIN PAN, REPLACE MOTOR, BELT AND SHEAVE. ADD NEW VFD. TEST CONTROL SYSTEM. ADJUST SUPPLY AIR FLOW TO REQUIRED CFM.

(16) HWP-18 (507HWPU18)	(19) CHP-15 (507CHPU15)
(17) HWP-17 (507HWPU17)	(20) AH-06 (507LBAH06)
(18) CHP-16 (507CHPU16)	

COUNTY SANITATION DISTRICT NO. 02 OF LOS ANGELES COUNTY, CALIFORNIA

NO.	REVISIONS	INITIALS		DATE
2	REVISED PER AS-BUILT	EN	EN	SEP 18

DESIGNED — DATE May 2012
DRAWN — REVIEWED
CHECKED — REG. NO.

SAN JOSE CREEK WATER QUALITY LABORATORY HVAC SYSTEM UPGRADE
MAIN LABORATORY AND ANNEX BUILDING
BASEMENT REMODEL PLAN

SCALE: 1/8" = 1'-0"
SHEET NO. M-17
DWG. NO. J.O.-g-1206

SPECIFICATION NUMBER X-1694

WARNING |— 1" —| IF THIS LINE IS NOT 1" LONG, THEN DWG IS NOT TO SCALE.

RECORD DRAWING

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GENERAL NOTES

1. SEE SHEET M-9 FOR EXISTING HVAC PLAN.

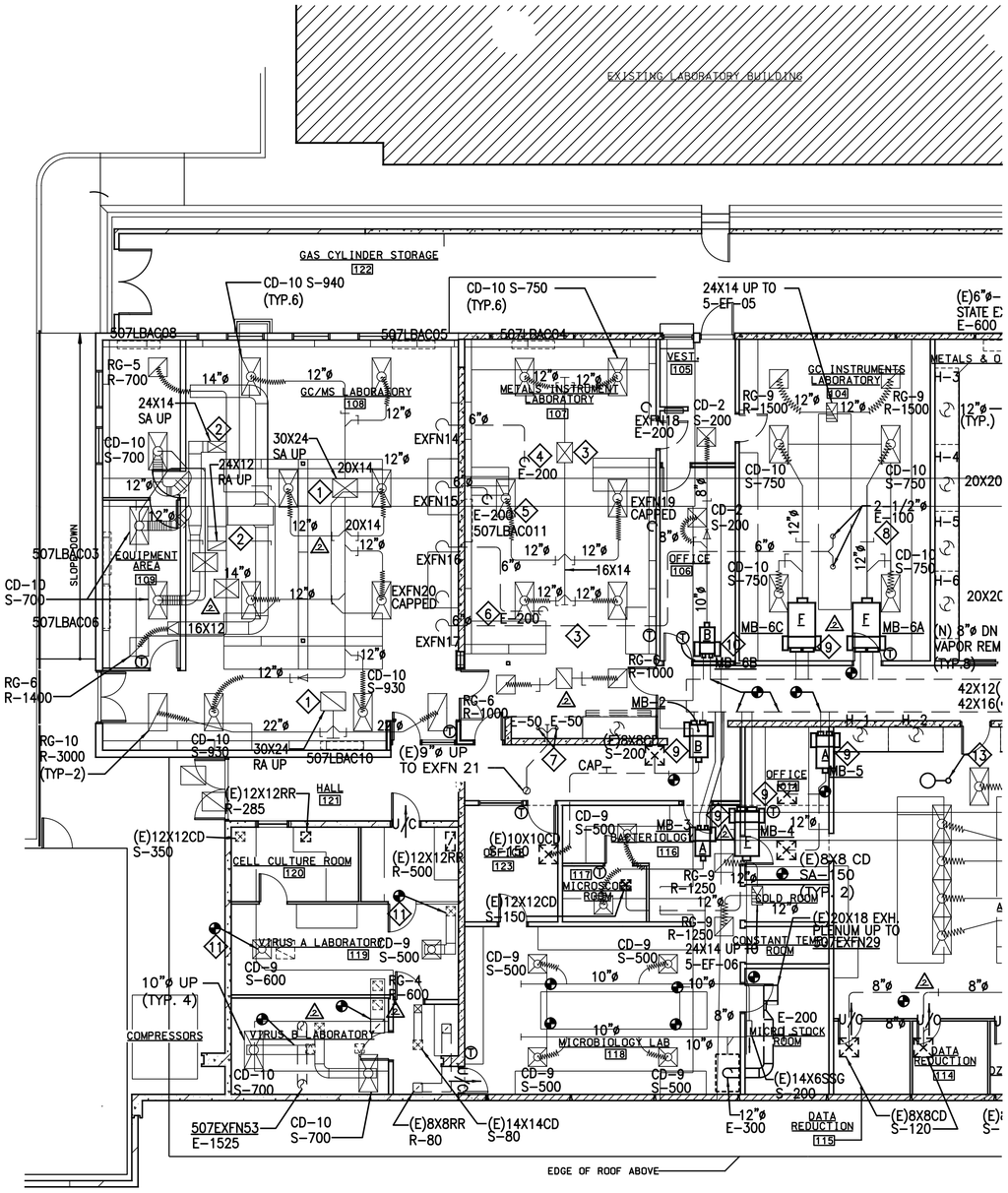
2 AIR BALANCE NEW AND EXIST. DIFFUSER AND RETURN GRILLE TO AIR QUANTITY SHOWN.

REMODEL NOTES

1. 30X24-SA & 30X24-RA UTR TO 5AC-4
2. 24X14-SA & 24X12-RA UTR TO 5AC-7
3. 26X20-SA & 26X20-RA UTR TO 5AC-3
4. 6"ø-EA DN TO INSTRUMENTATION FROM EXFN14. TEMPORARILY RELOCATE INSTRUMENTATION TO THE LOCATION DESIGNATED BY THE DISTRICT DURING CONSTRUCTION. TEMPORARILY CAP EXHAUST DUCT. RECONNECT EXHAUST DUCT TO INSTRUMENTATION WHEN THIS PHASE OF WORK IS COMPLETED AND PERFORM AIR BALANCE TO VERIFY THAT EXHAUST RATE IS WITHIN REQUIRED AIR QUANTITY.
5. 6"ø-EA DN TO INSTRUMENTATION FROM EXFN15. TEMPORARILY RELOCATE INSTRUMENTATION TO THE LOCATION DESIGNATED BY THE DISTRICT DURING CONSTRUCTION. TEMPORARILY CAP EXHAUST DUCT. SEE NOTE NO. 4 FOR RECONNECTION AND AIR BALANCE REQUIREMENT.
6. 6"ø-EA DN TO INSTRUMENTATION FROM EXFN16. TEMPORARILY RELOCATE INSTRUMENTATION TO THE LOCATION DESIGNATED BY THE DISTRICT DURING CONSTRUCTION. TEMPORARILY CAP EXHAUST DUCT. SEE NOTE NO. 4 FOR RECONNECTION AND AIR BALANCE REQUIREMENT.
7. 3"ø-EA DN TO INSTRUMENTATION FROM EXFN21. TEMPORARILY RELOCATE CABINET IF REQUIRED. IF CABINET IS RELOCATED, TEMPORARILY CAP EXHAUST DUCT. SEE NOTE NO. 4 FOR RECONNECTION AND AIR BALANCE REQUIREMENT.
8. 2-1/2"ø-EA DN TO INSTRUMENTATION FROM EXFN17. TEMPORARILY RELOCATE CABINET IF REQUIRED. IF CABINET IS RELOCATED, TEMPORARILY CAP EXHAUST DUCT. RECONNECT EXHAUST DUCT(S) IF THE CABINET WAS MOVED AND PERFORM AIR BALANCE
9. NEW MB – CONNECT (N) INLET DUCT TO (E) MAIN DUCT. RECONNECT TEMPERATURE CONTROL AND CONTROL/MONITORING WIRE TO (E) ENERGY MANAGEMENT SYSTEM.
10. NEW MB – CONNECT (N) INLET DUCT TO (E) MAIN DUCT. INTERFACE TEMPERATURE CONTROL AND CONTROL/MONITORING WIRE TO (E) ENERGY MANAGEMENT SYSTEM.
11. CONNECT THE NEW CEILING DIFFUSER TO THE EXISTING DUCT ABOVE THE CEILING.
12. 10x10 SUPPLY AIR DUCT UP TO ROOF SEE SHEET M-20 FOR CONTINUATION.
13. RECONNECT COLD WATER LINE AS NECESSARY TO EXISTING EMERGENCY SHOWER. PATCH ROOF TO MATCH EXISTING.

MAIN LAB BUILDING FIRST FLOOR AIR BALANCE TABLE

Room Name	Room Area (sq. ft.)	Ceiling High (ft)	ACH	SA (CFM)	RA (CFM)	EA (CFM)	TA (CFM)
GC Instruments Lab 104	758	9.0	26.4	3,000		3,200	-200
Vest 105	123	9.0	10.8	200			200
Office 106	186	9.0	7.2	200			200
Metals Instrument Laboratory 107	942	9.0	31.8	4,500	2,000	2,610	-110
GC/MS Laboratory 108	1,408	9.0	35.5	7,500	7,500		0
Equipment Area 109	348	9.0	40.2	2,100	2,100		0
Hall 121 (Center)	500	9.0	2.7	200			200
Office 123	140	9.0	7.1	150			150
Cell Culture Room 120	126	9.0	18.5	350	285		65
Virus A Lab 119	354	9.0	20.7	1,100	1,100		0
Virus B Lab	206	9.0	45.3	1,400	1,525		-125
Bacteriology 116 & Microbiology Lab 118	748	9.0	22.3	2,500		2,800	-300
Microscope Room 117	65	9.0	15.4	150			150
Office 011	173	9.0	11.6	300			300
Microbiology Stockroom	147	9.00	9.1	200		200	0



MAIN LABORATORY BUILDING FIRST FLOOR SOUTH
1/8"-1'-0"

RECORD DRAWING

WARNING 1" IF THIS LINE IS NOT 1" LONG, THEN DWG IS NOT TO SCALE.

COUNTY SANITATION DISTRICT NO. 02
OF LOS ANGELES COUNTY, CALIFORNIA

NO.	REVISIONS	INITIALS	DATE
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www.tmad.com

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• CIVIL

Project No. 2309.105.00

DESIGNED
DRAWN
CHECKED
DATE May 2012
REVIEWED
REG. NO.

SAN JOSE CREEK WATER QUALITY LABORATORY
HVAC SYSTEM UPGRADE
MAIN LABORATORY BUILDING
FIRST FLOOR REMODEL PLAN - SOUTH

SCALE: 1/8" = 1'-0"
SHEET NO. M-18
DWG. NO. J.O.-g-1206

SPECIFICATION NUMBER X-1694

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GENERAL NOTES

1. SEE SHEET M-9 FOR EXISTING HVAC PLAN.

2 AIR BALANCE NEW AND EXISTING DIFFUSER AND GRILLE TO AIR QUANTITY SHOWN.

REMODEL NOTES

⟨9⟩ NEW MB – CONNECT (N) INLET DUCT TO (E) MAIN DUCT. RECONNECT TEMPERATURE CONTROL AND CONTROL/MONITORING WIRE TO (E) ENERGY MANAGEMENT SYSTEM.

⟨10⟩ NEW MB – CONNECT (N) INLET DUCT TO (E) MAIN DUCT. INTERFACE TEMPERATURE CONTROL AND CONTROL/MONITORING WIRE TO (E) ENERGY MANAGEMENT SYSTEM.

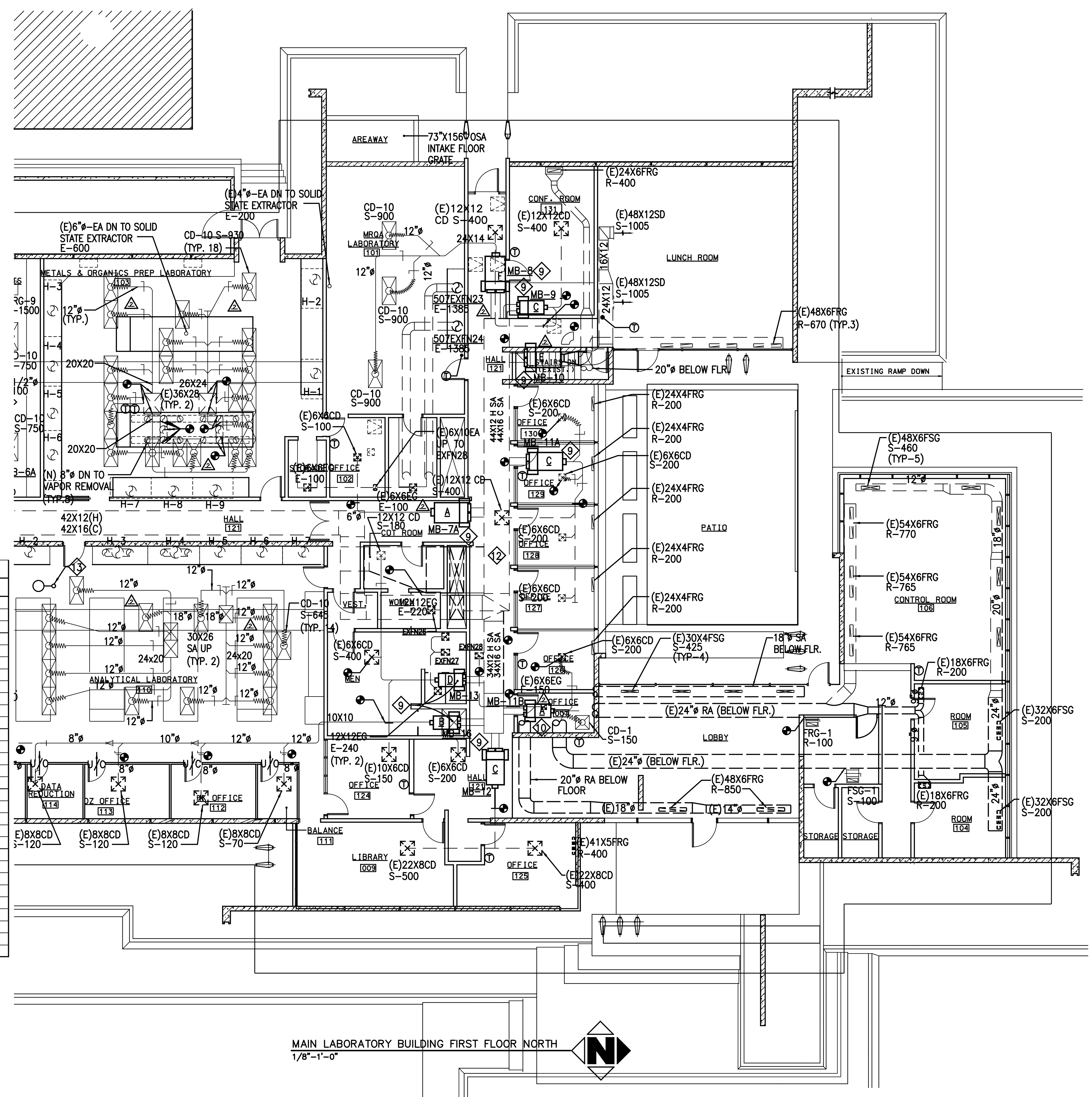
⟨11⟩ NOT USED.

⟨12⟩ PATCH UP MISSING DUCT INSULATION WITH NEW INSULATION ON (E)44X16(C) DUCT

SEE SHEET M-18 FOR CONTINUATION

MAIN LAB BUILDING FIRST FLOOR AIR BALANCE TABLE

Room Name	Room Area (sq. ft.)	Ceiling High (ft)	ACH	SA (CFM)	RA (CFM)	EA (CFM)	TA (CFM)
MRQA Lab 101	780	9.5	22	2,700		2,970	-270
Office 102	101	9.5	6.3	100			100
Metals & Organics Prep. Lab 103	1,410	9.0	79.1	16,740		18,580	-1,840
Storage	56	9.0	11.9			100	-100
Analytical Laboratory 110	1948	9.0	30.9	9,030		9,620	-590
HK Office 112	110	9.0	7.3	120			120
DZ Office 113	110	9.0	7.3	120			120
Data Reduction 114	73	9.0	11.0	120			120
Data Reduction 115	73	9.0	11	120			120
Library 009	304	9.0	11.0	500			500
Office 125	214	9.0	12.5	400	400		0
Office 124	156	9.0	6.4	150			150
Hall 121 (North)	560	9.0	9.5	800			800
Women	144	9.0	8.3	180		220	-40
Men	321	9.0	8.3	400		480	-80
Office 126	106	9.0	12.6	200	200		0
Office 127	113	9.0	11.8	200	200		0
Office 128	110	9.0	12.1	200	200		0
Office 129	110	9.0	12.1	200	200		0
Office 130	101	9.0	13.2	200	200		0
Office 007	79	9.0	12.7	150	150		0
Hall 121 (South)	358	9.0	3.7	200			200
Conference Room 131	300	9.0	8.9	400	400		0
Lunch Room	789	9.0	17.0	2,010	2,010		0
Lobby	752	9.0	15.1	1,700	1,700		0
Balance 111	54	9.0	8.6	70			70
Control Room 106	738	9.0	20.8	2,300	2,300		0
Room 105	206	9.0	6.5	200	200		0
Room 104	170	9.0	7.8	200	200		0
Office at Control	100	9.0	6.7	100	100		0



MAIN LABORATORY BUILDING FIRST FLOOR NORTH
1/8"-1'-0"

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RECORD DRAWING

WARNING 1" IF THIS LINE IS NOT 1" LONG, THEN DWG IS NOT TO SCALE.

COUNTY SANITATION DISTRICT NO. 02 OF LOS ANGELES COUNTY, CALIFORNIA

NO.	REVISIONS	INITIALS	DATE
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DATE May 2012
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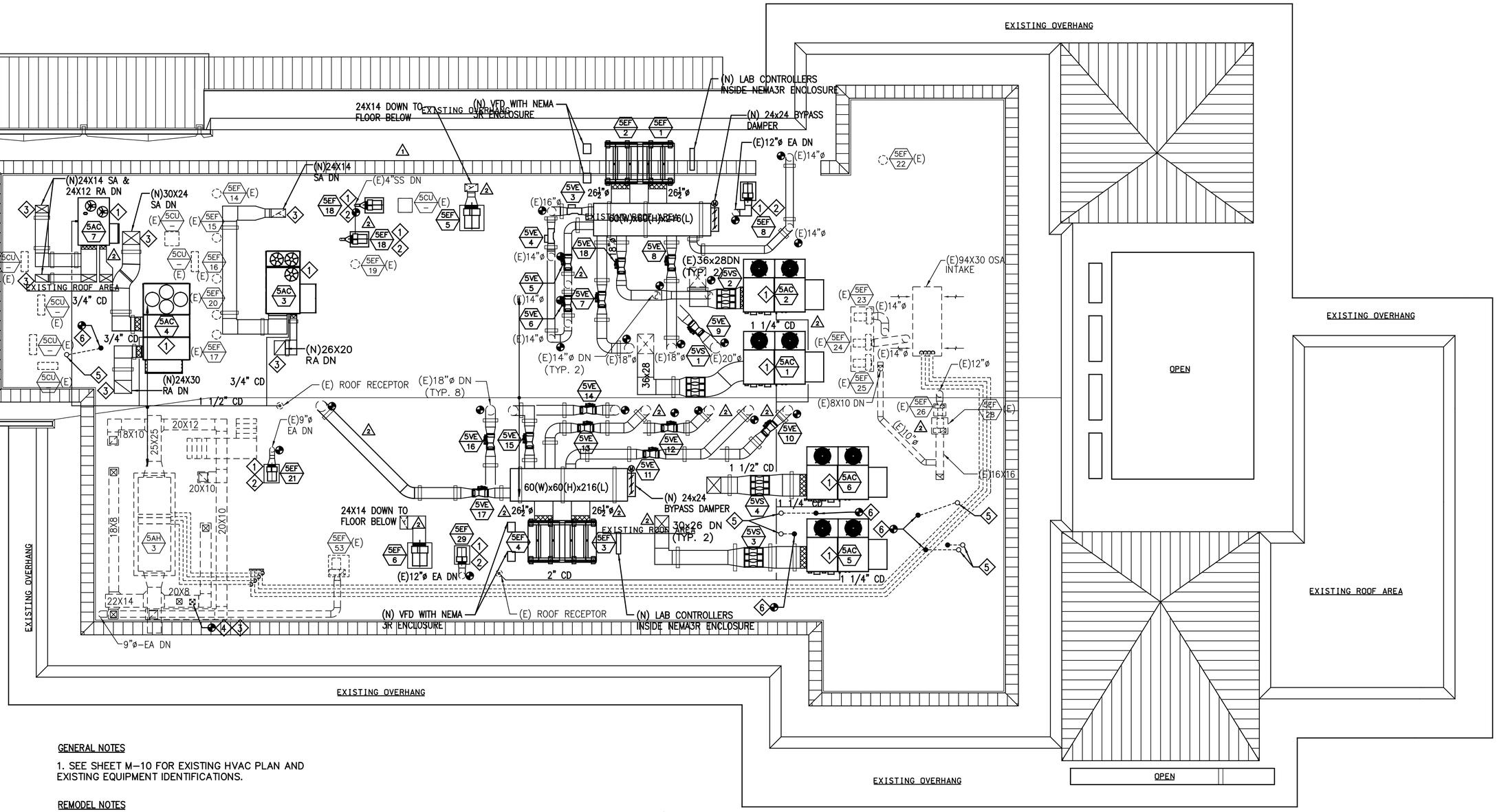
REG. NO.

SAN JOSE CREEK WATER QUALITY LABORATORY HVAC SYSTEM UPGRADE
MAIN LABORATORY BUILDING
FIRST FLOOR REMODEL PLAN - NORTH

SCALE: 1/8" = 1'-0"
SHEET NO. M-19
DWG. NO. J.O.-g-1206

SPECIFICATION NUMBER X-1694



GENERAL NOTES

1. SEE SHEET M-10 FOR EXISTING HVAC PLAN AND EXISTING EQUIPMENT IDENTIFICATIONS.

REMODEL NOTES

1. SEE STRUCTURAL DRWG. FOR EQUIPMENT PLATFORM DETAIL.
2. INSTALL NEW EXHAUST FAN INCLUDING ANCHORAGE AND POWER CONNECTION PRIOR TO DEMOLITION OF EXISTING EXHAUST FAN
3. SEE STRUCTURAL AND ARCHITECTURAL DRWG. FOR DUCT PENETRATION THRU THE ROOF DETAIL.
4. 10x10 NEW SUPPLY AIR DUCT DOWN TO FLOOR BELOW.
5. NEW VTR MATCH EXISTING LINE SIZE.
6. POC TO EXISTING VENT. BELOW ROOF, MATCH LINE SIZE.

MAIN LABORATORY BUILDING ROOF
1/8"-1'-0"

RECORD DRAWING

WARNING 1" IF THIS LINE IS NOT 1" LONG, THEN DWG IS NOT TO SCALE.

COUNTY SANITATION DISTRICT NO. 02
OF LOS ANGELES COUNTY, CALIFORNIA

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Project No. 2309.109.00

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DATE May 2012
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REG. NO.

SAN JOSE CREEK WATER QUALITY LABORATORY
HVAC SYSTEM UPGRADE
MAIN LABORATORY BUILDING
ROOF REMODEL PLAN

SCALE: 1/8" = 1'-0"
SHEET NO. M-20
DWG. NO. J.O.-g-1206

SPECIFICATION NUMBER X-1694

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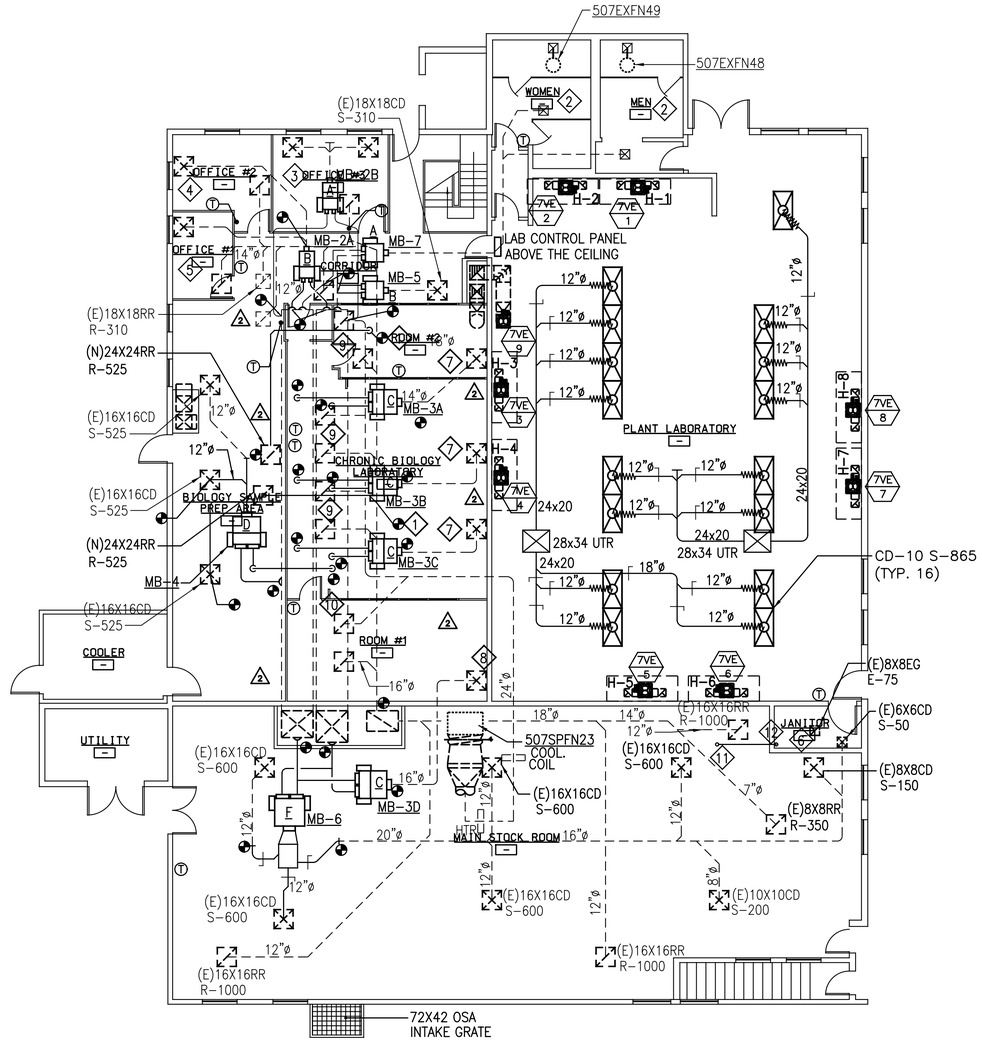

ANNEX BUILDING FIRST FLOOR
1/8"-1'-0"

GENERAL NOTES

1. SEE SHEET M-11 FOR EXISTING HVAC PLAN.

2 AIR BALANCE NEW AND EXIST. DIFFUSER, RETURN GRILLE AND EXHAUST GRILLE TO AIR QUANTITY SHOWN.

REMODEL NOTES

1. POC (N)12"ø TO EXIST. DUCT WITH TRANSITION
2. ADJUST EXHAUST FAN
   E-200
   (E)8X8CD, S-150
3. (E)8X8CD, S-110 (TYP. 2)
   (E)12X12RR, R-220
4. (E)8X8CD, S-325
   (E)10X10RR, R-325
5. (E)10X10CD, S-250
   (E)10X10RR, R-250
6. ADJUST EXHAUST FAN
   E-75
7. (E)20X20CD
   S-700
   NOTE: (1)20X20CD IS SERVED BY STAND-BY UNIT 507SPFN23.
8. (E)22X22CD
   S-900
   NOTE: (1)22X22CD IS SERVED BY STAND-BY UNIT 507SPFN23.
9. (E)22X22RR
   R-700
   NOTE: 1. REPLACE EXISTING THERMOSTAT IN RETURN AIR DUCT. 2. (1)22X22RR IS SERVED BY STAND-BY UNIT 507SPFN23.
10. (E)22X22RR
    R-900
    NOTE: 1. REPLACE EXISTING THERMOSTAT IN RETURN AIR DUCT. 2. (1)22X22RR IS SERVED BY STAND-BY UNIT 507SPFN23.
11. 1 1/2" CONDENSATE DRAIN UP FROM ROOF.
12. 1 1/2" CONDENSATE DRAIN DOWN AND SPILL INTO EXISTING MOP SINK.

ANNEX BUILDING FIRST FLOOR AIR BALANCE TABLE

Room Name/Number	Room Area (sq. ft.)	Ceiling High (ft)	ACH	SA (CFM)	RA (CFM)	EA (CFM)	TA (CFM)
Room #1	231	8.33	28.1	900	900		0
Room #2	130	8.33	38.8	700	700		0
Plant Laboratory	2320	8.33	43.0	13,840		15,390	-1,550
Office #1	68	8.33	26.5	250	250		0
Office #2	106	8.33	22.1	325	325		0
Office #3	136	8.33	11.7	220	220		0
Chronic Biology Laboratory	514	8.33	19.6	1,400	1,400		0
Corridor	184	8.33	12.1	310	310		0
Biology Sample Prep. Area	534	8.33	21.2	1,575	1,575		0
Main Stock Room	2095	8.33	11.5	3,350	3,350		0
Janitor	40	8.33	9.0	50		75	-25
Women	131	8.33	11.0	150		200	-50
Men	123	8.33	11.7	150		200	-50

RECORD DRAWING

COUNTY SANITATION DISTRICT NO. 02
OF LOS ANGELES COUNTY, CALIFORNIA

NO.	REVISIONS	INITIALS	DATE
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		EN	

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Project No. 2309.109.00

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DATE May 2012
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REG. NO.

SAN JOSE CREEK WATER QUALITY LABORATORY
HVAC SYSTEM UPGRADE
ANNEX BUILDING
FIRST FLOOR REMODEL PLAN

SCALE: 1/8" = 1'-0"
SHEET NO. M-21
DWG. NO. J.O.-g-1206

WARNING 1" IF THIS LINE IS NOT 1" LONG, THEN DWG IS NOT TO SCALE.

SPECIFICATION NUMBER X-1694

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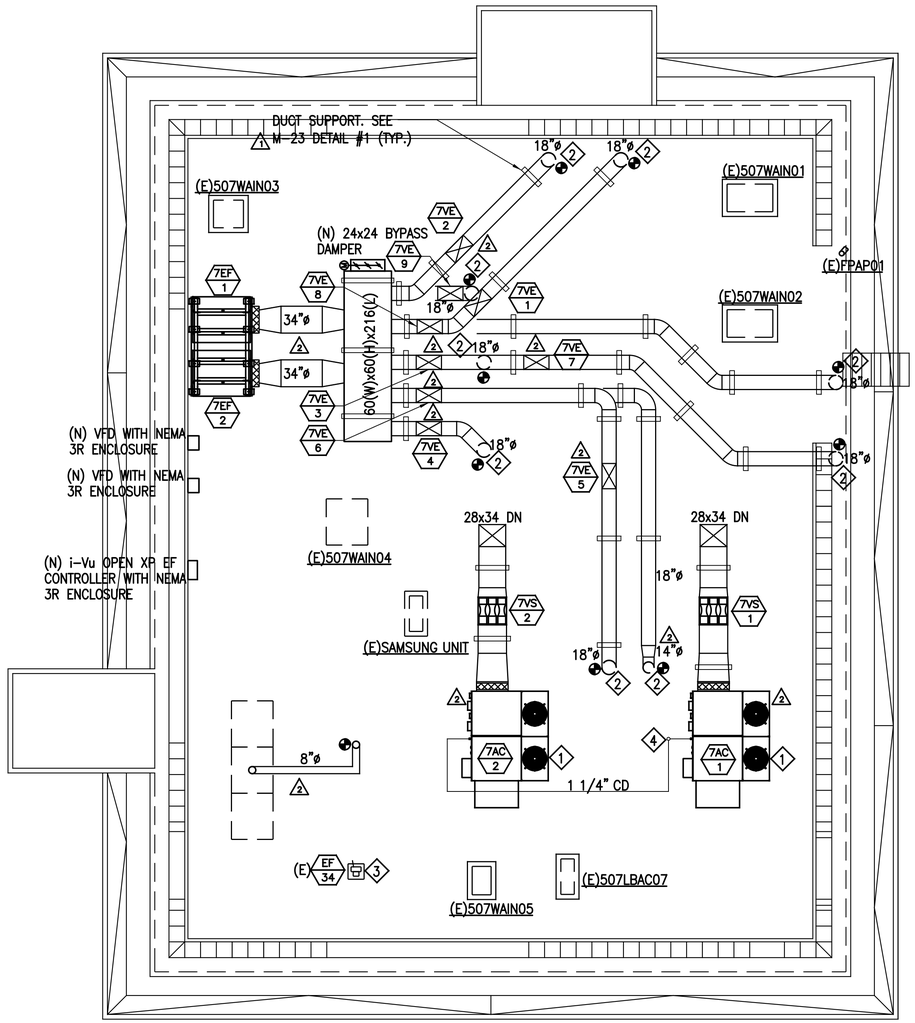

ANNEX BUILDING ROOF
1/8"=1'-0"

GENERAL NOTES

1. SEE SHEET M-11 FOR EXISTING HVAC PLAN.
2. SEE SECTION 1B OF SPECIAL PROVISIONS FOR THE PHASING PLAN.

REMODEL NOTES

1. SEE STRUCTURAL DRWG. FOR EQUIPMENT PLATFORM DETAIL.
2. POC NEW DUCT WITH TRANSITION TO EXISTING DUCT.
3. RELOCATE EXISTING EF-34. CONNECT NEW DUCT TO EXISTING DUCT RISER.
4. 1 1/2" CONDENSATE DRAIN DOWN TO FLOOR BELOW.

RECORD DRAWING

WARNING 1" IF THIS LINE IS NOT 1" LONG, THEN DWG IS NOT TO SCALE.

COUNTY SANITATION DISTRICT NO. 02
OF LOS ANGELES COUNTY, CALIFORNIA

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2	REVISED PER ADDENDA NOS. 1 AND 2	SC AY	NOV. 12

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REG. NO.

SAN JOSE CREEK WATER QUALITY LABORATORY
HVAC SYSTEM UPGRADE
ANNEX BUILDING
ROOF REMODEL PLAN

SCALE: 1/8" = 1'-0"
SHEET NO. M-22
DWG. NO. J.O.-g-1206

SPECIFICATION NUMBER X-1694

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2021

APPENDIX D

HEALTH AND SAFETY REQUIREMENTS

Contractor Safety
Request for Safety Program Information

Los Angeles County Sanitation Districts

Company Name: _____

Project: _____ Date: _____

Address: _____

Health and Safety Officer: _____

Phone #: _____ Fax #: _____

1. Current Experience Modification Rate (EMR): _____

2. It has been determined by the Districts that during this project you will be engaging in work activities that will require your submission and on the job enforcement of written health and safety programs. All items marked with a "✓" below, shall be submitted to the Districts for review.

A.	✓	Codes of Safe Practices as required by 8 CCR 1509.
B.	✓	Hazardous Communications Program (HazCom) as required by 8 CCR 5194.
C.	✓	Injury and Illness Prevention Program (IIPP) as required by 8 CCR 1509.
D.	✓	Confined Space Entry Program as required by 8 CCR 5156 & 5157.
E.	✓	Hazardous Waste Operation Program / Site Health and Safety Plan (HAZWOPER) as required by 8 CCR 5192.
F.	✓	Infection Control Plan including COVID-19 Self-Screening Policy (Attachment F) signed by Contractor's employees.
G.		Other:

3. Comments:

_____

_____

_____

I certify, on behalf of _____,
(Company Name)
that the information provided herein is true and correct.

Name: _____ Title _____
(Company Representatives Name)

Signature: _____ Date: _____

Contractor Safety
Potential Hazard Notification Form

Los Angeles County Sanitation Districts

Project Title and Contract/P.O. No.:	Pre-Construction Meeting Date:
Contractor's Company Name:	Scheduled Project Start Date:
Contractor's Health and Safety Officer:	Contractor's Phone No.:
Districts' Contract Administrator:	Districts' Health and Safety Representative:

Safety Considerations and Potential Hazards

Item #	Location & Precautions
1	Joint Administration Office (JAO): Asbestos containing building materials.
2	JAO: Explosive gas (natural gas).
3	JAO: Sewage in drains.
4	JAO: Confined spaces: 1. Certain sections above ceiling tiles
	2. Air plenums and abandoned fan rooms on second floor
	3. HVAC air intake vault in basement
	4. Air Handlers

I (Contractor's name) _____ understand that I am required to provide this information to my employees. I also understand that the hazard information presented to me is based on the Districts' understanding of the work location as it relates to their (Districts') activities. I further understand that my (Contractor's) activities will require me to assess the work location and implement safety controls and procedures, as appropriate, that are compliant with Title 8 of the California Code of Regulations.

Signed:_____ Date:_____

(Contractor's Representative)

Signed:_____ Date:_____

(Districts' Representative)

Health and Safety Information Sheet

Los Angeles County Sanitation Districts

GENERAL SAFETY

REGULATORY COMPLIANCE
The Contractor is responsible for controlling the manner and methods of its operations and is directly responsible for the safety of its employees and subcontractor's employees and ensuring regulatory compliance. If the Contractor's or its subcontractors' employees fail to comply with Federal, State, local, or municipal regulations, the Districts has the right to refuse inspecting and accepting the performed work until the issue is rectified to the Districts' satisfaction. Furthermore, violations may be referred to the appropriate regulatory agency(s).

HAZARDOUS MATERIAL USAGE
Before work begins, the Contractor shall provide to the Districts a hazardous material inventory and the corresponding Material Safety Data Sheets for all hazardous materials to be used during the construction process. Hazardous material inventories shall be submitted to the Contract Administrator.

Contractors that require fuel, paint, or other chemicals to be stored on the landfill must ensure that their storage facilities include secondary containment and meet all other applicable requirements of the Fire Department and appropriate regulatory agency(s).

Hazardous materials shall not be brought onto Districts' property until acceptance is received. Contractors are required to strictly enforce container labeling. Labels shall identify substance, appropriate hazard warnings, and emergency procedures. Immediately report spills to the lead operator on site. Spills must be handled in accordance with the Hazardous Materials Business Plan for each site.

AIR CONTAMINANTS AND NOISE CONTROL
Districts' employees shall not be subjected to excessive air contaminants or noise from the Contractor**'**s operations.

ASBESTOS & LEAD
Some Districts' building materials contain asbestos and/or lead. Contractors and their employees are required to handle contaminated building materials in accordance with applicable regulations.

VEHICLES & DRIVING
All written traffic signs, signals, and road markings must be obeyed. Always obey the lowest posted speed limit. Parking at any Districts' facility is at the vehicle owners' risk.

HOUSEKEEPING
Contractors are responsible for keeping the work area free and clear of hazards at all times. When the work is done, the work area must be left in a neat and clean condition.

If a Contractor's employee is sent off-site for medical treatment (where more than first aid is required) the Contract Administrator and the EH&S Section must be notified immediately by Contractor supervision.

SAFETY EQUIPMENT
Contractors are required to provide, operate and maintain their own safety equipment. Safety equipment includes, but is not limited to, lifelines, harnesses, scaffolding, respiratory equipment, gas detectors, welding shields, ventilation equipment, and personal protective equipment.

SMOKING
A no-smoking policy has been initiated for the Districts' facilities. All Districts' indoor facilities are no-smoking areas, including all areas within twenty(20) feet from any building entrance. Additionally, management may designate outdoor facilities as no-smoking areas. Such outdoor no-smoking areas will be posted. In general, conflicts will be resolved with the rights of Districts' employees to breathe clean air prevailing.

Health and Safety Information Sheet

County Sanitation Districts of Los Angeles County

JOINT ADMINISTRATION OFFICE (JAO)

1. Contractors must check in at the reception desk.
2. Familiarize yourself with the evacuation plan posted in your work area.
3. The emergency extension is “9-911” from any phone in the building.
4. Do not operate any Districts’ equipment without authorization.
5. Do not cluster electrical cords from one outlet.
6. Observe all posted signs.
7. Do not impede any work in progress without authorization.
8. Do not impede the flow of vehicle traffic.
9. Adhere to messages announced over the public address system.
10. The speed limit on JAO grounds is 15 mph.

Health and Safety Information Sheet

Los Angeles County Sanitation Districts

WASTEWATER TREATMENT PLANTS
(Upstream, Deserts)

1. There are intrinsically hazardous areas associated with normal operation and maintenance of the Districts' Water Reclamation Plants (WRP). The following types of hazardous conditions may exist.
2. Contractors and their employees must check in and out of WRPs at the main control room.
3. Hose bibs at the Districts' WRPs contain reclaimed water and are not to be used for drinking purposes.
4. Oxygen deficient environments can occur in confined spaces that exist in WRP facilities. Supplied air respirators with 10-minute escape packs are required for work being performed in such spaces. Oxygen deficient is defined as an oxygen concentration in breathing air less than 19.5 percent by volume.
5. Explosive environments can be created at WRPs as a result of the accumulation of natural gas, propane gas or digester gas. Fires, open flames, sparks and other forms of ignition and smoking are prohibited within fifty(50) feet of sources of natural, propane, or digester gas.
6. Wastewater treatment at WRPs involves disinfection with ammonium hydroxide solution (ammonia). Spilled or leaked solution will evaporate to form gaseous ammonia and a leak can occur that requires evacuation of a work site. Contractors and their employees should be aware of the ammonia station location for each site. The Contractor shall follow the direction of the Districts' personnel should an evacuation be necessary.
7. Wastewater treatment at WRPs involves addition of sodium hypochlorite and sodium bisulfite solution. Contractors and their employees should be aware of the locations of these chemical stations at each site. The Contractor shall follow the direction of Districts' personnel while performing in the vicinity of these stations.
8. Hydrogen sulfide gas is found in air spaces above raw wastewater, wastewater undergoing treatment, raw and digested sludge and other liquid side streams. Hydrogen sulfide gas is also found in small quantities in digester gas. Contact the Contract Administrator for generally accepted safe work practice guidelines prior to working in areas known to contain hydrogen sulfide gas.
9. Drowning hazards are posed by large open process tankage filled with liquids or chemicals. The configuration of the tankage with steep walls and no provision for escape require precautions to prevent contractors and their employees from falling into liquid filled tanks. Contractors working in proximity of tankage shall contact the Contract Administrator for generally accepted safe work practice guidelines.
10. The Districts' confined spaces are known to pose potential toxic exposure. Entry into Districts' confined spaces is allowed only through compliance with a Permit Required Confined Space Program meeting the requirements of Title 8 CCR §5157. Contact the Contract Administrator prior to working in any confined space.
11. The entire Los Coyotes WRP is a hardhat area. At all other WRPs, hard hats must be worn when entering pipe galleries, pump stations and any other below ground areas where bumping hazards exist.
12. Contractors and their employees shall not walk on tanks in the WRPs without an escort or prior acceptance from the treatment plant operator on duty.
13. Pathogenic bacteria and viruses are present in wastewater, wastewater undergoing treatment, raw and digested sludge, process side streams and treated wastewater effluent. Contractors and their employees shall practice proper hygiene to prevent ingestion or inhalation of aerosols from the above liquids. Proper hygiene includes but is not limited to, hand washing with soap and water prior to eating, and wearing appropriate personal protective equipment to minimize exposure to liquids and aerosols.

Kickoff Safety Meeting Checklist

County Sanitation Districts of Los Angeles County

Project Title and Contract No.:	Construction Meeting Date:
Contractor's Company Name:	Scheduled Project Start Date:
Contractor's Health and Safety Officer:	Contractor's Phone No.:
District's Representative:	District's EH&S Representative:

	Yes	No	N/A	
1.	☐	☐	☐	Hazardous Materials Information, relevant to the Districts' involvement with the project, has been provided to the Contractor as required by the Hazard Communications Standard, 8 CCR 5194. "Health and Safety Information Sheets" pertaining to this project have been provided to the Contractor. The Contractor has been instructed to provide their employees with information contained in these documents.
2.	☐	☐	☐	Confined space entry requirements have been reviewed with the Contractor. The Contractor understands that Permit Required Confined Space entry requirements in accordance with 8 CCR 5157 are to be followed at all times.
3.	☐	☐	☐	The Contractor has been informed of the required working conditions that are covered by the Process Safety Management (PSM) Standard (8 CCR 5189) and the Contractor understands that it is obligated to follow Districts' guidelines regarding PSM projects.
4.	☐	☐	☐	In accordance with regulatory requirements, the Contractor is reminded to maintain written Health and Safety Program(s) at the work location (IIPP, HazCom, Confined Space, etc.).
5.	☐	☐	☐	The Contractor is responsible for the safety of all individuals who enter into the construction site. The Districts will address unsafe conditions created by the Contractor's operations by following a three-step protocol. First, Districts personnel will verbally notify the Contractor of the safety concern and request resolution of the hazard. If the Contractor's response is judged to be inadequate, the Districts will provide a "Notice of Non-Compliance (Safety)" written form. If the Districts and Contractor cannot subsequently agree to a resolution of the safety hazard, Cal/ OSHA may be called in as the final arbitrator.
6.	☐	☐	☐	Contractors are required to operate and maintain their own equipment (safety equipment, etc.). Districts safety equipment will not be loaned to the Contractor.
7.	☐	☐	☐	The Contractor shall, when performing work-requiring lockout/blockout/tagout of existing Districts' equipment, follow the Districts' Lockout/Blockout/Tagout Procedures with the cooperation of the Districts' operational personnel responsible for the equipment. The Districts' Lockout/Blockout/Tagout Procedures will be made available upon request.
8.	☐	☐	☐	Energized conductors and equipment at the plant pose electrical shock, arc flash and mechanical hazards. The Contractor shall perform electrical hazard assessment(s) in accordance with NFPA 70E to ensure workers are properly protected when working on or near equipment that is not in an "electrically safe condition". This includes, but is not limited to, electrical personal protective equipment that is appropriate for the specific parts of the body to be protected and for the work to be performed such as Flame-Resistant (FR) clothing, Voltage-Rated gloves, and tools, etc.
9.	☐	☐	☐	The Contractor has been given a copy of this checklist.

Signature: _____ Date: _____

(District's Representative)

Signature: _____ Date: _____

(Contractor's Representative)

COVID-19 Infection Notification Form

Los Angeles County Sanitation Districts

COVID-19 Infection Notification Form

This form must be used to notify the Los Angeles County Sanitation Districts (LACSD) of any employee who has worked in a LACSD facility and has been diagnosed with or is likely to have COVID-19. Notification must be made as soon as possible, but in no case more than one day after learning of the employee's condition. This form must be updated and resubmitted if additional information becomes available.

A person is considered to be diagnosed with or likely to have COVID-19 if they:

a) Received a positive lab test for COVID-19 and/or
b) Were informed by a physician that they are likely to have COVID-19 and/or
c) Have symptoms that are consistent with COVID-19 (i.e. fever, cough, or shortness of breath).

Company:	
Completed by:	Title:
Signature:	Date:
Date of illness onset (if applicable):	
Date of specimen collection (if applicable):	
Laboratory confirmed: ◯ Yes ◯ No	
Last date of attendance at LACSD facility/site:	
LACSD work locations / job duties from 48 hours prior to onset through last day of work:	
Close contact with LACSD workers: ◯ Yes ◯ No Names of LACSD workers:	
Close contact with other workers who visit LACSD facilities: ◯ Yes ◯ No Number quarantined:	
Date infected worker may return to LACSD facility/site:	
Date(s) quarantined worker(s) may return to LACSD facility/site:	

COVID-19 Self-Screening Policy

Los Angeles County Sanitation Districts

Los Angeles County Sanitation Districts (Districts) COVID-19 Self-Screening Policy - UPDATED

The self-screening policy was established June 8, 2020. Since the policy was originally issued, the symptoms related to COVID-19 have been expanded. Therefore, the updated policy is provided below.

To protect the health of Districts employees, any individual who may be infected with COVID-19 must NOT enter any Districts facility. The Districts must be notified immediately if anyone who has been on Districts premises tests positive for COVID-19.

Prior to every shift, workers who enter Districts sites are required to conduct the mandatory self-screening below before entering the work site. Workers who do not perform a self-screen will not be permitted to enter the work site. All personnel who enter Districts facilities are required to read and sign the self-screening agreement.

If you are experiencing any of the following symptoms, or meet any of the other criteria listed below, do NOT enter the work site and notify your employer immediately.

Do not enter any work site if any of the following apply:

1. You have any of the following:
   - Fever or chills
   - Cough
   - Shortness of breath or difficulty breathing
   - Fatigue
   - Muscle or body aches not attributable to a specific injury
   - Headache
   - New loss of taste or smell
   - Sore throat
   - Congestion or runny nose
   - Nausea or vomiting
   - Diarrhea
2. You had contact with someone diagnosed with COVID-19 in the past 14 days.
3. You have been in close contact with someone (in the past 14 days) experiencing symptoms consistent with COVID-19 and they are seeking testing for COVID-19.
4. You have been directed to self-isolate or quarantine by a health care provider or a public health official.
5. You travelled internationally within the past 14 days.

This is not meant to take the place of consultation with your healthcare provider or to diagnose or treat conditions. If you're in an emergency medical situation, call 911 or your local emergency number. Information about COVID-19 is constantly changing. For the latest information, contact your healthcare provider or review the CDC Symptoms of Coronavirus.

I acknowledge receipt of the Districts' COVID-19 Self-Screening Policy. I have read and understand the requirements above and agree to abide by them at all Districts' facilities and worksites. I understand that I will be refused entry and asked to leave if I do not abide by these requirements at all Districts' facilities.

_____	_____	_____
Name	Signature	Date

Company (if applicable): _____

COVID-19 Infection Notification Form

Los Angeles County Sanitation Districts

Póliza de Autoevaluación de COVID-19 de Los Angeles County Sanitation Districts (Distritos) - ACTUALIZADA

La póliza de autoevaluación se estableció el 8 de junio, 2020. Desde cuando la póliza se emitió originalmente, los síntomas relacionados con COVID-19 se han ampliado. Por lo tanto, la póliza actualizada se proporciona a continuación.

Para proteger la salud de los empleados de los Distritos, cualquier persona que pueda estar infectada con COVID-19 NO debe entrar al lugar de trabajo. Los Distritos deben ser notificados inmediatamente si alguien que ha estado en las instalaciones de los Distritos tiene un resultado positivo de COVID-19.

Antes de cada turno, los trabajadores que ingresan a los sitios de los Distritos deben realizar la autoevaluación obligatoria, antes de entrar al sitio de trabajo. Los trabajadores que no realicen la autoevaluación no podrán entrar al sitio de trabajo. Todo el personal que ingresa a las instalaciones de los Distritos debe leer y firmar el acuerdo de autoevaluación.

Si tiene alguno de los siguientes síntomas, o cumple con cualquiera de los otros criterios enumerados a continuación, NO entre al sitio de trabajo y notifique a su empleador inmediatamente.

No entre al sitio de trabajo si cualquiera de los siguientes le aplica:

1. Tiene alguno de los siguientes:
   - Fiebre o escalofríos
   - Tos
   - Falta de aliento o dificultad para respirar
   - Fatiga
   - Dolores musculares o corporales no atribuibles a una lesion específica
   - Dolor de cabeza
   - Recién pérdida de sabor u olfato
   - Dolor de garganta
   - Congestión o secreción nasal
   - Náusea o vómito
   - Diarrea
2. Tuvo contacto con alguien que dio positivo por COVID-19 en los últimos 14 días.
3. Ha estado en contacto cercano con alguien (en los últimos 14 días) que tiene síntomas consistentes con COVID-19 y está buscando pruebas para COVID-19.
4. Ha sido dirigido a aislarse o ponerse en cuarentena por su proveedor de atención médica.
5. Regresó de un viaje internacional en los últimos 14 días.

Esto no pretende reemplazar la consulta con su proveedor de atención médica ni diagnosticar o tratar afecciones. Si se encuentra en una situación de emergencia médica, llame al 911 o al número local de emergencias. La información sobre COVID-19 cambia constantemente. Para obtener la información más reciente, comuníquese con su proveedor de atención médica o revise los síntomas de coronavirus del CDC.

Reconozco el recibo de la Póliza de Autoevaluación de COVID-19 de los Distritos. He leído y entiendo los requisitos anteriores y estoy de acuerdo en cumplirlos en todas las instalaciones y lugares de trabajo de los Distritos. Entiendo que se me negará la entrada y se me pedirá que me vaya si no cumplo con estos requisitos en todas las instalaciones de los Distritos.

_____	_____	_____
Nombre	Firma	Fecha

Compañía (si es aplicable): _____

2021

APPENDIX E

LABOR PRACTICES

LABOR PRACTICES

1. SCOPE

This Section covers the prevailing wage rates determined by the Director of the Department of Industrial Relations of the State of California and other labor practices.

2. GENERAL

Pursuant to applicable provisions of the Labor Code of the State of California, not less than the general prevailing rate of per diem wages and not less than the general prevailing rate of per diem wages for legal holiday and overtime work for each craft or type of worker needed to execute the work contemplated under this Contract, as ascertained by the Director of the Department of Industrial Relations, shall be paid to all workers employed on said work by the Contractor or by any subcontractor doing or contracting to do any part of said work.

2.1 Wage Rates, Travel, and Subsistence

2.1.1 Wage Rates. Pursuant to the provisions of Article 2 Chapter 1, Part 7, Division 2, of the Labor Code (§ 1770 *et seq.*), the District has obtained the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this work of improvement is to be performed for each craft, classification, or type of worker needed to provide the Work contemplated under this Contract from the Director of the Department of Industrial Relations ("DIR"). These rates are listed in **Attachment 1**, on file with the District, and copies will be made available to any interested party on request. The Contractor shall submit a copy of the general rate of per diem wages for each craft, classification, or type of work needed to execute the work within 10 working days after the receipt of proposals. The Contractor shall post a copy of such wage rates at the jobsite prior to commencing work.

For any worker employed to perform work, where such work is not covered by any classification listed in the published general prevailing wage rates determinations or per diem wages determined by the DIR, said worker shall be paid not less than the minimum rate of wages specified in the classification which most nearly corresponds to the employment of such person in such classification.

2.1.2 Holiday and Overtime Pay. Holiday and overtime work, when permitted by law, shall be paid for at a rate set forth in the prevailing wage determinations issued by the DIR or at least one and one-half (1½) times the specified basic rate of per diem wages, plus employer payments, unless otherwise specified in this Contract, or authorized by law.

2.1.3 Wage Rates Not Affected By Other Contracts. Contractor shall pay and shall cause to be paid to each employee to whom prevailing wage rates apply not less than the general prevailing rate of per diem wages determined by the DIR, regardless of any contractual relationship which may be alleged to exist between Contractor and Employee.

2.1.4 Travel And Subsistence. Contractor shall pay and shall cause to be paid to each employee performing Work travel and subsistence payments, as such travel and subsistence payments are defined by the DIR and in accordance with Labor Code § 1773 *et seq.*, including but not limited to Labor Code § 1773.1.

2.1.5 Change In Prevailing Wage During Solicitation or During Maintenance Contract. If the DIR issues a change in any prevailing rate of per diem wages in the locality in which this public work is to be performed, Contractor must comply with current prevailing wages at all times pursuant to determinations by the DIR and Labor Code § 1773 *et seq.* Prevailing wage determination rates are issued twice a year, in February and August and, as of the date of this Contract, the effective date of a determination is 10 days after the issue date of the determination. So, for example, if the prevailing wage determination is issued February 22, the effective dates for implementing said new rate is March 3rd in leap years, and March 4th in non-leap years.

2.1.6 Minimum Wage Rates. Any worker employed to perform Work, which Work is not covered by any craft or classification listed in the general prevailing rate of per diem wages determined by the DIR, shall be paid not less than the minimum rate of wages specified therein for the craft or classification which most nearly corresponds to the Work to be performed by them, and such minimum wage rate shall be retroactive to time of initial employment of such person in such craft or classification.

2.1.7 Per Diem Wages. Contractor shall pay and shall cause to be paid to each employee performing Work per diem wages including, but not limited to, employer payments for health and welfare, pension, vacation, travel time, and subsistence pay as provided for in Labor Code § 1773.1.

2.1.8 Posting of Wage Rates. Prior to commencing any Work, Contractor shall post the required notice/poster required under the California Code of Regulations and Labor Code Section 1771.4 in both English and Spanish at a conspicuous, weatherproof area at the Project site. The required notice/poster is available on the Labor Commissioner's website.

2.1.9 Forfeiture and Payments. Pursuant to Labor Code § 1775, Contractor shall forfeit to District not more than Two Hundred Dollars ($200.00) for each calendar day, or portion thereof, for each worker paid less than the prevailing rate of per diem wages, determined by the DIR, for such craft or classification in which such worker is employed for any Work performed. The amount of the penalty shall be determined by the Labor Commissioner and shall be based on consideration of Contractor's mistake, inadvertence, or neglect in failing to pay the correct prevailing rate of per diem wage, the previous record of Contractor in meeting his or her prevailing rate of per diem wage obligations, or Contractor's willful failure to pay the correct prevailing rate of per diem wages. A mistake, inadvertence, or neglect in failing to pay the correct prevailing rate of per diem wage is not excusable if Contractor had knowledge of it or the obligations under this part. The difference between such prevailing rate of per diem wage and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing rate of per diem wage shall be paid to each worker by Contractor.

2.1.10 Monitoring and Enforcement by Labor Commissioner. Monitoring and enforcement of the prevailing wage laws and related requirements will be performed by the Labor Commissioner/Department of Labor Standards Enforcement (DLSE). Contractor shall be required to furnish, at least monthly, certified payroll records directly to the Labor Commissioner in accordance with Labor Code Section 1771.4. All payroll records shall be furnished in a format required by the Labor Commissioner. Contractor must sign up for, and utilize, the Labor Commissioner's electronic certified payroll records submission system. The District will have direct and immediate access to all CPRs for Work performed under this Contract that are submitted through the Labor Commissioner's system. The District can use this information for any appropriate purpose, including monitoring compliance, identifying suspected violations, and responding to Public Records Act requests.

The Labor Commissioner and DLSE may conduct various compliance monitoring and enforcement activities including, but not limited to, confirming the accuracy of payroll records, conducting worker interviews, conducting audits, requiring submission of itemized statements prepared in accordance with Labor Code Section 226, and conducting random in-person inspections of the Premises ("On-Site Visits"). On-Site Visits may include inspections of records, inspections of the work site and observation of work activities, interviews of workers and others involved with the Premises, and any other activities deemed necessary by the Labor Commissioner/DLSE to ensure compliance with prevailing wage requirements. The Labor Commissioner/DLSE shall have free access to any construction site or other place of labor and may obtain any information or statistics pertaining to the lawful duties of the Labor Commissioner/DLSE.

Any lawful activities conducted, or any requests made by the Labor Commissioner/DLSE shall not be the basis for any delays, claims, costs, damages or liability of any kind against the District by Contractor. Contractor and all employees shall cooperate and comply with any lawful requests by the Labor Commissioner/DLSE. The failure of the Labor Commissioner, DLSE, or any other entity related to the Department of Industrial Relations to comply with any requirement imposed by the California Code of Regulations, Title 8, Chapter 8 shall not of itself constitute a defense to the failure to pay prevailing wages or to comply with any other obligation imposed by Division 2, Part 7, Chapter 1 of the Labor Code.

2.2 Records of Wages Paid: Certified Payroll Submissions and Inspection

2.2.1 Payroll Records

a. Pursuant to § 1776 of the Labor Code, Contractor shall keep an accurate payroll record showing the name, address, social security number, work classification and straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed by him or her in connection with the Work.

b. All payroll records as specified in Labor Code § 1776 of Contractor shall be certified and furnished directly to the Labor Commissioner in accordance with Labor Code § 1771.4(a)(3) on a monthly basis (or more frequently if required by the District or

the Labor Commissioner) and in a format prescribed by the Labor Commissioner. Payroll records as specified in Labor Code § 1776 shall be certified and submitted to the District in hard copy (not electronic) with each application for payment or invoice. All payroll records shall be available for inspection at all reasonable hours at the principal office of Contractor on the following basis:

1. A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.

2. A certified copy of all payroll records shall be made available for inspection or furnished upon request to a representative of the District, the Division of Labor Standards Enforcement or the Division of Apprenticeship Standards of the Department of Industrial Relations.

3. A certified copy of all payroll records shall be made available upon request by the public for inspection or for copies thereof. However, a request by the public shall be made through the District, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to Paragraph (2) above, the requesting party shall, prior to being provided the records, reimburse the costs, according to law for the preparation by CE, and the entity through which the request was made. The public shall not be given access to such records at the principal office of Contractor.

c. The certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the Division of Labor Standards Enforcement.

d. Contractor shall file a certified copy of all payroll records with the entity that requested such records within 10 calendar days after receipt of a written request.

e. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the District, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or redacted to prevent disclosure of an individual's name, address and social security number. The name and address of the Contractor awarded the Work shall not be marked or redacted. Any copy of records made available for inspection by, or furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (Section 175a of Title 29 of the United States Code) shall be marked or redacted only to prevent disclosure of an individual's name and social security number. Notwithstanding any other provision of law, agencies that are included in the Joint Enforcement Strike Force on the

Underground Economy established pursuant to Section 329 of the Unemployment Insurance Code and other law enforcement agencies investigating violations of law shall, upon request, be provided non-redacted copies of certified payroll records.

f. The Contractor shall inform the District of the location of all payroll records, including the street address, city and county, and shall provide notice of a change of location and address within five (5) days of same.

g. Contractor shall have 10 calendar days in which to comply subsequent to receipt of a written notice requesting payroll records. In the event that Contractor fails to comply within the 10-day period, the Contractor shall, as a penalty to the District, forfeit One Hundred Dollars ($100.00) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from payments then due to Contractor.

h. Responsibility for compliance with this Article shall rest upon Contractor.

2.2.2 Withholding of Contract Payments & Penalties

The District may withhold or delay contract payments to Contractor if:

a. The required prevailing rate of per diem wages determined by the DIR is not paid to all Employees performing Work;

b. Contractor fails to submit all required certified payroll records with each application for payment or invoice, but not less than once per month;

c. Contractor submits incomplete or inadequate payroll records;

d. Contractor fails to comply with the Labor Code requirements concerning apprentices; or

e. Contractor fails to comply with any applicable state laws governing workers on public works projects.

2.3 Apprentices

2.3.1 Apprentice Wages and Definitions. All apprentices employed by Contractor to perform Work shall be paid the standard wage paid to apprentices under the regulations of the craft or trade for which he or she is employed, as determined by the DIR, and shall be employed only at the work of the craft or trade to which he or she is registered. Only apprentices, as defined in § 3077 of the Labor Code, who are in training under apprenticeship standards that have been approved by the chief of the Division of Apprenticeship Standards and who are parties to written apprenticeship agreements under Chapter 4 (commencing with § 3070) of Division 3, are eligible to be employed under this Contract.

The employment and training of each apprentice shall be in accordance with the apprenticeship standards and apprentice agreements under which he or she is training, or in accordance with the rules and regulations of the California apprenticeship Council.

2.3.2 Apprentice Labor Pool. When Contractor employs workers in any apprenticeable craft or trade, Contractor shall apply to the joint apprenticeship committee administering the apprenticeship standards of the craft or trade in the area of the Site of the Work, for a certificate approving the Contractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected. However, approval as established by the joint apprenticeship committee or committees shall be subject to the approval of the Administrator of Apprenticeship. The joint apprenticeship committee or committees, subsequent to approving Contractor, shall arrange for the dispatch of apprentices to Contractor in order to comply with this Section. Contractor shall submit the Contract award information to the applicable joint apprenticeship committee which shall include an estimate of journeyman hours to be performed under the Contract, the number of apprentices to be employed, and the approximate dates the apprentices will be employed. There shall be an affirmative duty upon the joint apprenticeship committee or committees administering the apprenticeship standards of the crafts or trade in the area of the Site of the work, to ensure equal employment and affirmative action and apprenticeship for women and minorities. Contractor shall not be required to submit individual applications for approval to local joint apprenticeship committees provided they are already covered by the local apprenticeship standards. The ratio of work performed by apprentices to journeymen, who shall be employed in the craft or trade at the Premises, may be the ratio stipulated in the apprenticeship standards under which the joint apprenticeship committee operates, but, except as otherwise provided in this Section, in no case shall the ratio be less than one(1) hour of apprentice work for every five(5) hours of labor performed by a journeyman. However, the minimum ratio for the land surveyor classification shall not be less than one(1) apprentice for each five(5) journeymen.

2.3.3 Journeyman/Apprentice Ratio; Computation of Hours. Any ratio shall apply during any day or portion of a day when any journeyman, or the higher standard stipulated by the joint apprenticeship committee, is employed at the job Site and shall be computed on the basis of the hours worked during the day by journeymen so employed, except for the land surveyor classification. Contractor shall endeavor, to the greatest extent possible, to employ apprentices during the same time period that the journeymen in the same craft or trade are employed at the job Site. Where an hourly apprenticeship ratio is not feasible for a particular craft or trade, the Division of Apprenticeship Standards, upon application of a joint apprenticeship committee, may order a minimum ratio of not less than one(1) apprentice for each five(5) journeymen in a craft or trade classification.

2.3.4 Journeyman/Apprentice Ratio. Contractor, if covered by this Section upon the issuance of the approval certificate, or if previously approved in the craft or trade, shall employ the number of apprentices or the ratio of apprentices to journeymen stipulated in the apprenticeship standards. Upon proper showing by Contractor that it employs apprentices in the craft or trade in the state on all of its contracts on an annual average of not less than

one(1) hour of apprentice work for every five(5) hours of labor performed by a journeyman, or in the land surveyor classification, one(1) apprentice for each five(5) journeymen, the Division of Apprenticeship Standards may grant a certificate exempting CE from the 1-to-5 hourly ratio as set forth in this Section. This Section shall not apply to contracts of general contractors or to contracts of specialty contractors not bidding for work through a general or prime contractor, when the contracts of general contractors or those specialty contractors involve less than Thirty Thousand Dollars($30,000) or twenty(20) working days. Any work performed by a journeyman in excess of eight(8) hours per day or forty(40) hours per week, shall not be used to calculate the hourly ratio required by this Section.

2.3.5 Apprenticeable Craft or Trade. "Apprenticeable craft or trade" as used in this Article means a craft or trade determined as an apprenticeable occupation in accordance with the rules and regulations prescribed by the Apprenticeship Council. The joint apprenticeship committee shall have the discretion to grant a certificate, which shall be subject to the approval of the Administrator of Apprenticeship, exempting Contractor from the 1-to-5 ratio set forth in this Article when it finds that any one of the following conditions is met:

a. Unemployment for the previous three-month period in the area exceeds an average of fifteen(15) percent.

b. The number of apprentices in training in such area exceeds a ratio of 1-to-5.

c. There is a showing that the apprenticeable craft or trade is replacing at least one-thirtieth(1/30) of its journeymen annually through the apprenticeship training, either on a statewide basis or on a local basis.

d. Assignment of an apprentice to any work performed under this Contract would create a condition which would jeopardize his or her life or the life, safety, or property of fellow employees or the public at large or if the specific task to which the apprentice is to be assigned is of such a nature that training cannot be provided by a journeyman.

2.3.6 Ratio Exemption. When exemptions are granted to an organization which represents Contractors in a specific trade from the 1-to-5 ratio on a local or statewide basis, the member Contractors will not be required to submit individual applications for approval to local joint apprenticeship committees, if they are already covered by the local apprenticeship standards.

2.3.7 Apprentice Fund. If Contractor employs journeymen or apprentices in any apprenticeable craft or trade and is not contributing to a fund or funds to administer and conduct the apprenticeship program in any such craft or trade in the area of the site of the Project, to which fund or funds other contractors in the area of the site of the Project are contributing, Contractor shall contribute to the fund or funds in each craft or trade in which he or she employs journeymen or apprentices on the Project in the same amount or upon the same basis and in the same manner as the other contractors do, but if the trust

fund administrators are unable to accept the funds, Contractor shall pay a like amount to the California Apprenticeship Council. Contractor may add the amount of the contributions in computing its bid for the contract. The Division of Labor Standards Enforcement is authorized to enforce the payment of the contributions to the fund or funds as set forth in the Labor Code § 227.

2.3.8 Contractor Compliance. The responsibility of compliance with **Part 2.3** and § 1777.5 of the Labor Code for all apprenticeable occupations is with Contractor.

2.3.9 Decisions Of Joint Apprenticeship Committee. All decisions of the joint apprenticeship committee under **Part 2.3** and Labor Code § 1111.5 are subject to Labor Code § 3081.

2.3.10 No Bias. It shall be unlawful for an employer or a labor union to refuse to accept otherwise qualified employees as registered apprentices on any public works on the grounds of race, religious creed, color, national origin, ancestry, sex, or age, except as provided in the Labor Code § 3077.

2.3.11 Violation of Labor Code. Pursuant to Labor Code § 1777.7, in the event Contractor willfully fails to comply with the provisions of **Part 2.3** and Labor Code § 1777.5:

a. The DIR shall deny to Contractor the right to bid on, or to receive, any public works contract for a period of up to one year for the first violation and for a period of up to three years for the second and subsequent violations. Each period of debarment shall run from the date the determination of noncompliance by the Administrator of Apprenticeship becomes an order of the California Apprenticeship Council

b. If Contractor violates Section 1777.5 it shall forfeit as a civil penalty the sum of two hundred dollars ($200) for each calendar day of noncompliance. Notwithstanding Section 1727, upon receipt of a determination that a civil penalty has been imposed, District shall withhold the amount of the civil penalty from the contract progress payments then due or to become due.

c. In lieu of the penalty provided for in subdivision (a) or (b), the DIR may for a first time violation and with the concurrence of the joint apprenticeship committee, order Contractor to provide apprentice employment equivalent to the work hours that would have been provided for apprentices during the period of noncompliance.

d. Any funds withheld by District pursuant to this Section shall be deposited in the General Fund if the awarding body is a state entity, or in the equivalent fund of an awarding body if the awarding body is an entity other than the state.

e. The interpretation and enforcement of Section 1777.5 and this Section shall be in accordance with the rules and procedures of the California Apprenticeship Council.

2.4 DIR Registration

2.4.1 Registration by Contractor and All Subcontractors of Any Tier. Strict compliance with all DIR registration requirements in accordance with Labor Code §§ 1725.5 and 1771.1 is a material obligation of Contractor under the Contract. The foregoing includes, without limitation, compliance with DIR registration requirements at all times during performance of the work by Contractor. The failure of Contractor to be properly registered with DIR at all times during performance of the work is a material breach of the Contract and subject to termination for cause. An affirmative and ongoing obligation of Contractor under the Contract is the verification that all Subcontractors of any tier are at all times during performance of the work in full and strict compliance with the DIR registration requirements. Contractor shall not permit or allow any subcontractor of any tier to perform any work without Contractor's verification that all subcontractors are in full and strict compliance with the DIR registration requirements. Any subcontractors of any tier not properly registered with DIR shall be substituted in accordance with Labor Code § 1771.1. Contractor or its subcontractors of any tier shall not be entitled to any additional costs or time arising from or in any way related to compliance with the DIR registration requirements.

3. NON-DISCRIMINATION OF EMPLOYMENT

Bidders on this work will be required to comply with the President’s Executive Order No. 11246, as amended.

4. INDENTURED APPRENTICES

The Contractor shall fully comply with Labor Code Section 1777.5 regarding the employment of indentured apprentices on public works. This obligation shall extend to all apprenticeable occupations utilized on the subject report.

* * * * *

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1 FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

LOCALITY: LOS ANGELES COUNTY

DETERMINATION: LOS-2021-2

CRAFT	CLASSIFICATION	CRAFT FOOTNOTE	ISSUE DATE	EXPIRATION DATE	BASIC HOURLY RATE	BASIC HOURLY RATE FOOTNOTE	HEALTH AND WELFARE	HEALTH AND WELFARE FOOTNOTE	PENSION	PENSION FOOTNOTE	VACATION/ HOLIDAY	VACATION/ HOLIDAY FOOTNOTE	TRAINING	TRAINING FOOTNOTE	OTHER PAYMENTS	OTHER PAYMENTS FOOTNOTE	HOURS	HOURS FOOTNOTE	STRAIGHT-TIME TOTAL HOURLY RATE	DAILY OVERTIME HOURLY RATE	DAILY OVERTIME HOURLY RATE FOOTNOTE	SATURDAY OVERTIME HOURLY RATE	SATURDAY OVERTIME HOURLY RATE FOOTNOTE	SUNDAY AND HOLIDAY OVERTIME HOURLY RATE	SUNDAY AND HOLIDAY OVERTIME HOURLY RATE FOOTNOTE	HOLIDAY PROVISIONS	SCOPE OF WORK PROVISIONS	TRAVEL & SUBSISTENCE PROVISIONS
#BRICKLAYER, STONEMASON,	MARBLE MASON, CEMENT BLOCKLAYER, POINTER, CAULKER, CLEANER		08/22/2021	04/30/2022**	$43.410	A	$9.250		$9.310		$0.000		$1.040	B	$0.450		8.0	C	$63.460	$85.170	D	$85.170	D	$106.870		Holidays	Scope of Work	Travel & Subsistence
#BRICKLAYER:	MASON FINISHER		08/22/2021	04/30/2022*	$37.190	A	$9.250		$9.310		$0.000		$0.970	B	$0.450		8.0	C	$57.170	$75.770	D	$75.770	D	$94.360		Holidays	Scope of Work	Travel & Subsistence
#BRICK TENDER		E	08/22/2021	06/30/2022**	$35.820		$8.100		$8.980	F	$4.400	G	$0.700		$0.450		8.0	C	$58.450	$76.360		$76.360		$94.270		Holidays	Scope of Work	Travel & Subsistence
#BRICK TENDER	FORKLIFT OPERATOR		08/22/2021	06/30/2022**	$36.270		$8.100		$8.980	F	$4.400	G	$0.700		$0.450		8.0	C	$58.900	$77.030		$77.030		$95.170		Holidays	Scope of Work	Travel & Subsistence
#CARPET, LINOLEUM,	RESILIENT TILE LAYER		02/22/2021	12/31/2021**	$38.750	H	$5.630		$5.550		$2.220		$0.630		$0.280		8.0		$53.060	$72.440		$72.440	I	$91.810		Holidays	Scope of Work	Travel & Subsistence
CARPET, LINOLEUM,	MATERIAL HANDLER	J	02/22/2021	12/31/2021**	$14.000	H	$5.630		$1.940		$0.720		$0.630		$0.280		8.0		$23.200	$30.200		$30.200	K	$37.200		Holidays	Scope of Work	Travel & Subsistence
#DRYWALL FINISHER		L	02/22/2021	09/30/2021**	$39.050	M	$8.850		$7.130		$4.070		$0.870		$0.970		8.0		$60.940	$80.460		$80.460	N	$99.990		Holidays	Scope of Work	Travel & Subsistence
#DRYWALL FINISHER			02/22/2021	09/30/2021**	$43.180	H	$8.850		$7.130		$4.070		$0.870		$0.970		8.0		$65.070	$86.660		$86.660	N	$108.250		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	SOUND INSTALLER		02/22/2021	12/26/2021**	$41.520		$8.560		$5.120	O	$0.000		$0.650		$0.250	P	8.0		$57.350	$78.730	Q	$78.730	Q	$100.110		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	INSIDE WIREMAN, RADIO MONITOR TECHNICIAN		08/22/2021	01/30/2022**	$53.500		$13.190		$14.820	R	$0.000	S	$0.810		$0.550		8.0		$84.470	$112.030	D	$112.030	D	$139.580		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	CABLE SPLICER-WELDER		08/22/2021	01/30/2022**	$56.180		$13.190		$14.820	R	$0.000	S	$0.810		$0.550		8.0		$87.240	$116.170	D	$116.170	D	$145.100		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	TUNNEL WIREMAN		08/22/2021	01/30/2022**	$58.850		$13.190		$14.820	R	$0.000	S	$0.810		$0.550		8.0		$89.990	$120.290	D	$120.290	D	$150.600		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	TUNNEL CABLE SPLICER		08/22/2021	01/30/2022**	$61.790		$13.190		$14.820	R	$0.000	S	$0.810		$0.550		8.0		$93.010	$124.840	D	$124.840	D	$156.660		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	TRANSPORTATION SYSTEMS ELECTRICIAN		08/22/2021	01/30/2022**	$53.300		$13.140		$15.070	R	$0.000	S	$0.810		$0.550		8.0		$84.470	$111.920	D	$111.920	D	$139.370		Holidays	Scope of Work	Travel & Subsistence
#ELECTRICIAN:	TRANSPORTATION SYSTEMS ELECTRICIAN (CABLE SPLICING, WELDING, AND NETA TESTING)		08/22/2021	01/30/2022**	$55.970		$13.140		$15.070	R	$0.000	S	$0.810		$0.550		8.0		$87.220	$116.040	D	$116.040	D	$144.870		Holidays	Scope of Work	Travel & Subsistence
ELECTRICIAN:	TRANSPORTATION SYSTEMS TECHNICIAN	T	08/22/2021	01/30/2022**	$39.980		$13.140		$15.070	R	$0.000	S	$0.810		$0.550		8.0		$70.750	$91.340	D	$91.340	D	$111.930		Holidays	Scope of Work	Travel & Subsistence
#FIELD SURVEYOR:	CHIEF OF PARTY (018.167-010)	U	02/22/2021	09/30/2021**	$53.560		$11.850		$12.150		$4.770	G	$1.150		$0.150		8.0		$83.630	$110.410	Q	$110.410	Q	$137.190		Holidays	Scope of Work	Travel & Subsistence
#FIELD SURVEYOR:	INSTRUMENTMAN (018.167-034)	U	02/22/2021	09/30/2021**	$50.460		$11.850		$12.150		$4.600	G	$1.150		$0.150		8.0		$80.360	$105.590	Q	$105.590	Q	$130.820		Holidays	Scope of Work	Travel & Subsistence
#FIELD SURVEYOR:	CHAINMAN/RODMAN (869.567-010)	U	02/22/2021	09/30/2021**	$49.880		$11.850		$12.150		$4.550	G	$1.150		$0.150		8.0		$79.730	$104.670	Q	$104.670	Q	$129.610		Holidays	Scope of Work	Travel & Subsistence
#GLAZIER			08/22/2021	05/31/2022**	$50.300	V	$8.000	W	$13.850		$0.000	X	$0.770		$0.960		8.0		$73.880	$97.150	Y	$97.150	Y	$120.430		Holidays	Scope of Work	Travel & Subsistence
#MARBLE FINISHER			08/22/2021	05/31/2022*	$35.900	Z	$9.000		$4.270		$0.000		$0.840		$0.330		8.0		$50.340	$68.290	AA	$68.290	AB	$86.240	AC	Holidays	Scope of Work	Travel & Subsistence
#PAINTER:	PAINTER, LEAD ABATEMENT	AD	08/22/2021	12/31/2021**	$34.120	M	$9.000		$4.940		$2.550		$0.750		$1.010		8.0		$52.370	$69.430	AE	$69.430	AE	$86.490		Holidays	Scope of Work	Travel & Subsistence
#PAINTER:	PAINTER, LEAD ABATEMENT	AF	08/22/2021	12/31/2021**	$29.680	M	$9.000		$4.940		$2.410		$0.750		$1.010		8.0		$47.790	$62.630	AE	$62.630	AE	$77.470		Holidays	Scope of Work	Travel & Subsistence
#PAINTER:	INDUSTRIAL PAINTER	AD	08/22/2021	12/31/2021**	$36.520	M	$9.000		$4.940		$2.850		$0.850		$1.010		8.0		$55.170	$73.430	AE	$73.430	AE	$91.690		Holidays	Scope of Work	Travel & Subsistence
PAINTER:	GRAFFITI REMOVAL WORKER JOURNEYMAN (APPLIES ONLY TO PAINT-OVER METHOD)	AG	02/22/2021	01/31/2022*	$24.000		$8.400		$1.000		$0.000		$0.750		$0.000		8.0		$34.150	$46.150		$46.150	K	$58.150		Holidays	Scope of Work	Travel & Subsistence
PAINTER:	GRAFFITI REMOVAL WORKER 1 (APPLIES ONLY TO PAINT-OVER METHOD)	AH	02/22/2021	01/31/2022*	$16.500		$8.400		$1.000		$0.000		$0.750		$0.000		8.0		$26.650	$34.900		$34.900	K	$43.150		Holidays	Scope of Work	Travel & Subsistence
PAINTER:	GRAFFITI REMOVAL WORKER 2 (APPLIES ONLY TO PAINT-OVER METHOD)	AI	02/22/2021	01/31/2022*	$17.370		$8.400		$1.000		$0.000		$0.750		$0.000		8.0		$27.520	$36.210		$36.210	K	$44.890		Holidays	Scope of Work	Travel & Subsistence
#PLASTERER			08/22/2021	08/02/2022*	$38.860		$9.380		$8.020		$6.910	AJ	$0.990		$1.040		8.0	AK	$65.200	$84.630	AE	$84.630	AL	$104.060		Holidays	Scope of Work	Travel & Subsistence
#PLASTER TENDER		AM	08/22/2021	08/01/2022*	$39.670		$8.100		$9.720		$5.200	AN	$1.050		$0.960		8.0		$64.700	$84.530	AO	$84.530	AP	$104.370		Holidays	Scope of Work	Travel & Subsistence
PLASTER TENDER	PLASTER CLEAN-UP LABORER		08/22/2021	08/01/2022*	$37.120		$8.100		$9.720		$5.200	AN	$1.050		$0.960		8.0		$62.150	$80.710	AO	$80.710	AP	$99.270		Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	PLUMBER, INDUSTRIAL AND GENERAL PIPEFITTER		08/22/2021	08/31/2022**	$53.830	AQ	$9.060		$13.650	AR	$0.000	AS	$2.650		$1.390	AT	8.0		$80.580	$106.570	D	$106.570	D	$130.940		Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	SEWER AND STORM DRAIN PIPELAYER		08/22/2021	08/31/2022**	$40.940	AQ	$8.950		$10.800	AR	$0.000	AS	$2.380		$1.390	AT	8.0		$64.460	$84.010		$84.010	AU	$102.940		Holidays	Scope of Work	Travel & Subsistence
PLUMBER:	SEWER AND STORM DRAIN PIPE TRADESMAN	AV	08/22/2021	08/31/2022**	$20.290	AW	$9.200		$0.380		$0.000		$1.510		$1.240	AT	8.0		$32.620	$41.840		$41.840	AU	$51.060		Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	LANDSCAPE/IRRIGATION FITTER		08/22/2021	08/31/2022**	$36.850	Z	$9.060		$13.650	AR	$0.000	AS	$2.040		$1.190	AT	8.0	AU	$62.790	$81.210		$81.210		$98.280		Holidays	Scope of Work	Travel & Subsistence
PLUMBER:	LANDSCAPE/IRRIGATION TRADESMAN	AX	08/22/2021	08/31/2022**	$16.090	Z	$3.000		$1.160	AR	$0.000		$0.100		$0.990	AT	8.0	AU	$21.340	$29.390		$29.390		$37.430		Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	REFRIGERATION SERVICE HVACR		08/22/2021	09/04/2022**	$51.700	H	$10.620		$10.590	AY	$0.000	S	$2.600		$0.730	AZ	8.0		$76.240	$102.090		$102.090	BA	$126.440	AC	Holidays	Scope of Work	Travel & Subsistence
PLUMBER:	REFRIGERATION SERVICE TRADESMAN HVACR		08/22/2021	09/04/2022*	$16.200	H	$10.620		$2.130		$0.000	S	$1.590		$0.560	AZ	8.0		$31.100	$39.200		$39.200	BA	$46.700	AC	Holidays	Scope of Work	Travel & Subsistence
#PLUMBER:	FIRE SPRINKLER FITTER (PROTECTION AND CONTROL SYSTEMS, OVERHEAD AND UNDERGROUND)	BB	08/22/2021	12/31/2021**	$41.270		$10.550		$15.160	BC	$0.000		$0.520		$0.250		8.0		$67.750	$88.380		$88.380		$109.020		Holidays	Scope of Work	Travel & Subsistence

CRAFT	CLASSIFICATION	CRAFT FOOTNOTE	ISSUE DATE	EXPIRATION DATE	BASIC HOURLY RATE	BASIC HOURLY RATE FOOTNOTE	HEALTH AND WELFARE	HEALTH AND WELFARE FOOTNOTE	PENSION	PENSION FOOTNOTE	VACATION/ HOLIDAY	VACATION/ HOLIDAY FOOTNOTE	TRAINING	TRAINING FOOTNOTE	OTHER PAYMENTS	OTHER PAYMENTS FOOTNOTE	HOURS	HOURS FOOTNOTE	STRAIGHT-TIME TOTAL HOURLY RATE	DAILY OVERTIME HOURLY RATE	DAILY OVERTIME HOURLY RATE FOOTNOTE	SATURDAY OVERTIME HOURLY RATE	SATURDAY OVERTIME HOURLY RATE FOOTNOTE	SUNDAY AND HOLIDAY OVERTIME HOURLY RATE	SUNDAY AND HOLIDAY OVERTIME HOURLY RATE FOOTNOTE	HOLIDAY PROVISIONS	SCOPE OF WORK PROVISIONS	TRAVEL & SUBSISTENCE PROVISIONS
#PLUMBER:	FIRE SPRINKLER FITTER (PROTECTION AND CONTROL SYSTEMS, OVERHEAD AND UNDERGROUND)	BD	02/22/2021	08/31/2021*	$48.710		$10.550		$17.000		$0.000	S	$1.600		$0.300	BE	8.0		$78.160	$102.510	BF	$102.510	BF	$126.870		Holidays	Scope of Work	Travel & Subsistence
#ROOFER			08/22/2021	07/31/2022**	$42.070	BG	$8.560		$9.770	F	$0.000	BH	$0.530		$0.690	BI	8.0		$61.620	$80.630	BJ	$80.630	BJ	$99.640		Holidays	Scope of Work	Travel & Subsistence
#ROOFER	PITCH WORK		08/22/2021	07/31/2022**	$43.820	BG	$8.560		$9.770	F	$0.000	BH	$0.530		$0.690	BI	8.0		$63.370	$83.260	BJ	$83.260	BJ	$103.140		Holidays	Scope of Work	Travel & Subsistence
#ROOFER	PREPARER		08/22/2021	07/31/2022**	$43.070	BG	$8.560		$9.770	F	$0.000	BH	$0.530		$0.690	BI	8.0		$62.620	$82.130	BJ	$82.130	BJ	$101.640		Holidays	Scope of Work	Travel & Subsistence
#SHEET METAL WORKER		BK	08/22/2021	06/30/2022**	$50.230	M	$11.120		$17.680	BL	$0.000		$0.820		$0.680		8.0		$80.530	$105.650	BM	$105.650	BM	$130.760		Holidays	Scope of Work	Travel & Subsistence
#SHEET METAL WORKER		BN	08/22/2021	06/30/2022**	$39.080	H	$11.120		$15.820	BO	$0.000		$1.920		$0.350		8.0	C	$68.290	$87.830	BP	$87.830	BP	$107.370	AC	Holidays	Scope of Work	Travel & Subsistence
#TERRAZZO FINISHER			08/22/2021	08/31/2022*	$35.430	H	$9.000		$4.350		$0.000	S	$0.750		$0.270		8.0	AU	$49.800	$67.510	AA	$67.510	BQ	$85.230	AC	Holidays	Scope of Work	Travel & Subsistence
#TERRAZZO WORKER			08/22/2021	08/31/2022*	$43.610	H	$9.000		$4.610		$0.000	S	$1.020		$0.330		8.0	AU	$58.570	$80.380	AA	$80.380	BQ	$102.180	AC	Holidays	Scope of Work	Travel & Subsistence
#TILE FINISHER			08/22/2021	05/31/2022*	$30.470	Z	$9.000		$2.750		$0.000		$0.770		$0.290		8.0		$43.280	$58.510	AA	$58.510	AB	$73.750	AC	Holidays	Scope of Work	Travel & Subsistence
#TILE LAYER			08/22/2021	05/31/2022*	$43.090	Z	$9.000		$8.350		$0.000		$0.960		$0.380		8.0		$61.780	$83.320	AA	$83.320	AB	$104.870	AC	Holidays	Scope of Work	Travel & Subsistence

Go to increase page

FOOTNOTES

* EFFECTIVE UNTIL SUPERSEDED BY A NEW DETERMINATION ISSUED BY THE DIRECTOR OF INDUSTRIAL RELATIONS. CONTACT THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774 FOR THE NEW RATES AFTER TEN DAYS AFTER THE EXPIRATION DATE IF NO SUBSEQUENT DETERMINATION IS ISSUED.

** THE RATE TO BE PAID FOR WORK PERFORMED AFTER THIS DATE HAS BEEN DETERMINED. IF WORK WILL EXTEND PAST THIS DATE, THE NEW RATE MUST BE PAID AND SHOULD BE INCORPORATED IN CONTRACTS ENTERED INTO NOW. CONTACT THE OFFICE OF THE DIRECTOR RESEARCH UNIT FOR SPECIFIC RATES AT (415) 703-4774.

\# INDICATES AN APPRENTICEABLE CRAFT. THE CURRENT APPRENTICE WAGE RATES ARE AVAILABLE ON THE INTERNET @ HTTP://WWW.DIR.CA.GOV/OPRL/PWAPPWAGE/PWAPPWAGESTART.ASP.

& THE BASIC HOURLY RATE AND EMPLOYER PAYMENTS ARE NOT TAKEN FROM A COLLECTIVE BARGAINING AGREEMENT FOR THIS CRAFT OR CLASSIFICATION.

A INCLUDES AMOUNT WITHHELD FOR DUES CHECK OFF AND CONTRACT COMPLIANCE.

B INCLUDES AN AMOUNT FOR IMI TRAINING FUND.

C SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER, OR REASONS BEYOND THE CONTROL OF THE EMPLOYER.

D RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.

E THE RATIO OF BRICK TENDERS TO BRICKLAYERS SHALL BE AS FOLLOWS: ONE (1) BRICK TENDER TO NO MORE THAN THREE (3) BRICKLAYERS DURING THE INSTALLATION OF BLOCK ON A TYPICAL MASONRY PROJECT.

F INCLUDES AN AMOUNT PER HOUR WORKED FOR ANNUITY TRUST FUND.

G INCLUDES AN AMOUNT PER HOUR WORKED FOR SUPPLEMENTAL DUES.

H INCLUDES AMOUNT WITHHELD FOR DUES CHECK OFF.

I RATE APPLIES TO THE FIRST 12 HOURS WORKED ON SATURDAY, ALL OTHER TIME IS PAID AT DOUBLE TIME. SATURDAY MAY BE WORKED AT THE STRAIGHT-TIME HOURLY RATE FOR THE FIRST 8 HOURS IF INCLEMENT WEATHER FORCES A SYNTHETIC/ARTIFICIAL TURF PROJECT TO SHUT DOWN DURING THE REGULAR WORK WEEK (MONDAY THOUGH FRIDAY).

J A MATERIAL HANDLER MAY BE UTILIZED IN RATIO OF ONE (1) MATERIAL HANDLER WITH ANY FIVE (5) JOURNEYMEN ON ANY GIVEN PROJECT.

K RATE APPLIES TO THE FIRST 12 HOURS ON SATURDAY, ALL OTHER TIME IS PAID AT DOUBLE TIME.

L RATE ONLY APPLIES TO WORK PERFORMED IN ANTELOPE VALLEY WHICH IS HIGHWAY 5, SOUTH ON U.S. 5 TO HIGHWAY N2; EAST ON HIGHWAY N2 TO PALMDALE BLVD TO HIGHWAY 14; SOUTH TO HIGHWAY 18; EAST TO HIGHWAY 395.

M INCLUDES AMOUNT WITHHELD FOR WORKING DUES.

N RATE APPLIES TO FIRST 8 HOURS ONLY. DOUBLE TIME THEREAFTER. SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORK WEEK DUE TO INCLEMENT WEATHER.

O IN ADDITION, AN AMOUNT EQUAL TO 3% OF THE BASIC HOURLY RATE IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES FOR THE NATIONAL EMPLOYEES BENEFIT BOARD.

P INCLUDES AN AMOUNT FOR THE NATIONAL LABOR-MANAGEMENT COOPERATION FUND AND THE ADMINISTRATIVE MAINTENANCE FUND.

Q RATE APPLIES TO THE FIRST 4 DAILY OVERTIME HOURS AND THE FIRST 12 HOURS WORKED ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.

R IN ADDITION, AN AMOUNT EQUAL TO 3% OF THE BASIC HOURLY RATE IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES FOR THE NATIONAL EMPLOYEES BENEFIT BOARD. PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.

S INCLUDED IN STRAIGHT-TIME HOURLY RATE.

T THE MAXIMUM ALLOWABLE RATIO IS ONE TRANSPORTATION SYSTEMS TECHNICIAN TO ONE JOURNEYMAN ON EACH JOB.

U DICTIONARY OF OCCUPATIONAL TITLES, FOURTH EDITION, 1977, U.S. DEPARTMENT OF LABOR.

V INCLUDES AMOUNT WITHHELD FOR DUES CHECKOFF, WHICH IS FACTORED IN THE OVERTIME RATES. INCLUDES $3.75 FOR VACATION THAT IS NOT FACTORED IN THE OVERTIME RATES.

W INCLUDES AN AMOUNT PER HOUR WORKED OR PAID TO DISABILITY FUND.

X INCLUDED IN STRAIGHT-TIME HOURLY RATE WHICH IS NOT FACTORED IN THE OVERTIME RATES.

Y RATE APPLIES TO THE FIRST 2 OVERTIME HOURS MONDAY THROUGH FRIDAY AND THE FIRST 8 HOURS WORKED ON SATURDAY. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE.

Z INCLUDES AMOUNT WITHHELD FOR ADMINISTRATIVE DUES.

AA RATE APPLIES TO FIRST TWO DAILY OVERTIME HOURS WORKED; ALL OTHER OVERTIME IS PAID AT THE HOLIDAY OVERTIME HOURLY RATE.

AB RATE APPLIES TO THE FIRST 8 HOURS WORKED ON A SIXTH OR SEVENTH CONSECUTIVE DAY DURING ANY ONE CALENDAR WEEK UP TO 50 HOURS IN ANY ONE CALENDAR WEEK. ALL HOURS IN EXCESS OF 10 HOURS DAILY OR 50 HOURS WEEKLY ARE PAID AT THE HOLIDAY RATE. SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER.

AC RATE APPLIES TO WORK ON HOLIDAYS ONLY; SUNDAYS ARE PAID AT THE SATURDAY OVERTIME HOURLY RATE.

AD AN ADDITIONAL $0.25 PER HOUR WILL BE ADDED TO THE BASIC HOURLY RATE WHEN PERFORMING PAPERHANGING WORK.

AE DOUBLE TIME SHALL BE PAID FOR ALL HOURS WORKED OVER 12 HOURS IN ANY ONE DAY.

AF RATE ONLY APPLIES TO WORK PERFORMED IN ANTELOPE VALLEY, WHICH IS HIGHWAY 5, SOUTH ON U.S. 5 TO HIGHWAY N2; EAST ON HIGHWAY N2 TO PALMDALE BLVD TO HIGHWAY 14; SOUTH TO HIGHWAY 18; EAST TO HIGHWAY 395. AN ADDITIONAL $0.25 IS ADDED TO THE BASIC HOURLY RATE WHEN PERFORMING PAPERHANGING WORK.

AG RATE APPLIES AFTER 36 MONTHS OF EXPERIENCE

AH RATE APPLIES TO FIRST 12 MONTHS OF EXPERIENCE

AI RATE APPLIES AFTER 12 MONTHS THROUGH 36 MONTHS EXPERIENCE

AJ INCLUDES AN AMOUNT PER HOUR WORKED OR PAID FOR DUES CHECK OFF

AK SATURDAY IN THE SAME WORKWEEK MAY BE WORKED AT THE STRAIGHT-TIME HOURLY RATE IF IT IS NOT POSSIBLE TO COMPLETE FORTY HOURS OF WORK MONDAY THROUGH FRIDAY WHEN THE JOB IS SHUT DOWN DUE TO INCLEMENT WEATHER OR SIMILAR ACT OF GOD, OR BEYOND THE CONTRACTOR'S CONTROL.

AL RATE APPLIES TO THE FIRST 8 HOURS WORKED; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.

AM	THE RATIO OF PLASTER TENDERS TO PLASTERERS SHALL BE AS FOLLOWS: THERE SHALL BE A PLASTER TENDER ON THE JOBSITE WHENEVER THERE IS A PLASTERER PERFORMING WORK ON THE JOBSITE, EXCEPT ON SMALL PATCH WORK WHERE ONLY ONE PLASTERER IS PERFORMING WORK. FOR INSIDE BROWN COATINGS THERE SHALL BE 2 PLASTER TENDERS FOR UP TO EVERY 3 PLASTERERS. FOR INSIDE FINISH COATINGS THERE SHALL BE 1 PLASTER TENDER FOR UP TO EVERY 3 PLASTERERS. ON OUTSIDE FINISH AND BROWN COATINGS AND FOR ALL OTHER WORK, THERE SHALL BE 1 PLASTER TENDER FOR UP TO EVERY 2 PLASTERERS.
AN	INCLUDES AN AMOUNT PER HOUR WORKED OR PAID FOR SUPPLEMENTAL DUES.
AO	ALL WORK PERFORMED AFTER TWELVE (12) HOURS IN A DAY SHALL BE PAID AT THE SUNDAY/HOLIDAY RATE.
AP	RATE APPLIES TO THE FIRST EIGHT HOURS ON SATURDAY. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE. SATURDAY WORK MAY BE PAID AT THE STRAIGHT TIME RATE IF THE JOB IS SHUT DOWN DURING THE NORMAL WORK WEEK DUE TO INCLEMENT WEATHER.
AQ	INCLUDES AN AMOUNT WITHHELD FOR ADMINISTRATIVE DUES WHICH IS NOT FACTORED INTO OVERTIME AND AN AMOUNT FOR VACATION WHICH IS FACTORED AT 1.5 TIMES FOR ALL OVERTIME.
AR	INCLUDES AMOUNT FOR NATIONAL PENSION AND RETIREE'S X-MAS FUND.
AS	AMOUNT INCLUDED IN BASIC HOURLY RATE AND FACTORED AT 1.5 TIMES FOR ALL OVERTIME.
AT	INCLUDES AN AMOUNT FOR THE P.I.P.E. LABOR MANAGEMENT COOPERATION COMMITTEE AND THE CONTRACTOR EDUCATION & DEVELOPMENT FUND.
AU	SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER.
AV	PIPE TRADESMEN SHALL NOT BE PERMITTED ON ANY JOB WITHOUT A JOURNEYMAN.
AW	INCLUDES AN AMOUNT WITHHELD FOR ADMINISTRATIVE DUES WHICH IS NOT FACTORED IN THE OVERTIME RATES.
AX	TRADESMEN SHALL ONLY BE USED IF THE FIRST WORKER ON THE JOB IS A LANDSCAPE/IRRIGATION FITTER, SECOND WORKER MUST BE A LANDSCAPE/IRRIGATION FITTER OR APPRENTICE LANDSCAPE/IRRIGATION FITTER. THE 3RD AND 4TH MAY BE A TRADESMAN. THE 5TH MUST BE A LANDSCAPE/IRRIGATION FITTER AND THEREAFTER TRADESMEN WILL BE REFERRED ON A 50-50 BASIS, TO JOURNEYMAN OR APPRENTICE.
AY	INCLUDES AN AMOUNT FOR 401A PLAN.
AZ	INCLUDES AN AMOUNT FOR THE P.I.P.E. LABOR MANAGEMENT COOPERATION COMMITTEE TRUST FUND AND FOR PROMOTION FUND.
BA	SATURDAY MAY BE PAID AT STRAIGHT TIME IF THE WORK WEEK IS TUESDAY THROUGH SATURDAY.
BB	RATE APPLIES TO REMAINDER OF COUNTY.
BC	INCLUDES AN AMOUNT FOR SUPPLEMENTAL PENSION FUND.
BD	RATE APPLIES TO LOS ANGELES CITY LIMITS AND TWENTY-FIVE (25) MILES BEYOND CITY LIMITS OF LOS ANGELES.
BE	AMOUNT IS FOR INDUSTRY PROMOTION FUND AND P.I.P.E. FUND.
BF	RATE APPLIES TO THE FIRST 4 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.
BG	INCLUDE AMOUNTS FOR DUES CHECK OFF AND VACATION/HOLIDAY, WHICH ARE NOT FACTORED INTO OVERTIME.
BH	INCLUDED IN BASIC HOURLY RATE. VACATION IS NOT FACTORED INTO OVERTIME.
BI	INCLUDE AMOUNTS FOR ADMINISTRATIVE FUND, COMPLIANCE FUND, INDUSTRY FUND, AND RESEARCH AND EDUCATION TRUST FUND.
BJ	RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS ON SATURDAY; SUNDAY AND HOLIDAY OVERTIME HOURLY RATE WILL BE PAID AFTER 10 HOURS PER DAY AND ALL HOURS WORKED OVER 55 HOURS PER WEEK.
BK	APPLIES TO THAT PORTION OF THE COUNTY SOUTH OF A STRAIGHT LINE DRAWN BETWEEN GORMAN AND BIG PINES.
BL	PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.
BM	RATE APPLIES FOR THE FIRST 4 OVERTIME HOURS MONDAY THROUGH FRIDAY AND THE FIRST 12 HOURS WORKED ON SATURDAY. ALL OTHER TIME IS PAID AT THE SUNDAY/HOLIDAY RATE. SATURDAYS IN THE SAME WORKWEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER.
BN	APPLIES TO THAT PORTION OF THE COUNTY NORTH OF A STRAIGHT LINE DRAWN BETWEEN GORMAN AND BIG PINES INCLUDING THE CITIES OF LANCASTER AND PALMDALE.
BO	INCLUDES AMOUNTS FOR LOCAL PENSION, NATIONAL PENSION PLAN, 401(A) PLAN, RETIREE'S SUPPLEMENTAL HEALTH PLAN. PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.
BP	RATE APPLIES TO FIRST 4 DAILY OVERTIME HOURS AND THE FIRST 12 HOURS ON SATURDAY AND SUNDAY. ALL OTHER OVERTIME HOURS IS AT DOUBLE TIME RATE.
BQ	RATE APPLIES TO THE FIRST 8 HOURS WORKED ON A SIXTH OR SEVENTH CONSECUTIVE DAY DURING ANY ONE CALENDAR WEEK UP TO 50 HOURS IN ANY ONE CALENDAR WEEK. ALL OTHER TIME IS PAID AT THE HOLIDAY RATE.

RECOGNIZED HOLIDAYS: HOLIDAYS UPON WHICH THE GENERAL PREVAILING HOURLY WAGE RATE FOR HOLIDAY WORK SHALL BE PAID, SHALL BE ALL HOLIDAYS IN THE COLLECTIVE BARGAINING AGREEMENT, APPLICABLE TO THE PARTICULAR CRAFT, CLASSIFICATION, OR TYPE OF WORKER EMPLOYED ON THE PROJECT, WHICH IS ON FILE WITH THE DIRECTOR OF INDUSTRIAL RELATIONS. IF THE PREVAILING RATE IS NOT BASED ON A COLLECTIVELY BARGAINED RATE, THE HOLIDAYS UPON WHICH THE PREVAILING RATE SHALL BE PAID SHALL BE AS PROVIDED IN SECTION 6700 OF THE GOVERNMENT CODE. YOU MAY OBTAIN THE HOLIDAY PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT HTTP://WWW.DIR.CA.GOV/OPRL/DPreWageDetermination.htm. HOLIDAY PROVISIONS FOR THE CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE: IN ACCORDANCE WITH LABOR CODE SECTIONS 1773.1 AND 1773.9, CONTRACTORS SHALL MAKE TRAVEL AND/OR SUBSISTENCE PAYMENTS TO EACH WORKER TO EXECUTE THE WORK. YOU MAY OBTAIN THE TRAVEL AND/OR SUBSISTENCE PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT HTTP://WWW.DIR.CA.GOV/OPRL/DPreWageDetermination.htm. TRAVEL AND/OR SUBSISTENCE REQUIREMENTS FOR CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774.

LOS ANGELES COUNTY
SANITATION DISTRICTS
Converting Waste Into Resources

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Chief Engineer and General Manager

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April 1, 2022
RFP No.: 03976R

ADDENDUM NO. ONE

RFP 03976R – MAINTENANCE AND SERVICE OF HVAC SYSTEMS AT THE JOINT ADMINISTRATION OFFICE, SAN JOSE CREEK LABORATORY, AND CENTRAL PLANT, dated March 10, 2022.

PART 1
GENERAL INFORMATION – CHANGES AND REVISIONS

1. Part 6.2, first paragraph, after the second sentence, **add** the following sentence.

   Journeyman level technicians shall have completed an apprenticeship program.

2. Part 6.4 of the RFP, second paragraph, after the last bullet, **add** the following bullet.

   - Check refrigerant charge; add or replace as needed with Contractor-furnished refrigerant.

3. In Part 6.4 of the RFP, in the section with the heading Filter Changes, second paragraph, fourth sentence, **delete** "the air handling unit and six (6) 100% outside air units on the roofs of the SJC Laboratory buildings", and **replace** with "Air Handler 507LBAH03 on the roof of the main SJC laboratory building".

4. In Part 6.4 of the RFP, in the section with the heading Replacement of Equipment at SJC Laboratory by Others, **delete** the first paragraph, and **replace** with the following paragraph.

   There is one (1) air handling unit (507LBAH03) and six (6) 100% outside air units (Carrier Model 62D) that will be replaced under a separate contract during the first year of the contract. The Contractor will only be responsible for replacing the carbon filters on Air Handler 507LBAH03 during the second and third years of the contract. The 62D units do not have carbon filters. The replacement units for the 62D units will have carbon filters but these will be changed by the District.

5. In Appendix A-2 of the RFP, for equipment tag numbers 5-AC-01, 5-AC-02, 5-AC-05, 5-AC-06, 7-AC-01, and 7-AC-02, **delete** the text and **leave blank** the entries for Carbon Filter Size, Carbon Filter Quantity, Carbon Filter Change Frequency.

PART 2
GENERAL INFORMATION – QUESTIONS AND CLARIFICATION

The following questions were received by the Districts' and below are the answers.

1. **QUESTION:** In looking through Appendix A-2 for the SJC Labs, I'm noticing many of the AC Units either have TBD for carbon filter size and quantity or no info at all. The same info is missing for the split units - maybe these are all ductless units and washable filters? Additionally, 2 of the 5 Air Handlers are missing filter sizes and quantities. Do you have this info? Can we assume all filters for the AC Units and Air Handlers will be Carbon Only?

   ANSWER: *Please see the attachment, attached hereto, for correction to entries in Appendix A-2 listed as "TBD." Per Part 6.4 of the RFP, the only type of filters for equipment at the SJC Laboratory that the Contractor is responsible for changing is carbon filters. Carbon filter information is provided in Appendix A-2 for all SJC Laboratory units that have carbon filters. The carbon filter entries are left blank for all equipment that does not have carbon filters.*

2. **QUESTION:** Please confirm which Air Handlers will require Merv 13 filters on the attached equipment list. Also clarify if we can go with Merv 8 remaining split systems and fan coils.

   ANSWER: *Per Part 6.4 of the RFP, and per Part 2 of Appendix B, MERV 13 filters shall be provided for all non-carbon filters. However, per Part 6.4, the Contractor is not responsible for replacing the non-carbon filters for the equipment at the SJC Laboratory, i.e. the equipment listed in Appendix A-2.*

All other items remain the same.

Very truly yours,

Diana Pineda
Buyer

DP:cr
Attachments: DMS #5463891-v1-Appendices A-1 and A-1 2021 Request for Proposals for Maintenance and Service for HVAC Systems and Central Plant

Appendix A - 1
Equipment List - JAO and Central Plant

Building	Location	Description	Tag Number	Redundant Equipment (Y/N)	Drawing # /PO #	Date Commissioned	Make	Model #	Serial #	Size	Belt Size	Belt Quantity	Belt Change Freq per Yr	Filter Size	Filter Quantity	Change Freq per Yr	Refrigerant	Notes
JAO	Roof	Air Handling Unit 1	AHU-1	N	JO-g-1212	8/1/2016	Alliance	4SV-58-AS-PF-E(	2057AHU001	Supply=4x25hp Return=4x10hp total=38,000 cfm cooling=105tons heating=560,000BTU/hr	none	NA	NA	Prefilter=24x24x4 &12x24x4 Carbon=4x24x12 &12x24x12	20 5 20 5	4x 4x 1x 1x	NA	with Plasma Air ion generators & UV lamps.
	Roof	Air Handling Unit 2	AHU-2	N	JO-g-1212	8/1/2016	Allinace	4SV-58-AS-PF-E(	2057AHU002	Supply=4x25hp Return=4x10hp total=38,000 cfm cooling=105tons heating=560,000BTU/hr	none	NA	NA	Prefilter=24x24x4 &12x24x4 Carbon=4x24x12 &12x24x12	20 5 20 5	4x 4x 1x 1x	NA	with Plasma Air ion generators & UV lamps.
	Roof	Bathroom Exhaust Fan	EF-RR-1	N	JO-g-1212	4/1/2016	Greenheck	CUBE-220-5-X	14023907-15B	1/2 hp & 3000 cfm	4L370	1	1x	none	NA	NA	NA	
	Roof	Penthouse Exhaust Fan	EF-PH-1	N	JO-g-1212	4/1/2016	Greenheck	CW-070-D-X	14024108-15B	1/30 hp & 258 cfm	none	NA	NA	none	NA	NA	NA	
	Roof	Emergency Exhaust Fan (Telephone Room)		N	PO #1560939	6/1/2016	Greenheck	G-095-DGEX-QD	14381458=15K	1/4 hp & 860 cfm	none	NA	NA	none	NA	NA	NA	
	Roof	2nd Floor Electrical Room Exhaust Fan		N	JO-g-598	2/1/1974								none	NA	NA	NA	
	Basement Loading Dock	Dock Exhaust Fan	EF-1	N	JO-g-901	12/16/1992	CentriMaster	PWB223HU	QR8963711	3/4 hp & 3555 cfm	A38	1	1x	none	NA	NA	NA	
	Cafeteria Smoking Room	Cafeteria Exhaust Fan	EF-3	N	JO-g-901	12/16/1992				1/4 hp & 350 cfm				none	NA	NA	NA	
	Cafeteria Upper (West)	Cafeteria Exhaust Fan	EF-4	N	JO-g-901	12/16/1992				3/4 hp & 990 cfm				Carbon=24x24x12	3	1x	NA	Filters on 1st floor level (sheet M203)
	Cafeteria Upper (East)	Cafeteria Exhaust Fan	EF-5	N	JO-g-901	12/16/1992				3/4 hp & 3350 cfm				Carbon=24x24x12	3	1x	NA	Filters on 1st floor level (sheet M203)
	Roof	Bathroom Exhaust Fan	EF-6	N	JO-g-901	12/16/1992	CentriMaster	PNN200F	QRB963705	1/3 hp & 2130 cfm				none	NA	NA	NA	
	Roof	Kitchen Dishwasher Exhaust Fan	EF-7	N	JO-g-901	12/16/1992	CentriMaster	PNN1303	QRBR63707	1/4 hp & 600 cfm				none	NA	NA	NA	
	Roof	Kitchen Short Order Exhaust Fan	EF-8	N	JO-g-901	12/16/1992	CentriMaster		QRB863709	2 hp & 4000 cfm				none	NA	NA	NA	
	Roof	Kitchen Prep Area Exhaust Fan	EF-9	N	JO-g-901	12/16/1992	CentriMaster	PUB300MU	QRB963701	3 hp & 5125 cfm				none	NA	NA	NA	
	Kitchen Bathroom	Bathroom Exhaust Fan	EF-10	N	JO-g-901	12/16/1992				0.1 hp & 125 cfm				none	NA	NA	NA	
	Roof	Kitchen Make-Up Air Heater	MU-1	N	JO-g-901	12/16/1992	Greenheck	KSU-112-A-2-20	93F03995	2 hp & 3300 cfm 275000BTU/HR							NA	Gas fired air heater
	Roof	Kitchen Make-Up Air Heater	MU-2	N	JO-g-901	12/16/1992	Greenheck	KSU-112-A-2-30	93F03290	3 hp & 4200 cfm 275000BTU/HR							NA	Gas fired air heater
	Computer Data Center	Split System Fan Coil A		Y		1/1/1997	Liebert	FH199AUAAM	348458-002	15 tons	B42	2	1x	18x24x4 24x24x4	1 3	2x	R-22	
	Roof	Split System Condenser Unit A		Y		1/1/1997	Liebert	CDF205LA	97120065	15 tons	none	NA	NA	none	NA	NA	R-22	
	Computer Data Center	Split System Fan Coil B		Y		1/1/1997	Liebert	FH199AUAAM	348458-001	15 tons	B42	2	1x	18x24x4 24x24x4	1 3	2x	R-22	
	Roof	Split System Condenser Unit B		Y		1/1/1997	Liebert	CDF205LA	97120066	15 tons	none	NA	NA	none	NA	NA	R-22	
	Computer Control Room	Split System Fan Coil C		N	JO-g-1193	1/1/2009	Liebert	DH125AUAAES		10 tons	B42	2	1x	24x24x4	3	2x	R-22	Not is use.
	Roof	Split System Condenser Unit C		N	JO-g-1193	1/1/2009	Liebert	DCDF205-A	0902C18377	10 tons	none	NA	NA	none	NA	NA	R-22	Not in use.
	UPS Room	Split System Fan Coil 1		Y			Carrier	40QAC036301	1806V22704	3 tons	none	NA	NA	washable		4x	R-410A	
	On ground north of JAO	Split System Condenser Unit 1		Y			Carrier	38HDR036-601	2906X93332	3 tons	none	NA	NA	none	NA	NA	R-410A	
	UPS Room	Split System Fan Coil 2		Y			Carrier	40QAC036301	1806V22705	3 tons	none	NA	NA	washable		4x	R-410A	
	On ground north of JAO	Split System Condenser Unit 2		Y			Carrier	38HDR036-601	2906X93337	3 tons	none	NA	NA	none	NA	NA	R-410A	
	Electrical Room	Split System Fan Coil		N			Carrier	40QAB048320	2797404826	4 tons	none	NA	NA	washable		4x	R-22	
	On ground north of JAO	Split System Condenser		N			Carrier	38HDC048610	4696X35649	4 tons	none	NA	NA	none	NA	NA	R-22	
	Carpool Room	Window Heat Pump		N			LG	LWHD1807HR	804TAJD01500	1.5 tons				washable		4x	R-22	

Appendix A - 1
Equipment List - JAO and Central Plant

Building	Location	Description	Tag Number	Redundant Equipment (Y/N)	Drawing # /PO #	Date Commissioned	Make	Model #	Serial #	Size	Belt Size	Belt Quantity	Belt Change Freq per Yr	Filter Size	Filter Quantity	Change Freq per Yr	Refrigerant	Notes
	Cafeteria	Fan Coil Unit 1	FC-1	N	JO-g-901	12/16/1992	Carrier	39L		1 hp & 1600 cfm cooling=6tons heating=40,600MBTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Cafeteria	Fan Coil Unit 2	FC-2	N	JO-g-901	12/16/1992	Carrier	39L		1 hp & 1600 cfm cooling=6tons heating=40,600MBTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Cafeteria	Fan Coil Unit 3	FC-3	N	JO-g-901	12/16/1992	Carrier	39L		1 hp & 1600 cfm cooling=6tons heating=40,600MBTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Cafeteria	Fan Coil Unit 4	FC-4	N	JO-g-901	12/16/1992	Carrier	39L		1 hp & 1600 cfm cooling=6tons heating=40,600MBTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Cafeteria	Fan Coil Unit 5	FC-5	N	JO-g-901	12/16/1992	Carrier	39L		1 hp & 1600 cfm cooling=6tons heating=40,600MBTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Cafeteria	Fan Coil Unit 6	FC-6	N	JO-g-901	12/16/1992	Carrier	39L		1 hp & 1600 cfm cooling=6tons heating=40,600MBTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Cafeteria	Fan Coil Unit 7	FC-7	N	JO-g-901	12/16/1992	Carrier	39L		2 hp & 2675 cfm cooling=10tons heating=93,000BTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Cafeteria	Fan Coil Unit 8	FC-8	N	JO-g-901	12/16/1992	Carrier	39L		2 hp & 2675 cfm cooling=10tons heating=93,000BTU/hr	AX32	1	1x	16x20x2	4	4x	NA	pleated
	Basement Mech. Room	Air Handling Unit 3	AHU-3	N	JO-g-901	12/16/1992	Carrier	39NXH921NVL	0993T31402	Supply=60hp Return=30hp total=48,860 cfm cooling=118tons heating=785,000BTU/hr	Supply= 5VX1120 Return= 5VX1000	3 2	2x 2x	24x24x4 12x24x4 24x24x2 24x24x1	15 8 24 288	4x 4x 1x 1x	NA	charcoal
	Basement Mech. Room	VFC for Supply Fan of AHU-3	VFC-SF-AHU3	Y	JO-g-1212	4/1/2016	ABB	ACH550-PCR-09		60 hp	none	NA	NA	washable		4x	NA	
	Basement Mech. Room	VFC for Return Fan of AHU-3	VFC-RF-AHU3	Y	JO-g-1212	4/1/2016	ABB	ACH550-PCR-04		30 hp	none	NA	NA	washable		4x	NA	
	Basement Mech. Room	Motor for Supply Fan of AHU-3		N	JO-g-901	12/1/1992	Magnetek	6-358657-03		60 hp	5VX1120	3	2x	none	NA	NA	NA	
	Basement Mech. Room	Motor for Return Fan of AHU-3		N	JO-g-901	12/1/1992	Magnetek	6-342154-03		30 hp	5VX1000	2	2x	none	NA	NA	NA	
	Basement Mech. Room	CW Pump 2	P-2	Y	JO-g-1212	4/1/2016	Aurora	3804-5x6x11	15-2441817-1	30 hp & 1000 gpm	none	NA	NA	none	NA	NA	NA	
	Basement Mech. Room	CW Pump 4	P-4	Y	JO-g-1212	4/1/2016	Aurora	3804-5x6x11	15-2441817-2	30 hp & 1000 gpm	none	NA	NA	none	NA	NA	NA	
	Basement Mech. Room	HW Pump 1	P-1	Y	JO-g-1212	4/1/2016	Aurora	3804-2x2.5x9.5	15-2441808-1	7.5 hp & 210 gpm	none	NA	NA	none	NA	NA	NA	
	Basement Mech. Room	HW Pump 3	P-3	Y	JO-g-1212	4/1/2016	Aurora	3804-2x2.5x9.5	15-2441808-2	7.5 hp & 210 gpm	none	NA	NA	none	NA	NA	NA	
	Basement Mech. Room	VFC for CW Pump 2	VFC-P2	Y	JO-g-1212	4/1/2016	ABB	ACH550-PCR-04	2151404844	30 hp	NA	NA	NA				NA	
	Basement Mech. Room	VFC for CW Pump 4	VFC-P4	Y	JO-g-1212	4/1/2016	ABB	ACH550-PCR-04	2151404837	30 hp	NA	NA	NA				NA	
	Basement Mech. Room	VFC for HW Pump 1	VFC-P1	Y	JO-g-1212	4/1/2016	ABB	ACH550-PCR-01	2151404865	7.5 hp	NA	NA	NA				NA	
	Basement Mech. Room	VFC for HW Pump 3	VFC-P3	Y	JO-g-1212	4/1/2016	ABB	ACH550-PCR-01	2151404862	7.5 hp	NA	NA	NA				NA	
	Basement Mech. Room	dP transmitters		N/A			U.E.	J21K-515QB9519			none	NA	NA	none	NA	NA		quanity = 4
	Basement Mech. Room	Fan Coil Unit 9	FC-9	N	JO-g-901	12/16/1992	Carrier	39L		1 hp & 3555 cfm heating=122.9MBTU/hr	AX32	1	1x	16x20x2	6	4x	NA	pleated
	Reproduction Room	Fan Coil #1		N		1/1/2000?	MagicAire	60BHW-6-A	W001265906	5 tons	A47			20x20x2	2		NA	
	Reproduction Room	Fan Coil #2		N		1/1/2000?	MagicAire	60BHW-6-A	W001263902	5 tons	A47			20x20x2	2		NA	
	Instrument Repair Shop (by library)	Split System Fan Coil #1		N		1/1/2000?	Carrier	40QKB036-3	4298100176	3 tons	none	NA	NA	washable		4x	R-22	
	Instrument Repair Shop (by library)	Split System Fan Coil #2		N		1/1/2000?	Carrier	40QKB036-3	4298100178	3 tons	none	NA	NA	washable		4x	R-22	
	On grond south of JAO	Split System Condenser Unit		N		1/1/2000?	Carrier	38HDS048311	0499X58264	4 tons	none	NA	NA	none	NA	NA	R-22	
	2nd Floor Mech. Room	Dual Air Compressors with Tank	C-1	Y		Compressors=6-1-2015 OtherParts=1-1-1996?	Quincy	QR01506D00013	5117970		B54	2	1x				NA	For pneumatic actuators on 134 mixing boxes
	2nd Floor Mech. Room	Air Dryer		N		6/1/2015	Hankison	HRP5-10	H510A1151404074	10 scfm	none	NA	NA				NA	
	2nd Floor Mech. Room	Pressure Relief Valve		N/A			Ultra Air	JAC20P-03		NA	none	NA	NA	none	NA	NA	NA	
	2nd Floor Mech. Room	Thermostats		N/A			Powers	192-202		NA	none	NA	NA	none	NA	NA	NA	quantity = ?
	Telephone Room	iVu Web Appliance		N	JO-g-1206	12/31/2015	Carrier	MP65-DU	CCP18671662268002	NA	none	NA	NA	none	NA	NA	NA	

Appendix A - 1
Equipment List - JAO and Central Plant

Building	Location	Description	Tag Number	Redundant Equipment (Y/N)	Drawing # /PO #	Date Commissioned	Make	Model #	Serial #	Size	Belt Size	Belt Quantity	Belt Change Freq per Yr	Filter Size	Filter Quantity	Change Freq per Yr	Refrigerant	Notes
	Telephone Room	Split System Fan Coil		N	PO #1560939	4/20/2016	Carrier	40MKCB54F--3	4515V00075	4.4 tons	none	NA	NA	washable		4x	R-410A	
	Roof	Split System Condenser Unit		N	PO #1560939	4/20/2016	Carrier	24AHA460A003	4815X99037	4.4 tons	none	NA	NA	none	NA	NA	R-410A	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-1	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-2	N	JO-g-1212	4/1/2016	Price	DDS5000-10"		10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-3	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-4	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-5	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-6	N	JO-g-1212	4/1/2016	Price	DDS5000-8"		8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-6A	N						10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-7	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-8	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-9	N	JO-g-1212	4/1/2016	Price	DDS5000-8"		8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-10	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-11	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-12	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-13	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-14	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-15	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-15A	N						6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-16	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-17	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-18	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-18A	N	JO-g-1212	4/1/2016	Price	DDS5000-4"		4"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-19	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-20	N	JO-g-1212	4/1/2016	Price	DDS5000-8"		8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-21	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-22	N	JO-g-1212	4/1/2016	Price	DDS5000-10"		10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-23	N	JO-g-1212	4/1/2016	Price	DDS5000-10"		10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-24	N	JO-g-1212	4/1/2016	Price	DDS5000-10"		10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-25	N	JO-g-1212	4/1/2016	Price	DDS5000-10"		10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-26	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-27	N	JO-g-1212	4/1/2016	Price	DDS5000-10"		10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-28	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-29	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-30	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-31	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-32	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-33	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-34	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-34A	N						6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-35	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-36	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-37	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-38	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-39	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-40	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-41	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-42	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-43	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-44	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-45	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-46	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-47	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-48	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-49	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-50	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-51	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-52	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-53	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-54	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-55	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-56	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-57	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-58	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-59	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-60	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-61	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-62	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-63	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	

Appendix A - 1
Equipment List - JAO and Central Plant

Building	Location	Description	Tag Number	Redundant Equipment (Y/N)	Drawing # /PO #	Date Commissioned	Make	Model #	Serial #	Size	Belt Size	Belt Quantity	Belt Change Freq per Yr	Filter Size	Filter Quantity	Change Freq per Yr	Refrigerant	Notes
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-64	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-65	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-66	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-67	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-68	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-69	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-70	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-71	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-72	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-73	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-74	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-75	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (old JAO)	Mixing Box (above ceiling tile)	MB-76	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-77	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-78	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-79	N	JO-g-1212	4/1/2016	Price	DDS5000-10"		10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-79A	N						5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-80	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-81	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-81A	N						7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-82	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-83	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-84	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-85	N	JO-g-1212	4/1/2016	Price	DDS5000-8"		8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-86	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-87	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-88	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-89	N	JO-g-598	2/1/1974	Anemostat			4"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-90	N	JO-g-598	2/1/1974	Anemostat			14"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-91	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-92	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-93	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-94	N	JO-g-1212	4/1/2016	Price	DDS5000-12"		12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-95	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-96	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-97	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-98	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-98A	N						8" (cold only)	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-99	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-100	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-101	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-102	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-103	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-103A	N						6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-104	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-105	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-106	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-107	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-108	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-108A	N						6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-109	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-109A	N						10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-110	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-111	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-112	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-113	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-114	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-114A	N						7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-114B	N						14" (cold only)	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-115	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-116	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-117	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-118	N	JO-g-1212	4/1/2016	Price	DDS5000-14"		14"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-119	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-120	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-121	N	JO-g-598	2/1/1974	Anemostat			14"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-122	N	JO-g-598	2/1/1974	Anemostat			8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-123	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-124	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-125	N	JO-g-598	2/1/1974	Anemostat			5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-126	N	JO-g-598	2/1/1974	Anemostat			4"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-127	N	JO-g-598	2/1/1974	Anemostat			7"	none	NA	NA	none	NA	NA	NA	

Appendix A - 1
Equipment List - JAO and Central Plant

Building	Location	Description	Tag Number	Redundant Equipment (Y/N)	Drawing # /PO #	Date Commissioned	Make	Model #	Serial #	Size	Belt Size	Belt Quantity	Belt Change Freq per Yr	Filter Size	Filter Quantity	Change Freq per Yr	Refrigerant	Notes
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-128	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-129	N	JO-g-598	2/1/1974	Anemostat			14"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-130	N	JO-g-598	2/1/1974	Anemostat			14"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-131	N	JO-g-598	2/1/1974	Anemostat			14"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-132	N	JO-g-598	2/1/1974	Anemostat			10"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-133	N	JO-g-598	2/1/1974	Anemostat			12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-134	N	JO-g-598	2/1/1974	Anemostat			6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (old JAO)	Mixing Box (above ceiling tile)	MB-134A	N						10"	none	NA	NA	none	NA	NA	NA	
	Basement (new JAO)	Variable Air Box (above ceiling tile)	T-1	N	JO-g-901	12/1/1992	Carrier	35DV		10"	none	NA	NA	none	NA	NA	NA	
	Basement (new JAO)	Variable Air Box (above ceiling tile)	T-2	N	JO-g-901	12/1/1992	Carrier	35DV		10"	none	NA	NA	none	NA	NA	NA	
	Basement (new JAO)	Variable Air Box (above ceiling tile)	T-3	N	JO-g-901	12/1/1992	Carrier	35DV		6"	none	NA	NA	none	NA	NA	NA	
	Basement (new JAO)	Variable Air Box (above ceiling tile)	T-4	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	Basement (new JAO)	Variable Air Box (above ceiling tile)	T-5	N	JO-g-901	12/1/1992	Carrier	35DV		8"	none	NA	NA	none	NA	NA	NA	
	Basement (new JAO)	Variable Air Box (above ceiling tile)	T-6	N	JO-g-901	12/1/1992	Carrier	35DV		6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-7	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-8	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-9	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-10	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-11	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-12	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-13	N	JO-g-901	12/1/1992	Carrier	35DV		8" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-14	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-15	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-16	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-17	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-18	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-19	N	JO-g-901	12/1/1992	Carrier	35DV		12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-20	N	JO-g-901	12/1/1992	Carrier	35DV		12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-21	N	JO-g-901	12/1/1992	Carrier	35DV		12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-22	N	JO-g-901	12/1/1992	Carrier	35DV		8"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-23	N	JO-g-901	12/1/1992	Carrier	35DV		6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-24	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-26	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-27	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-28	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-29	N	JO-g-901	12/1/1992	Carrier	35DV		8" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-30	N	JO-g-901	12/1/1992	Carrier	35DV		6"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-31	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-32	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-33	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-34	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-35	N	JO-g-901	12/1/1992	Carrier	35DV		12"	none	NA	NA	none	NA	NA	NA	
	1st Floor (new JAO)	Variable Air Box (above ceiling tile)	T-36	N	JO-g-901	12/1/1992	Carrier	35DV		10"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-37	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-38	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-39	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-40	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-41	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-42	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-43	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-44	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-45	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-46	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-47	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-48	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-49	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-50	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-51	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-52	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-53	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-54	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-55	N	JO-g-901	12/1/1992	Carrier	35DV		6"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-56	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-57	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-58	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-59	N	JO-g-901	12/1/1992	Carrier	35DV		12" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-60	N	JO-g-901	12/1/1992	Carrier	35DV		14" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-61	N	JO-g-901	12/1/1992	Carrier	35DV		14" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-63	N	JO-g-901	12/1/1992	Carrier	35DV		8" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-64	N	JO-g-901	12/1/1992	Carrier	35DV		10" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-65	N	JO-g-901	12/1/1992	Carrier	35DV		10" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-66	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	

Appendix A - 1
Equipment List - JAO and Central Plant

Building	Location	Description	Tag Number	Redundant Equipment (Y/N)	Drawing # /PO #	Date Commissioned	Make	Model #	Serial #	Size	Belt Size	Belt Quantity	Belt Change Freq per Yr	Filter Size	Filter Quantity	Change Freq per Yr	Refrigerant	Notes
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-67	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-68	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-69	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-70	N	JO-g-901	12/1/1992	Carrier	35DV		8" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-71	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-72	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-73	N	JO-g-901	12/1/1992	Carrier	35DV		5" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-74	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	Y-75	N	JO-g-901	12/1/1992	Carrier	35DV		6" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-76	N	JO-g-901	12/1/1992	Carrier	35DV		12" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-77	N	JO-g-901	12/1/1992	Carrier	35DV		10" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-78	N	JO-g-901	12/1/1992	Carrier	35DV		12" with reheat coil	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-79	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Variable Air Box (above ceiling tile)	T-80	N	JO-g-901	12/1/1992	Carrier	35DV		5"	none	NA	NA	none	NA	NA	NA	
	2nd Floor Room K	Cold Deck Branch Damper		N		5/1/2018	Zonex	STMPD		8"	none	NA	NA	none	NA	NA	NA	
	2nd Floor Room K	Thermostat		N		5/1/2018	Zonex	SAMOD II			none	NA	NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Automatic air vent valves (2)		N/A		12/1/1992	Hoffman				none	NA	NA	none	NA	NA	NA	
Guard Shack	Guard Shack	Window Heat Pump		N		8/10/2016	GE			1.5 tons	none	NA	NA	washable		4x	R-410A	
Board Room	Roof	Air Conditioner #1		N	JO-g-1192	6/1/2009	Carrier	50PG-C14-D-6	0909G20011	12.5 TONS		1	2x	Prefilter=24x24x1 &12x24x1 Carbon=24x24x2 &12x24x2	8 8 8 8	4x 4x 1x 1x	R-410A	
Board Room	Roof	Air Conditioner #2		N	JO-g-1192	6/1/2009	Carrier	50PG-C14-D-6	0909G20012	12.5 TONS		1	2x	Prefilter=24x24x1 &12x24x1 Carbon=24x24x2 &12x24x2	8 8 8 8	4x 4x 1x 1x	R-410A	
Board Room	Roof	Bathroom Exhaust Fan (south)	EF-11	N	JO-g-901	12/16/1992	CentriMaster	PU135E2	QRB963702	1/4 hp & 500 cfm	3L210	1	NA	none	NA	NA	NA	
Board Room	Roof	Bathroom Exhaust Fan (north)	EF-12	N	JO-g-901	12/16/1992	CentriMaster	PU135E2	QRB963702	1/4 hp & 500 cfm	3L210	1	NA	none	NA	NA	NA	

Appendix A - 1
Equipment List - JAO and Central Plant

Building	Location	Description	Tag Number	Redundant Equipment (Y/N)	Drawing # /PO #	Date Commissioned	Make	Model #	Serial #	Size	Belt Size	Belt Quantity	Belt Change Freq per Yr	Filter Size	Filter Quantity	Change Freq per Yr	Refrigerant	Notes
Central Plant	Chiller Room	Chiller #1	Chiller #1	Y	JO-g-1136	6/1/2005	Carrier	19XR7777556EK	4604Q69713	1000 tons	none	NA	NA	none	NA	NA	R-134A	
	Chiller Room	Chiller #2	Chiller #2	Y	JO-g-1136	6/1/2005	Carrier	19XR7777556EK	4604Q69714	1000 tons	none	NA	NA	none	NA	NA	R-134A	
	Chiller Room	Chiller #3	Chiller #3	Y	JO-g-1049	7/28/1999	Carrier	19XR3231204BH	5298J59060	350 tons	none	NA	NA	none	NA	NA	R-134A	
	Chiller Room	Chilled Water Pump #1	CHWP-1	Y	JO-g-1136	6/1/2005	Flowserve	8LR-12B	0804-4978A	100 hp & 2400 gpm	none	NA	NA	none	NA	NA	NA	
	Chiller Room	Chilled Water Pump #2	CHWP-2	Y	JO-g-1136	6/1/2005	Flowserve	8LR-12B	0804-4978B	100 hp & 2400 gpm	none	NA	NA	none	NA	NA	NA	
	Chiller Room	Exhaust Fan #1	EF-1	N	JO-g-901	12/1/1992	CentriMaster	XB300K	GR8963714	1.5 hp & 7800 cfm	AX80	1	1x	none	NA	NA	NA	
	Chiller Room	Chilled Water Expansion Tank		N	JO-g-1136	6/1/2005	Taco	NATL 80-82217	K10147	150 psi	none	NA	NA	none	NA	NA	NA	
	Chiller Room	Refrigerant Monitoring System		N	JO-g-1136	6/1/2005	Sherlock	60-0036-4	05F-404-4-00100D		none	NA	NA	none	NA	NA	NA	
	Chiller Elec Building	VFC for Chiller #1	VFC-1	Y	JO-g-1136	6/1/2005	Toshiba	G3+8481KC81	040800071		none	NA	NA	none	NA	NA	NA	
	Chiller Elec Building	VFC for Chiller #2	VFC-2	Y	JO-g-1136	6/1/2005	Toshiba	G3+8481KC81	040800072		none	NA	NA	none	NA	NA	NA	
	Chiller Elec Building	Split System Fan Coil		N	JO-g-1136	6/1/2005	Liebert	DH125AUAA01	681518-001	10 tons	B42	2	1x	24x24x4	3	4x	R-22	
	Outside Elec Building	Split System Condenser Unit		N	JO-g-1136	6/1/2005	Liebert	DCDF205-A	0504C75290		none	NA	NA				R-22	
	Roof of Elec Building	Exhaust Fan (backup to AC unit)	EF-3	N	JO-g-1136	6/1/2005	Greenheck	LB-36-50-X	05C00197	5 hp & 614 cfm			NA	none	NA	NA	NA	
	2nd Floor (new JAO)	Automatic air vent valve		N/A		12/1/1992	Hoffman				none	NA	NA	none	NA	NA	NA	
Central Plant	Boiler Room	Boiler #1	B-59A-01	Y	JO-g1211	8/1/2012	Ajax (now ACE)	WCP-300I-N	71732	3 MM BTU/hr	none	NA	NA	none	NA	NA	NA	
	Boiler Room	Boiler #2	B-59A-02	Y	JO-g1211	8/1/2012	Ajax (now ACE)	WCP-300I-N	71733	3 MM BTU/hr	none	NA	NA	none	NA	NA	NA	
	Boiler Room	Boiler #3	B-59A-03	Y	JO-g1211	8/1/2012	Ajax (now ACE)	WCP-300I-N	71734	3 MM BTU/hr	none	NA	NA	none	NA	NA	NA	
	Boiler Room	Hot Water Expansion Tank		N	JO-g-901	12/1/1992	Amtrol	2000L	94-2186	125 psi	none	NA	NA	none	NA	NA	NA	
	Boiler Room	Hot Water Pump #1	P-59B-01	Y	JO-g1211	8/1/2012	Patterson	3x2.5M	SC-C0108148-01	50 hp & 300 gpm	none	NA	NA	none	NA	NA	NA	
	Boiler Room	Hot Water Pump #2	P-59B-02	Y	JO-g1211	8/1/2012	Patterson	3x2.5M	SC-C0108148-02	50 hp & 300 gpm	none	NA	NA	none	NA	NA	NA	
	Boiler Room	VFC for Hot Water Pump #1	VFC-59B-01	Y	JO-g1211	8/1/2012	Eaton	SVX-9000	ELAG245	50 hp	none	NA	NA	none	NA	NA	NA	
	Boiler Room	VFC for Hot Water Pump #2	VFC-59B-02	Y	JO-g1211	8/1/2012	Eaton	SVX-9000	ELAG245	50 hp	none	NA	NA	none	NA	NA	NA	
	Boiler Room	Air Separator	AS-59B-00	N	JO-g1211	8/1/2012				NA	none	NA	NA	none	NA	NA	NA	
	Boiler Room	Exhaust Fan #2	EF-2	N	JO-g-901	12/1/1992	CentriMaster	XB300K	RRB963714	1.5 hp & 7800 cfm	AX80	1	1x	none	NA	NA	NA	
	Boiler Room	Water Softener		N			Pentair				none	NA	NA	none	NA	NA	NA	
	Boiler Room	Sump Pump #1		N	JO-g-901	12/1/1992												
	Boiler Room	Sump Pump #2		N	JO-g-901	12/1/1992												
	Boiler Room	Combustible Gas Monitoring System (control panel in Chiller Room)		N														Sensidyne SensAlert Plus Gas Detectors (3)
	Control Room	Split System Fan Coil	none	N	PO #1560939	4/1/2016	Carrier	40MKCB18C--3		1.5 tons	none	NA	NA	washable		4x	R-410A	
	Outside Control Room	Split System Condenser Unit	none	N	PO #1560939	4/1/2016	Carrier	24AHA418A300	4615X90878		none	NA	NA	none	NA	NA	R-410A	
	2nd Floor (new JAO)	Automatic air vent valve		N/A		12/1/1992	Hoffman				none	NA	NA	none	NA	NA	NA	
	Filter Gallery	Condenser Water Pump #1	CWP-1	Y	JO-g-901	12/1/1992	ITT A-C Pump	12 x 10 x 12 Type	1-23999-02-1	75 hp	none	NA	NA	none	NA	NA	NA	Crane to access gallery. New impellers in 6-05 JO-g-1136
	Filter Gallery	Condenser Water Pump #2	CWP-2	Y	JO-g-901	12/1/1992	ITT A-C Pump	12 x 10 x 12 Type	1-23999-02-2	75 hp	none	NA	NA	none	NA	NA	NA	Crane to access gallery. New impellers in 6-05 JO-g-1136

Appendix A - 2
Equipment List - SJC Laboratory

EQUIPMENT ID	SIZE/TYPE	MANUFACTURER	MODEL/SERIAL NO.	QTY	LOCATION	CARBON FILTER SIZE	CARBON FILTER QTY	CARBON FILTER CHANGE FREQUENCY
AC UNITS								
5-AC-01	PACKAGE	CARRIER	62DB9038RV4D3C-ECR	1	ROOF TOP	TBD	TBD	2X DURING 3-YR CONTRACT
5-AC-02	PACKAGE	CARRIER	62DB9038RV4D3C-ECR	1	ROOF TOP	TBD	TBD	2X DURING 3-YR CONTRACT
5-AC-03	PACKAGE	CARRIER	50HCCE14D3M6-OAIGO	1	ROOF TOP			
5-AC-04	PACKAGE	TRANE	WSC060E4ROA	1	ROOF TOP			
5-AC-05	PACKAGE	CARRIER	62DB9030RT4D3C-ECR	1	ROOF TOP	TBD	TBD	2X DURING 3-YR CONTRACT
5-AC-06	PACKAGE	CARRIER	62DB9030RT4D3C-ECR	1	ROOF TOP	TBD	TBD	2X DURING 3-YR CONTRACT
5-AC-07	PACKAGE	CARRIER	50HCCB07D2A602340	1	ROOF TOP			
7-AC-01	PACKAGE	CARRIER	62DB9034RV4D3C-ECR	1	ROOF TOP	TBD	TBD	2X DURING 3-YR CONTRACT
7-AC-02	PACKAGE	CARRIER	62DB9034RV4D3C-ECR	1	ROOF TOP	TBD	TBD	2X DURING 3-YR CONTRACT
507LBA08	5TON PACKAGE	CARRIER	50HJQ005-601-1097G20232	1	ROOF TOP (SR)			
Q.A TRAILER AC	PACKAGE	BARD	W4242/ S#314K	1	TRAILER			
S.R. TRAILER AC	PACKAGE	BARD	W4242/ S#400D	1	TRAILER			
SPLIT UNITS								
#13	SPLIT SYSTEM	SANYO	C2462R (S#0014031)	1	ROOF TOP			
507LBAC04	SPLIT SYSTEM	SANYO	C3622 (S#011896)	1	ROOF TOP			
	SPLIT SYSTEM	SANYO	C3632A (S#0056142)	1	ROOF TOP			
LBAC08	SPLIT SYSTEM	SANYO	3632 (S#0076994)	1	ROOF TOP			
	SPLIT SYSTEM	PANASONIC	CU-KS36NKUA	1	ROOF TOP			
	SPLIT SYSTEM	DAKIN INDUST	RXN12KEVJU5/ S#G670	1	ROOF TOP			
	SPLIT SYSTEM	DAKIN INDUST	RXN12KEVJU5/ S#G1747	1	ROOF TOP			
BIO AC	SPLIT SYSTEM	SAMSUNG	MISSING	1	ROOF TOP			
AIR HANDLERS								
507LBAH01	AIR HANDLER	CARRIER	39TH61AA	1	BASEMENT	20x20x4 20X25X4	12 6	ONCE PER YEAR
507LBAH02	AIR HANDLER	CARRIER	39TV09BCHAU	1	BASEMENT			
507LBAH03	AIR HANDLER	CARRIER		1	ROOF TOP	24X24X1	24	2X DURING 3-YR CONTRACT
507LBAH05	AIR HANDLER	CARRIER		1	BASEMENT			
507LBAH06	AIR HANDLER	CARRIER	39NXS615NVR	1	BASEMENT	24X24X2	60	ONCE PER YEAR
HOT & CHILLED WATER PUMP								
507CHPU01	CHW PUMP	PACO		1	BASEMENT			
507CHPU02	CHW PUMP	PACO		1	BASEMENT			

507CHPU03	CHW PUMP	MARATHON		1	BASEMENT			
507CHPU04	CHW PUMP	MARATHON		1	BASEMENT			
507HWPU05	HW PUMP	PACO		1	BASEMENT			
507HWPU06	HW PUMP	PACO		1	BASEMENT			
507HWPU07	HW PUMP	BALDOR		1	BASEMENT			
507HWPU08	HW PUMP	BALDOR		1	BASEMENT			
507CHPU15	CHW PUMP	LINCOLN	10 HP	1	ANNEX BS			
507CHPU16	CHW PUMP	LINCOLN	10 HP	1	ANNEX BS			
507HWPU17	HW PUMP	LINCOLN	3 HP	1	ANNEX BS			
507HWPU18	HW PUMP	LINCOLN	3 HP	1	ANNEX BS			
EXHAUST FANS								
5-EF-01	EXHAUST FAN	M.K. PLASTICS	2450	1	ROOF TOP			
5-EF-02	EXHAUST FAN	M.K. PLASTICS	2450	1	ROOF TOP			
5-EF-03	EXHAUST FAN	M.K. PLASTICS	2450	1	ROOF TOP			
5-EF-04	EXHAUST FAN	M.K. PLASTICS	2450	1	ROOF TOP			
5-EF-05	EXHAUST FAN	M.K. PLASTICS	180CPV	1	ROOF TOP			
5-EF-06	EXHAUST FAN	M.K. PLASTICS	180CPV	1	ROOF TOP			
507EXFN08	EXHAUST FAN	M.K. PLASTICS	80CPV	1	ROOF TOP			
507EXFN14	EXHAUST FAN	COOK	100C2B	1	ROOF TOP			
507EXFN15	EXHAUST FAN	COOK	100C2B	1	ROOF TOP			
507EXFN16	EXHAUST FAN	COOK	100C2B	1	ROOF TOP			
507EXFN17	EXHAUST FAN	COOK		1	ROOF TOP			
507EXFN18	EXHAUST FAN	M.K. PLASTICS	70CPV	1	ROOF TOP			
507EXFM20	EXHAUST FAN	COOK	100C2B	1	ROOF TOP			
507EXFN21	EXHAUST FAN	M.K. PLASTICS	70CPV	1	ROOF TOP			
507EXFN23	EXHAUST FAN		PMCCB14	1	ROOF TOP			
507EXFN24	EXHAUST FAN		PMCCB16	1	ROOF TOP			
507EXFN26	EXHAUST FAN			1	ROOF TOP			
507EXFN28	EXHAUST FAN	AMERICAN	SMB-12	1	ROOF TOP			
507EXFN29	EXHAUST FAN	M.K. PLASTICS	80CPV	1	ROOF TOP			
507EXFN51	EXHAUST FAN	GREENHECK	FJC-315-B1	1	ROOF TOP			
507SPFN25	SUPPLY FAN	GREENHECK		1	ROOF TOP			
7-EF-01	EXHAUST FAN	M.K. PLASTICS	2450	1	ROOF TOP			
7-EF-02	EXHAUST FAN	M.K. PLASTICS	2450	1	ROOF TOP			
507SPFN16 (EF34)	EXHAUST FAN	COOK	120CPA	1	ROOF TOP			

WALK-IN COOLER								
507WAIN01 507WAIN02	CONDENSER RACK	TRENTON	T030MI-HT3	2	ROOF TOP			
507WAIN01 507WAIN02	WALK-IN COOLER	LARKIN	GA6260BBX2	2X2	ANNEX BASEMENT			
507WAIN03	CONDENSER RACK	TRENTON	T020M2-HT3	1	ROOF TOP			
507WAIN03	ENVIROMENTAL CHAMBER	MagicAire	36-BHX-3940284670	1	ANNEX BASEMENT CEILING			
507WAIN04	CONDENSER RACK	TRENTON	T020M2-HT3	1	ROOF TOP			
507WAIN04	ENVIROMENTAL CHAMBER	COULD NOT READ	ECP61752L	1	ANNEX BASEMENT			
507WAIN05	CONDENSER RACK	TECUMSEH	AWG45245EXNXM	1	ROOF TOP			
507WAIN05	WALK-IN COOLER	LARKIN	ACPB-102-2	2	ANNEX BUILDING			
507WAIN06	CONDENSER RACK	TRENTON	TESA0216-HT38-F	1	FLOOR LEVEL			
507WAIN07	CONDENSER RACK	TRENTON	TESA025H8-HT38-B	1	FLOOR LEVEL			
507WAIN06/07	WALK-IN COOLER	WITT/ TRENTON	COULD NOT READ/ TPLP423MASIBRGE	1	FLOOR LEVEL			
507WAIN09	CONDENSER RACK		MISSING TAG	1	ROOF TOP			
507WAIN09	WALK-IN COOLER	RUSSELL	AL36-92	1	SAMPLE REC. AREA			
VARIABLE FREQUENCY DRIVE								
5-EF-01 VFD	VFD	ABB		1	BASEMENT			
5-EF-02 VFD	VFD	ABB		1	BASEMENT			
5-EF-03 VFD	VFD	ABB		1	BASEMENT			
5-EF-04 VFD	VFD	ABB		1	BASEMENT			
7-EF-01 VFD	VFD	ABB		1	BASEMENT			
7-EF-02 VFD	VFD	ABB		1	BASEMENT			
5-AH-01 VFD	VFD	ABB		1	BASEMENT			
7-AH-06 VFD	VFD	ABB		1	BASEMENT			

Special Color Coded Notes:

1. Maintenance can be completed during business hour with notice.
2. Maintenance must be completed after 4:30pm any day of the week.
3. Maintenance can be completed anytime during the weekend or after 4:30pm M-F.

LOS ANGELES COUNTY
SANITATION DISTRICTS
Converting Waste Into Resources

Robert C. Ferrante
Chief Engineer and General Manager

1955 Workman Mill Road, Whittier, CA 90601-1400
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April 6, 2022
RFP No.:03976R

ADDENDUM NO. TWO

RFP 03976R– MAINTENANCE AND SERVICE OF HVAC SYSTEMS AT THE JOINT ADMINISTRATION OFFICE, SAN JOSE CREEK LABORATORY, AND CENTRAL PLANT, dated March 10, 2022.

GENERAL INFORMATION – CHANGES AND REVISIONS

PROPOSAL DUE DATE

The due date to submit proposals has been changed to **Thursday, April 14, 2022 at 11:00 a.m.**

All other items remain the same.

Very truly yours,

Gina Schmitt

Gina Schmitt
Buyer