AGREEMENT WITH ENTERPRISE AUTOMATION
FOR CONTRACTING SERVICES
FOR
CLEAN WATER PROGRAM SCADA MERGER PROJECT

This Agreement, made and entered into this day of_____, by and between the **CITY OF SAN MATEO**, a municipal corporation existing under the laws of the State of California ("CITY"), and Enterprise Automation ("CONTRACTOR"), whose address is 210 Goddard, Irvine, CA 92618.

RECITALS:

A. CITY desires certain contracting services hereinafter described.

B. CITY desires to engage CONTRACTOR to provide these contracting services by reason of its qualifications and experience for performing such services and CONTRACTOR has offered to provide the required services on the terms and in the manner set forth herein.

NOW, THEREFORE, IT IS AGREED as follows:

SECTION 1 - SCOPE OF SERVICES

The scope of services to be performed by CONTRACTOR under this Agreement is as described in Exhibit A to this Agreement, which is attached and incorporated by reference.

SECTION 2 - DUTIES OF CONTRACTOR

CONTRACTOR shall be responsible for the professional quality, technical accuracy and coordination of all work furnished by CONTRACTOR under this Agreement. CONTRACTOR shall, without additional compensation, correct or revise any errors or deficiencies in its work.

CONTRACTOR represents that it is qualified to furnish the services described under this Agreement.

CONTRACTOR shall be responsible for employing or engaging all persons necessary to perform the services of CONTRACTOR.

CONTRACTOR agrees to comply with the City's minimum wage ordinance as codified in Municipal Code Chapter 5.92, which differs from the state minimum wage and includes a Consumer Price Index escalator.

SECTION 3 - DUTIES OF CITY

CITY shall provide pertinent information regarding its requirements for the project.

CITY shall examine documents submitted by CONTRACTOR and shall render decisions pertaining thereto promptly, to avoid unreasonable delay in the progress of CONTRACTOR'S work.

SECTION 4 - TERM

The services to be performed under this Agreement shall commence on August 1st, 2020 and be completed on or about July 31st, 2021.

SECTION 5 - PAYMENT

Payment shall be made by CITY only for services rendered and upon submission of a payment request upon completion and CITY approval of the work performed. In consideration for the full performance of the services set forth in Exhibit A, CITY agrees to pay CONTRACTOR a fee in an amount of $787,480, pursuant to rates stated in Exhibit B, attached and incorporated by reference.

SECTION 6 - TERMINATION

Without limitation to such rights or remedies as CITY shall otherwise have by law, CITY shall have the right to terminate this Agreement or suspend work on the Project for any reason, upon ten (10) days' written notice to CONTRACTOR. CONTRACTOR agrees to cease all work under this Agreement upon receipt of said written notice.

SECTION 7 - OWNERSHIP OF DOCUMENTS

All documents prepared by CONTRACTOR in the performance of this Agreement are and shall be the property of CITY, whether the project for which they are made is executed or not.

SECTION 8 - CONFIDENTIALITY

All reports and documents prepared by CONTRACTOR in connection with the performance of this Agreement are confidential until released by CITY to the public. CONTRACTOR shall not make any such documents or information available to any individual or organization not employed by CONTRACTOR or CITY without the written consent of CITY before any such release.

SECTION 9 - INTEREST OF CONTRACTOR

CONTRACTOR covenants that it presently has no interest, and shall not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of the services under this Agreement.

SECTION 10 - CONTRACTOR'S STATUS

It is expressly agreed that in the performance of the services required under this Agreement, CONTRACTOR shall at all times be considered an independent contractor as defined in Labor Code Section 3353, under control of the CITY as to the result of the work but not the means by which the result is accomplished. Nothing herein shall be construed to make CONTRACTOR an agent or employee of CITY while providing services under this Agreement.

SECTION 11 - INDEMNITY

CONTRACTOR agrees to hold harmless and indemnify CITY, its elected and appointed officials, employees, and agents from and against any and all claims, loss, liability, damage, and expense arising out of CONTRACTOR's performance of this Agreement, except for those claims arising out of CITY's sole negligence or willful misconduct. CONTRACTOR agrees to defend City, its elected and appointed officials, employees, and agents against any such claims.

SECTION 12 - INSURANCE

Contractor shall procure and maintain for the duration of the contract the insurance specified in Exhibit C to this Agreement

SECTION 13 - NONASSIGNABILITY

Both parties hereto recognize that this Agreement is for the personal services of CONTRACTOR and cannot be transferred, assigned, or subcontracted by CONTRACTOR without the prior written consent of CITY.

SECTION 14 - RELIANCE UPON SKILL OF CONTRACTOR

It is mutually understood and agreed by and between the parties hereto that CONTRACTOR is skilled in the performance of the work agreed to be done under this Agreement and that CITY relies upon the skill of CONTRACTOR to do and perform the work in the most skillful manner, and CONTRACTOR agrees to thus perform the work. The acceptance of CONTRACTOR's work by CITY does not operate as a release of CONTRACTOR from said obligation.

SECTION 15 - WAIVERS

The waiver by either party of any breach or violation of any term, covenant, or condition of this Agreement or of any provisions of any ordinance or law shall not be deemed to be a waiver of such term, covenant, condition, ordinance or law or of any subsequent breach or violation of the same or of any other term, condition, ordinance, or law. The subsequent acceptance by either party of any fee or other money which may become due hereunder shall not be deemed to be a waiver of any preceding breach or violation by the other party of any term, covenant, or condition of this Agreement or of any applicable law or ordinance.

SECTION 16 - COSTS AND ATTORNEY FEES

Attorney fees in total amount not exceeding $5000, shall be recoverable as costs (by the filing of a cost bill) by the prevailing party in any action or actions to enforce the provisions of this Agreement. The above $5000 limit is the total of attorney fees recoverable whether in the trial court, appellate court, or otherwise, and regardless of the number of attorneys, trials, appeals, or actions. It is the intent of this provision that neither party shall have to pay the other more than $5000 for attorney fees arising out of an action, or actions to enforce the provisions of this Agreement.

SECTION 17 - NON-DISCRIMINATION

CONTRACTOR warrants that it is an Equal Opportunity Employer and shall comply with applicable regulations governing equal employment opportunity. Neither CONTRACTOR nor any of its subcontractors shall discriminate in the employment of any person because of race, color, national origin, ancestry, physical handicap, medical condition, marital status, sex, or age, unless based upon a bona fide occupational qualification pursuant to the California Fair Employment and Housing Act.

SECTION 18 - MEDIATION

Should any dispute arise out of this Agreement, any party may request that it be submitted to mediation. The parties shall meet in mediation within 30 days of a request. The mediator shall be agreed to by the mediating parties; in the absence of an agreement, the parties shall each submit one name from mediators listed by either the American Arbitration Association, the State Mediation and Conciliation Service, or other agreed-upon service. The mediator shall be selected by a blind draw.

The cost of mediation shall be borne equally by the parties. Neither party shall be deemed the prevailing party. No party shall be permitted to file a legal action without first meeting in mediation and making a good faith attempt to reach a mediated settlement. The mediation process, once commenced by a meeting with the mediator, shall last until agreement is reached by the parties but not more than 60 days, unless the maximum time is extended by the parties.

SECTION 19 - LITIGATION

CONTRACTOR shall testify at CITY's request if litigation is brought against CITY in connection with CONTRACTOR's services under this Agreement. Unless the action is brought by CONTRACTOR, or is based upon CONTRACTOR's wrongdoing, CITY shall compensate CONTRACTOR for preparation for testimony, testimony, and travel at CONTRACTOR's standard hourly rates at the time of actual testimony.

SECTION 20 - NOTICES

All notices hereunder shall be given in writing and mailed, postage prepaid, addressed as follows:

To CITY:	Brad Underwood Public Works Director City of San Mateo 330 W. 20th Avenue San Mateo, CA 94103
To CONTRACTOR:	Enterprise Automation Attn: Joshua Riley 210 Goddard Irvine, CA 92618

SECTION 21 - AGREEMENT CONTAINS ALL UNDERSTANDINGS; AMENDMENT

This document represents the entire and integrated agreement between CITY and CONTRACTOR and supersedes all prior negotiations, representations, and agreements, either written or oral.

This document may be amended only by written instrument, signed by both CITY and CONTRACTOR.

SECTION 22 - GOVERNING LAW AND VENUE

This Agreement shall be governed by the laws of the State of California and, in the event of litigation, venue will be in the County of San Mateo.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, CITY OF SAN MATEO and Enterprise Automation have executed this Agreement the day and year first above written.

CITY OF SAN MATEO	CONTRACTOR
Brad B. Underwood Public Works Director	Enterprise Automation Joshua Riley President If a Corporation, can be either 1) President or 2) Vice President plus an additional corporate officer (i.e., Secretary, Treasurer) who shall sign below.
APPROVED AS TO FORM	ADDITIONAL CORPORATE OFFICER (if necessary per the above)
<Insert Name> Assistant City Attorney	<Insert Name> <Insert Title>

Attachments:

Exhibit A: Scope of Services
Exhibit B: Payment Rates
Exhibit C: Insurance Requirements

EXHIBIT A

SCOPE OF SERVICES

EXHIBIT A

SCOPE OF SERVICES FOR SCADA MERGER PROJECT

City of San Mateo
Clean Water Program

Scope of Services for the Supervisory Control and Data Acquisition System Merger Project

June, 2020

CLEANWATERPROGRAM
PROTECTING THE BAY FOR A SUSTAINABLE FUTURE

ATTACHMENT 1

Scope of Services

The Systems Integrator (SI) will provide management, submittal preparation, programming, configuration and testing services for the project elements listed in this Scope of Services. The project and fee negotiations will be executed with the City of San Mateo's (City) Clean Water Program (CWP) for each project for the services defined in this Scope of Services:

- Task 1 – Task Management Services
- Task 2 – Submittal Phase Services
- Task 3 – Programming Services
- Task 4 – Factory Testing, Installation, Commissioning, Training and Warranty Services
- Task 5 – Hardware and Software Procurement

The tasks that are required of the Systems Integrator under these categories are detailed in the following sections. The focus of the scope of services is to:

- Upgrade the existing WWTP SCADA System from Wonderware System Platform version 2014 to Wonderware System Platform version 2020.
- Convert the legacy stand-alone InTouch HMI application at the Collections System into a galaxy managed InTouch OMI application
- Select and configure an alarm management system for the merged SCADA system

Licenses for the Wastewater Treatment Plant SCADA upgrade portion of the project will be provided by the City. Any licenses needed for the migration of the Collections System HMI application will be provided by the System Integrator. Licenses for the remote alarm management software will be provided by the System Integrator.

All drawings and maps shall be developed using AutoCAD, ArcGIS, and PDFs capable of plotting at a legible scale on both 11x17" and 22x34". Additional deliverable information is provided in the various task descriptions below.

The City reserves the right to discontinue, alter, or postpone services at any time.

Task 1 – Management Services

Project management and coordination include tasks that will be performed by the Systems Integrator throughout the project. Task 1 will cover the task management services required for the Supervisory Control and Data Acquisition (SCADA) Merging Project. These services include:

- General Project Management and the generation of progress reports and invoices
- Conducting workshops and meetings
- Preparation of a Project Management plan, including a project schedule

Task 1.1 – Project Management

Task 1.1.1 – General Management

The Systems Integrator will be responsible for detailed management of the project and will keep the CWP appraised of the status of the project.

The Systems Integrator will provide the key management personnel as described in their proposal on this project. Every key position proposed shall be presented with full name, project role and professional resume. The Systems Integrator will not remove or reassign role for the key project personnel, without prior approval of the City per the Standard Agreement for Professional Services.

Task 1.1.2 – Progress Report and Invoices

The Systems Integrator will prepare and submit monthly progress reports and invoices that include a narrative of the work completed by task, project action item log, upcoming work, project issues, budget and schedule status, percent complete, cost to complete, earned value versus actual spent analysis, potential scope or budget changes, and other important project information. The current and previous billing period invoicing, as well as a summary of the budget spent, budget remaining, cost to complete, and all backup documentation for expenses will be included. The monthly progress report and project schedule will be submitted with the project invoice as part of the monthly request for payment. The System Integrator shall assume a minimum of 12 months monthly reports.

The Systems Integrator will prepare and submit to the CWP an agenda and meeting minutes for each formal meeting or workshop and hold progress meetings as necessary. The agendas for each meeting and workshop shall be submitted two weeks prior to the scheduled date. The System Integrator shall assume a minimum of 12 progress meetings for the project duration.

Task 1.2 – Project Management Plan

Systems Integrator shall prepare an overall project management plan that includes the SCADA programming and implementation tasks, within 2 weeks of the receiving the Notice To Proceed. At a minimum, the SCADA Merger Project Management Plan shall at a minimum include the following:

1. Project Schedule: The schedule shall include the following tasks or milestones as a minimum.
    a) Workshop - SCADA programming standards review.
    b) Workshop - SCADA tag name conventions and Distribution System object modeling approach.
    c) Workshop – Human Machine Interface (HMI) navigation and layout for the InTouch OMI application part of SCADA system. New (if any) graphical symbols and faceplates functionality for the Distribution System.
    d) Two Workshops for the Alarm Management Systems.
    e) Two design workshops for network design.
    f) Procurement activities.
    g) Design and programming submittals.
    h) Virtual infrastructure deployment.
    i) Major programming phases including network infrastructure and SCADA software.
    j) Factory Acceptance Testing (FAT) activities.
    k) Field implementation activities including commissioning.
    l) A total of four training classes for SCADA system use and HMI interaction – Two for operations at the Corporation Yard, one for operations at the WWTP and one for the SCADA system configuration / maintenance.
    m) Warranty services.
2. Project Team: Propose a project team organizational chart defining the names and contact information of individuals who will be acting in the roles of Project Manager, lead SCADA programmer and lead Commissioning and Testing Engineer.
3. Quality Control Management Plan

Task 1 – Deliverables

1. Project Management Plan
2. Monthly invoiced and progress reports

Task 2 – Submittal Phase Services

Systems Integrator shall submit a proposed submittal breakdown consisting of sequencing and packing of information in accordance with the Project Schedule. Partial submittals not in accordance with the Project Schedule will not be accepted.

Systems Integrator shall adhere to the following requirements for the submittal format:

1. Electronic copies: required, unless otherwise noted for specific items.
    1) Manufacturers' standard documents: Adobe Acrobat PDF.
    2) Documents created specifically for the project:
        a) Text and graphics: Microsoft Word.
        b) Lists: Microsoft Excel, unless otherwise noted for specific items.
        c) Drawings: AutoCAD or Visio

With each submittal the Systems Integrator shall include the letterhead and / or title block of the firm responsible for the preparation of the submittals. The following shall be included in the title block as a minimum:

1. Registered business name of business or company.
2. Physical address, email address, and phone number of business or company.
3. Owner's name.
4. Project name and location.
5. Drawing name.
6. Revision level and issue purpose
7. Personnel responsible for the content of the drawing.
8. Date.

Task 2.1 SCADA System Submittals

The Systems Integrator will submit a separate submittal for the following for the SCADA system hardware and software:

1. A detailed drawing of the proposed SCADA system architecture merging the WWTP SCADA system with the Collections System SCADA.
    1) Provide a dedicated network diagram with all nodes, ports, IP addresses, type of network used (virtual LAN or not).
    2) Provide a drawing showing host servers, workstations, switches/routers, communications type, communications media, and all networking peripherals. Show connection media types (fiber, copper, wireless). Show all IP addresses, all physical and virtual networks. The network drawings do not to show the communication protocols on each link or trunk.
    3) Provide a drawing showing host virtualization platform with each guest virtual machine. For each virtual machine list SCADA system role assigned, all software applications to be loaded, all IP communication ports, IP addresses used, all SCADA software applications installed, all SCADA software components to be deployed.
    4) Provide a drawing of the SCADA deployment structure. Show list of all platforms, engines, HMI application instances, and device integration objects.
    5) Provide a drawing showing the application objects redundancy model. Show platforms providing redundancy service. Show redundancy partners for application objects operation (redundant engines) and device integration (redundant DI objects with links to regular DI).
2. Complete documentation of the final complete SCADA system including:

1) Provide an electronic copy of the installation files used for the complete SCADA system. This shall include virtualization software, network guest operating system, SCADA software, remote notification software. Provide separate copy of all service packs, patches, hot-fixes and security updates installed.
2) Provide an electronic copy of all network switch software configurations.
3) Provide an electronic copy of all communication server configurations.
4) Provide a copy of the final galaxy at the end of successful reliability testing. Provide a backup with CAB file extension. Provide separate export of all graphic objects on aaPKG extension. Provide separate export of all automation objects in aaPKG file format. Include all template and instances for platforms, engines, areas, communication and application objects.
5) Provide a copy (no snapshot) of all fully licensed virtual machines at the moment before installation of any security updates or software of any origin. Provide second copy at the end of successful reliability testing.
6) Provide a dedicated copy of all domain group policy objects.
7) Provide a separate document with all user names and corresponding passwords along with location of use. Provide description of roles associated with each user name.

3. A complete listing of the Collection SCADA system point I/O database:
   1) Include for each data point at the minimum following information – legacy HMI application tag name with data type and scaling range, legacy HMI application PLC address associated, the new SCADA tag reference, the engineering units, deadband, tag description, alarm limits, and alarm priorities.
   2) Organize by facility location, and by RTU panel, separate by point type.
4. SCADA HMI Displays: All HMI display submittals shall be in full color as they will appear on the display screen:
   1) This submittal shall be prepared after the HMI graphic display meetings and during the process of programming and system integration. This submittal shall be delivered as multiple smaller progressive submittals. The intent is to promote continuous process of programming and optimal project time utilization. The submittal shall include two components – software file in aaPKG file format and collection of pictorial images depicting exact appearance in all runtime modes (including abnormal/alarm, local, remote, auto, and manual).
   2) The submittal shall include:
      a) Each new overview or detailed graphic screen.
      b) Each device or controller faceplate
      c) Each tabular screen (alarm or status).
   3) Each display shall be uniquely titled.
5. Alarm Management System: The System Integrator shall submit a Technical Memorandum from the two Alarm System workshops with the City to describe the City's requirements and the basis for the selection of the final Alarm Management System.

Task 2.2 Testing, Start-up, and Commissioning Submittals

The Systems Integrator shall develop and submit detailed test procedures to show that the integrated SCADA system software is fully operational and in compliance with the requirements specified in the Contract Documents. The testing shall consist of converting the SCADA systems in a phased approach converting one station at a time, while keeping all other stations online. Schedule shall consider seasonal wet weather for mitigating impact of the system while stations are down. Each submittal shall provide a statement of test objectives for each test.

The Systems Integrator shall prepare forms and checklists for the following:

1. Factory Acceptance Tests (FAT)
2. Functional Tests
3. Commissioning plan and checklist

4. Performance and System Stability Test

The FAT procedure shall be submitted four weeks prior to the scheduled date for the FAT. The FAT procedure shall include the additional minimal requirements:

1. SCADA system testing block diagram
2. Estimated test duration
3. Details on the simulator construction, components, and operation

The Systems Integrator shall submit the proposed procedures to be followed during tests for the SCADA software in two components:

1. Preliminary submittal: outline of the specific proposed tests and examples of proposed forms and checklists.
2. Detailed submittal: after successful review of the preliminary submittal, submit the proposed detailed test procedures, forms, and checklists, and include a statement of test objectives with the test procedures

Task 2 – Deliverables

1. Approved Network Architecture Diagram
2. Workshop Meeting Notes
3. Approved SCADA Documentation for the new System
4. Approved Technical Memorandum regarding the final Alarm Management System
5. Approved submittals for SCADA HMI Displays

Task 3 – Programming Services

The System Integrator shall install and configure the SCADA system using the following software tools from Wonderware:

1. Application Server version 20
2. InTouch OMI version 20
3. Historian Server version 20
4. Historian Client version 20
5. InSight Publisher version 2020 (whichever latest subversion or custom version is available)
6. Operations Integration Core G-3.0 – Version 6.0 or later
7. Suitable Operations Integration Servers for communication with field programmable controllers and RTUs. All servers shall be compatible with the OI Core preinstalled.

Task 3.1 – Programming for the WWTP SCADA System Version Upgrade

The System Integrator shall perform the necessary configuration and programming to upgrade the existing WWTP SCADA system from Wonderware System Platform Version 2014 to System Platform Version 2020. The System Integrator shall migrate the following items, as a minimum to the Version 2020 system:

1. The whole galaxy with all properties preserved to maximum extent permissible by version compatibility.
2. The entire galaxy managed WWTP InTouch application shall be converted into InTouch OMI application. This requires conversion of all native legacy InTouch windows tags, scripts, and functions into galaxy ArchestrA graphics, scripts and properties.
3. All native legacy WWTP InTouch tags shall be converted into InTouch OMI tags if permissible. Equal functionality using galaxy managed tags and/or direct ArchestrA graphics symbol communication is permissible if approved by the City.
4. All application template objects and their instances.

5. All galaxy managed Historian tags
6. All InTouch trends including preconfigured and saved custom trends configuration files.
7. Entire galaxy security model including security groups, operational permission, user names, and associated user roles;
8. The galaxy style including Quality and Status, Element Style, and Format Style.
9. The galaxy Alarms and Events configurations.
10. All IO references in application objects shall be converted into native galaxy automatic IO Device Mapping. Precisely no explicit IO mapping scripts shall be used in the upgraded galaxy.
11. All historical alarms shall be converted into a history block storage. No SQL databases shall be used for historical alarms storage.
12. All InTouch real time alarms and historical alarms screens shall be upgraded with equal or better functionality.
13. All IO Server configuration shall be upgraded to latest version of Operations Integration Core and Drivers.
14. Modify existing SCADA system by adding additional area objects. Improve model view in the galaxy by separating objects in areas relevant to type of use, physical location, process area and process unit to which they belong.
15. Separate SCADA system objects in dedicated hierarchical area structure. Provide areas for app engines, view engines, device integration objects, HMI applications.
16. Separate SCADA application objects in dedicated hierarchical area structure. Provide areas for each facility, each process area, each process unit. Assigns objects to appropriate area.
17. Improve deployment structure for the SCADA system. Split areas and objects into multitude of redundant application object engines. Promote system operational reliability by running as many engines as practically appropriate and ensure that partial system failure will not cause complete SCADA functional outage.
18. Licenses for Wonderware System Platform version 2020 shall be installed on a redundant license server using two (2) separate nodes from the SCADA server collection. Preferably the primary license server shall be the galaxy repository node and the backup server shall be the main historian server node.

Task 3.2 – SCADA Programming for the Collection System

The System Integrator shall convert the legacy stand-alone InTouch HMI application into galaxy managed InTouch OMI application. The new application shall be part of a single unified HMI application for the entire wastewater operations. There will be single galaxy containing all objects, scripts, ArchestrA graphics, and HMI application for the Wastewater Treatment Plant and for the Wastewater Collections system.

The functionality of the legacy Collections System HMI application shall be retained but enhanced by replacing the legacy native InTouch ActiveX controls with InTouch OMI applications. At a minimum the historical alarms, active alarms, historical trends, and web browser ActiveX shall be replaced by corresponding ArchestrA graphics applications. All native InTouch tags which have connections with field PLCs shall be replaced by galaxy application object instances. Field devices and controllers shall be modeled with suitable galaxy application object templates.

Each application object template shall have all necessary ArchestrA graphics embedded. No ArchestrA graphic of any kind shall be embedded on instance level. All ArchestrA graphic shall be created into

ArchestrA graphic toolbox and subsequently embedded into application object templates. No ArchestrA graphics symbol shall have performance index smaller than 3.5.
Systems Integrator shall use the City's Programming Standards for all SCADA system configurations. The Systems Integrator shall re-use any applicable application object templates and ArchestrA graphics where possible found in the City's Programming Standards. These include device and controller template application objects, individual ArchestrA graphics device symbols, device faceplates, and popup screen.
The Systems Integrator shall arrange, organize, and conduct a series of no less than three three-hour workshops with City for the Collection System SCADA system. The workshops will be for demonstrating result of field device data modeling into SCADA galaxy. Specifically following shall be demonstrated:

1. Discuss and agree on how System Integrator will model and group individual legacy InTouch tags into new Application Server objects. Show list and structure of new template. Confirm one field device is modeled with one object. Confirm typical objects are instantiated from single template.
2. Discuss and agree on application object names, application object attribute names, properties for each attribute.
3. For each float attribute in application objects the signal deadband (.Deadband extension) shall be configured with value in the range 0.01 to 0.5% of full span.
4. Discuss and agree on ArchestrA graphics naming convention, organization in folders inside ArchestrA graphics toolbox, embedding approach, approach in scripting and public tag connections via ArchestrA graphics properties.
5. Discuss and agree on the style and level of commenting scripts. Confirm purpose for the script, code section purpose, the author of the script, and the date of last change are present in the body of the script.
6. Discuss and agree on the usage and the naming convention for all, if any, ViewAppNamespace tags.
7. Discuss and agree on the use of InSight, Alarms, Navigation, and Web galaxy applications as shown in the galaxy graphic toolbox.
8. Discuss and agree on the InTouch OMI layout and navigation approach.

Signal types read from the PLC shall be clearly coordinated with galaxy by type of use. Specifically, signals which cannot or shall not be modified in SCADA must be configured as read only in the I/O extension section. Prime example is sensor signal values. The reading precision (.Deadband extension) shall be no smaller than 0.01% and no larger than 0.5% of full span. Each typical instrument shall have deadband defined and recorded in separate excel file. The reading precision shall be approved by the City.
Each and every attribute of data type Integer or Float shall have I/O scaling enabled and configured according to range of signal applicable with field PLC tag. All EU ranges shall be clamped (.ClampEnabled).
Each attribute shall have appropriate engineering units configured and abbreviated according to City naming conventions. Discrete signals shall have meaningful text for TRUE and FALSE state. When the attribute is discrete and alarm enabled, the alarm state text shall have text "ACTIVE" and none alarm state shall have text "NORMAL".
Each tag description extension must be composed of two text sections concatenated and separated by period (".”). The first is copy of .ShortDesc entry and the second shall be text describing the attribute meaning. Alarm messages, whenever applicable, shall use .Description as text source.
Each dynamic animation on the process screens linked to a SCADA tag shall be identified at the minimum by four elements – application object name, application object short description, attribute name, and

attribute description. Combination of on-screen fixed text, dynamic tooltip, and text in the associated faceplate shall be used to deliver these informational elements.
The Systems Integrator shall configure and deploy historical tags into SCADA process Historian. The list of tags to be historized shall be coordinated and approved by the City. To limit the number of tags listed and to promote uniformity, as much as possible Historian tag configurations shall be made and locked on template level. For each tag that is configured for historian storage, the force storage period shall be zero and the historian value deadband (.ValueDeadband) shall be identical to value deadband (.Deadband).
The Systems Integrator shall coordinate and perform a tagging verification for each project phase to the City's satisfaction. The Systems Integrator shall provide transfer of tags from the RTU system to the SCADA system including the SCADA Historian (whenever applicable) and SCADA InTouch OMI. This shall be facilitated by necessary remote communication data links including but not limited to fiber optic cable trunks, ethernet cables, coaxial cables, wireless radio links. Wireless radio links may or may not include data transfers over commercial wireless cellular carriers such as Verizon, T-Mobile, or Sprint.
The City owns and operates Hach WIMS software (multi-user v7.6.4) as data reporting platform. The Systems Integrator shall coordinate with the City on the transfer of tags and data points from the Wonderware Historian/NAS Historian to the HachWIMS Historian. The City will provide and license the Hach WIMS Historian. The Systems Integrator will configure the Wonderware Historian to setup, test, and transfer data to the HachWIMS Enterprise Historian.
The Systems Integrator shall provide an updated copy of all the SCADA system programs and the programming documentation to the City after substantial completion of the Project.

Task 3.3 – Programming for the Alarm Management System

The Systems Integrator shall conduct a series of no less than two two-hour workshops with City to determine the details of the alarm management system. The alarm management system shall be selected from one of following three systems:

1. TopView System from EXELE
2. WIN911 from Specter Instruments
3. FirstPAGE Alarm Manager from SeQent

The workshops will be conducted to determine the City's requirements and to select the best alarm management system that will meet the City's requirements. Once the Systems Integrator has submitted their recommendation for the Alarm Management System, the City will purchase the software and provide the software and license to the Systems Integrator for configuration. The Systems Integrator shall coordinate the tags and integrate into the alarm management system, and configure the alarm priorities and alarm actions, including email, texts, alarms to the existing mobile radios and audible mobile phone alarm notifications as required.

Task 3 – Deliverables

1. Screen and Standards Webinar Workshop Notes
2. Approved software copies of the SCADA software prior to the Factory Test.

Task 4 – Factory Testing, Installation, Commissioning, Training and Warranty Services

Task 4.1 Factory Acceptance Test (FAT)

The Systems Integrator shall perform the FAT on an integrated system for the WWTP (with Wonderware Version 2020) and the Collection System in one test period.
The Systems Integrator shall submit the FAT plan four weeks prior to the scheduled date of the FAT. The Systems Integrator shall coordinate with the City regarding the location of the FAT. The FAT shall be conducted on the SCADA hardware and software to be installed with the project as much as it is feasible. Representatives from the CWP and the Engineer can choose to attend the FAT. The CWP retains the right

to observe all factory test activities including any and all subsystem preparation, pretests, troubleshooting, retests, warm-up, and software modification and/or updates. The Owner reserves the right to test any specified function whether or not explicitly stated in the test submittal. Any deficiencies observed during the test shall be corrected and retested before completion of the test. Any changes and/or corrections shall be noted on the test forms.
The FAT will demonstrate system configuration, use of SCADA screen navigation, SCADA graphics and functionality as follows:
System configuration test:

1. Demonstrate and test the setup and configuration of all operator stations, servers, development stations, and peripherals.
2. Demonstrate all utility software and functions, such as virus protection, backup, network monitoring, etc.
3. Demonstrate the proper operation of all peripheral hardware.
4. Demonstrate all general SCADA functions.
5. Demonstrate proper operation of log-on and other access security functions.
6. Demonstrate the proper operation of all historical data storage, trend, display, backup, and report functions.
7. Test automatic fail over of redundant equipment.
8. Demonstrate proper operation of the alarm display and acknowledgement functions.

In addition to demonstrating correct operation of all specified features, special effort shall be made to demonstrate how the system responds to and recovers from abnormal conditions including, but not limited to: equipment failure, operator error, communications subsystem error, communications failures, simulated/forced software lockups, power failure, process equipment failure, and high system loading conditions.

Task 4.2 Installation and Commissioning

The Systems Integrator shall be responsible for configuring and installing the new network switch at the Corporation Yard.

The Systems Integrator shall work with the CWP during the installation testing period to ensure that the SCADA software functions as specified and that all the tests are successfully conducted. The Systems Integrator shall participate in system testing activities. The tests shall include, but not be limited to:

1. Test SCADA system inputs from field devices and existing Motorola RTUs to SCADA HMI workstations.
2. Test SCADA system outputs from HMI workstations to the field devices and equipment.
3. Test complete SCADA network communications between WWTP and Corp Yard.
4. Test all alarming and reporting functions.
5. Test SCADA Hach WIMS and Historian functionality.
6. Test alarm management system functionality (remotely).

All I/O shall be tested from field devices to the SCADA HMI screen, including starting and stopping of equipment where feasible. Where equipment cannot be operated, I/O shall be simulated and monitored for proper operation from the I/O hardware to the HMI. The Systems Integrator shall remedy any software deficiencies discovered during testing.

The Systems Integrator shall provide a competently trained technician or programmer on the project site during all normal working days and hours from the start of the performance test until final acceptance of the system. If a major SCADA system failure occurs outside of normal working hours, the Systems Integrator shall be able to access the SCADA system remotely within two hours and perform initial

troubleshooting. If the Systems Integrator cannot repair the major failure remotely, they shall provide a programmer to be at the plant site within twenty-four hours.

Each time a technician is required to respond to a system malfunction, they must complete a report which includes details concerning the nature of the complaint or malfunction and the resulting repair action required and taken. If a malfunction occurs which clears itself or that the operator on duty is able to correct, no report is required or logged as specified above. If a technician has performed work but no report is written, then a major failure is considered to have occurred. Each report shall be submitted within twenty-four hours to the City or its representative.

Task 4.3 Training and Warranty Services

The Systems Integrator shall submit the proposed training agenda and training manuals 2 weeks prior to each training class.

The Systems Integrator shall provide user training for the operators at the Corporation Yard and the WWTP. Two 2-hour classes will be conducted at the Corporation Yard to accommodate all of the operational shifts. One 2-hour class will be conducted at the WWTP for the WWTP operators.

The Systems Integrator shall provide project-specific 4-hour SCADA software training that covers the programming conventions, new standardized software modules, and documentation created for the work performed under the corresponding project. This training will include the specific knowledge needed to modify, expand, duplicate, troubleshoot, and repair the SCADA programs provided under this project, and be provided by a qualified member of the Systems Integrator team who is thoroughly familiar with the delivered system, and is one of the senior programmers who programmed the SCADA system for this project.

The Systems Integrator shall provide a SCADA training course that will enable City staff to use and maintain all aspects of the SCADA system applications. Topics to be included:

1. Domain security model and its link to SCADA system
2. SCADA security model in all aspects. Specifically, security groups, roles, and operational permissions and individual security settings to each application object attributes.
3. Describe the plant model and how this model relates to alarms, historian tags, and how the plant model benefits overall navigation in the HMI.
4. Demonstrate launching and navigating the InTouch OMI application
5. Demonstrate how to use active and historical alarm tabular screens.
6. Demonstrate how to use historical trend screen.
7. Demonstrate how Collection System tags are modeled in the galaxy. Demonstrate interactions with them using the HMI.
8. Demonstrate how to perform backups and restoration of SCADA components and how to track versions over time.

The Systems Integrator shall provide warranty services for all the SCADA system programming work provided under this project for one calendar year after the final project completion. The Systems Integrator shall assume a minimum of 80 hours of labor and 4 site visits for the warranty services. The System Integrator shall provide extended warranties for all the hardware provided under this contract to be active for two years after final acceptance of the project.

Task 4 – Deliverables

1. Deploy Planning Workshop Meeting Notes
2. Approved Factory Test results (including completed Factory test punch lists).
3. Approved installation and commissioning check lists

4. Approved training manuals
5. Final copies of the SCADA system software, alarm management software, programming documentation and the Collection System IO list. The copy of the SCADA system shall contain a galaxy backup in a "cab" file format.
6. Any incident reports from the testing period

Task 5 – SCADA Hardware and Software Procurement

Task 5.1 SCADA Infrastructure Hardware

1. Primary Server: Windows Server 2019, four (4) virtual cores, 16GB RAM, 75GB HDD, three (3) NIC – one for field radio, one for SCADA communication, one for remote alarm annunciation (VoIP phone calls and SMS).
2. Backup Server – Same hardware, and software configurations as the Primary Server including application objects, communications with radio data concentrators, remote alarm annunciation and management software.
3. One (1) local SCADA switch from Cisco.

Task 5.2 SCADA Infrastructure Installed Software

1. Entire SCADA software shall be installed and/or deployed on machines running following operating system – Windows Server 2019. The version shall be either Long Term Servicing Channel Standard Edition or Standard Edition.
2. Microsoft SQL Server Express Edition, Microsoft .NET and any other supporting prerequisites will be provided by Wonderware installation source files. Should a prerequisite be found absent from the Wonderware support web portal, a suitable copy shall be obtained from Microsoft software distribution channel.
3. Selected Alarm Management Software – The City will purchase this software based on the recommendation from the Consultant.

Task 5.3 SCADA Infrastructure Deployed Software (to be acquired by the City)

1. Primary Server: Wonderware software V.2020 - one (1) platform for each server, several redundant engines for all application objects related to Collections system, one (1) none redundant engine for local device integration objects, one (1) local Operations Integration communication server to link SCADA objects with local radio data concentrators, one (1) view engine, one (1) instance of the SCADA HMI application. The HMI application shall be InTouch OMI and shall allow operators to see all systems part of the SCADA operations (Treatment, Collections and Underground Flow Equalization System).
2. Primary Server: Remote alarm annunciation and management software configured in redundant mode (one active and one standby at the partner server).
3. Backup Server: Wonderware software – identical with primary server and configured as redundant pair.
4. Backup Server: Remote alarm annunciation and management software configured in redundant mode – identical to primary server and configured as redundant pair.

Task 5 – Deliverables

1. Fully installed and tested SCADA hardware as listed in Tasks 5.1 and 5.2.

Assumptions and Clarifications:

1. The City will be responsible for hosting a Procore service for document management during the project. All submittals will be submitted in a digital form.
2. The City will be responsible providing the correct stakeholders and attendees for all workshops and testing activities.
3. The City shall provide the software licenses listed in Task 5.3.
4. The City will provide written responses to all submittals within 15 working days of receipt of the submittal.
5. The City will host all the remote meetings using MicroSoft (MS) Teams.
6. Workshops and Meetings:
    a. The SI will provide a Draft agenda for each workshop and meeting a week prior to the proposed meeting / workshop date.
    b. The SI will provide meeting / workshop notes within five working days after the meeting or workshop.
    c. The City will provide any feedback to the meeting / workshop notes within five working days of receipt of the meeting notes.
7. The SI will maintain a decision and action item log for the project. This log will be provided to the City every month, a day prior to the monthly progress meeting.
8. The SI will conduct multiple webinar-based workshops to review HMI standards, screens, templates, etc. The SI will still provide overview screenshots for formal review and acceptance. These will not include screenshots showing indication of objects in every state.
9. The SI will implement a Source Control system as part of the new infrastructure setup. All backups will be maintained on this system. At completion of the project, all the deployed configuration files will be 'checked-in' to the Source Control system as client property and records.
10. The SI will setup a test environment in in their office in their virtual infrastructure. The SI will provide the City the ability to remotely access (this will need to be scheduled, it is not an on-demand capability) the development system. This is being done to allow the City technical staff the ability to investigate or review the SI's configuration in leu of providing multiple backups file submittals.
11. Aveva's Operations Management Interface (OMI) platform will be used to configure the WWTP and Collection System SCADA systems.
12. The SI will not review the Collections RTU programs. If there is a need to change any aspect of the Collections RTU programs, this will be the responsibility of the City.
13. The SI will provide the Aveva AppServer object redundancy as a standalone document. This will not be directly depicted on the network drawing.
14. The Intellectual Property for this project shall be subjected to the terms listed in the Supplement below.

Supplement: San Mateo – Enterprise Automation Intellectual Property Agreement June 2020

a. Enterprise Automation retains all intellectual property rights (other than the following license) to any portion of existing intellectual capital that is delivered under this Agreement. "Enterprise Automation's existing intellectual capital" means any intellectual property that Enterprise Automation invented, created, developed, or acquired outside the course of its performance under this Agreement or a Statement of Work and without use of CITY OF SAN MATEO's information or materials. Enterprise Automation grants to CITY OF SAN MATEO and its Affiliates a perpetual, non-exclusive, non-transferable, world-wide, irrevocable, royalty-free license to all existing intellectual capital incorporated into any Deliverable(s) sufficient to allow the full lawful use of the Deliverable(s). This license includes a license to make copies, in reasonable numbers, of Enterprise Automation's copyrighted materials that relates in any way to the Services for the use of CITY OF SAN MATEO, CITY OF SAN MATEO's Affiliates, and their successors and assigns, or a third party in the operation, maintenance, repair and improvement of Services.

b. CITY OF SAN MATEO retains all intellectual property rights to any portion of CITY OF SAN MATEO's existing intellectual capital. "CITY OF SAN MATEO's existing intellectual capital" means any intellectual property that CITY OF SAN MATEO invented, created, developed, or acquired outside the course of its performance under this Agreement or a Statement of Work.

c. Any of Enterprise Automation's existing intellectual capital that is used, improved, modified or further developed by S Enterprise Automation during its performance under this Agreement, which are related to Enterprise Automation 's line of business or the way it conducts its business and which do not use or include, or which are not derived from any confidential information of CITY OF SAN MATEO (which CITY OF SAN MATEO discloses as being confidential) under this Agreement shall remain the property of Enterprise Automation.

d. Any of CITY OF SAN MATEO's existing intellectual capital that is used, improved, modified or further developed by Enterprise Automation during its performance under this Agreement shall remain the property of CITY OF SAN MATEO.

e. Enterprise Automation hereby assigns to CITY OF SAN MATEO all property rights, title, and interest to the any new custom intellectual capital generated under this Agreement. "Custom intellectual capital" means any intellectual property unique to CITY OF SAN MATEO's system, process, application and/or incorporates or depends on CITY OF SAN MATEO's confidential information. At CITY OF SAN MATEO's request, Enterprise Automation will take any action or execute any document necessary to perfect, record, establish, or otherwise give effect to CITY OF SAN MATEO's ownership of those rights and will do so without further consideration, other than reimbursement of reasonable out-of-pocket expenses incurred by Enterprise Automation.

f. Enterprise Automation retains all intellectual property rights (other than the following license) to any new non-custom intellectual capital generated under this Agreement. Enterprise Automation grants to CITY OF SAN MATEO and its Affiliates a perpetual, non-exclusive, non-transferable, world-wide, irrevocable, royalty-free license to all "non-custom intellectual capital" incorporated into any Deliverable(s) sufficient to allow the full lawful use of the Deliverable(s). "Non-custom existing intellectual capital" covers any intellectual property that Enterprise Automation invented, created, developed, or acquired during the course of its performance under this Agreement or a Statement of Work (e.g., toolkits, utilities, frameworks/templates, etc.) and without use of CITY OF SAN MATEO's information or materials.

g. Notwithstanding the above, if the Deliverables incorporate any intellectual property owned or controlled by a third party, the intellectual property shall be legally licensed for the purposes for which it is used.

EXHIBIT B

COST AND RATE SCHEDULE

Client: City of San Mateo
Project: SCADA Merger

Number: EA20SMO033 Date: 6/2/2020 Revision: 2.0.0 Author: JR Reviewed By: LS/AS/MN

ENTERPRISE AUTOMATION

Summary

#	Engineering Labor	In Office				Out of Office				Totals	
		Project Eng.	Lead Eng.	PM	Architect	Project Eng.	Lead Eng.	PM	Architect	Hours	Price
	ENG Initiation	62	36	27	12	0	0	0	0	**137**	**$30,330**
	ENG Investigation	142	31	14	3	0	0	0	0	**190**	**$39,160**
	ENG Workshops	95	62	20	2	48	48	0	0	**275**	**$59,085**
	ENG Design	188	48	19	2	0	0	0	0	**257**	**$53,050**
	ENG Platform Setup	216	52	22	2	0	0	0	0	**292**	**$60,170**
	ENG Common Config	290	60	28	0	0	0	0	0	**378**	**$77,370**
	ENG SCADA Config	528	139	53	0	0	0	0	0	**720**	**$148,345**
	ENG Testing	315	57	30	0	0	0	0	0	**402**	**$82,020**
	ENG Commissioning	82	36	38	0	176	176	0	0	**508**	**$109,250**
	ENG Training	122	20	14	0	0	28	0	0	**184**	**$38,430**
	ENG Closeout	32	40	12	0	0	80	0	0	**164**	**$37,320**
	Engineering Labor Totals	2072	581	277	21	224	332	0	0	**3507**	**$734,530**

Expenses	Price
TRV Travel	**$20,238**
MAT Materials	**$29,874**
Total Expenses	**$50,112**

Total (Labor plus Expenses, not including sales tax)	**$784,642**

Sales Tax	Price
MAT Materials	**$2,838**
Total Sales Tax	**$2,838**

Grand Total	**$787,480**

EXHIBIT C

INSURANCE REQUIREMENTS

MINIMUM SCOPE OF INSURANCE

Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL)**: Insurance Services Office (ISO) Form CG 00 01 12 07 covering CGL on an "occurrence" basis, including products-completed operations, personal & advertising injury, with limits no less than **$2,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. **Automobile Liability:** ISO Form Number CA 00 01 covering any auto (Code 1), or if CONSULTANT has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limit no less than **$1,000,000** per accident for bodily injury and property damage.
3. **Workers' Compensation:** as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than **$1,000,000** per accident for bodily injury or disease.
4. **Professional Liability (Errors and Omissions):** Insurance appropriate to the CONSULTANT's profession, with limit no less than **$1,000,000** per occurrence or claim, **$2,000A,000** aggregate

If the CONSULTANT maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the CONSULTANT.

Other Insurance Provisions
The insurance policies are to contain, or be endorsed to contain, the following provisions:

Additional Insured Status

The City, its elected and appointed officials, employees, and agents are to be covered as insureds on the auto policy for liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the CONSULTANT; and on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the CONSULTANT including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the CONSULTANT's insurance (at least as broad as ISO Form CG 20 10, 11 85 or both CG 20 10 and CG 20 37 forms if later revisions used).

Primary Coverage

For any claims related to this contract, the **CONSULTANT's insurance coverage shall be primary** insurance as respects the City, its elected and appointed officials, employees, and agents. Any insurance or self-insurance maintained by the City, its elected and appointed officials, employees, or agents shall be excess of the CONSULTANT's insurance and shall not contribute with it.

Notice of Cancellation

Each insurance policy required above shall provide that **coverage shall not be canceled, except after thirty (30) days' prior written notice** (10 days for non-payment) has been given to the City.

Waiver of Subrogation

CONSULTANT hereby grants to City a waiver of any right to subrogation which any insurer of said CONSULTANT may acquire against the City by virtue of the payment of any loss under such insurance. CONSULTANT agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the City. The City may require the CONSULTANT to purchase coverage with a lower deductible or retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the City.

Verification of Coverage

CONSULTANT shall furnish the City with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the City before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the CONSULTANT's obligation to provide them. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

EXHIBIT B

PAYMENT RATES

[If Exhibit B is NOT *Payment Rates*, make sure to update the rest of the Contract which references Exhibit B]

EXHIBIT C

INSURANCE REQUIREMENTS

MINIMUM SCOPE OF INSURANCE

Coverage shall be at least as broad as:

5. **Commercial General Liability (CGL)**: Insurance Services Office (ISO) Form CG 00 01 12 07 covering CGL on an "occurrence" basis, including products-completed operations, personal & advertising injury, with limits no less than **$2,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
6. **Automobile Liability:** ISO Form Number CA 00 01 covering any auto (Code 1), or if Contractor has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limit no less than **$1,000,000** per accident for bodily injury and property damage.
7. **Workers' Compensation:** as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than **$1,000,000** per accident for bodily injury or disease.

If the contractor maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the contractor.

Other Insurance Provisions
The insurance policies are to contain, or be endorsed to contain, the following provisions:

Additional Insured Status

The City, its elected and appointed officials, employees, and agents are to be covered as insureds on the auto policy for liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the Contractor; and on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance (at least as broad as ISO Form CG 20 10, 11 85 or both CG 20 10 and CG 20 37 forms if later revisions used).

Primary Coverage

For any claims related to this contract, the **Contractor's insurance coverage shall be primary** insurance as respects the City, its elected and appointed officials, employees, and agents. Any insurance or self-insurance maintained by the City, its elected and appointed officials, employees, or agents shall be excess of the Contractor's insurance and shall not contribute with it.

Notice of Cancellation

Each insurance policy required above shall provide that **coverage shall not be canceled, except after thirty (30) days' prior written notice** (10 days for non-payment) has been given to the City.

Waiver of Subrogation

Contractor hereby grants to City a waiver of any right to subrogation which any insurer of said Contractor may acquire against the City by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the City. The City may require the Contractor to purchase coverage with a lower deductible or retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the City.

Verification of Coverage

Contractor shall furnish the City with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the City before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.