

# **INVITATION FOR BIDS**



**FOR CONSTRUCTING**

## **LAGUNA TREATMENT PLANT AERATION BASINS IMPROVEMENTS**

CONTRACT NUMBER

**C02404**

ISSUED BY

**CAPITAL PROJECTS ENGINEERING DIVISION**

**CITY OF SANTA ROSA, CALIFORNIA**

**2024**

ATTENTION  
Prebid Conference  
See Page 1



STATE OF CALIFORNIA

INVITATION FOR BIDS

CONTAINING:

NOTICE TO BIDDERS

SPECIAL PROVISIONS

BID FORMS

CONTRACT

FOR

**LAGUNA TREATMENT PLANT AERATION BASINS  
IMPROVEMENTS**

**Contract No. C02404**

# LAGUNA TREATMENT PLANT AERATION BASINS IMPROVEMENTS

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CITY OF SANTA ROSA  
STATE OF CALIFORNIA

**NOTICE TO BIDDERS**

➤	For technical questions regarding this project, contact Tanya Mokvyts at (707) 543-3958 or tmokvyts@srcity.org.
➤	For direct access to plans, specifications and planholders' lists, go to <a href="http://www.srcity.org/bids">www.srcity.org/bids</a> and click on <u>Bid/Proposal Opportunities</u> or call (707) 543-3800.
➤	For direct access to bid results, go to <a href="http://www.srcity.org/bids">www.srcity.org/bids</a> . Under Link to Capital Projects, click on <u>Capital Projects Contracts</u> .

**- IMPORTANT -  
REVISED BIDDING PROCEDURES**

All bids shall be submitted and opened according to the following procedure:

**Bid Acceptance Deadline**

Sealed bids will be accepted at the Transportation and Public Works Department, 69 Stony Circle, Santa Rosa, California 95401 until 10:00 a.m., February 15, 2024, for Laguna Treatment Plant Aeration Basins Improvements, Contract No. C02404. (Engineer's Estimate: \$1,600,670.)

**Bids tendered after this deadline will not be accepted.** The official time clock for accepting bids will be an electric date and time stamping clock, located in the Transportation and Public Works Department, 69 Stony Circle, Santa Rosa, California. In order to be accepted, bids must be received prior to 10:00 a.m. Therefore, a bid stamped in at 9:59 a.m. will be accepted, but one delivered at or after 10:00 a.m. is late and will not be accepted.

**Bid Opening**

Prospective bidders, subcontractors, and materials suppliers are invited to attend the Bid opening via Zoom video/teleconference or in person at 69 Stony Circle, Santa Rosa, California. The bid opening is scheduled to be held at 10:00 a.m., February 15, 2024.

The teleconference can be accessed at:

<https://srcity-org.zoom.us/j/83911772024?pwd=a0RQVvxkxZGM1RmR3dDJ4c1lqOGREZz09>

Phone: 1 669 219 2599

Meeting ID: 839 1177 2024

Passcode: 013604

Find your local number: <https://srcity-org.zoom.us/j/83911772024?pwd=a0RQVvxkxZGM1RmR3dDJ4c1lqOGREZz09>

**Mandatory Pre-Bid Meeting**

Prospective bidders are required to attend an on-site pre-bid meeting scheduled to be held at 10:00 a.m., February 5, 2024, at the Laguna Treatment Plant located at 4300 Llano Road, Santa Rosa, California.

### **Subcontractor Information; Department of Industrial Relations Registration**

Bidders shall provide the names, business addresses and license numbers of all subcontractors listed on bidder's List of Subcontractors. No contractor or subcontractor may be listed on a bid for this public works project unless registered with the Department of Industrial Relations (DIR) pursuant to Labor Code section 1725.5. No contractor or subcontractor may be awarded a contract for this public works project unless registered with the DIR pursuant to Labor Code section 1725.5. This public works project is subject to compliance monitoring and enforcement by the DIR.

**Contract #:** C02404

**Project Title:** LAGUNA TREATMENT PLANT AERATION BASINS IMPROVEMENTS

Line #	Description	Unit	Quantity
1	Mobilization and Demobilization	LS	1
2	Installation of Phase A Bypass	LS	1
3	Operate Phase A Bypass	Week	5
4	Dewater Settled Sewage Channel and Aeration Basin No. 4	LS	1
5	Cleaning Settled Sewage Channel and Aeration Basin No. 4	CY	950
6	Installation of Phase B Bypass	LS	1
7	Operate Phase B Bypass	Week	4
8	Dewater Mixed Liquor Channel and Aeration Basin No. 1	LS	1
9	Cleaning Upstream Mixed Liquor Channel and Aeration Basin	CY	700
10	Dewatering Downstream Portion of the Mixed Liquor Channel	Day	1
11	Cleaning Downstream Portion of Mixed Liquor Channel	CY	90
12	Dewater Aeration Basin No. 2	LS	1
13	Cleaning of Aeration Basin No. 2	CY	400
14	Dewater Aeration Basin No. 3	LS	1
15	Cleaning of Aeration Basin No. 3	CY	400
16	Pressure Washing Walls in Dewatered Channels and Aeration Basins	SF	1,950

The foregoing quantities are approximate only, being given as a basis for the comparison of bids, and the City of Santa Rosa does not expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work, as may be deemed necessary or expedient by the Engineer.

Bids shall be made in accordance with the prevailing hourly rate of per diem wages for this locality and project as determined by the Director of the DIR pursuant to Labor Code sections 1770 *et seq.*

Contractor shall be responsible for compliance with the Immigration Reform Control Act of 1986.

If the project requires the employment of workers in any apprenticeable craft or trade, once awarded, Contractor and subcontractors must apply to the Joint Apprenticeship Council unless already covered by local apprentice standards (see Labor Code section 1777.5).

All bids are to be compared on the basis of the Engineer's estimate of the quantities of work to be performed. No bid will be awarded to a contractor who is not licensed in accordance with the provisions of Chapter 9 of Division 3 of the Business and Professions Code. Contractor must hold a Class A license for this project.

Project plans, bid and contract forms for C02404 Laguna Treatment Plant Aeration Basins Improvements may be obtained through PlanetBids at [www.srcity.org/bids](http://www.srcity.org/bids). These documents can no longer be obtained at the Transportation and Public Works Department.

No bid will be accepted unless it is made on the contract bid forms furnished by the Transportation and Public Works Department through PlanetBids. The original of the completed bid forms bearing original signatures must be submitted. A bid will not be accepted unless the bidder registers as a vendor through PlanetBids at [www.srcity.org/bids](http://www.srcity.org/bids), downloads documents/attachments, and is added to the prospective bidders list for this project. If there is an addendum, bidders must log into PlanetBids and acknowledge the addendum to be eligible for bidding.

The successful bidder will be required to hold a current City of Santa Rosa business tax certificate issued pursuant to Chapter 6.04 of the Santa Rosa City Code before commencing work on this project. For information regarding the business tax, contact Revenue and Collections at (707) 543-3170.

This Project is subject to the Community Workforce Agreement dated July 1, 2023, which is a Project Labor Agreement ("CWA" or "PLA") entered into between City, the North Bay Building and Construction Trades Council ("Council") and its affiliated local Unions that have executed this PLA, and the Contractors and subcontractors that perform work on this Project. Each Contractor and subcontractor must become signatory to the PLA by execution of an "Agreement To Be Bound" in the form of Appendix A to the PLA. A copy of the PLA is available at [www.srcity.org/bids](http://www.srcity.org/bids)

For any moneys earned by Contractor and withheld by the City of Santa Rosa to ensure the performance of the Contract, Contractor may, at its request and expense, substitute securities equivalent to the amount withheld in the form and manner and subject to the conditions provided in Section 22300 of the California Public Contract Code.

The City of Santa Rosa reserves the right to reject any or all bids and the right to waive minor irregularities or informalities in any bid or bonds.

*Tanya Mokvyts*  
TETYANA MOKVYTS  
Water Reuse Engineer

Jan 9, 2024  
Date

# **SPECIAL PROVISIONS**

## **General Specifications**

### **CITY OF SANTA ROSA, CALIFORNIA**

#### **LAGUNA TREATMENT PLANT AERATION BASINS IMPROVEMENTS**

##### **1 GENERAL**

The work described herein shall be done in accordance with the "Contract Documents," which are the:

1. Special Provisions
2. City of Santa Rosa Design and Construction Standards (City Standards)
3. City of Santa Rosa Construction Specifications for Public improvements (City Specifications)
4. State of California Department of Transportation Standard Specifications 2010 (Standard Specifications), and

In the event of a conflict in any of these documents, the order of precedence shall be determined by Section 5-1.02 of these Special Provisions.

Whenever the Standard Specifications use the terms State of California, Department of Transportation, Director, Engineer, or Laboratory, the following terms shall be substituted therefor, and any reference to any of the foregoing terms shall be understood and interpreted to mean and refer to such substituted terms as follows:

For State of California - the City of Santa Rosa;

For Department - the City of Santa Rosa Department of Transportation and Public Works or the City of Santa Rosa Water Department;

For Director - the City Engineer of the City of Santa Rosa;

For Engineer - the City Engineer of the City of Santa Rosa or the City Engineer's authorized agents;

For Laboratory – Materials Engineering of the City of Santa Rosa Transportation and Public Works Department, or such other laboratory as may be authorized by the City.

Unless otherwise provided, whenever in these Special Provisions attention is directed to specific provisions in the Standard Specifications, such direction shall not be interpreted as excluding other applicable provisions of the Standard Specifications.

Unless otherwise provided, when sections and subsections of the Standard Specifications are used in these Special Provisions, such use is not exclusive and shall not be interpreted as excluding other applicable provisions of said sections and subsections but is only intended to add to or modify such sections or subsections.

Unless otherwise provided, full compensation for compliance with these Special Provisions is included in the contract price and no additional allowance will be made to Contractor therefor. The Standard Specifications are hereby modified to delete any reference or incorporation of provisions providing for or requiring arbitration of any and all claims and disputes arising under this contract.



## 2 BIDDING

**2-1.06 Bid Documents:** Prospective bidders will be furnished with an Invitation for Bids which will state the location and description of the contemplated public works project and will show the approximate estimate of the various quantities and kinds of work to be performed and materials to be furnished with a schedule of items for which unit prices are requested.

**2-1.07 Approximate Estimate:** The quantities given in the Contract Documents are approximate only, being given as a basis for the comparison of bids, and the City does not, expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or part of the work or to omit parts of the work, as may be deemed necessary or advisable by the Engineer.

**2-1.31 Examination of Project Plans, Specifications, City Standards, Invitation for Bids and Work Site:** Prior to submitting a bid, the bidder shall carefully examine the Project Plans, Invitation for Bids, City Standards and the proposed work site. If any person contemplating submitting a bid for this public works project is in doubt as to the meaning of any part of the Contract Documents, or finds discrepancies in or omissions from the Contract Documents, he or she may submit a written request for interpretation or correction to the Engineer. The written request must be received by the Engineer a minimum of 96 hours prior to bid opening. Any interpretation or correction of the Contract Documents prior to bid opening will be made only by written addendum issued by the City. A copy of such addendum will be mailed or faxed to each Planholder. The City will not be bound by any other explanations or interpretations of the Contract Documents.

**2-1.33 Bid Document Completion:** Any references to Opt Out of Payment Adjustments for Price Index Fluctuations in the Standard Specifications are deleted in their entirety.

**2-1.33A Bid Forms:** All bids shall be made on bid forms obtained from PlanetBids at [www.srcity.org/bids](http://www.srcity.org/bids). The bidder shall submit its bid on the original bid forms furnished by the City. Bids submitted on forms other than the forms furnished to the bidder by the City will not be considered.

The bid forms to be submitted at the time of and with the bid are:

1. Unit Price Schedule
2. List of Subcontractors
3. List of Previous Similar Jobs
4. Noncollusion Declaration
5. Bid Guaranty Information and Bidder's Information and Signature
6. Bid Guaranty (Bid Bond or alternate security)
7. Contractor Agreement to be Bound to the PLA

All bids shall give the proposed prices and must bear the original signature of the bidder. Bidders shall fill in all blanks on the bid forms where required. A bid will not be accepted unless the bidder registers as a vendor through PlanetBids at [www.srcity.org/bids](http://www.srcity.org/bids), downloads documents/attachments, and is added to the prospective bidders list for this project. If there is an addendum, bidders must log into PlanetBids and acknowledge the addendum to be eligible for bidding.

**2-1.33B Registration with DIR:** No contractor or subcontractor may be listed on a bid for this public works project unless registered with the Department of Industrial Relations (DIR) pursuant

to Labor Code section 1725.5. No contractor or subcontractor may be awarded a contract for this public works project unless registered with the DIR pursuant to Labor Code section 1725.5. This public works project is subject to compliance monitoring and enforcement by the DIR.

**2-1.33C Subcontractors:** The Subletting and Subcontracting Fair Practices Act, Public Contract Code sections 4100-4113, inclusive (the "Act") shall apply to all subcontracts in excess of one-half of one percent of the total amount of a bid. The Act requires subcontractors, if used for such work, to be listed in the contractor's bid and prohibits the substitution of subcontractors, except as authorized by the Act. Each bidder shall, with respect to the work of any subcontractor in excess of one-half of one percent of the total amount of the bid, include as part of the bid on the bid form provided:

1. The name, business address and DIR registration number of each subcontractor who will perform work or labor or render services to the Contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the Contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the Project Plans or other Contract Documents in an amount in excess of one-half of one percent of the Contractor's total bid; and
2. The portion of the work that will be done by each subcontractor. Only one subcontractor shall be listed for each portion.

The purchase of sand, gravel, crushed rock, batched concrete, aggregate, ready-mixed concrete, and/or any other materials produced and furnished by established and recognized commercial plants, together with the delivery of such materials to the work site by the source of the materials or by recognized commercial hauling companies, is not considered as subcontracting under this section.

**2-1.33E Rejection of Bids Containing Alterations, Erasures or Irregularities:** Bids may be rejected if they show any alterations of forms, additions not called for, conditional bids, incomplete bids, erasures or irregularities of any kind.

**2-1.34 Bid Guaranty:** All bids shall be presented under sealed cover and shall be accompanied by cash, cashier's or certified check, or by a bidder's bond made payable to the City of Santa Rosa and executed as surety by a corporate surety authorized and admitted to transact a surety business in the State of California in an amount equal to ten percent of the amount of the bid. No bid shall be considered unless such cash, cashiers or certified check, or bidder's bond is enclosed with the bid. Any bidder's bond shall contain provisions for forfeiture consistent with California Public Contract Code section 20172.

**2-1.40 Withdrawal of Bid:** A bid may be withdrawn prior to, but not after, the hour fixed in the public notice for the opening of bids, provided that a written request to withdraw the bid, executed by the bidder or the bidder's authorized representative, is filed with the Engineer before this deadline. The withdrawal of a bid shall not prejudice the right of a bidder to submit a new bid.

**2-1.43 Public Opening of Bids:** Bids will be opened and read publicly at the time and place indicated in the Notice to Bidders. Bidders or their authorized agents are invited to be present.

**2-1.46 Disqualification of Bidders:** Serial bids from the same bidder will not be accepted. This section shall not be interpreted to mean that the same contractor may not be the contractor in one bid and listed as a subcontractor in another bid, provided that no collusion exists.

**2-1.48 Competency of Bidders:** No bid will be accepted from or contract awarded to a contractor that is not licensed in accordance with the law, that does not hold a license qualifying it to perform work under this contract, to whom a bid form has not been issued by the Engineer, or that has not successfully completed projects of similar character, scope and cost to the proposed project. Bidders will be required to provide a list of previous similar jobs with their bids.

### 3 CONTRACT AWARD AND EXECUTION

**3-1.04 Contract Award:** The City reserves the right to reject any or all bids. Bids are required for the entire work described herein. All bids will be compared with the Engineer's estimate of the quantities of work to be completed. Contract award, if any, will be made to the lowest responsible bidder within sixty days from the date bids are opened.

**3-1.05 Contract Bonds:** Within ten days after receipt of the Notice of Award, the successful bidder shall provide the following bonds to the City:

- a. **Performance Bond:** A performance bond to guarantee the faithful performance of the terms and conditions of the Contract by Contractor, which shall be executed in a sum of not less than one-half of the Contract price;
- b. **Labor and Materials Bond:** A labor and materials bond (payment bond) in accordance with Part 6 of Division 4, sections 8000 *et seq.* of the California Civil Code, to guarantee against any and all claims of subcontractors or other third parties furnishing labor, materials, or supplies for the Contract, which shall be executed in a sum of 100% of the Contract price; and
- c. **Material Guaranty Bond:** A material guaranty bond (warranty bond) to serve as surety for the guarantee requirements outlined in Section 6-3.01B, which shall be executed in a sum of not less than one-half of the Contract price.

The bond(s) shall be provided in a form acceptable to the City and issued by a corporate surety in good financial standing and authorized and admitted to transact a surety business in the state of California for the purposes and in the amount(s) stated above.

Whenever the financial or legal status of any surety on any such bond(s) is/are unacceptable to the City, it may make a demand to Contractor for further bond(s) or additional surety, not exceeding the sums originally required. Thereafter, no payment shall be made upon the Contract to Contractor or any assignees of Contractor until such bond(s) or additional surety has/have been provided to the City.

**3-1.07 Indemnification and Insurance:** Indemnification: Contractor shall defend, hold harmless and indemnify City, its officers, agents and employees, and each and every one of them, from and against any and all actions, damages, costs, liabilities, claims, demands, losses, judgments, penalties, costs and expenses of every type and description, including, but not limited to, any fees and/or costs reasonably incurred by City's staff attorneys or outside attorneys and any fees and expenses incurred in enforcing this provision (hereafter collectively referred to as "Liabilities"), including but not limited to Liabilities arising from personal injury or death; damage to personal, real or intellectual property or the environment; contractual or other economic damages, or regulatory penalties, arising out of or in any way connected with the performance of or the failure to perform the Contract by Contractor, any subcontractor or agent, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, whether or not such Liabilities are caused in part by a party indemnified hereunder, or such Liabilities are litigated, settled or reduced to judgment; provided, that the foregoing indemnity does not apply to liability for any damage or expense for death or bodily injury to persons or damage to property to the extent arising from (i) the sole negligence, or willful misconduct of, or defects in design furnished by City, its agents, servants, or independent contractors who are directly responsible to City (excluding Contractor), or (ii) the active negligence of City.

The existence of any of the insurance policies or coverages described in this Contract shall not affect or limit any of City’s rights hereunder, nor shall the limits of such insurance limit Contractor’s liability to the City hereunder. The provisions of this section shall survive any expiration or termination of the Contract.

**Insurance:** Contractor shall maintain in full force and effect all of the insurance coverage described in and in accordance with the insurance requirements set forth below. Maintenance of such insurance coverage during the entire performance of the Contract is a material element of the Contract. Failure by Contractor to (i) maintain or renew coverage, (ii) provide notice of any changes, modifications, or reductions in coverage, or (iii) provide evidence of renewal, if necessary, may be deemed a material breach of the Contract by Contractor, whereas the City shall be entitled to all rights and remedies at law or in equity. Notwithstanding the foregoing, any failure by Contractor to maintain required insurance coverage shall not excuse or alleviate Contractor from any of its other duties or obligations under the Contract. In the event Contractor retains or utilizes any subcontractors or sub-consultants in performance of the work, Contractor shall assure that any such subcontractor has first obtained, and shall maintain, all of the insurance coverage requirements herein set forth below.

**Insurance Requirements:**

**A. Insurance Policies:** Contractor shall maintain and keep in full force and effect, the following policies of insurance with minimum coverage as indicated below and issued by insurers with an AM Best rating of no less than A:VI or a rating otherwise acceptable to the City.

Insurance	Minimum Coverage Limits	Additional Coverage Requirements
1. Commercial general liability	\$5 million per occurrence \$5 million aggregate	Coverage must be at least as broad as ISO CG 00 01 and must include products liability and completed operations coverage which shall continue for a period of three years after acceptance of the work by the City. If insurance applies separately to a project/location, aggregate may be equal to per occurrence amount. Coverage may be met by a combination of primary and umbrella or excess insurance, but umbrella and excess shall provide coverage at least as broad as specified for underlying coverage. Completed Operations Coverage can be provided in the form of an endorsement to Contractor’s insurance (at least as broad as ISO Form CG 20 37 04 13. See endorsements below for other Additional Insured Requirements. Coverage shall not exclude subsidence.
2. Business auto coverage	\$3 million	Coverage at least as broad as ISO Form Number CA 00 01 covering any auto (Code 1). Insurance shall cover owned, non-owned and hired autos.

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| 3. | Workers' compensation and Employer's Liability | \$1 million | As required by the State of California, with Statutory Limits and Employer's Liability Insurance with limit of no less than \$1 million per accident for bodily injury or disease. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by Contractor, its employees, agents and subcontractors. |
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**B. Endorsements:**

1. All policies shall provide or be endorsed to provide that coverage shall not be canceled by either party, except after prior written notice has been provided to the City in accordance with the policy provisions.
2. Liability policies shall provide or be endorsed to provide the following:
  - a. For any claims related to this Contract, Contractor's insurance coverage shall be primary, and any insurance or self-insurance maintained by City shall be in excess of Contractor's insurance and shall not contribute with it. Endorsements at least as broad as 20 01 04 13 or evidence of policy language will be required in non-ISO CGL policies.
  - b. **The City of Santa Rosa, its officers, agents and employees are to be covered as additional insureds on the CGL policy.** Additional Insured Endorsements at least as broad as 20 10 04 13 or 20 38 04 13 are required.

**C. Verification of Coverage and Certificates of Insurance:** Contractor shall furnish City with original certificates and endorsements effecting coverage required above. Certificates and endorsements shall make reference to policy numbers. All certificates and endorsements are to be received and approved by the City before work commences and must be in effect for the duration of the Contract. The City reserves the right to require complete copies of all required policies and endorsements during the duration of the Contract and for a period of three years following City's acceptance of the work.

**D. Other Insurance Provisions:**

1. No policy required by this Contract shall prohibit Contractor from waiving any right of recovery prior to loss. Contractor hereby waives such right with regard to the indemnitees.
2. All insurance coverage amounts provided by Contractor and available or applicable to this Contract are intended to apply to the full extent of the policies. Nothing contained in this Contract limits the application of such insurance coverage. Coverage for an additional insured shall NOT be limited to the insured's vicarious liability. Defense costs must be paid in addition to coverage amounts.
3. Self-insured retentions above \$10,000 must be approved by the City. At the City's option, Contractor may be required to provide financial guarantees.
4. City reserves the right to modify these insurance requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

**3-1.18 Contract Execution:** The fully executed Contract, original bonds and insurance certificates and endorsements required under the Contract shall be delivered to the City within ten calendar days of Contractor's receipt of the Notice of Award.

The Engineer will supply Contractor with up to ten sets of the Invitation for Bids and Project Plans. At least one complete set of the Invitation for Bids and Project Plans shall be kept at the construction site in good condition and made available to the Engineer at all times. Additional copies of the Invitation for Bids and Project Plans will be provided by the Engineer at Contractor's cost.

**3-1.20 Failure to Execute Contract:** Contractor's failure to deliver to the City the fully executed Contract within ten calendar days of Contractor's receipt of the Notice of Award shall be cause for the cancellation of the award and the forfeiture of the bid guaranty to the City. If the successful bidder refuses or fails to execute the Contract, the City may award the Contract to the second lowest responsible bidder. If the second lowest responsible bidder refuses or fails to execute the Contract, the City may award the Contract to the third lowest responsible bidder. The refusal or failure by the second or third lowest responsible bidder to deliver to the City the fully executed Contract within ten calendar days of receipt of the Notice of Award to the respective bidder shall likewise be cause for the cancellation of the award and the forfeiture of the bid guaranty of the respective bidder. In its discretion, the City may then re-advertise the project or construct it by day labor.

**3-1.21 Return of Bid Guarantees:** Within ten days after the opening of bids, the City will return the bid guarantees to all bidders except the three lowest responsible bidders. The bid guarantees of the three lowest responsible bidders will be retained until the Contract has been fully executed. In the event all bids are rejected, all bid guarantees will be returned to the respective bidders.

**3-1.22 Subcontractors:** The successful bidder shall furnish a list of all subcontractors as required under Sections 2-1.33C. The list shall include the name, business address, DIR registration number and the state contractor's license number of each subcontractor on the list and the names of the responsible managing employees whose names appear on the subcontractors' licenses.

## 4 SCOPE OF WORK

**4-1.05 Changes and Extra Work:** All changes to the Contract shall be made by written change order only.

All extra work shall be recorded by Contractor on a daily report signed by both the City and Contractor. The “daily reports” shall thereafter be considered the true record of extra work performed. A copy of the daily reports will be furnished to Contractor. Contractor is directed to Section 9-1.04 of this Invitation for Bids.

**4-1.05C Compensation for Altered Quantities:** Payment and compensation for altered quantities shall conform to the provisions of Section 9-1.06 of the Standard Specifications, except as modified herein.



## 5 CONTROL OF WORK

**5-1.02 Contractor's Copies of Contract Documents:** In the event of a conflict in any of the Contract Documents, the order of precedence from highest to lowest shall be as follows:

1. Special Provisions
2. City Standards
3. City Specifications
4. Standard Specifications

**5-1.05 Order of Work:** The work as shown on the Project Plans and as specified in the Invitation for Bids shall be constructed in a sequence that is satisfactory to and approved by the Engineer.

Contractor shall prepare a work schedule per Section 8-1.02 of the Standard Specifications.

With the exception of trenching, all existing street, street light base, curb and gutter, storm drain, water line, and sewer line work shall be completed before any existing street paving is removed.

Full compensation for the conformance to the requirements of this section is included in the Contract price and no additional allowance will be made to Contractor for this work.

**5-1.17 Character of Workers:** Contractor is directed to Section 5-1.17 of the Standard Specifications which states:

"If any subcontractor or person employed by the Contractor shall appear to the Engineer to be incompetent or to act in a disorderly or improper manner, he shall be discharged immediately on the request of the Engineer, and such person shall not again be employed on the work."

No additional compensation shall be granted to Contractor in the event City exercises any part of its rights under this section and any and all costs related to such exercise shall be borne by Contractor.

**5-1.20 Cooperation with Other Entities:** Attention is directed to Section 5-1.20 of the Standard Specifications.

Other construction including but not limited to utility, power, and pipe line relocation, may be in progress by other forces within and adjacent to the project area at the same time work is being performed under this Contract by Contractor.

Contractor shall cooperate with the forces performing other work, to the end that such forces may conduct their operations with as little inconvenience and delay as possible. Contractor shall grant such forces access to the project area as is reasonable and necessary to transport materials and equipment to the site of operations by the other forces.

**5-1.20B(4)(a) Offsite Staging Areas and Construction Yards:** Attention is directed to Santa Rosa City Code section 20-52.040, Temporary Use Permit.

A Temporary Use Permit shall be obtained for any offsite construction yard on private property to be used for any of the following:

- a. Stockpiling of equipment and/or materials;
- b. Staging of construction;

- c. Placement of work trailers or mobile offices;
- d. Storage of trench spoils; or
- e. Other construction related activities not specifically enumerated above.

**5-1.26 Lines and Grades:** Contractor shall carefully preserve all bench marks, grade stakes, and all other survey markers. In the case of willful or careless destruction, Contractor shall bear the cost of replacing the markers.

Contractor shall contact the Engineer directly for coordination of survey staking. Written staking requests must be submitted at least two working days in advance of the date and time stakes are needed.

**5-1.27B Examination and Audit:** Pursuant to California Government Code section 8546.7, any contract with the City involving expenditures in excess of \$10,000 shall be subject to the examination and audit of the California State Auditor for a period of three years after final payment is made to Contractor by City under this Contract. Any such examination and audit will be confined to those matters connected with the performance of this Contract.

**5-1.30A Inspection:** Contractor shall bear all costs associated with the re-inspection of any defective, rejected or unauthorized work as determined by the Engineer in Engineer's sole discretion. Such costs of re-inspection, including any costs incurred by the City for additional staff time or fees for third-party consultant inspectors, will be deducted from one or more progress payments hereunder.

**5-1.36A Property and Facility Preservation:** Attention is directed to Section 5-1.36 of the Standard Specifications.

At Contractor's sole expense, all fences, gates, landscaping, drainage ditches, sidewalks, irrigation systems, and any other improvements that are damaged, removed or destroyed because of Contractor's operations, shall be replaced in accordance with City Standards at a minimum and restored to the same or better condition. Concrete surface treatment and score marks shall match adjacent existing concrete improvements.

**5-1.36E Obstructions:** Attention is directed to Section 5-1.36 of the Standard Specifications and to the possible existence of underground gas mains, high voltage lines, telephone ducts, storm drains and water and sewers systems, the locations of which are not shown on the Project Plans. The determination of the location of these facilities and the cost of repair or replacement in the event of damage to such facilities are the sole responsibility of Contractor.

Should Contractor alter any public utility or private improvements to facilitate its operations or for its sole benefit, which alteration would not be otherwise required, Contractor shall make whatever arrangements are necessary with the owner or controlling authorities and shall bear all expenses in connection therewith. Any damages to any public utility or private improvement caused by Contractor shall be repaired by Contractor at its sole expense and to the full satisfaction of the Engineer or the controlling authority.

Any subsurface information and data furnished under any part of this Contract are not intended as a representation or warranty but are furnished for information only. It is expressly understood that the City will not be responsible for the accuracy thereof or for any deduction, interpretation or conclusion drawn therefrom by Contractor. The information is made available so that Contractor may have ready access to the same information available to the City and is not part of this Contract.

PRIOR TO STARTING ANY EXCAVATION, CONTRACTOR SHALL (AT LEAST TWO WORKING DAYS IN ADVANCE) CALL UNDERGROUND SERVICE ALERT (USA) toll free at (800) 227-2600 and provide USA with all necessary data relative to the proposed excavation. USA will accept calls and process information to participating agencies who have underground facilities in the area between the hours of 7:30 a.m. and 5:00 p.m. daily, except Saturdays, Sundays, and holidays. Between the hours of 5:00 p.m. and 7:30 a.m., calls will be recorded and then processed after 7:30 a.m. For emergency situations, after hours, and on Saturdays, Sundays and holidays, Contractor shall contact the owner of the affected facility.

Contractor shall coordinate all work with the appropriate City field personnel. When City work forces are required at the job site to perform Contract items of work, Contractor shall give a minimum of two working days advanced notification to the appropriate field office:

Water Division:	(707) 543-4200
Sewer Division:	(707) 543-4200
Street Division:	(707) 543-3880
Survey Division:	(707) 543-3834

**5-1.43 Potential Claims and Dispute Resolution:** "Claim" means a separate demand by Contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following: (A) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by the City under the Contract; (B) Payment by the City of money or damages arising from work done by, or on behalf of, Contractor pursuant to the Contract and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled; or (C) Payment of an amount that is disputed by the City.

Upon receipt of a Claim, the City shall conduct a reasonable review of the Claim and, within a period not to exceed 45 days, shall provide Contractor a written statement identifying what portion of the Claim is disputed and what portion is undisputed, provided, the parties may extend the 45 day time period by mutual agreement.

If the City needs approval from the City Council to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the Claim, and the Council does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a Claim, the City shall have up to three days following the next duly publicly noticed meeting of the City Council after the 45-day period, or extension expires to provide Contractor a written statement identifying the disputed portion and the undisputed portion.

Any payment due on an undisputed portion of the Claim shall be processed and made within 60 days after the City issues its written statement. If the City fails to issue a written statement, the Claim shall be deemed rejected in its entirety.

If a Contractor disputes the City's written response, or if the City fails to respond to a Claim within the time prescribed, the Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the City shall conduct a meet and confer conference within 30 days for settlement of the dispute. Within 10 business days following the conclusion of the meet and confer conference, if the Claim or any portion of the Claim remains in dispute, the City shall provide the Contractor a written statement identifying the portion of the Claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the Claim shall be processed and made within 60 days after the City issues its written statement. Any disputed portion of the Claim, as identified by Contractor in writing, shall be submitted to nonbinding mediation, with the City and the Contractor sharing the associated costs equally. The City and Contractor shall

mutually agree to a mediator within 10 business days after the disputed portion of the Claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator.

## 6 CONTROL OF MATERIALS

**6-2.01 Source of Supply and Quality of Materials:** All materials required to complete the work under the Contract shall be furnished by Contractor and shall be free of hazardous substances.

**6-3.01 General:** Statistical means will not be used by the City for determination of Standard Specification compliance. Whenever both operating range test results and Contract compliance requirements are specified in these special provisions, the operating range requirements shall apply to the individual test results.

**6-3.01A Material Submittals:** Upon award of the Contract by City, Contractor shall submit to the Engineer a list of all materials proposed to be used on this project and any supporting documentation and/or samples required and source of supply.

For material listed on the “Engineer’s List of Approved Items” which is located in the Sewer and Water sections only of the City Standards, the Engineer shall be provided with the name of the manufacturer and model/part number for all material proposed for this project, unless that item has been replaced as shown on the Project Plans or in the Invitation for Bids.

For all other materials used on this project, regardless of the type of work, Contractor shall provide to the Engineer the name of the manufacturer and model/part number along with supporting documentation and/or samples that will allow the Engineer to determine the material’s acceptability.

The Engineer reserves the right to reject any proposed material, whether on the City’s “Engineer’s List of Approved Items” or not. If the City obtains information indicating that a listed item is not performing satisfactorily or is found to be defective, that item will be rejected and Contractor shall submit a replacement for review at no additional cost to the City.

**6-3.01B Material Guarantee:** Before any contract is awarded, the bidder may be required to furnish samples of materials and detailed descriptions of equipment to be used in the construction of the project. The materials samples may be subjected to the tests provided for in the Standard Specifications or in this Invitation for Bids to determine their quality and fitness for the project. The successful bidder shall unconditionally guarantee project materials and workmanship for a period of one year from the date of recording of the Notice of Completion. The guarantee shall cover 100% of all costs of repairs within the one year period, including all costs of labor, materials, equipment, and incidentals. Except as may be otherwise provided in Section 3-1.05, the successful bidder shall provide a surety bond executed by a corporate surety authorized and admitted to transact a surety business in the state of California in the minimum amount of one-half of the Contract price to cover this guarantee.

**6-3.05 Quality Assurance:** California Test 216 (Relative Compaction) testing will be modified as follows: A mechanical compactor (Ploog Engineering Co. Model M 100 or equivalent) with 10-pound hammer and split compaction molds shall be used in lieu of the specified manual compaction equipment.

California Test 231 (Nuclear Gage Determination of In-Place Density) will be modified as follows: In-place density and relative compaction may be determined on the basis of individual test sites in lieu of the area concept, at the discretion of the Engineer.

### **6-4 Water Utility**

**6-4.01A Construction Water:** All water required for the performance of the work shall be provided by Contractor. Prior to obtaining water from the City's water system, Contractor shall obtain a Water Use Permit from the City of Santa Rosa Water Department and rent a hydrant or bridge meter. Contractor is responsible for the cost of all water and the cost of all deposits, permits and fees.

Contractor is prohibited from operating gate valves or fire hydrants on the City system.

The acquisition of water from the City's water system through un-metered hydrants or other facilities is a violation of City ordinance and State law. The use of water from sources other than the City's water system must be approved by the Engineer in advance of the use.

Citations and fines will be levied for violation of these and other utility regulations and deductions will be made from payments consistent with Section 7-1.02A(1) of the Standard Specifications.

**6-4.01B Water Utility Notification:** Contractors or parties requiring work of any kind by the City of Santa Rosa Water Department forces shall request such services a minimum of 48 hours in advance of the time such services are desired. Work requests which will involve the City of Santa Rosa Water Department forces for more than eight hours or an extensive number of City parts shall be requested a minimum of seven calendar days in advance.

If it is necessary to terminate or disrupt utility service to any customer, Contractor shall make the request for such work by City forces an additional 72 hours (three additional working days for a total of five working days advance notice) in advance of the time such services are desired to allow affected customers a minimum of 72 hours' notice. Contractors who fail to keep field appointments will be billed for scheduled City of Santa Rosa Water Department crew standby time which was used and the Contractor shall bear the costs incurred by the City of Santa Rosa's Water Department for re-notification of customers.

City of Santa Rosa Water Department crews work a 9/80 schedule. This schedule may prohibit shutdowns for tie-ins on alternating Fridays. After hours work or weekend work may be performed if prior authorization from the Engineer is obtained.

Other than the hours specified in this Invitation for Bids, requests by Contractor for after hours or weekend work is to be avoided whenever possible. Any overtime costs incurred by City for such work shall be borne by Contractor.

Interruption of utilities service to commercial customers shall be coordinated with the customer to minimize disruption to the enterprise to the greatest extent practicable. After notification by the Contractor of the need, the City of Santa Rosa Water Department will contact all commercial customers and inform Contractor accordingly.

**6-4.01C Water Facility Damage:** All damage caused to the City's water system shall be immediately reported to the Engineer.

Damage caused to the City's water system by Contractor's operations shall be repaired by the Contractor at Contractor's sole expense in a manner satisfactory to the City of Santa Rosa Water Department. Such repairs shall not be charged to the City or any City project. All repair work shall be witnessed and approved by the City of Santa Rosa Water Department prior to backfilling the excavation. The City will require re-excavation if backfilling occurs prior to inspection, which costs shall be borne by Contractor.

Contractor is responsible for, at its sole cost and expense, the repair and remediation of damage to property and facilities caused by any of the following circumstances:

- a. Contractor fails to make a written request for a markout or begins excavation without providing the City of Santa Rosa Water Department a reasonable opportunity to mark facilities;
- b. Contractor destroys markouts;
- c. Contractor fails to perform hand digging or probing for utilities near markouts; or
- d. Contractor fails to use reasonable caution, regardless of whether markouts are present or clear. Reasonable caution includes any efforts to avoid damaging existing facilities, such as when excavating in the vicinity of water mains.

City may, in its discretion, opt to make the repairs for which Contractor is responsible with its own forces. In such cases, the repairs will be made at Contractor's expense in accordance with the emergency repair rate schedule of the City of Santa Rosa Water Department. The City may make repairs whenever restoration of service requires extraordinary speed or special equipment. Contractor will be billed accordingly and City shall have the right and option to withhold payment hereunder, or a portion thereof, for any such costs billed but not promptly paid by Contractor.

**6-4.02 Salvage:** All valves, hydrants, and other appurtenances of the water system that are the property of City and removed by Contractor shall be delivered to the City's Municipal Services Center (55 Stony Point Road) unless Contractor has obtained specific written approval from the City of Santa Rosa Water Department to otherwise dispose of the materials.

**6-4.03 Trade Names and Alternatives:** Unless otherwise specified, material and equipment specifications that identify a particular patent, trade name or manufacturer, may be satisfied through substitute materials and equipment accepted by the City. Contractor may offer substitute materials and equipment of equal or better quality to the City. Any such offer shall be made in writing to the Engineer at least four weeks in advance of the time Contractor wishes to order the materials or equipment. Contractor shall include sufficient data which, together with any other information the Engineer may require, will enable the Engineer to determine the acceptability of the materials and equipment. When the substitute materials or equipment necessitate changes to any part of the work, the information shall include drawings and details showing all such changes and Contractor shall perform these changes as a part of any acceptance of substitute materials or equipment. The use of substituted materials and equipment will be permitted only after written acceptance of the materials and equipment by the Engineer. Such acceptance shall not relieve the Contractor from full responsibility for the sufficiency, quality and performance of the substitute materials and equipment.

The City will not, under any circumstances, acknowledge or consider any offers to accept substitute materials or equipment between the dates of public notice of advertisement and the bid opening.

## 7 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

**7-1.02A(1) Forfeitures for Health and Safety Violations:** Contractor shall comply with all applicable provisions of the Santa Rosa City Code and any failure to do so shall constitute a breach of the Contract. In the event of any violation of the Santa Rosa City Code that may impact public health and safety, including, but not limited to Chapter 17-12, "Storm Water" and Chapter 13-04, "Street Encroachments," City shall have the right to impose a charge against Contractor in an amount equal to \$500.00 per violation per day. Prior to the imposition of any charge hereunder, City shall first provide a written notice to Contractor of the violation and setting forth a reasonable period of time for Contractor to cure the violation(s). In the event Contractor fails to cure any such violation within the time provided, City shall have the right, in addition to all other rights and remedies available to City, to deduct and withhold as a permanent forfeiture by Contractor the appropriate amounts from any payment otherwise due Contractor under this Contract.

**7-1.02K(2) Wages:** Pursuant to Labor Code sections 1770 *et seq.*, each laborer or mechanic of Contractor or any subcontractor engaged in work on the project under this contract shall be paid not less than the hourly wage rate of per diem wages set forth in the prevailing wage rate schedule published by the Director of Industrial Relations, regardless of any contractual relationship which may be alleged to exist between Contractor or any subcontractor and such laborers and mechanics. A copy of the schedule of prevailing wage rates can be obtained online at [www.dir.ca.gov](http://www.dir.ca.gov) or from the Department of Transportation and Public Works at 69 Stony Circle, Santa Rosa.

Any laborer or mechanic employed to perform work on the public works project under this Contract, which work is not covered by any of the foregoing classifications, shall be paid not less than the prevailing wage rate of per diem wages specified herein for the classification which most nearly corresponds to the work to be performed by the worker.

The foregoing specified prevailing wage rates are minimum rates only, and Contractor may pay any wage rate in excess of the applicable rate.

Pursuant to Labor Code Section 1775, Contractor as a penalty to the owner shall forfeit not more than \$200.00 for each calendar day, or a portion thereof, for each worker paid less than the prevailing wage rate established by the Department of Industrial Relations for such work or craft in which such worker is employed. The difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which the worker was paid less than the prevailing wage rate shall be paid to each worker by Contractor.

Contractor shall only provide prevailing wage reports upon written request from City. When requested, these prevailing wage reports must be redacted by the Contractor prior to providing them to City.

**7-1.02K(4) Apprentices:** Contractor agrees to comply with Chapter 1, Part 7, Division 2, sections 1777.5 *et seq.* of the California Labor Code. These sections require contractors and subcontractors to employ apprentices in apprenticeable occupations in a ratio of not less than one hour of apprentice work for each five hours of journeyman work (unless an exception is granted in accordance with Section 1777.5), and the contractors and subcontractors shall not discriminate among otherwise qualified employees as apprentices solely on the ground of sex, race, religion, creed, national origin, ancestry, or color. Only apprentices as defined in Labor Code section 3077, who are in training under apprenticeship standards and who have written apprentice agreements will be employed on public works in apprenticeable occupations. The responsibility for compliance with these provisions is fixed with the prime contractor for all apprenticeable occupations.



**7-1.02K(6)(a)(1) Notice to Vendors:** Attention is directed to the current OSHA Standards. All equipment, tools and materials which are furnished and/or installed as part of this Contract shall meet or exceed the aforementioned standards in order to be considered acceptable.

**7-1.02K(6)(b) Excavation Safety:** When the digging or excavation occurs during project construction, Contractor shall:

- a. Promptly notify City in writing of the following conditions before any such conditions are disturbed:
  1. Material that the Contractor believes may be hazardous waste as defined in Health and Safety Code section 25117 that is required to be removed to a Class I, Class II or Class III disposal site in accordance with provisions of existing law;
  2. Subsurface or latent physical conditions at the site differing from those indicated in the Invitation for Bids; and
  3. Physical conditions at the site of any unusual nature, materially different from those ordinarily encountered and generally recognized as inherent in the type of work under the Contract.
- b. The City will investigate the conditions and will issue a change order under the terms of the Contract if it finds that the conditions warrant it.
- c. If a dispute arises between City and Contractor as to whether a change order is warranted, Contractor shall not be excused from any scheduled completion date provided for in the Contract but shall proceed with all work to be performed under the Contract.

**7-1.02K(6)(b)(1) Trench Excavation Safety Plans:** When the estimated cost for the excavation of any trench or trenches five feet or more in depth will exceed \$25,000.00, Contractor shall submit to the Engineer in advance of excavation a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards established by the construction safety orders, or if the trench is anticipated to be greater than 20 feet, the plan shall be prepared by a registered civil or structural engineer.

A permit to do the above described work shall be obtained from the State of California, Division of Industrial Safety. Proof of such permit shall be submitted to the Engineer prior to starting the trench work.

Full compensation for complying with the provisions of this section shall be considered as included in the Contract price and no additional allowance will be made for the work.

**7-1.02K(6)(d) Confined Space Safety:** Any confined space entry for this project, including but not limited to manhole or water storage tank entry, will require a confined space entry permit pursuant to Cal/OSHA regulations as set forth in title 8 California Code of Regulations (CCR) sections 5157 or 5158. Confined space entry shall have the meaning ascribed in title 8 CCR sections 5157 and 5158. For any confined space entry for construction operations regulated by title 8 CCR section 1502, Contractor shall comply with title 8 CCR section 5158, "Other Confined Space Operations." For any other confined space operations, Contractor shall comply with title 8 CCR section 5157, "Permit-Required Confined Spaces."

Attention is directed to the technical specifications in the Special Provisions for information regarding entry to any City maintained confined space. Pursuant to title 8 CCR section 5157, Contractor is required to obtain any available information regarding hazards and operations for any

City maintained confined spaces. The City maintained Confined Space Entry Manual is available for viewing at the City of Santa Rosa Water Department or Transportation and Public Works Department office at 69 Stony Circle, Santa Rosa.

Contractor shall immediately inform the Engineer of any previously unidentified hazards confronted or created during confined space entry.

**7-1.02L(2)(a) Patents and Royalties:** All fees, royalties, or claims for any patented invention, article, process or method that may be used upon or in any manner connected with the work under this Contract shall be paid by Contractor. Contractor and its sureties shall protect and hold harmless City and its officers, agents, and employees from any and all demands made for such fees royalties or claims brought or made by any third party, and before the final payment is made on the account of the Contract, Contractor shall, if requested by City, furnish acceptable proof of a proper release from all such claims and liabilities.

Should Contractor, its officers, agents, or employees, or any one of them be enjoined from furnishing or using any invention, article, material, or plans supplied or required to be supplied or used under the Contract, Contractor shall promptly substitute other articles, materials, or appliances in lieu thereof of equal efficiency, quality, finish, suitability, and market value, and satisfactory in all respects to the Engineer. In the event that the Engineer elects, in lieu of such substitution, to have supplied and to retain and use any such invention, article, materials, or plans as may be required to be supplied by the Contract, Contractor shall pay such royalties and secure such valid licenses as may be requisite and necessary for City, its officers, agents, and employees, or any one of them to use such invention, article, materials, or appliance without being disturbed or in any way interfered with by any proceeding in law of equity on account thereof. Should Contractor neglect or refuse to make the substitution promptly or to pay such royalties and secure such licenses as may be necessary, then in that event the Engineer shall have the right to make such substitutions or City may pay such royalties and secure such licenses and charge Contractor even though final payment under the Contract may have been made.

**7-1.02M(3) Mined Materials:** California Public Contract Code section 20676 prohibits surface mining operators which are subject to the Surface Mining and Reclamation Act of 1975 (SMARA) from selling California mined construction material to the City unless the operator is identified in a list referred as the **3098 List**. The List, which is maintained by the Department of Conservation's Office of Mine Reclamation (OMR), changes throughout the year and can be viewed at the OMR website: [http://www.consrv.ca.gov/OMR/ab\\_3098\\_list/index.htm](http://www.consrv.ca.gov/OMR/ab_3098_list/index.htm). To confirm whether or not a specific operator is on the List at any given time, Contractor shall call the OMR at (916)323-9198.

**7-1.03A Maintaining Traffic:** Attention is directed to Sections 7-1.04 of the Standard Specifications and to the following modifications thereof.

If construction is within City owned right-of-way, provisions shall be made for the safe passage of public traffic through the work site at all times consistent with the requirements of Santa Rosa City Code Chapter 13-04.

Except for projects to be performed under a minor contract, Contractor shall install and maintain project identification signs at each end of the project or as directed by the Engineer two weeks prior to any construction activity. City shall furnish the appropriate sign panels upon request from Contractor. To mount the sign panels, Contractor shall furnish and install 4" X 4" posts or mount by other appropriate methods as approved by the Engineer. These sign panels shall be returned to the City Corporation Yard at 55 Stony Point Road after completion of the project.

Two weeks prior to any construction activity, advance notice signs for road closures shall be furnished and installed by Contractor at each end of the project and shall remain in place throughout the duration of the subject closure. Details of panel construction and lettering shall be approved by the Engineer.

Contractor shall furnish, install, and maintain at its expense all barricades, signs, lights, and other devices necessary to adequately warn of any obstructions to the traveled and pedestrian way and provide flaggers as necessary for the safety of public traffic and pedestrians and to provide access to property adjacent to the work site and Contractor shall comply with the Americans with Disabilities Act of 1990 (42 U.S.C. 12101, *et seq.*) (ADA) and any regulations and guidelines issued pursuant to the ADA.

Contractor shall comply with the current edition of the California Manual of Uniform Traffic Control Devices (CA MUTCD) for all items related to traffic within the work site.

Rain and other occurrences that may cause the suspension or delay of the work shall in no way relieve Contractor of its responsibility to provide traffic control and public access through the work site as specified herein. At all times, Contractor shall keep at the work site such materials, forces and equipment as may be necessary to keep roads, streets, and driveways within the work site open to traffic and in good repair and shall expedite the passage of such traffic, using such forces and equipment as may be necessary.

Should Contractor fail, in the opinion of the Engineer, to provide all the materials, forces and equipment necessary to maintain traffic through the work site as set forth herein, City may take steps necessary to remedy any such failure, including but not limited to causing such work to be performed and/or suspending any further work under the Contract. Any such remedial cost and expense incurred by the City, plus an administrative charge of 15%, shall be immediately due and payable by Contractor and may be deducted from any amounts owed to Contractor hereunder. In the event there are insufficient sums owed to Contractor hereunder to cover the foregoing costs and charges, City shall have the right to pursue any other remedy to recover the same, including but not limited to, proceeding against any surety or bond in favor of City. City's rights under Section 7-1.02 are intended to be in addition to and not in lieu of any charges imposed by City against Contractor under Section 7-1.02A(1) above for violations of the Santa Rosa City Code.

Contractor shall be responsible for informing emergency response agencies operating within the area of the work of obstructions to either public or private roads caused by reason of Contractor's operations hereunder.

Contractor shall make provisions for the safe passage of pedestrians around the project work site at all times.

## 8 PROSECUTION AND PROGRESS

**8-1.01A Assignments:** Once awarded, this Contract shall not be transferred, assigned, or sub-contracted, except as herein expressly provided without the prior written consent of the City in the City's sole and absolute discretion. See Section 5-1.12 of the Standard Specifications.

**8-1.04B Standard Start:** Contractor shall begin work within ten calendar days after the date authorized in the Notice to Proceed and shall diligently prosecute the Contract to completion before the expiration of:

### 230 WORKING DAYS

**8-1.05 Time:** Working days will be counted beginning with the day the Contractor begins work or with the tenth day after the date authorized in the Notice to Proceed, whichever occurs first.

Unless otherwise directed by Engineer, Contractor shall not conduct any activities that generate noise earlier than 7:00 a.m. or later than 7:00 p.m.

**8-1.10 Liquidated Damages:** Contractor hereby agrees that Contractor shall pay to the City liquidated damages for each and every calendar day delay over and above the number of working days prescribed above for finishing the work in the amount shown in Section 8-1.10 of the Standard Specifications.

## 9 MEASUREMENT AND PAYMENT

**9-1.04 Force Account Work:** All work done on a force account basis shall be recorded daily on report sheets prepared by Contractor and signed by both the Engineer and Contractor. Such reports shall thereafter be considered the true record of force account work performed during the project. Such reports shall be furnished to the Engineer and a copy retained by Contractor.

All extensions of labor, equipment, and material costs shall be completed by Contractor and submitted to the Engineer within 30 days of the completion of the extra work. Completed and extended extra work reports received later than the times herein prescribed may be deemed invalid and rejected without payment at the discretion of the Engineer.

**9-1.07 Payment Adjustments For Price Index Fluctuations:** Any references to Opt Out of Payment Adjustments for Price Index Fluctuations in the Standard Specifications are deleted in their entirety.

**9-1.16 Progress Payments:** Once each month for progress pay purposes, the City will prepare a written estimate of the total amount of completed work and accepted materials purchased by Contractor but not installed. The City shall retain five percent of such estimated value of the completed work and the unused materials and pay Contractor the balance after deducting all previous payments and all sums to be retained under the provisions of the Contract. No such estimate or payment shall be required to be made when, in the judgment of the Engineer, the work is not proceeding in accordance with the provisions of the Contract or when, in the Engineer's judgment, the total value of the completed work since the last estimate is less than \$500.00. No such estimate or payment shall be construed to be an acceptance of any defective work or improper materials.

After Contract acceptance, the Engineer will prepare a written proposed final estimate of the proposed final quantities of work completed under the Contract and the value of such work and will submit such estimate to Contractor. The City shall retain five percent of such estimated value of the work done and shall pay to Contractor the balance after deducting all amounts to be retained under the provisions of the Contract.

The City may, at its option and at any time, retain out of any amounts due Contractor sums sufficient to cover any unpaid claims of City or others, provided that sworn statements of all non-City claims shall have been filed with the Director of Finance.

**9-1.16E(6) Substitution of Securities for Withheld Amounts:** Pursuant to Public Contract Code section 22300, securities may be substituted for any moneys withheld by City to ensure performance under this Contract, provided that substitution of securities provisions shall not be required in contracts in which there will be financing provided by the Farmer's Home Administration of the United States Department of Agriculture pursuant to the Consolidated Farm and Rural Development Act (7 USC sections 1921 *et seq.*), and where federal regulations or policies or both do not allow the substitution of securities. At the request and expense of Contractor, securities equivalent to the amount withheld shall be deposited with the City, or with a state or federally chartered bank as the escrow agent, which shall then pay such moneys to Contractor. The Director of Finance is authorized to execute substitution of securities agreements on behalf of the City. The City will return the securities to Contractor upon satisfactory completion of the Contract as determined by City in its sole discretion and the resolution of all outstanding claims against the securities. Contractor shall be the beneficial owner of any securities substituted for moneys withheld and shall receive any interest thereon.

Securities eligible for investment under this section shall include those listed in Government Code section 16430, bank or savings and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit or any other security mutually agreed to by Contractor and the City, provided that the substituted security is equal to or not less than five percent of the Contract amount.

Security substitutions must be submitted by Contractor and approved by City prior to the time of the first progress payment to be made under the Contract. No other method of substituting securities for retention will be accepted. The security substitution shall be done only upon execution of an agreement satisfactory to City which includes the following provisions:

- a. The amount of securities to be deposited;
- b. The terms and conditions of conversion to cash in case of the default of Contractor; and
- c. The procedure for return of securities upon completion of the Contract.

**9-1.17D Final Payment and Claims:** The processing of payment of the final estimate shall not be commenced less than 35 days after the date of recording of the Notice of Completion with the County Recorder's Office. Contractor is advised that it takes approximately ten days for a check to be issued following a request for payment.

Contractor shall submit its written statement of all claims for additional compensation under the Contract to the Engineer within 15 days after submission to Contractor of the proposed final estimate.

If Contractor does not file a claim within the 15 day period, or upon Contractor's approval, the Engineer will issue a final written estimate and the City shall pay to Contractor the entire sum due after deducting all previous payments, if any, and all amounts to be retained under the provisions of the Contract.

If Contractor files a claim within the 15 day period, the Engineer will furnish a semi-final estimate and pay the amount due under the semi-final estimate within 30 days. The semi-final estimate is conclusive as to the amount payable except as may be affected by claims and any amount retained. The Engineer shall then consider and investigate such claim and shall make such revision in the final quantities as the Engineer may find to be due and shall then make and issue a final written estimate. The City will pay the amount due, after deducting all previous payments, if any, and amounts to be retained under the provisions of the Contract.

Any and all prior partial estimates and payments shall be subject to correction in the final estimate and payment.

The final estimate shall be conclusive and binding against both parties to the Contract on all questions relating to the performance of the Contract and the amount of work done thereunder and compensation therefor, except in the case of gross error.

**9-1.17D(3) Final Determination of Claims:** Claims filed by Contractor shall be in sufficient detail to enable the Engineer to determine the basis and amount of the Claims. Contractor shall also furnish reasonable documentation to the City to support Claims. If additional information is required by the Engineer, Contractor shall provide such information to the Engineer no later than the 15<sup>th</sup> day after receipt of the written request from the Engineer. If the 15<sup>th</sup> day falls on a weekend, holiday, or day City offices are closed, then the information shall be provided to the Engineer no later than close of the next business day. Failure to submit the requested information to the Engineer within the time specified will be sufficient cause for denying the Claim.

Contractor shall keep full and complete records of the costs and additional time incurred for any work for which a claim for additional compensation is made. The Engineer or any designated Claim investigator or auditor shall have access to those records and any other records as may be

reasonably required by the Engineer to determine the facts or contentions in each Claim. Failure to grant access to such records shall be sufficient cause for denying the Claims.

**9-1.22 Arbitration:** Any references to Arbitration in the Standard Specifications are deleted in their entirety.

# **TECHNICAL SPECIFICATIONS**



## SECTION 01010

### SUMMARY OF WORK

#### PART 1 - GENERAL

##### 1.01 MANDATORY PRE-BID MEETING AND SITE VISIT

A mandatory pre-bid meeting will be held at the project site. Bidders are required to attend and participate in the meeting and visit the site.

##### 1.02 WORK COVERED BY CONTRACT DOCUMENTS

This project consists of furnishing all labor, materials, temporary bypass construction and equipment installation required for inspection of existing Aeration Basins 1-4, mixed liquor channels and settled sewage channels. Bypasses will occur during the dry weather period (April 15th through October 15th) unless flows coming into the treatment plant exceed the bypass pumping capacity flows identified in paragraph 2.02 below. Work includes, but is not limited to the major items and work as listed below:

- A. Design and install the bypass Phase A system for by-passing Aeration Basin 4 and settled sewage channels. Operate the Phase A system. Dewater and clean Aeration Basin 4 and settled sewage channels in preparation for inspection by the City. It is anticipated that the inspection will take one day.
- B. Dewater and clean isolated aeration basins 2 and 3 for inspection. Aeration Basins 2 and 3 will be isolated by the City and the timing will be such that this work will be accomplished between the Phase A and Phase B bypasses. It is anticipated that the inspection of each aeration basin will take one day.
- C. Design and install the Phase B bypass system for by-passing Aeration Basin 1 and the upstream portion of the mixed liquor channels. Operate the Phase B bypass system. Dewater and clean Aeration Basin 1 and mixed liquor channels in preparation for inspection by the City. It is anticipated that the inspection will take one day.
- D. All solids materials left in the Settled Sewage Channel, the Aeration Basins and the Mixed Liquor Channel after dewatering shall be removed and disposed of legally at a landfill by the Contractor.

##### 1.03 PAY ITEM DESCRIPTIONS

###### Bid Item No. 1 – Mobilization and Demobilization

Lump sum to mobilize forces for the installation and breakdown of Phases A and B Bypasses along with the Cleaning of the Settled Sewage Channel, Mixed Liquor Channel and Aeration Basins 1, 2, 3 and 4.

###### Bid Item No. 2 – Install and Remove Facilities for Phase A Bypass

Lump sum to provide, install and test the piping, pumps and controls required to perform Phase A Bypass for bypassing flow around the Settled Sewage Channel and Aeration Basin 4. This Lump sum items also includes the effort to breakdown and remove the piping, pumps and controls required for the Phase A Bypass at the end of the bypass.

**Bid Item No. 3 – Operate the Phase A Bypass**

Cost to operate the Phase A Bypass to allow for the removal of any sludge and grit in the bypassed Settled Sewage Channel and Aeration Basin 4 and to allow for the condition of the Settled Sewage Channel, Aeration Basin 4 and the associated air piping to be inspected. Operation shall be determined on a unit cost basis. The estimated quantity for the operation of the Phase A Bypass is for bidding purposes only. This quantity may be increased or decreased based on field conditions as evaluated by the Engineer, and on adjustment in the contract unit price or other contract items will be made.

**Bid Item No. 4 – Dewater Settled Sewage Channel and Aeration Basin No. 4**

Lump Sum to dewater the Settle Sewage Channel and Aeration Basin No. 4 when the Phase A Bypass is in operation and these facilities are out of operation.

**Bid Item No. 5 – Cleaning of the Settled Sewage Channel and Aeration Basin No. 4**

Cost for the removal and disposal of sludge and grit from the bottom of the Settled Sewage Channel and Aeration Basin No. 4. The estimated quantity of sludge and grit is for bidding purposes only. This quantity may be increased or decreased based on field conditions as evaluated by the Engineer, and on adjustment in the contract unit price or other contract items will be made.

**Bid Item No. 6 – Install and Remove Facilities for Phase B Bypass**

Lump sum to provide, install and test the piping, pumps and controls required to perform Phase B Bypass for bypassing flow around the upstream portion of the Mixed Liquor Channel and Aeration Basin 1 for the Phase B Bypass. This Lump sum items also includes the effort to breakdown and remove the piping, pumps and controls required for the Phase B Bypass at the end of the bypass.

**Bid Item No. 7 – Operate the Phase B Bypass for Upstream Portion of the Mixed Liquor Channel**

Cost to operate the Phase B Bypass for the upstream portion of the Mixed Liquor Channel required to remove any sludge and grit in the bypassed upstream portion of the Mixed Liquor Channel and Aeration Basin 1, and allow for the inspection and condition assessment of the Mixed Liquor Channel and Aeration Basin 1 and the associated air piping. Operation shall be determined on a unit cost basis. The estimated quantity for the operation of the Phase B Bypass is for bidding purposes only. This quantity may be increased or decreased based on field conditions as evaluated by the Engineer, and on adjustment in the contract unit price or other contract items will be made.

**Bid Item No. 8 – Dewater Upstream portion of Mixed Liquor Channel and Aeration Basin No. 1**

Lump Sum to dewater the upstream portion of the Mixed Liquor Channel and Aeration Basin No. 1 when the Phase B Bypass is in operation and these facilities are out of operation.

**Bid Item No. 9 – Cleaning of the upstream portion of the Mixed Liquor Channel and Aeration Basin No. 1**

Cost for the removal and disposal of sludge and grit from the bottom of the upstream portion of the Mixed Liquor Channel and Aeration Basin No. The estimated quantity of sludge and grit is for bidding purposes only. This quantity may be increased or decreased based on field conditions as evaluated by the Engineer, and on adjustment in the contract unit price or other contract items will be made.

**Bid Item No. 10 – Dewater the Downstream portion of the Mixed Liquor Channel**

Cost for dewatering the downstream portion of the Mixed Liquor Channel for cleaning. The estimated time for dewatering is for bidding purposes only. This quantity may be increased or decreased based on field conditions as evaluated by the Engineer, and on adjustment in the contract unit price or other contract items will be made.

**Bid Item No. 11 – Cleaning of the Downstream portion of the Mixed Liquor Channel**

Cost for removal and disposal of sludge and grit from the bottom of the downstream portion of the Mixed Liquor Channel. The estimated quantity of sludge and grit is for bidding purposes only. This quantity may be increased or decreased based on field conditions as evaluated by the Engineer, and on adjustment in the contract unit price or other contract items will be made.

**Bid Item No. 12 – Dewater Aeration Basin No. 2**

Lump Sum to dewater Aeration Basin No. 2.

**Bid Item No. 13 –Cleaning of Aeration Basin No. 2**

Cost for the removal and disposal of sludge and grit from the bottom of Aeration Basin No. 2. The estimated quantity of sludge and grit is for bidding purposes only. This quantity may be increased or decreased based on field conditions as evaluated by the Engineer, and on adjustment in the contract unit price or other contract items will be made.

**Bid Item No. 14 – Dewater Aeration Basin No. 3**

Lump Sum to dewater Aeration Basin No. 3.

**Bid Item No. 15 – Cleaning of Aeration Basin No. 3**

Cost for the removal and disposal of sludge and grit from the bottom of Aeration Basin No. 3. The estimated quantity of sludge and grit is for bidding purposes only. This quantity may be increased or decreased based on field conditions as evaluated by the Engineer, and on adjustment in the contract unit price or other contract items will be made.

**Bid Item No. 16 – Pressure Washing Wall in the Dewatered Facilities**

Cost to pressure wash portions of the walls in the dewatered channels and aeration basins. The estimated quantity of wall area to be washed is for bidding purposes only. This quantity may be increased or decreased based on field conditions as evaluated by the Engineer, and on adjustment in the contract unit price or other contract items will be made.

## **PART 2 - WORK SEQUENCE**

### **2.01 GENERAL**

- A. Construction under this Contract involves work at existing operating wastewater treatment facilities which must continue to meet requirements of State and Federal regulating agencies and must continue to provide waste treatment in compliance with requirements of the State Water Resources Control Board. The Contractor will have to schedule construction and operations in a manner that will not interfere with compliance with the regulatory requirements as coordinated with the Construction Manager. Discharge of untreated or partially treated wastewaters will not be permitted. The portions of the existing treatment plant not covered under this Contract must remain in continuous and full operation during construction. The Work under this Contract shall be conducted in a manner which will minimize shutdowns, roadway closures, or traffic obstructions caused by the construction. Shutdowns causing damage to adjacent public and private property shall not be

permitted and any damage resulting shall be the sole responsibility of the Contractor.

- B. Bypasses of the Settled Sewage Channel and Mixed Liquor Channel may only occur during dry weather flow months between April 15<sup>th</sup> and October 15<sup>th</sup> of any year.
- C. The Contractor shall be responsible for any damage caused by its operations. Any required repairs necessitated by damage caused by the Contractor shall be completed by the Contractor to the Engineer/s satisfaction at no additional cost to the City.
- D. The Contractor is to employ personnel knowledgeable and experienced in wastewater treatment plant construction including knowledge of treatment processes and facility operations. Examples of required knowledge includes, but are not limited to, wastewater treatment terminology, functions of treatment plant facilities and actions that would adversely impact wastewater treatment.
- E. Work Sequence and Constraints described hereinafter are critical events in work sequence which are presented to underscore the importance of proper sequencing, scheduling and coordination so that it is integrated with the required wastewater treatment plant operation. The work sequence and constraints presented do not describe all items affecting the completion of the work, but are intended to describe important events necessary to minimize disruption of the existing facilities and to ensure compliance with the Owner's permit requirements.
- F. The existing facility where Contractor's work is to be done will be occupied by the Owner throughout the construction period. The Contractor shall provide all necessary access to the Owner's personnel as required to safely and efficiently operate/maintain the facilities. At all times during the Contract duration, the Contractor is to provide the Owner's personnel and representatives safe and immediate access to all process control equipment. Additionally, the Contractor is to provide for unimpeded access for all delivery vehicles transporting materials, chemicals and equipment to the facility for the Owner's operations.
- G. The City may have other Contractor on site working on other projects. The Contractor shall coordinate with these other contractors and share the space and roads as required to allow for safe and efficient work at the facility.
- H. The Work shall be bid, scheduled and constructed in such a manner as to result in the least possible disruption to the operations and staff of the existing facility. Modifications that affect or may affect the operation of the facility shall not be made without first obtaining written permission from the Owner. Disruptions or interference to one portion of the facility will likely affect other facility processes since they are interrelated and dependent on one another. The Contractor must fully understand any and all possible reductions on facility production and/or water quality as they plan the Work.
- I. The Contractor shall note that not all valves and gates that may be used to isolate lines and facilities will completely seal. The Contractor shall allow for leakage in planning its work and may, with the Owner's concurrence, test certain valves and gates before work involving isolation is begun. The Contractor shall provide adequate temporary pumping and piping facilities to properly clear the work areas as necessary of water, chemicals and/or sludge. The Contractor shall clean the work areas as required to perform the work. Shutdown and isolation of existing facilities by closing existing valves/gates and operating electrical control panels, or

as specifically provided for in the Contract Documents, will be performed by Owner personnel.

- J. Prior to any shutdown or flow diversion all materials, fittings, supports, equipment and tools shall be on the site and all necessary skilled labor scheduled prior to starting any connection work. The Contractor shall provide staff following shutdowns to monitor and ensure the proper operation of systems.
- K. The Contractor is advised that any shutdown of facilities will place a considerable burden on the Owner's staff before, during and after the shutdown. Prior to any planned shutdown the Contractor shall provide notice to the City of the planned shutdown five working days prior to the shutdown. If through inadequate planning, lack of preparedness, faulty or inefficient workmanship or other causes controllable by the Contractor, delays, excessive time, or additional shutdowns are required that cause the Owner to incur extra cost, said extra cost will be assessed against the Contractor.
- L. The Contractor shall note that only certain structures, tie-ins and constraints are addressed in this Section. All work, whether or not addressed here, shall be governed by applicable parts of this Section, and schedules and procedures further submitted for approval.

## 2.02 PROPOSED WORK SEQUENCE ACTIVITIES

### BYPASS PHASE A SYSTEM FOR INSPECTION OF AERATION BASIN 4 AND THE SETTLED SEWAGE CHANNEL:

- A. Pumping capacity of 24 MGD shall be provided for pumping primary clarifier effluent to Aeration Basins 1, 2, and 3 by variable speed pumps. A standby pump shall be installed and ready for operation if the largest of the pumping units for the 24 MGD capacity is out of service. Shown on the drawings as a possible scenario are four trailer mounted centrifugal pumps installed at the Primary Effluent Channel to pump the Primary Effluent. In this scenario each pump will have a capacity of 8 MGD and will be variable speed. Three pumps will be duty pumps and one pump would be the standby pump.
- B. Primary effluent from the Primary Sedimentation Basins shall be pumped to Aeration Basins 1, 2, and 3 through HDPE piping installed on the ground surface to head end of Aeration Basins thus bypassing the Settled Sewage Channel.
- C. Road ramps shall be placed at road crossings to facilitate traffic during the bypass period.
- D. Aeration Basin 4 will be isolated by the Owner during this phase of work. The Contractor shall dewater and clean the Settled Sewage Channel and Aeration Basin 4 for inspection by the Owner during this phase of work.
- E. Liquid contents of the Settled Sewage Channel shall be pumped to Aeration Basins 1, 2, and 3. Mixed liquor of Aeration Basin 4 shall be pumped to Settled Sewage Channel using drain pumps. Any solid contents remaining in the Settled Sewage Channel and Aeration basin 4 after dewatering shall be removed and hauled to landfill after the solids are dewatered to at least 50% solids. It is anticipated that 1.5 ft and 0.5 ft of settled grit/debris will be in the Settled Sewage Channel and Aerations basins, respectively after dewatering. This material shall be removed and disposed by the Contractor. See Attachment A for photos of material

in the bottom of the drained Settled Sewage Channel when it was drained previously.

- F. Upon completion of the Owners inspection of the Settled Sewage Channel and Aeration Basin 4 the Settled Sewage Channel will be put back into service and the Phase A bypass system will be removed by the Contractor.
- G. All piping and valves used for the bypass system for Phase A will become the property of the City at the end of the contract and shall be stored securely in a place that City determines. Piping and valves used for Phase A bypass system can be reused for Phase B bypass system.

#### SHUTDOWN OF AERATION BASINS 2 AND 3 FOR THEIR INSPECTIONS:

- A. After the Phase A bypass work is completed and prior to the Phase B bypass being installed the Owner will isolate Aeration Basins 2 and 3 separately and one at a time for dewatering and cleaning by the Contractor for inspection by the Owner.
- B. At the request of the Contractor the City will pump the Mixed liquor of Aeration Basins 2 and 3 to Settled Sewage Channel using the City's existing drain pumps. Any solid contents remaining in the Aeration basins after dewatering shall be removed and hauled to landfill after the solids are dewatered to at least 50% solids. It is anticipated that approximately 0.5 ft of settled grit/debris will be left in the Aeration basins after dewatering which will need to be removed and disposed.
- C. After each aeration basin is inspected (Aeration Basins 2 and 3) the aeration basin that was out of service will be put back into service by the Owner.

#### BYPASS PHASE B SYSTEM FOR INSPECTION OF AERATION BASIN 1 AND MIXED LIQUOR CHANNEL:

- A. Pumping capacity of 24 MGD shall be provided for pumping mixed liquor to the Mixed Liquor Channel downstream of the Contractor installed stop gate with variable speed pumps from the three aeration basins in service during the bypass (Aeration Basins 2, 3 and 4). A standby pump shall be installed and ready for operation for each aeration basin to replace the pumping capacity of the largest pump for an aeration basin if the pump were to be out of service. Shown on the drawings as a possible scenario are six trailer mounted centrifugal pumps to pump aeration basin effluent to the downstream portion of Mixed Liquor Channel. In this scenario each pump would have a capacity of 8 MGD and will be variable speed. One duty pump and one standby pump for each Aeration Basin.
- B. Mixed liquor from these aeration basins will be pumped through HDPE piping installed on the ground surface to the Mixed Liquor Channel downstream of the Contractor's installed stop gate allowing mixed liquor to be distributed to Secondary Clarifiers 1, 2, 3 and 4
- C. The City has the stop gate for installation in the Mixed Liquor Channel. The Contractor shall install the stop gate in the Mixed Liquor Channel where indicated on the Contract Drawings prior to starting the dewatering portion of the Phase B bypass. The stop gate may not seal completely. The Contractor shall address any leakage with sandbags or other means to control the leakage and provide sump pumps if necessary.
- D. Aeration Basin 1 will be isolated by the Owner during this phase of work. The Contractor shall dewater Aeration Basin 1 and the Mixed Liquor Channel upstream of

the installed stop gate by pumping the liquid into the Settled Sewage Channel. Any solids remaining in Aeration Basin 1 and the dewatered portion of the Mixed Liquor channel shall be removed and the Basin and the Channel cleaned by the Contractor for inspection by the Owner during this phase of work.

- E. Any solids remaining in Aeration Basin 1 and or the Mixed Liquor Channel after dewatering shall be hauled to landfill after it is dewatered to at least 50% solids. It is anticipated that there will be approximately 0.5 ft of settled grit/debris left in the Mixed Liquor Channel and the Aeration Basin after dewatering.
- F. Once Aeration Basin 1 and the upstream portion of the Mixed Liquor Channel have been cleaned by the Contractor and inspected by the City, the Contractor shall inform the City that they are ready to dewater and clean the downstream portion of the Mixed Liquor Channel. The City will schedule a complete shutdown of the Secondary Process to allow for the downstream portion of the Mixed Liquor Channel to be dewatered. The liquid in the downstream portion of the Mixed Liquor Channel can be pumped over the stop gate into the dewatered portion of the upstream portion of the Mixed Liquor Channel. The maximum length of time the City can accommodate a complete shutdown of the Secondary Process is 12 hours. If the Contractor cannot complete the dewatering and cleaning of the downstream portion during this 12 hour period, subsequent shutdowns to allow for complete cleaning of the downstream portion of the Mixed Liquor Channel could be coordinated and scheduled with the City. A minimum of one day between shutdowns is required for the City to treat stored flow from the previous shutdown. Upon completion of the cleaning of the downstream portion of the Mixed Liquor Channel the City will arrange for the downstream portion of the Mixed Liquor Channel to be inspected.
- G. Any solids removed from the downstream portion of the Mixed Liquor Channel shall be hauled to landfill after the solids are dewatered to at least 50% solids.
- H. Upon completion of the inspection of the Mixed Liquor Channel and Aeration Basin 1 by the Owner the Mixed Liquor Channel will be put back into service and the Phase B bypass system will be removed by the Contractor.
- H. All piping and valves used for the Phase B bypass system will become the property of the City at the completion of the contract and shall be stored securely in a place that City determines.

#### 2.03 CONTRACTOR'S USE OF SITE AND OWNER'S CONTINUED OPERATIONS

- A. The Contractor shall confine its use of the site for work and storage to the Work Area Limits shown on the Contract Drawings. The Contractor's use of adjacent lands and roads for access to move onto and off of the site and for daily access of workers, material and equipment shall be arranged and scheduled to minimize interference with the Owner's continued operations.
- B. The Owner intends to continue operation of portions of its existing facility during all or most of the construction period. The Contractor shall plan and schedule its work to minimize impacting the Owner's continued operations and shall, at all times, maintain safe access for the Owner's operating personnel and equipment.
- C. The Contractor shall be responsible for maintaining safe emergency exiting for the Owner's and Contractor's personnel in all areas affected by the Contractor's work.

- D. If operation of the Owner's existing facility is adversely affected by the Contractor's work, the Owner may suffer a financial loss and may make a claim against the Contractor to recovery its loss.

## 2.04 DOCUMENTING EXISTING CONDITIONS

- A. Prior to commencing the Work, tour the site with the Owner and the Engineer. Examine and document photographically and in writing the condition of existing buildings, equipment, improvements, and landscape planting on or adjacent to the site. This record shall serve as a basis for determination of subsequent damage due to the Contractor's operations and shall be signed by all parties making the tour. Record existing conditions by making a minimum of 100 digital color photographs and a video showing all areas that may be affected during the Work. Provide two (2) 4x6 prints of each exposure and a CD with digital photos. Provide video on a VCR tape or DVD.

## 2.05 REGULATORY REQUIREMENTS

- A. The codes and regulations *together with local amendments when applicable* adopted by the State and other governmental authorities having jurisdiction shall establish minimum requirements for this project. This project shall comply with the following:
  1. ***International Building Code (IBC) 20xx Edition and California Building Code (CBC) 2022 Edition***
  2. *International Fire Code (IFC) 20xx edition*
  3. *International Mechanical Code (IMC) 20xx edition*
  4. *Uniform Plumbing Code (UPC) 20xx edition*
  5. *National Electric Code (NEC) 20xx edition*
  6. *California Fire Code (CFC) 20xx edition*
  7. *California Mechanical Code (CMC) 20xx edition*
  8. *California Plumbing Code (CPC) 20xx edition*
  9. *California Electric Code (CEC) 20xx edition*
  10. *California Energy Code 20xx edition*
  11. *California Green Building Standard Code (20xx)*
  12. *California Code of Regulations*
    - a. *Title 8, Industrial Relations: Especially CAL-OSHA and Elevator Safety Orders.*
    - b. *Title 17, Public Health: Sections applicable to Food Service Facilities.*
    - c. *Title 19, Public Safety: Portions of the work regulated by the State Fire Marshal.*
    - d. *Title 24, Building Standards: Regulations applicable to Essential Service Facilities, Energy Conservation, Public Assembly and Handicapped Access.*
- B. The latest edition of the requirements in effect at the date of submission of bids shall apply.
- C. Paragraphs addressing Pre-Engineered Systems and Performance Specifications in other Sections cover the Contractor's responsibility to comply with code requirements when (1) performance specifications are used to describe all or portions of Work or items and (2) when pre-engineered (contractor designed) systems are specified.
- D. In cases where the Contract Documents are more restrictive than applicable codes, the Contractor shall comply with the Contract Documents.



## 2.06 REFERENCE STANDARDS

- A. When these specifications state that Work or tests shall conform to specific provisions in a referenced standard, specification, code, recommendation or manual published by an association, organization, society or agency the referenced provisions, as they apply to the Work of the Contractor only shall be considered a part of these specifications as fully as if included in total. When these specifications or applicable codes contain higher or more restrictive requirements than those contained in reference standards these specifications or applicable codes shall govern.
- B. The latest edition of a referenced standard published at the time of submission of bids shall apply unless a specific date for the referenced standard is cited in these specifications.
- C. General provisions in referenced standards, specifications, manuals or codes shall not change the specific duties and responsibilities between any of the parties involved in this work from those described in the General Conditions. Provisions in referenced standards with regard to measurement and payment shall not apply to this Work unless specifically cited.

## 2.07 SPECIFICATION LANGUAGE AND STYLE

- A. Many parts of the Specifications as well as notes on the Drawings are written in the active voice and are addressed to the Contractor.
  - 1. When words or phrases requiring an action or performance of a task are used, it means that the Contractor shall provide the action or perform the task. For example: provide, perform, install, furnish, erect, connect, test, operate, adjust or similar words mean that the Contractor shall perform the action or task referred to.
  - 2. When words or phrases requiring selection, acceptance, approval, review, direction, designation or similar actions are referred to, it means that such actions are the Owner's or the Engineer's prerogative and that the Contractor must obtain such action before proceeding.
- B. Requirements in the Specifications and Drawings apply to all work of a similar type, kind or class even though the word "all" or "typical" may not be stated.

## 2.08 DEFINITIONS

- A. The following terms, when used in the Contract Documents, shall have the meanings listed:

ACCEPTABLE	"acceptable to the Engineer"
PERFORM	"perform all operations required to complete the work referred to in accordance with the intent of the Contract Documents"
PROVIDE	"furnish and install the work referred to including proper anchorage, connection to required utilities or other work, testing, adjustment and startup ready to put in service and perform the intended function"
REQUIRED	"required by the Contract Documents or required to complete the Work and produce the intended results"
SATISFACTORY	"acceptable to the Engineer"
SHOWN	"as indicated on the Drawings"

SITE	"geographical location of the Project and land within the work area shown on the contract drawings and within which the Work will be installed or built"
SPECIFIED	"as written in the Contract Documents including the Specifications and the Drawings"
SUBMIT	"submit to the Engineer"

## 2.09 ABBREVIATIONS

- A. The following acronyms or abbreviations are used in these specifications for the organizations listed.

<u>Abbreviation</u>	<u>Stands for</u>
AASHTO	American Association of State Highway and Transportation Officials
AAMA	Architectural Aluminum Manufacturers Association
ABMA	American Boiler Manufacturers Association
ACI	American Concrete Institute
ADC	Air Diffusion Council
AGA	American Gas Association
AGMA	American Gear Manufacturers Association
AI	Asphalt Institute
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Moving and Conditioning Association
ANSI	American National Standard Institute (formerly United States of America Standards Institute)
APA	American Plywood Association
API	American Petroleum Institute
APWA	American Public Works Association
AREA	American Railway Engineering Association
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	ASTM International
AWPA	American Wood-Preservers' Association
AWS	American Welding Society
AWWA	American Water Works Association
CAGI	Compressed Air and Gas Institute
CAL/OSHA	State of California Department of Industrial Relations, Division of Industrial Safety
CAL TRANS	California Department of Transportation
CBC	California Building Code
CBM	Certified Ballast Manufacturers
CBR	California Bearing Ratio
CEC	California Energy Code
CI	Chlorine Institute
CISPI	Cast Iron Soil Pipe Institute
CMAA	Crane Manufacturers Association of America
CPSC	Consumer Products Safety Commission
CRA	California Redwood Association
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standards for the U.S. Department of Commerce

<u>Abbreviation</u>	<u>Stands for</u>
CTI	Cooling Tower Institute
DFPA	Douglas Fir Plywood Association
EIA	Electronic Industries Association
EPA	U.S. Environmental Protection Agency
ETL	Electronic Testing Laboratory
FM	Factory Mutual Insurance Company
FPS	Fluid Power Society
FS	Federal Specifications
GO 95	General Order No. 95, California Public Utilities Commission Rules for Overhead Electric Line Construction
GO 128	General Order No. 128, California Public Utilities Commission Rules for Underground Electrical Construction
HI	Hydraulic Institute
HMI	Hoist Manufacturers Institute
IAPMO	International Association of Plumbing and Mechanical Officials
IBC	International Building Code
ICBO	International Conference of Building Officials
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
IFC	International Fire Code
IGCC	Insulating Glass Certification Council
IMC	International Mechanical Code
IPCE	International Power Cable Engineers Association
ISA	Instrument Society of America
NAAMM	National Association of Architectural Metal Manufacturers
NBS	National Bureau of Standards
NCPI	National Clay Pipe Institute
NEC	National Electric Code
NEMA	National Electrical Manufacturers Association
NETA	International Electrical Testing Association
NFPA	National Fire Protection Association
NGVD	National Geodetic Vertical Datum
NSF	National Sanitation Foundation
NWMA	National Woodwork Manufacturers Association
OSHA	Occupational Safety and Health Act
PCA	Portland Cement Association
REA	Rural Electrification Administration
SAMA	Scientific Apparatus Makers Association
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
SSPC	Structural Steel Painting Council
TCA	Tile Council of America
UBC	Uniform Building Code
UFC	Uniform Fire Code
UMC	Uniform Mechanical Code
UPC	Uniform Plumbing Code
USDC	U.S. Department of Commerce
UL	Underwriters Laboratories
WCLIB	West Coast Lumber Inspection Bureau
WQCB	Water Quality Control Board (Regional)
WRCB	Water Resources Control Board

END OF SECTION

**Attachment A**  
**Photos of Dewatered Settled Sewage Channel**







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## SECTION 01517

### BYPASS PUMPING AND PIPING

#### PART 3 - GENERAL

##### 3.01 SUMMARY

- A. The functions of the operating wastewater treatment facility shall not be compromised during the Work except as specified herein. Contractor shall plan and prosecute the Work such that operation of the facility is not interrupted.
- B. Pumping disruptions could potentially result in the spillage or discharge of municipal wastewater. Civil penalties may be imposed for spillage of wastewater. A person who unlawfully pollutes water as specified is subject to criminal prosecution.
- C. Bypassing of wastewater to surface waters or drainage courses is prohibited during construction. Penalties imposed on the City as a result of any bypass caused by Contractor, his employees or subcontractors, and legal fees and other expenses to the City resulting directly or indirectly from the bypass shall be borne in full by Contractor.
- D. Contractor is responsible to plan, schedule, and sequence his construction activities to ensure that pumping of wastewater at all times is uninterrupted.
- E. Contractor shall be responsible for controlling all leakage resulting from or integral to making all bypass piping connections, isolated structures for inspection and all devices required to control, stop, divert, or dispose of any leakage.

##### 3.02 GENERAL REQUIREMENTS

- A. Contractor shall be responsible for supplying complete bypass pumping systems as required to isolate the Aeration Basins, the Settled Sewer Channel and the Mixed Liquor Channel as indicated on the drawings. Only one Aeration Basin may be isolated and taken out of service at the time so that three Aeration Basins are in service all times. Bypass pumping systems shall include but not limited to pumps, piping, valves, road ramps, flow meter, instrumentations and controls and all other equipment and appurtenances required for the bypass pumping system in accordance with the requirements of this Section, Section 01010 and as indicated on the Drawings.
- B. Provide all necessary labor, tools, equipment, material, and supervision to provide bypass pumping and flow control.
- C. Conduct coordination meeting with the City and Engineer prior to setting up each bypass pumping system. Coordinate the placement of the bypass piping and pumping and instrumentations with the City and Engineer.
- D. Preliminary bypass systems indicated on the drawings are for information only to indicate one possible means of bypass the flow. The means and methods of accomplishing and maintaining the bypass pumping and associated facilities shall be the sole responsibility of the Contractor.
- E. Except as otherwise specified or authorized in writing, no interruption of wastewater flow shall be permitted throughout the duration of bypass systems

installation, operation and removal. Contractor shall be responsible for all wastewater overflows during installation, operation, and removal of the bypass systems.

- F. Take precautions to prevent any potential spillage of wastewater on project site.
- G. Plant roadways shall remain open to traffic during bypass operations. The use of road ramps or elevated piping that allows for a minimum of 12 foot of clearance above the road shall be utilized.
- H. Bypass Pumping Systems Operations:
  - 1. Bypass system operation is limited to the dry season (April 15th through October 15th) unless the flows entering the treatment plant exceed the bypass pumping capacity flows identified in Specification Section 01010 paragraph 2.01. If the incoming plant flows exceed the bypass pumping capacity flows then the bypassing will be delayed until the treatment plant incoming flows are below the identified bypass pumping capacity flows. Bypassing is limited to the dry season unless approved in writing by the City and Engineer.
  - 2. Operation of a bypass system shall be continuous (24 hours per day and 7 days per week) when the Mixed Liquor Channel or Settled Sewage Channel are being bypassed.
  - 3. The Contractor shall provide the City with remote monitoring of the alarms and flow rates associated with the bypass systems to the plant SCADA system when bypassing is taking place.

### 3.03 SUBMITTALS

- A. The Contractor shall have completed a minimum of one (1) successful raw sewage bypass pumping project of similar scope with 20 mgd or greater pumping capacity for Owners located within the United States within the last five (5) years. Submit the following for a minimum of one project:
  - 1. Project Name.
  - 2. Bypass Flow Rate and Service.
  - 3. Project Location.
  - 4. Project Owner.
- B. Name, title, contact information of Owner's Representative.
- C. Submit resume of Bypass Pumping Contractor's project manager, project engineer, HDPE fusion technician, and operation and maintenance crew.
- D. Submit a detailed bypass plan for each bypass pumping system and location. Bypass plan shall include the following:
  - 1. Pumping System:
    - a. Emergency contact information for the Contractor's personnel.
    - b. Number, type, capacities and sizes of pumps, weight of equipment, standby equipment, and fuel requirements.
    - c. Power requirements and driver system (diesel engine or electric motor).
    - d. Design calculations of the system and selected equipment, including flow, TDH with static head including all friction and minor losses, NPSHr, and NPSHa. Design calculations shall be stamped and signed by a Civil Engineer registered in the State of California.
    - e. Pump curves for each pump model furnished.
    - f. Pump curves shall show operating conditions at minimum, average, and maximum flows.

- g. A plan for testing the pumps and piping prior to shutting down the existing flow distribution system. The testing shall demonstrate the pumps ability to pump the flow and the flow rate the pumps will accommodate.
- h. Cut sheets and operating manual for bypass pumping equipment.
- i. Plans for access to bypass pumping locations. Show access for refueling.
- j. Detailed plans of a backup system:  
For electrically-driven bypass pumps, indicate standby power generator size and location.
- k. Noise rating of pumping equipment.
- l. Means and methods of installing, operating, monitoring, and maintaining the temporary bypass pumping.
- m. Preventative maintenance schedule for all equipment.
- 2. Piping System:
  - a. Detailed layout plan showing:
    - 1) Pipe sizes, materials, and routing.
    - 2) Location of valves, fittings, pipe supports, and instruments.
  - b. Details of pump suction piping, pump discharge manifolds, and discharge piping that include details of pump discharge manifolds, valves, and other piping details.
  - c. Product data for pipe, valves, and fittings.
- 3. Electrical Power Supply:
  - a. Product data for electrical power supply panels, temporary power cables, and other electrical equipment.
  - b. Wiring diagrams showing connection to Contractor supplied portable generators.
  - c. Starter type for each pump motor.
- 4. Control System:
  - a. Schematic drawings and written description of the control system and operating sequence.
  - b. Wiring diagrams showing connection of level, alarms, and pump control to plant SCADA system.
  - c. Product data for level element and control system.
  - d. Product data for flow meters.
- 5. Schedule:
  - a. Show duration of temporary bypass pumping including milestones for installation, maintenance, and removal of equipment and accessories.
- 6. Staffing plan.
- 7. Operating permits from jurisdictional air quality agency for each engine.

## PART 4 - PRODUCTS

### 4.01 BYPASS SYSTEM

- A. Provide bypass systems for the following conditions that are capable of handling the estimated flow range specified. The actual design of the bypass system shall be prepared by the Contractor and shall be submitted to the Engineer. Perform 3-day trial period for each bypass system as specified herein to demonstrate compliance with design requirements before dewatering and cleaning of the bypassed structures may start.

- Phase A (Bypassing Aeration Basin 4 and Settled Sewage Channel):

<b>Bypass Pumping Schedule</b>	<b>Phase A</b>
<b>General Characteristics</b>	
Purpose	Isolating Aeration Basin 4 and settled sewage channel for dewatering and cleaning in preparation for Engineer's inspection.
Service	Raw sewage
<b>Bypass System Characteristics</b>	
Average Flow (mgd)	24.0
Minimum Flow (mgd)	15.0
Pipe Routing Recommendation	Refer to Drawings.
<b>Suction Location</b>	
Location	Multiple Locations at Primary Effluent Channel as shown on Drawings.
Pump Grade Elevation (ft)	Contractor to field verify.
Suction Pipes Invert Elevation (ft)	Contractor to field determine.
<b>Discharge Location</b>	
Location	Aeration Basins 1 – 3 as shown on Drawings.

- Bypassing Aeration Basin 2:

<b>Bypass Pumping Schedule</b>	
<b>General Characteristics</b>	
Purpose	Dewatering and cleaning Aeration Basin 2 for Engineer's inspection.
Service	Raw sewage and mixed liquor
<b>Bypass System Characteristics</b>	
Aeration Basin 2 will be isolated by the City after Bypass System A work is completed. Aeration Basin 2 shall be dewatered and cleaned by the Contractor in preparation for inspection of the Basin by the Engineer.	

- Bypassing Aeration Basin 3:

<b>Bypass Pumping Schedule</b>	
<b>General Characteristics</b>	
Purpose	Dewatering and cleaning Aeration Basin 3 for Engineer's inspection.
Service	Raw sewage and mixed liquor
<b>Bypass System Characteristics</b>	
Aeration Basin 3 will be isolated by the City after Bypass System A work is completed. Aeration Basin 3 shall be dewatered and cleaned by the Contractor in preparation for inspection of the Basin by the Engineer.	

4. Phase B (Bypassing Aeration Basin 1 and Mixed Liquor Channel):

<b>Bypass Pumping Schedule</b>	<b>Phase B</b>
<b>General Characteristics</b>	
Purpose	Isolation of Aeration Basin 1 and the upstream portion of the Mixed Liquor Channel for dewatering and cleaning in preparation for Engineer's inspection.
Service	Mixed liquor
<b>Bypass System Characteristics</b>	
Average Flow (mgd)	24.0
Minimum Flow (mgd)	15.0
Pipe Routing Recommendation	Refer to Drawings
<b>Suction Location</b>	
Location	Discharge ends of Aeration Basins 1 – 3. Refer to Drawings. Covers shall be installed over aeration tank weirs to prevent flow from flowing into Mixed Liquor Channel on high water level in Aeration Tanks.
Pump Grade Elevation (ft)	Contractor to field verify.
Suction Pipes Invert Elevation (ft)	Contractor to field determine.
<b>Discharge Location</b>	
Location	The downstream portion of the Mixed Liquor Channel which is downstream of the installed stop gage for flow to Secondary Clarifiers A, B, C or D. Coordinate with the Owner to determine the operating secondary clarifiers.

- a. Alarms: Provide high level and Low level floats and auto dialer for the bypass systems with telemetry to the Owner's Representative for monitoring at pump suction locations. Alarms are for notification to the Owner, the Contractor shall handle any conditions that triggered an alarm and remedy the situation that caused the alarm.
- b. Refer to Drawings for preliminary recommended bypass pumping plan. Not all pumps, piping, and other requirements are shown. Bypass pipe routing shall minimize the impact to traffic within the plant and minimize impact on treatment plant operations. Coordinate with Owner and Engineer during construction to determine final routing of bypass piping. Final bypass pipe routing shall be acceptable to the Owner and Engineer.
- c. Bypass pumping period shall be in operation to complete the work required in the structures being bypassed. For each bypass system, include a 3-day proving period to demonstrate proper operation of the bypass system prior to commencing with any work activities in the structures being bypassed. The structures being bypassed shall be able to return to service during this 3-day proving period by removing pipe plugs or bulkheads as directed by the Owner should the bypass system prove unreliable or is not working properly.
- d. Design bypass system including pumps, piping, and appurtenances. Account for static and dynamic losses in the piping system for proper selection of bypass system equipment. Prior to design, field verify all

elevations and dimensions of existing structures and facilities including water surface levels.

- e. Provide onsite sufficient equipment and materials to ensure continuous and successful operation of the bypass system:
  - 1) Redundant pumps shall be plumbed, fueled, wired and ready for operation at all times.
  - 2) Maintain onsite a sufficient number of valves, tees, elbows, connections, tools, pipe plugs, piping, and other parts or system hardware to ensure immediate repair or modification of any part of the bypass system if necessary.

#### 4.02 BYPASS PUMPS

- A. Temporary Pumps and Accessories: Pumps shall have adequate capacity and size to handle the range of wastewater flows from minimum flow to peak flow.
- B. Number:
  - 1. Phase A:
    - a. Provide a minimum of four (4) pumps.
    - b. Provide at least three (3) duty pumps capable of automatic lead/lag operation to meet the required minimum to maximum flow range.
    - c. Provide at least one (1) redundant standby pump for the bypass pumping system. Standby pump(s) shall be installed and capable of being placed immediately into service upon failure of any of the duty pumps.
  - 2. Phase B:
    - a. Provide a minimum of six (6) pumps.
    - b. Provide at least three (3) duty pumps one located at each aeration basin 1 through 3 capable of automatic lead/lag operation to meet the required minimum to maximum flow range.
    - c. Provide at least one (1) redundant standby pump at each of Aeration Basins 1 through 3. Standby pump(s) shall be installed and capable of being placed immediately into service upon failure of any of the duty pumps.
- C. Self-priming pumps are acceptable for use:
  - 1. Fully automatic, self-priming, close-coupled centrifugal design.
  - 2. Packaged units with skid base or trailer mounted with noise attenuation enclosure.
  - 3. Pumps shall not require use of foot valves or vacuum pumps for priming.
- D. Drivers:
  - 1. Diesel Driven Pumps:
    - a. Equipped with variable speed control capable of providing level control.
    - b. Provide minimum 72-hour capacity diesel fuel tank as defined by fuel consumption during peak pumping rate.
    - c. Provided fuel gauge with warning light when tank approaches empty.
    - d. Comply with applicable air quality regulations.
  - 2. Motor Driven Pumps:
    - a. 480-volt, 3-phase, 60-Hertz.
    - b. Equipped with VFDs to provide speed control as required maintain a constant wet well level and to limit starting current.
    - c. Provide duty and standby portable diesel-powered generators and necessary electrical and control equipment.

- d. The Owner's power supply system shall not be used for bypass pumping.
- E. Piping, fittings, and all accessories shall withstand 1.5 times the maximum pump deadhead pressure at full speed.
- F. Maximum Pump Speed: Not exceeding 1,800 revolutions per minute.
- G. Contractor shall be responsible for providing all power for the pumps in the form of diesel engine driven pumps or portable generators. If generators are used to power the pumps, a backup standby generator equal to the size of the largest generator shall be provided and shall automatically start upon failure of the duty generator:
  - 1. Minimum 72-hour capacity diesel fuel tank for each pump as defined by fuel consumption at maximum pumping rate.
  - 2. Fuel tank and fuel piping shall comply with California Fire Code (CFC), NFPA 30, NFPA30A, California Building Code (IBC), OSHA 29 CFR Part 1910.106, PEI RP 300-13, PEI 400-13 and PEI RP 200-13.
  - 3. Fuel tank shall have containment to avoid fuel spillage of site.
- H. Comply with applicable air quality regulations.
- I. Electrical equipment, instrumentation, and accessories: Suitable for appropriate service as defined by NFPA 820.

#### 4.03 BYPASS PIPING

- A. Provide separate suction piping for each pump.
- B. Access to the interior of the Primary Effluent Channel (PEC) is limited to the existing hatches located in the concrete slab located over the PEC shown on Drawings. The Contractor shall field measure the dimensions of the existing clear openings at these hatches and shall consider these dimensions in selecting the size of materials and components that will be used to construct the bypass system.
- C. Provide separate pump discharge piping with isolation valve and check valve. Manifold discharge piping from each pump into a common header that shall have a flow meter as indicated on the drawings.
- D. Provide pipe supports and thrust blocks for bypass piping as needed for support.
- E. Maintain onsite a sufficient number of valves, tees, elbows, connections, tools, pipe plugs, piping, and other parts or system hardware to ensure immediate repair or modification of any part of the bypass system as necessary.
- F. Use butt-fusion welded HDPE piping in accordance with ASTM D3350 for the temporary bypass pumping system. All temporary bypass piping and connections shall be rated for 1.5 times minimum pump deadhead pressure.
- G. Sections of existing handrail may need to be removed to provide space to install bypass piping. Removed handrail shall be replaced when the bypass piping is removed.
- H. Piping integrity: No leakage allowed.
- I. Install flow meter on 36 inch pipe for both phase A and B per Drawings.

#### 4.04 ROAD RAMPS

- A. Road ramps shall be used where shown on the drawings to allow bypass piping to cross utilized roadways.

- B. Each road ramp shall be able to handle H<sub>2</sub>O Loading.
- C. The units shall have a minimum working pressure of 75 psi.
- D. Road ramps shall have a minimum 24-foot drive area with 18-inch flange connections.

#### 4.05 CONTROLS

- A. Electrical equipment, instruments, and accessories: Suitable for Class 1 Division 2 service as defined by NFPA 820 where located within 10 feet of existing wastewater channels, manholes, or other open, wastewater containing structures.
- B. The system shall include the following features:
  - 1. START/STOP operation.
  - 2. Variable flow based on water level in suction structure (Aeration Basins 1 – 3 for Phase B and primary effluent channel for Phase A).
  - 3. Automatic lead/lag/standby operation.
  - 4. Instrumentation and controls for operation and monitoring for each pump.
  - 5. Capable of being remotely monitored and alarmed on the plant SCADA system.
- C. Provide a pressure level transducer with 4-20 mA signal for pump operation and monitoring at each bypass suction location. Submit product information for review. The level transducer shall provide level output to the plant SCADA system.
- D. Provide a temporary PLC panel that outputs the following status alarms:
  - 1. Pump on/off status.
  - 2. Pump standby call to run status.
  - 3. High level alarm.
  - 4. Low level alarm.
  - 5. High-high level alarm.
  - 6. Pump fail status for each pump.
  - 7. Low fuel level alarm for each diesel pump and power generator furnished.
  - 8. Flow rate for each phase.
- E. Provide instrumentation and control logic to automatically detect abnormal running conditions, such as pump clogging and send alarm to PLC panel and SCADA:
  - 1. Provide automatic sequential telephone dialer that notifies Owner, and Contractor personnel when abnormal running conditions are encountered.
- F. Provide magnetic flowmeters in each bypass phase upstream of the common discharge header. Provide flow signal to the pump control panel and shall also be capable of:
  - 1. Continuously logging pumped flow rate.
  - 2. Totalizing flow and logging totalized flow for each 24-hour period.
  - 3. Reporting minimum and maximum flow for each 24-hour period.
  - 4. Storing logged flow rates, daily totalized flows, and daily minimum and maximum flow measurements for the duration of the bypass pumping operation in downloadable backup memory system.

#### 4.06 NOISE CONTROL

- A. Pumping Equipment: Equipped with devices or enclosures for noise attenuation including but not limited to mufflers and/or acceptable noise panels or enclosures.



- B. Noise Level: At or below 70 decibels on the A-scale at 30 feet from the pumping equipment.

#### 4.07 STRUCTURE DEWATERING, CLEANING, DEBRIS REMOVAL AND CONCRETE SURFACE PREPARATION

- A. All isolated structures shall be dewatered, cleaned and prepared for the Engineer's inspection. The structures to be dewatered and cleaned by the Contractor include the Settled Sewage Channel, the Mixed Liquor Channel, Aeration Basins 1 through 4. Cleaning the structures shall include washdown and removal of all biomass from the structures. The Contractor shall install and manage dewatering equipment or manage it to remove existing sewage and mixed liquor and any water generated during surface preparation operations in the isolated structures. Water generated during surface preparation can be discharged per Owner's guidance.
- B. All concrete surfaces in the isolated structures shall be clean, sound, and free of contaminants. All loose and deteriorated concrete shall be removed by mechanical means.

### PART 5 - EXECUTION

#### 5.01 OPERATION

- A. Notify the Owner a minimum of 14 days prior to beginning the Work and notify the Engineer at least 72 hours prior to the start of bypassing or diverting flow.
- B. Place pumps, generators, and other equipment on a plastic tarp to protect against spills of petroleum products used by the equipment.
- C. Before taking a channel or aeration basin out of service, verify that bypass system is fully operational and acceptable to Owner and the Engineer.
- D. Contractor shall respond to and resolve all alarms from temporary pumping operations.
- E. Contractor shall be responsible for ensuring that the temporary bypass pumps are maintained and remain operational 24 hours per day for the duration of any Contractor planned bypass.
- F. Notify the Owner immediately in the event of an extreme high level alarm. Owner will provide Contractor with names and telephone numbers of personnel to be contacted in the case of an alarm of other emergency.
- G. Maintain existing alarm signals to the Owner's alarm system, including high water, at all times during construction using the existing auto dialer (relocated if necessary).

#### 5.02 PROTECTION

- A. Provide a minimum of one operator at all times that the bypass pumps are in operation.
- B. Coordinate all work requiring bypass pumping with Engineer and Owner's staff. Owner and Engineer shall be immediately notified in writing of any changes to the approved bypass pumping plan for the work.
- C. Contractor shall be responsible for all bypass pumping operation and inspection:

1. Inspect the entire bypass pumping and piping system for leaks or spills at a frequency of not less than four times per shift.
  2. Do not shutdown the temporary bypass system between shifts, on holidays or weekends, or during work stoppages without written permission from the Owner.
- D. Provide trained and qualified attendants 24 hours per day while the bypassing is in operation. The attendants shall:
1. Be capable of performing pump and piping maintenance required.
  2. Have cellular phones for communication with the Contractor and the Owner in the event of emergencies.
  3. The Contractor shall provide a trailer for the attendants if needed.
- E. No bypassing to the ground surface, receiving waters, storm drains, or bypassing which results in soil or groundwater contamination or any potential health hazards shall be permitted.
1. In the event of any wastewater spill, be responsible for the prompt cleanup and disinfecting of the spill as called for in the wastewater bypass pumping plan.
  2. Compensate the Owner for the cost of any fines levied as the result of a spill or unauthorized discharge.
- F. In the event the temporary bypass system fails to meet the required flow criteria due to mechanical or control failures, the Owner shall immediately be entitled to execute a contingency plan to prevent or stop an overflow and any costs incurred therefore, including fines imposed on the Owner, shall be payable by the Contractor.
1. In the event flow must redirected to the active work areas in the structures being bypassed, the Contractor or the Bypass Pumping Contractor shall be responsible for all damage including the work that is partially completed and for all cleanup as required to resume construction of improvements.

### 5.03 FIELD QUALITY CONTROL

- A. Pressure test temporary piping to a pressure no less than 50 psi prior to placing into operation and submit test results to Engineer.
- B. Prior to operation, provide a functional test for the complete pumping system including pumps, valves, alarms, telemetry, and redundancy.
- C. 3-day Trial Period:
1. Prior to dewatering any channel or basin perform a 3-day trial bypass pumping operation with the channel proposed to be taken out of service isolated.
  2. Successfully demonstrate each part of the submitted and favorably reviewed bypass pumping plan. If the trial bypass does not perform as described in the bypass pumping plan, resubmit a revised bypass pumping plan to the Engineer and Owner for review. Repeat trial period bypass based on the revised bypass pumping plan at no cost to the Owner until satisfactory operation and performance is obtained.
- D. Inspection:
1. Inspect the entire bypass pumping and piping system for leaks or spills at a frequency of not less than four times per shift.
  2. An attendant operator shall be present to monitor the operation of the bypass pumps at all times that the pumps are in operation.

E. Inspection Log: Keep at each pumping location.

#### 5.04 DECOMMISSIONING

- A. Contractor shall be responsible for the decommissioning of the bypass system and clean-up:
  - 1. Temporary Bypass Pumping System: Flush, clean, and drain prior to dismantling.
  - 2. Dispose of flushing water in approved manner by Owner.
- B. Disturbed areas: Upon completion of bypass pumping operation, clean disturbed areas, restoring to original condition, including pavement restoration and handrails, at least equal to that which existed prior to start of Work.

END OF SECTION

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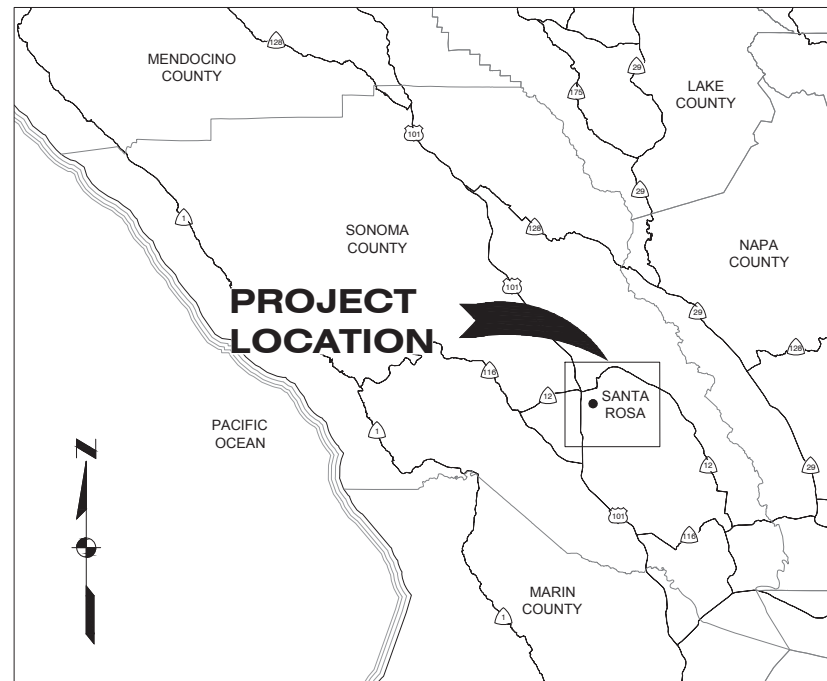


# CITY OF SANTA ROSA

## LAGUNA WWTP

# AERATION BASIN IMPROVEMENTS BYPASS PLAN

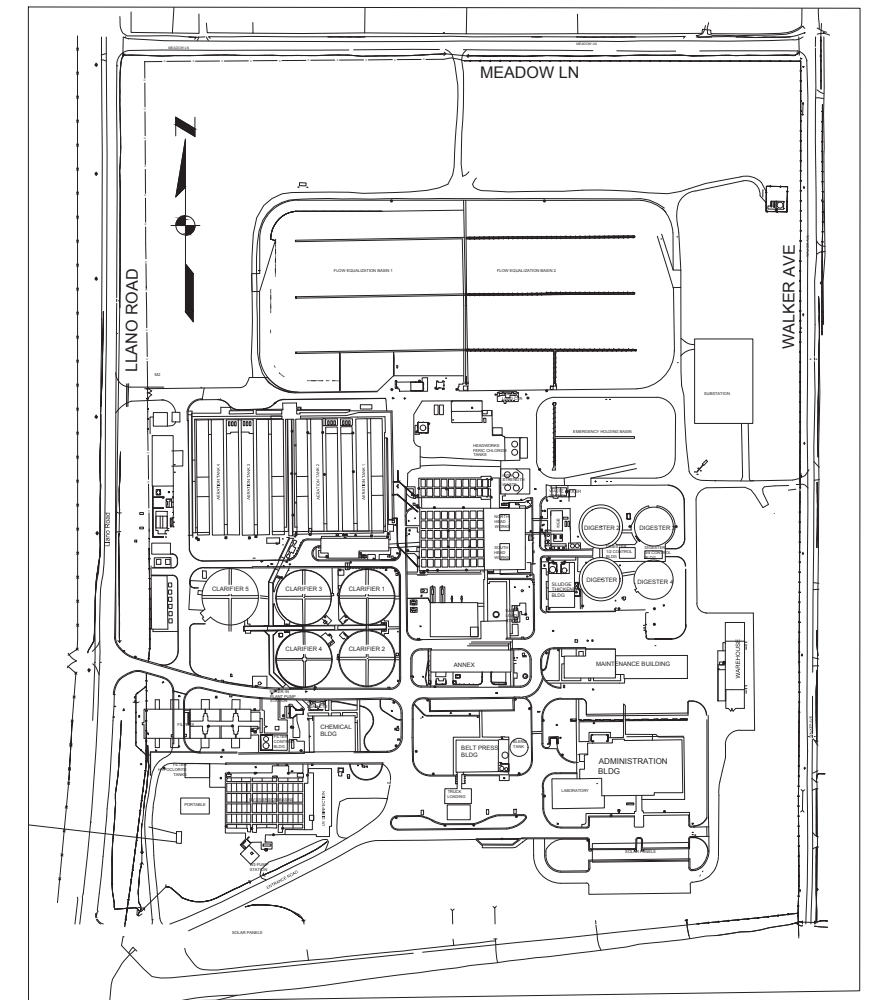
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ALL ELEVATIONS SHOWN ARE BASED ON THE NATIONAL  
GEODETIC SURVEY NORTH AMERICAN VERTICAL DATUM OF  
1988 (NAVD 88)



**LOCATION MAP**  
NOT TO SCALE

### INDEX TO SHEETS

SHEET	DRAWING	TITLE
1	G-101	TITLE SHEET, PROJECT VICINITY MAP AND LOCATION MAP
2	G-102	SYMBOLS AND ABBREVIATIONS
3	C-101	OVERALL SITE PLAN AND CONTRACTOR STAGING AREA
4	C-102	SETTLED SEWAGE CHANNEL AND AERATION BASIN 4 BYPASS PHASE A
5	C-103	MIXED LIQUOR CHANNEL AND AERATION BASIN 1 BYPASS PHASE B
6	M-101	PUMP SKID DETAILS AND AERATION BASINS DIAGRAM
7	M-102	BYPASS DISCHARGE PIPING TO AERATION BASINS 1, 2 AND 3 PHASE A PARTIAL PLAN AND SECTION
8	M-103	BYPASS SUCTION AND DISCHARGE PIPING PHASE A PARTIAL PLAN AND SECTION
9	M-104	BYPASS SUCTION AND DISCHARGE PIPING PHASE B PARTIAL PLAN AND SECTION
10	M-105	DISCHARGE PIPING TO MIXED LIQUOR CHANNEL PHASE B PARTIAL PLAN AND SECTION



**VICINITY MAP**  
NOT TO SCALE

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DESIGNED  
JMW  
DRAWN  
MJS  
CHECKED  
RRH  
58  
8/21/2023

CITY OF SANTA ROSA  
SONOMA COUNTY, CALIFORNIA  
LAGUNA WWTP  
AERATION BASIN IMPROVEMENTS BYPASS PLAN  
Kennedy Jenks

TITLE SHEET  
PROJECT VICINITY MAP AND LOCATION MAP  
SCALE AS NOTED  
JOB NO 2268002\*00  
DATE AUGUST 2023  
SHEET 1 OF 10  
G-101

C02404

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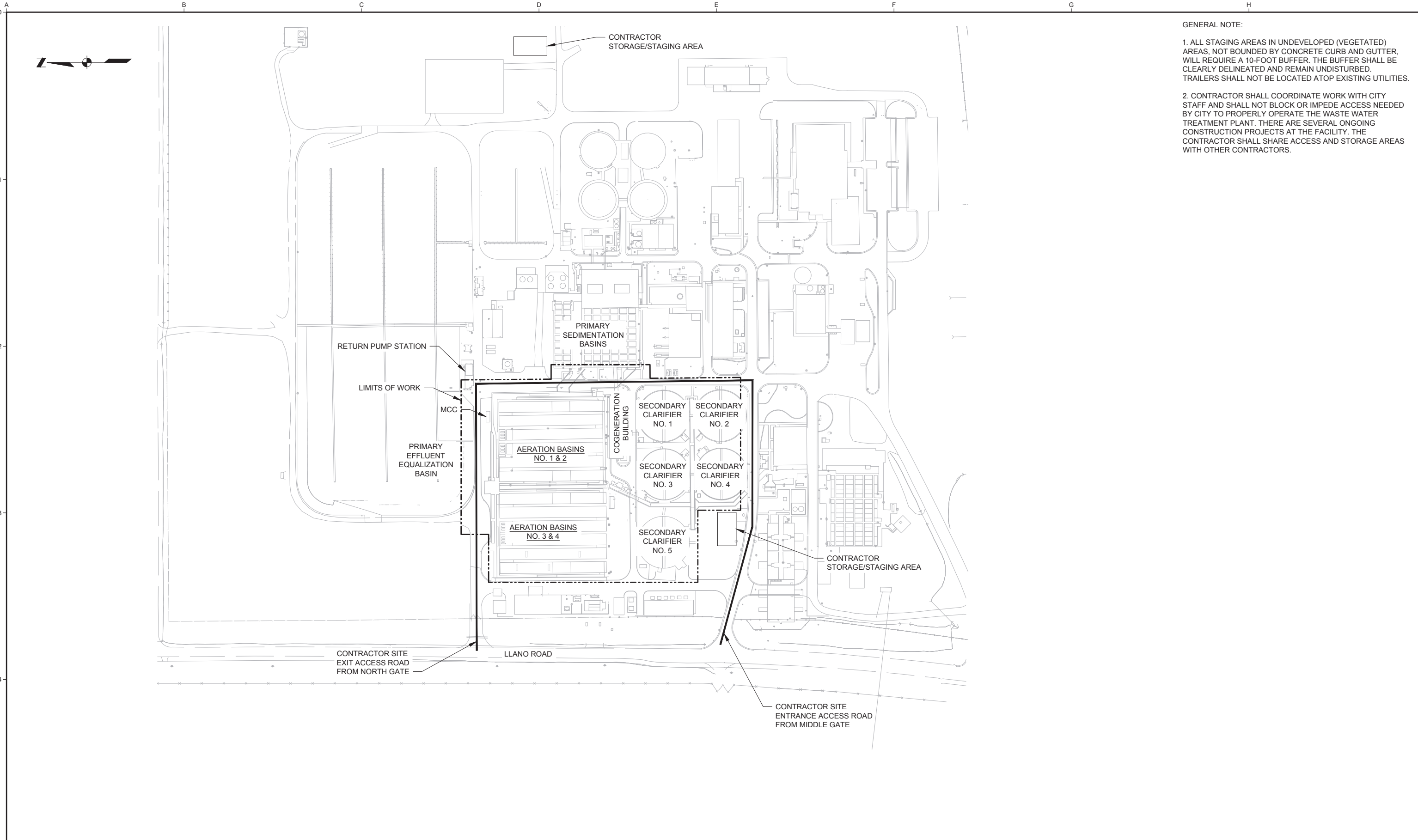
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GENERAL NOTE:

1. ALL STAGING AREAS IN UNDEVELOPED (VEGETATED) AREAS, NOT BOUNDED BY CONCRETE CURB AND GUTTER, WILL REQUIRE A 10-FOOT BUFFER. THE BUFFER SHALL BE CLEARLY DELINEATED AND REMAIN UNDISTURBED. TRAILERS SHALL NOT BE LOCATED ATOP EXISTING UTILITIES.
2. CONTRACTOR SHALL COORDINATE WORK WITH CITY STAFF AND SHALL NOT BLOCK OR IMPEDE ACCESS NEEDED BY CITY TO PROPERLY OPERATE THE WASTE WATER TREATMENT PLANT. THERE ARE SEVERAL ONGOING CONSTRUCTION PROJECTS AT THE FACILITY. THE CONTRACTOR SHALL SHARE ACCESS AND STORAGE AREAS WITH OTHER CONTRACTORS.

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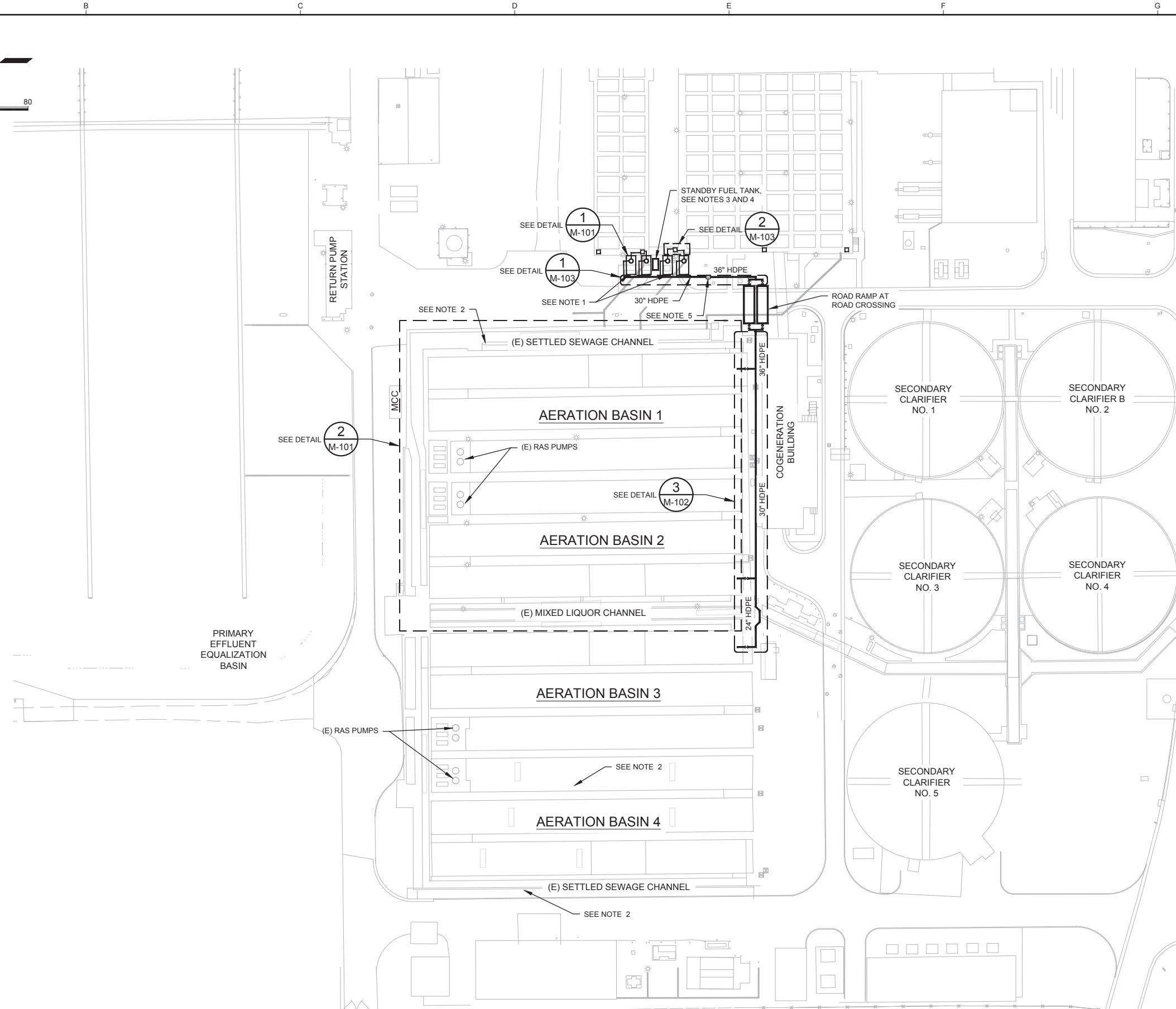
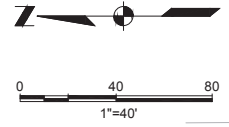


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 8/21/2023

CITY OF SANTA ROSA  
 SONOMA COUNTY, CALIFORNIA  
**LAGUNA WWTP**  
 AERATION BASIN IMPROVEMENTS BYPASS PLAN  
 Kennedy Jenks

OVERALL SITE PLAN AND  
 CONTRACTOR STAGING AREA  
 SCALE: NTS  
 JOB NO: 2268002\*00  
 DATE: AUGUST 2023  
 SHEET 3 OF 10  
 C02404 C-101

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- NOTES:**
1. INSTALL BYPASS PUMPS AND PIPING TO PUMP PRIMARY EFFLUENT FROM PRIMARY EFFLUENT CHANNEL TO AERATION BASINS 1, 2 & 3. PUMP CONFIGURATION SIMILAR TO DETAIL 1 ON M-101. SEE DETAIL 1 ON M-103 FOR DISCHARGE PIPING CONFIGURATION.
  2. AERATION BASIN NO. 4 AND SETTLED SEWAGE CHANNEL WILL BE BYPASSED AND OUT OF SERVICE. THE AERATION BASIN AND CHANNEL SHALL BE DEWATERED AND CLEANED FOR INSPECTION.
  3. STANDBY FUEL TANK SHALL BE CONNECTED TO THE FUEL RESERVOIRS. BOTTOM OF STANDBY FUEL TANK SHALL BE PLACED MINIMUM 1 FOOT ABOVE THE BOTTOM OF FUEL RESERVOIR OF SKID MOUNTED PUMPS.
  4. FIELD ADJUST THE ELEVATION OF FUEL TANK CONTAINMENT.
  5. INSTALL FLOW METER WITH APPROPRIATE UPSTREAM AND DOWNSTREAM LENGTHS OF PIPE PER MANUFACTURER RECOMMENDATIONS.

				<p>DESIGNED JMW</p> <p>DRAWN MJS</p> <p>CHECKED RRH</p>	<p>CITY OF SANTA ROSA SONOMA COUNTY, CALIFORNIA</p> <p><b>LAGUNA WWTP</b></p> <p><b>AERATION BASIN IMPROVEMENTS BYPASS PLAN</b></p>		<p>SCALE 1"=40'</p> <p>JOB NO 2268002'00</p> <p>DATE AUGUST 2023</p> <p>SHEET 4 OF 10</p>	
<p>NO</p> <p>REVISION</p> <p>DATE</p> <p>BY</p>				<p>61</p> <p>8/21/2023</p>		<p>K Kennedy Jenks</p>		<p>C02404</p> <p>C-102</p>

**SCALES**  
 0 1" = 40'  
 0 25mm  
 IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

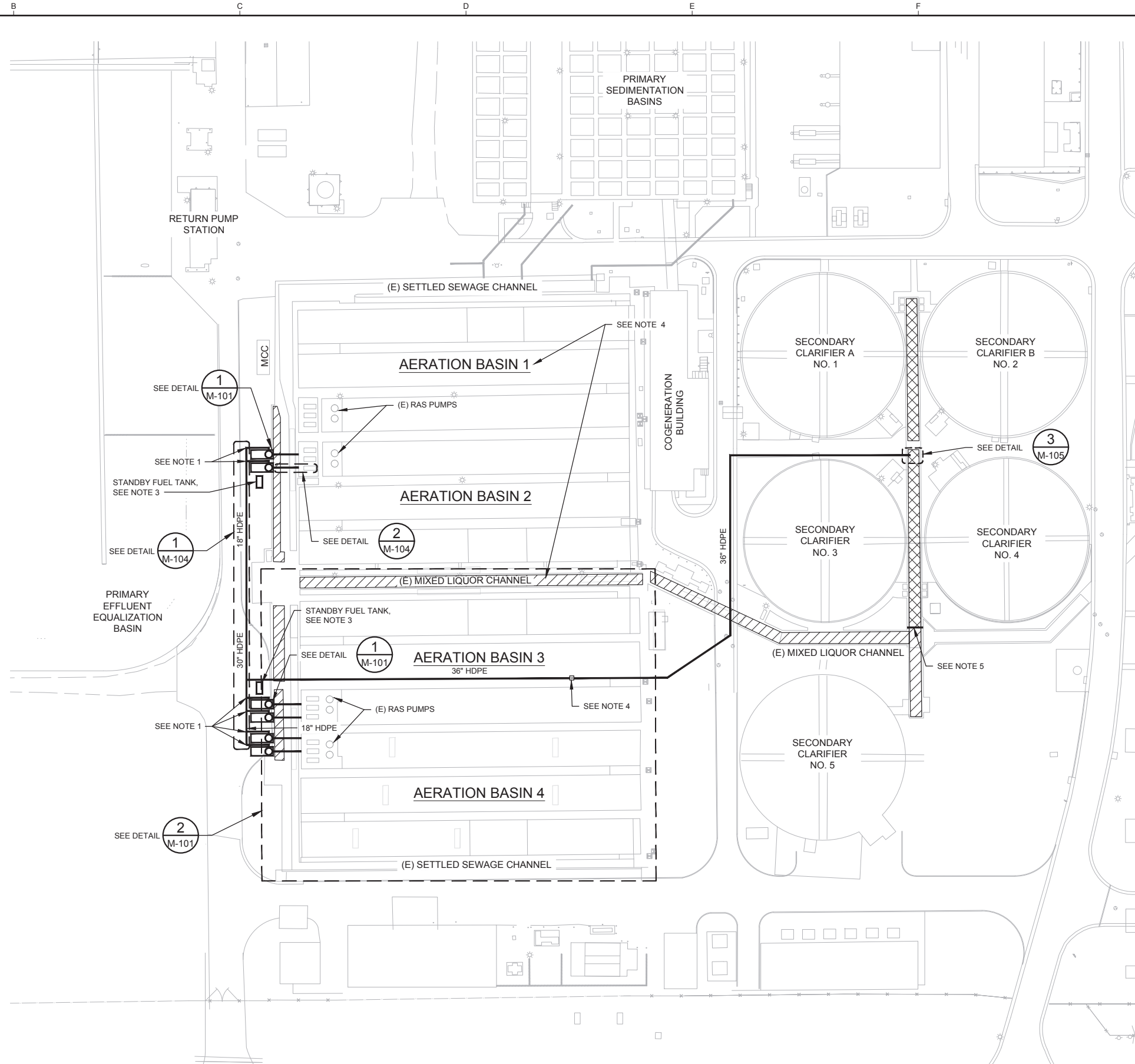




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User: CLARRISSA DEOCARES

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NOTES:

1. INSTALL BYPASS PUMPS AND PIPING TO PUMP MIXED LIQUOR FROM AERATION BASINS NO. 2, 3 AND 4 TO MIXED LIQUOR CHANNEL. PUMP CONFIGURATION SIMILAR TO DETAIL 1 ON M-101. SEE DETAIL 1 ON M-103 FOR DISCHARGE PIPING CONFIGURATION.
2. AERATION BASIN NO. 1 AND UPSTREAM PORTION OF MIXED LIQUOR CHANNEL WILL BE OUT OF SERVICE DURING BYPASS. THE AERATION BASIN AND UPSTREAM PORTION OF CHANNEL SHALL BE DEWATERED AND CLEANED FOR INSPECTION.
3. FIELD ADJUST THE ELEVATION OF FUEL TANK CONTAINMENT.
4. INSTALL FLOW METER WITH APPROPRIATE UPSTREAM AND DOWNSTREAM LENGTHS OF PIPE PER MANUFACTURER RECOMMENDATIONS.
5. INSTALL STOP GATE TO ISOLATE DOWNSTREAM PORTION OF MIXED LIQUOR CHANNEL ADJACENT TO SECONDARY CLARIFIERS 1-4. CONTRACTOR NEEDS TO ENSURE THE STOP GATE DOES NOT LEAK.

LEGEND

- DOWNSTREAM PORTION OF MIXED LIQUOR CHANNEL
- UPSTREAM PORTION OF MIXED LIQUOR CHANNEL

				<p>DESIGNED: JMW</p> <p>DRAWN: MJS</p> <p>CHECKED: RRH</p>	<p>CITY OF SANTA ROSA SONOMA COUNTY, CALIFORNIA</p> <p>LAGUNA WWTP AERATION BASIN IMPROVEMENTS BYPASS PLAN</p>		<p>SCALE: NTS</p> <p>JOB NO: 2268002*00</p> <p>DATE: AUGUST 2023</p> <p>SHEET 5 OF 10</p>	
<p>NO. REVISION DATE BY</p>				<p>62</p> <p>8/21/2023</p>		<p>Kennedy Jenks</p>		<p>C02404</p> <p>C-103</p>

SCALES

0" = 1'

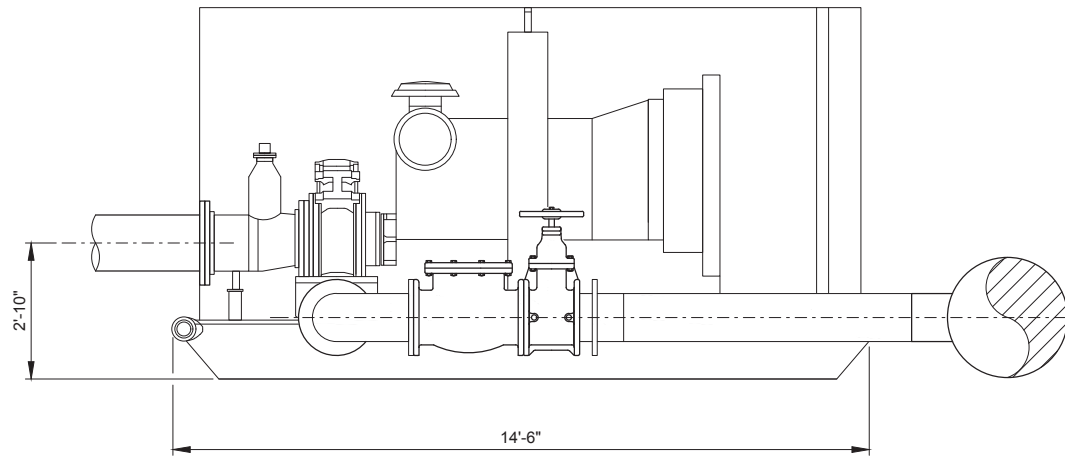
0" = 25mm

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

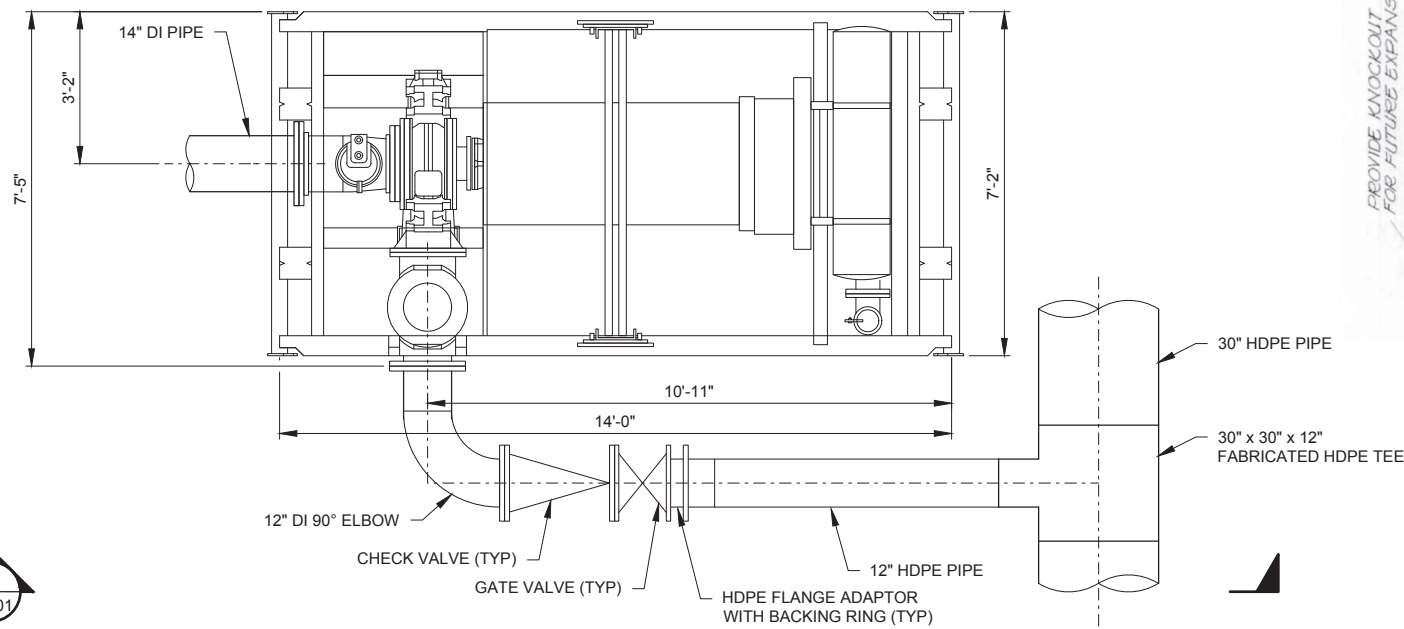
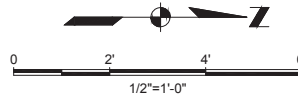


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- NOTE**
- PUMP SKID DISCHARGE AND SUCTION PIPING CONFIGURATION FOR ONE OF PUMPS. SEE DRAWINGS M-103 OR M-104 FOR DISCHARGE PUMPING CONFIGURATION.
  - CONTRACTOR SHALL ADJUST PUMP SKID ELEVATION FOR THE CHANGE IN GRADE PARTICULARLY ADJACENT TO THE AERATION BASINS.
  - THE AERATION BASIN CHANNEL LAYOUT DIAGRAM IS A DEPICTION OF THE CHANNEL LAYOUT AT AERATION BASINS 1 AND 2. THE CHANNEL LAYOUT AT AERATION BASINS 3 AND 4 IS THE MIRROR IMAGE OF THIS DIAGRAM.
  - DETAIL 2 PROVIDES CHANNEL LAYOUT FOR THE AERATION BASINS. THE DETAILS AND SECTIONS INDICATED ON DETAIL 2 ARE NOT USED FOR THIS PROJECT.

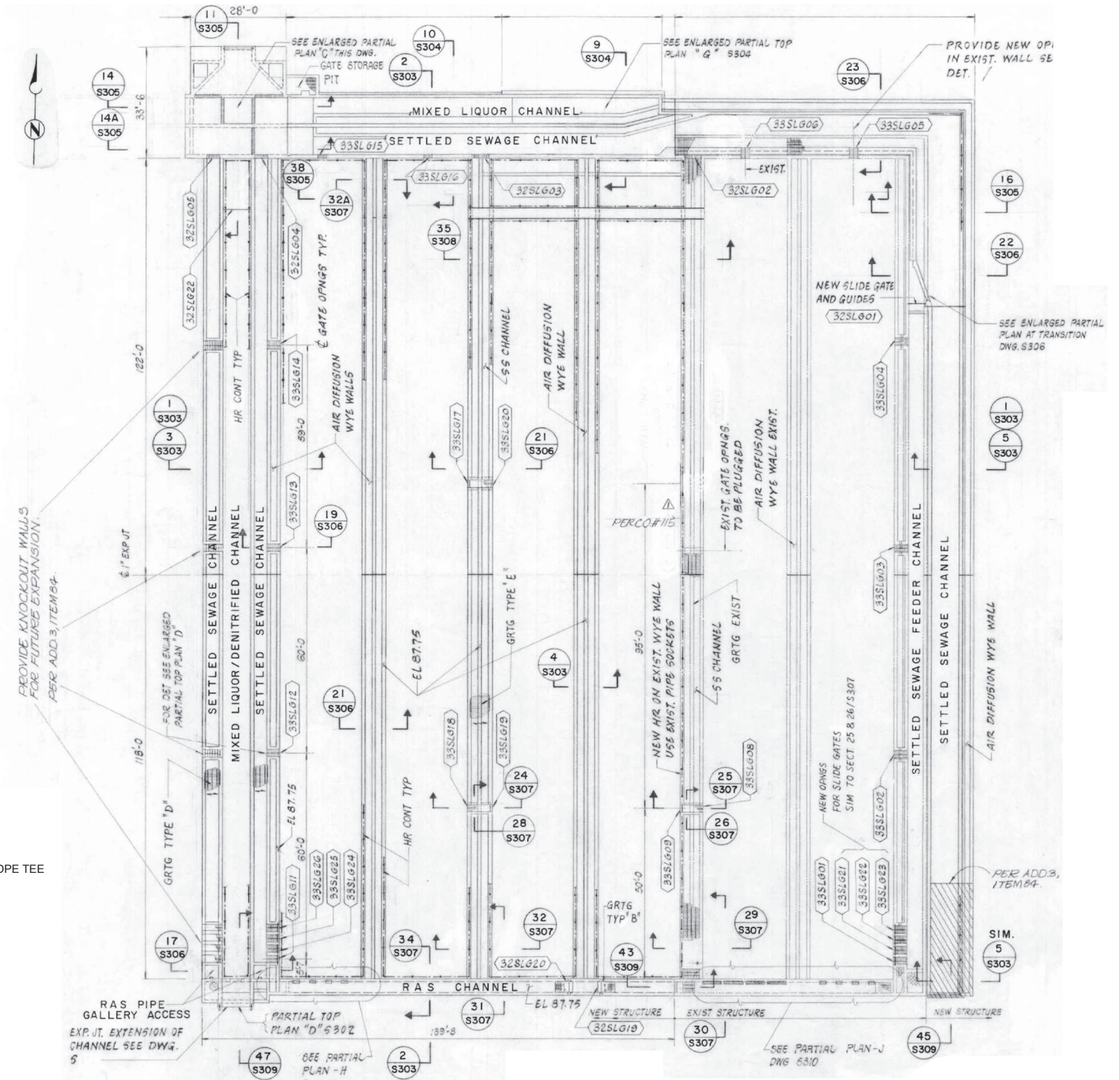


**A SECTION**  
M-101 SCALE: 1/2"=1'-0"



**PARTIAL SECTIONAL PLAN**

**1 PUMP SKID**  
C-103 SCALE: 1/2"=1'-0"



**2 AERATION BASIN CHANNEL LAYOUT DIAGRAM**  
C-102 NOT TO SCALE

NO	REVISION	DATE	BY

**DESIGNED** MF  
**DRAWN** CD  
**CHECKED**

SCALES  
 0" = 1"  
 0" = 25mm  
 IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

8/21/2023

CITY OF SANTA ROSA  
 SONOMA COUNTY, CALIFORNIA  
**LAGUNA WWTP**  
**AERATION BASIN IMPROVEMENTS BYPASS PLAN**

Kennedy Jenks

**PUMP SKID DETAILS**  
**AND AERATION BASINS DIAGRAM**

SCALE AS SHOWN  
 JOB NO 2268002'00  
 DATE AUGUST 2023  
 SHEET 6 OF 10  
 M-101

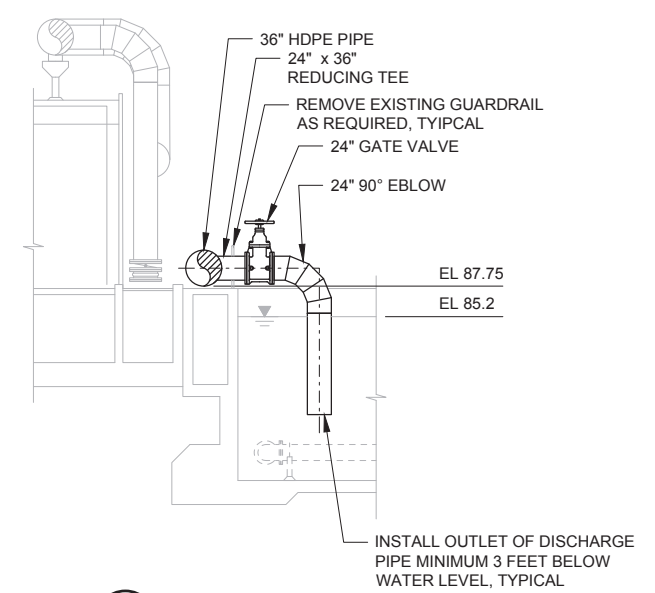


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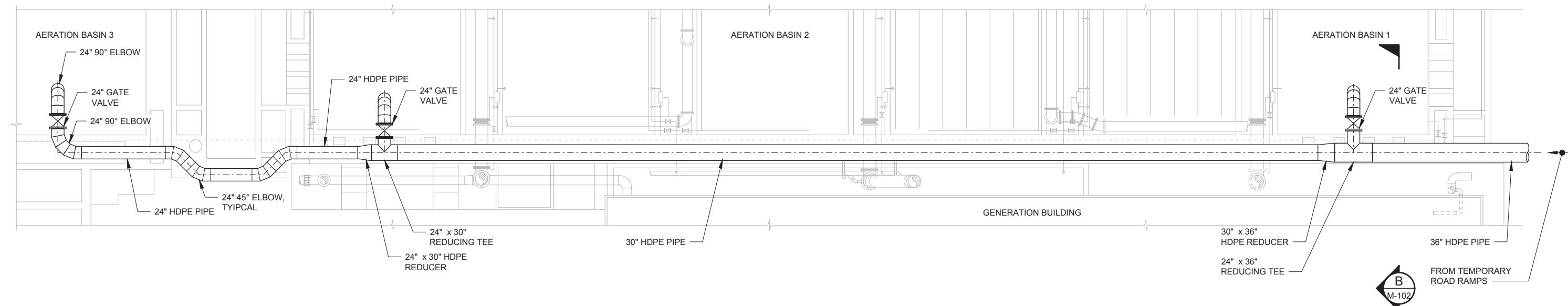
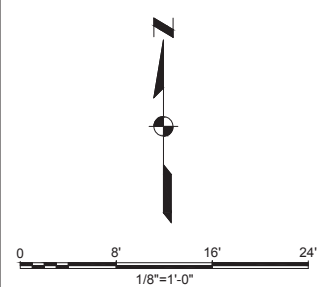
User: CLARISSA DEOCARES

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NOTE  
1. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS.



**B** SECTION  
M-102 SCALE: 1/8" = 1'-0"



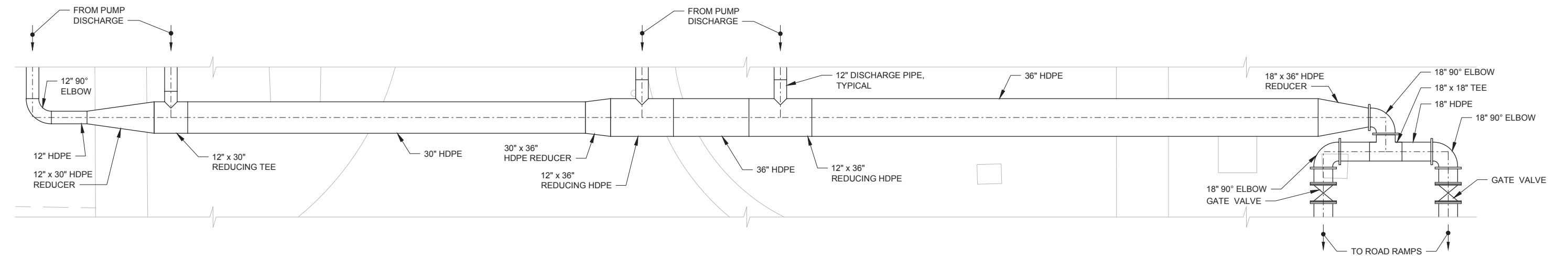
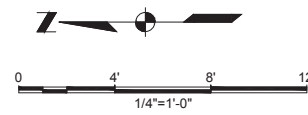
**3** PARTIAL SECTIONAL PLAN  
C-102 SCALE: 1/8" = 1'-0"

				<p>DESIGNED MF</p> <p>DRAWN CD</p> <p>CHECKED</p>	<p>CITY OF SANTA ROSA SONOMA COUNTY, CALIFORNIA</p> <p>LAGUNA WWTP AERATION BASIN IMPROVEMENTS BYPASS PLAN</p>		<p>BYPASS DISCHARGE PIPING TO AERATION BASINS 1, 2 AND 3 PHASE A PARTIAL PLAN AND SECTION</p>		<p>SCALE AS NOTED</p> <p>JOB NO 2268002*00</p> <p>DATE AUGUST 2023</p> <p>SHEET 7 OF 10</p>
<p>NO REVISION DATE BY</p>				<p>64</p> <p>8/21/2023</p>	<p>Kennedy Jenks</p>		<p>C02404</p>		<p>M-102</p>



SCALES  
 0 1"  
 0 25mm  
 IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

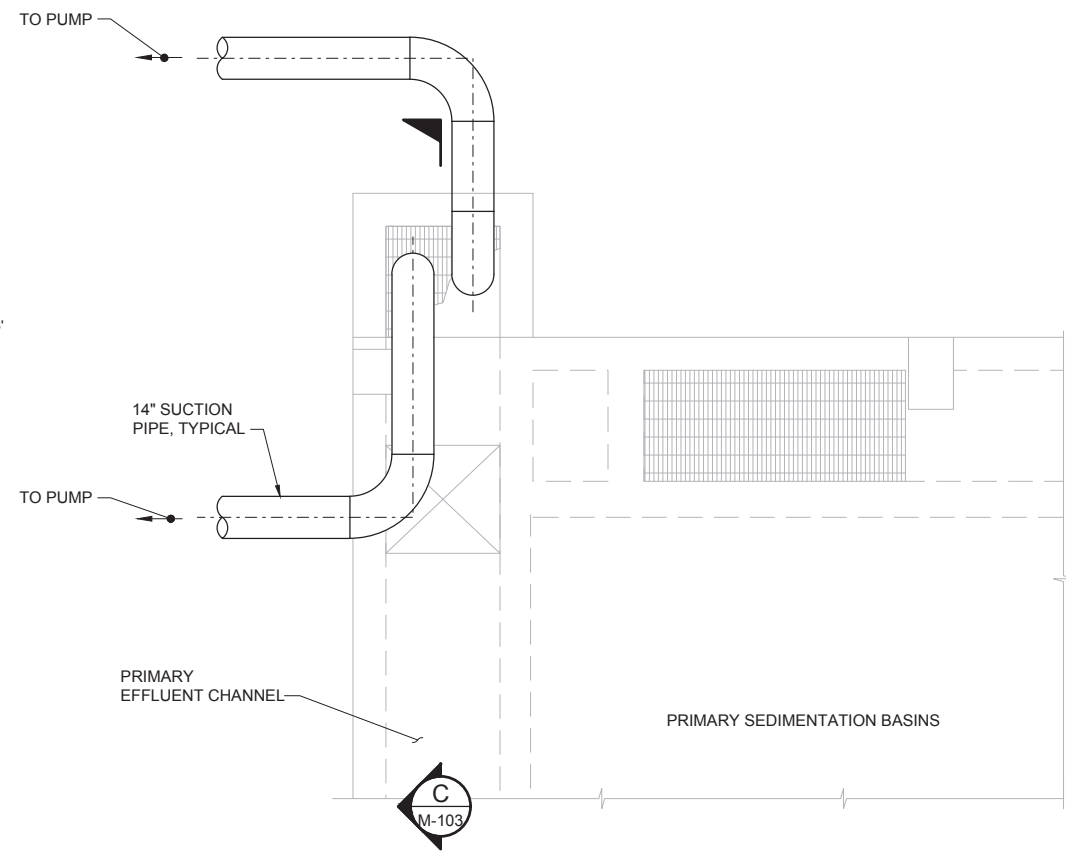
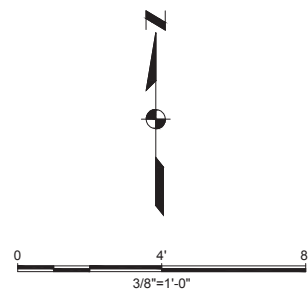
Plot Date: 8/21/2023 1:35 PM  
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**NOTE**  
 1. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS.

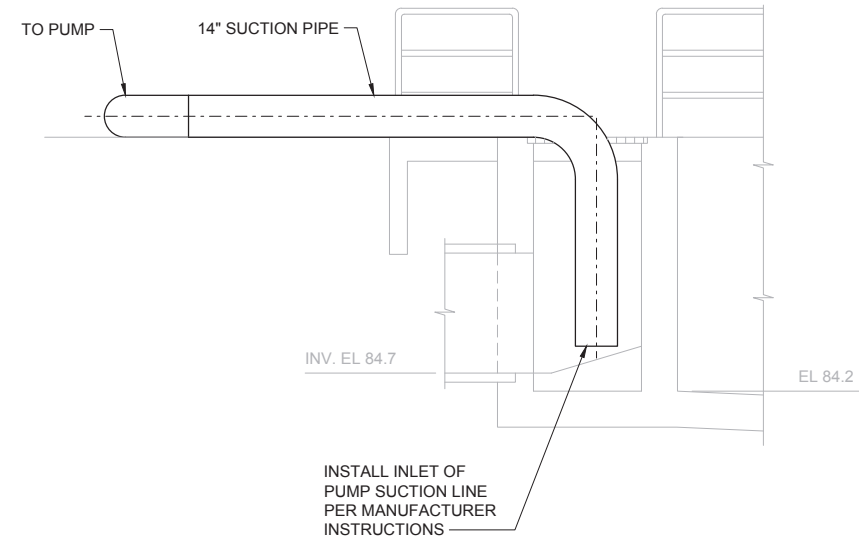
**PARTIAL PLAN**

**1** BYPASS PIPING AT PRIMARY EFFLUENT CHANNEL  
 C-102 SCALE: 1/4"=1'-0"



**PRIMARY EFFLUENT CHANNEL PARTIAL SECTIONAL PLAN**

**2** PUMP SUCTION PIPING AT PRIMARY EFFLUENT CHANNEL  
 C-102 SCALE: 3/8"=1'-0"



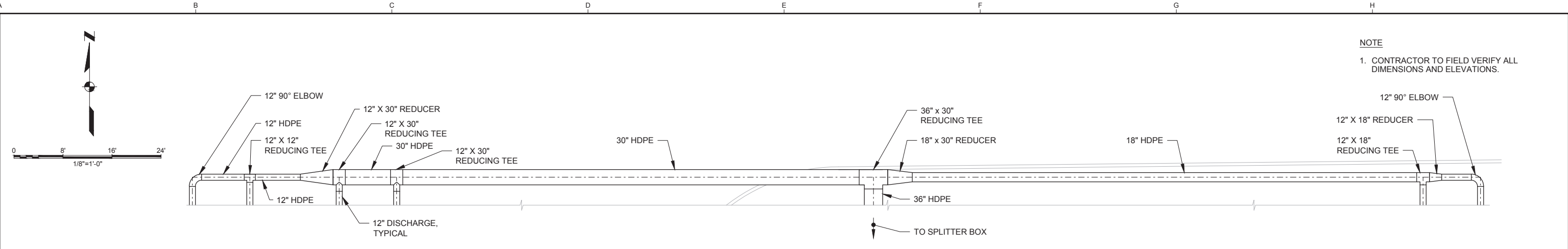
**C** SECTION  
 M-103 SCALE: 3/8"=1'-0"

				<p>DESIGNED MF</p> <p>DRAWN JC / CD</p> <p>CHECKED</p>	<p>CITY OF SANTA ROSA          SONOMA COUNTY, CALIFORNIA</p> <p>LAGUNA WWTP          AERATION BASIN IMPROVEMENTS BYPASS PLAN</p>		<p>BYPASS SUCTION AND DISCHARGE PIPING          PHASE A          PARTIAL PLAN AND SECTION</p>		<p>SCALE AS NOTED</p> <p>JOB NO 2268002*00</p> <p>DATE AUGUST 2023</p> <p>SHEET 8 OF 10</p>
<p>NO REVISION DATE BY</p>				<p>SCALES</p> <p>0 1" = 1'</p> <p>0 25mm = 1'</p> <p>IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.</p>		<p>Kennedy Jenks</p>		<p>C02404 M-103</p>	

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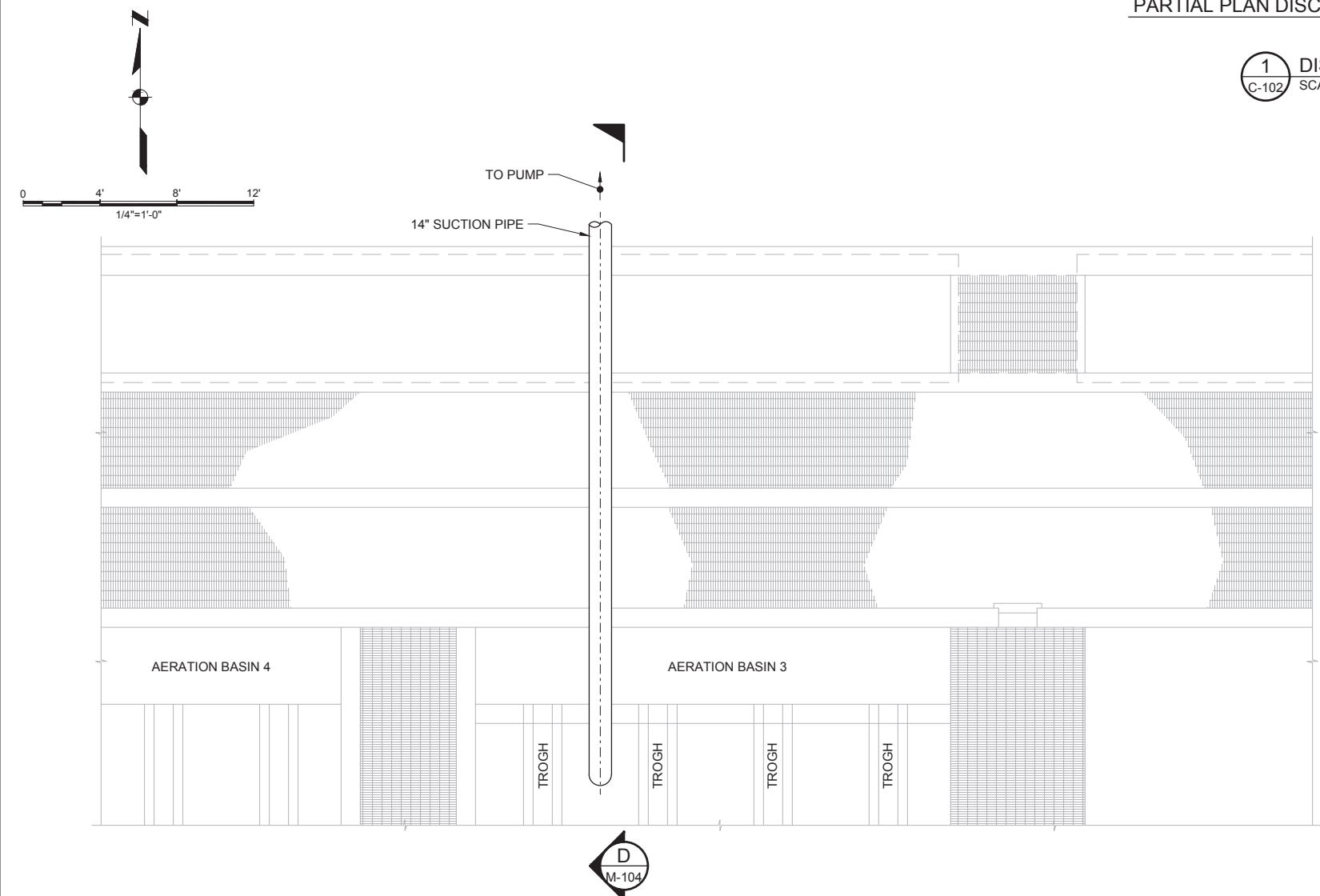
User: CLARRISSA DEOCARES

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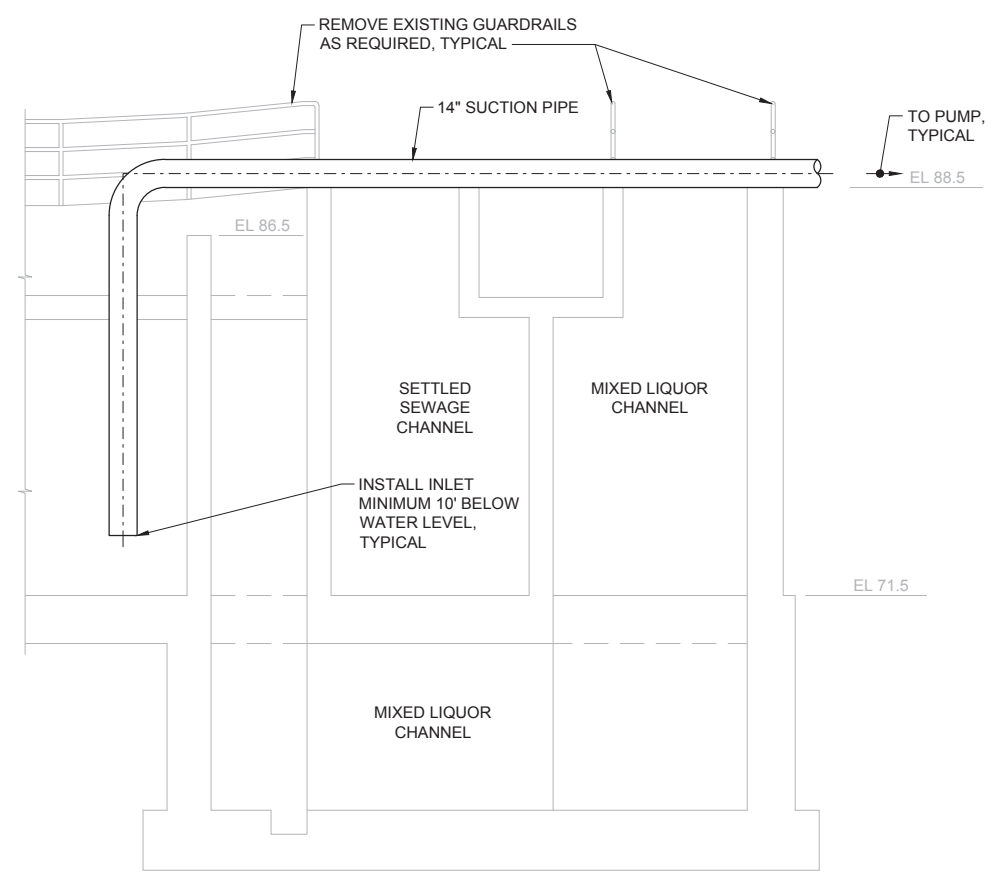
PARTIAL PLAN DISCHARGE PIPING TO ROAD RAMP

1 DISCHARGE PIPING  
C-102 SCALE: 1/8"=1'-0"



PARTIAL PLAN OF SUCTION PIPING FROM AERATION BASIN 3

2 PUMP SUCTION PIPING  
C-103 SCALE: 1/4"=1'-0"



D SECTION  
M-104 SCALE: 1/4"=1'-0"

				<p>DESIGNED MF</p> <p>DRAWN JC / CD</p> <p>CHECKED</p>	<p>CITY OF SANTA ROSA SONOMA COUNTY, CALIFORNIA</p> <p>LAGUNA WWTP AERATION BASIN IMPROVEMENTS BYPASS PLAN</p>		<p>BYPASS SUCTION AND DISCHARGE PIPING PHASE B PARTIAL PLAN AND SECTION</p>		<p>SCALE AS NOTED</p> <p>JOB NO 2268002*00</p> <p>DATE AUGUST 2023</p> <p>SHEET 9 OF 10</p>
<p>NO REVISION DATE BY</p>				<p>66</p> <p>8/21/2023</p>	<p>Kennedy Jenks</p>		<p>C02404</p>		<p>M-104</p>



SCALES

0 1"

0 25mm

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

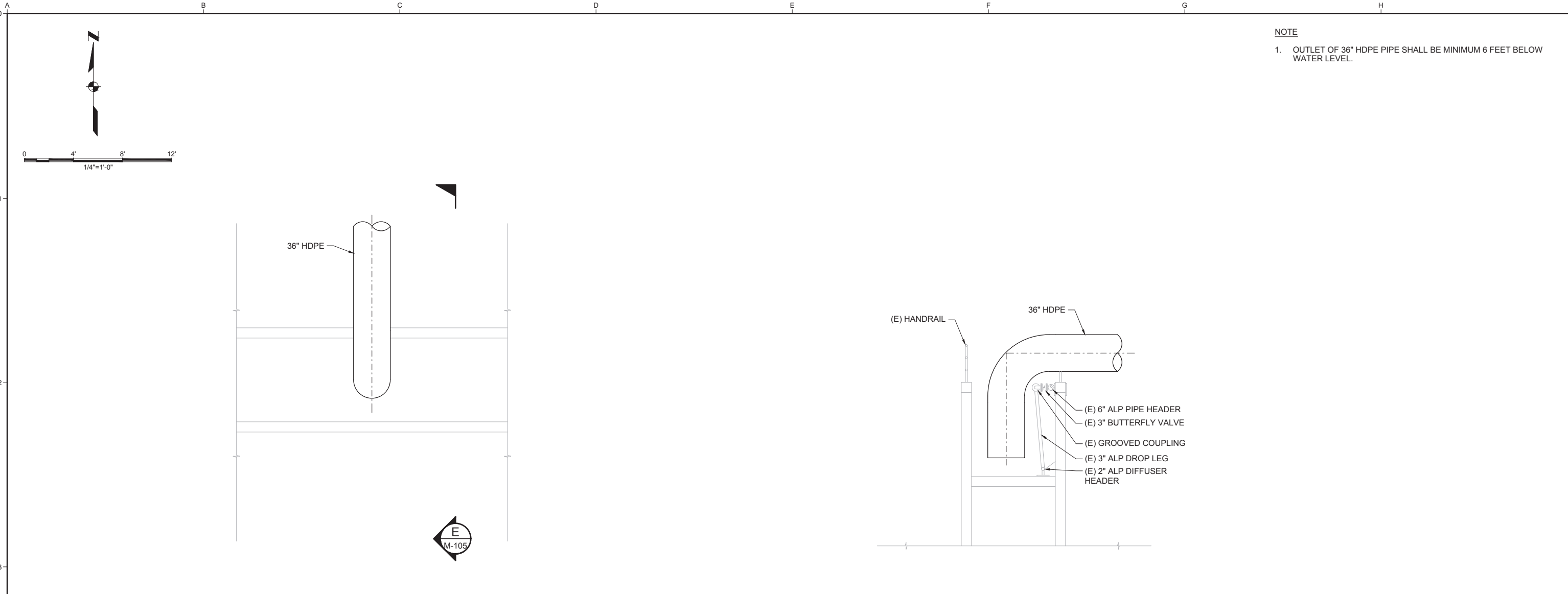
Plot Date: 8/21/2023 1:34 PM

User: CLARISSA DEOCARES

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4

67



**NOTE**  
 1. OUTLET OF 36" HDPE PIPE SHALL BE MINIMUM 6 FEET BELOW WATER LEVEL.

PARTIAL SECTIONAL PLAN

**3** DISCHARGING TO MIXED LIQUOR CHANNEL ADJACENT TO SECONDARY CLARIFIER A, B, C AND D  
 C-103 SCALE: 1/4"=1'-0"

**E** SECTION  
 M-105 SCALE: 1/4"=1'-0"

				<p>DESIGNED MF</p> <p>DRAWN CD</p> <p>CHECKED</p>	<p>CITY OF SANTA ROSA          SONOMA COUNTY, CALIFORNIA</p> <p>LAGUNA WWTP          AERATION BASIN IMPROVEMENTS BYPASS PLAN</p> <p><b>KJ</b> Kennedy Jenks</p>	<p>DISCHARGE PIPING TO          MIXED LIQUOR CHANNEL          PHASE B          PARTIAL PLAN AND SECTION</p>	<p>SCALE 1/4"=1'-0"</p> <p>JOB NO 2268002'00</p> <p>DATE AUGUST 2023</p> <p>SHEET 10 OF 10</p>
NO	REVISION	DATE	BY	<p>8/21/2023</p>			<p>C02404</p> <p>M-105</p>

SCALES  
 0" = 1"  
 0" = 25mm  
 IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.



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Claims submitted by Contractor shall be accompanied by a notarized certificate containing the following language:

Under the penalty of law for perjury or falsification and with specific reference to the California False Claims Act, Government Code sections 12650 *et seq.*, the undersigned,

\_\_\_\_\_  
(Name)

\_\_\_\_\_ of  
(Title)

\_\_\_\_\_  
(Contractor)

hereby certifies that the claim for additional compensation made herein is supported by a true statement of the actual costs incurred and time expended on this project and is fully documented by records maintained by Contractor.

Dated \_\_\_\_\_

/s/ \_\_\_\_\_

Subscribed and sworn before me this \_\_\_\_\_ day of

\_\_\_\_\_

\_\_\_\_\_  
Notary Public

My Commission Expires \_\_\_\_\_

Failure to submit the notarized certificate will be sufficient cause for denying the claim.

Any claim for overhead expenses, in addition to being certified as stated above, shall be supported by an audit report of an independent Certified Public Accountant. Any such overhead claim shall also be subject to audit by the City at its discretion.

Any costs or expenses incurred by the City in reviewing or auditing any claims that are not supported by Contractor's cost accounting or other records shall be deemed to be damages incurred by the City within the meaning of the California False Claims Act.

BID FORMS

**CITY OF SANTA ROSA**

**STATE OF CALIFORNIA**

LAGUNA TREATMENT PLANT AERATION BASINS IMPROVEMENTS

The work to be performed and referred to herein is in the City of Santa Rosa, California and consists of improvements to be constructed in accordance with the provisions of the Invitation for Bids, containing the Notice to Bidders, the Special Provisions, the Project Plan(s), the Bid Forms and the Contract, all of which are by reference incorporated herein, and each Addendum, if any is issued, to any of the above which is also incorporated by reference herein.

TO THE AWARD AUTHORITY OF THE CITY OF SANTA ROSA

The undersigned, as bidder, declares that the only person or parties interested in this bid as principals are those named herein; that this bid is made without collusion with any other person, firm, or corporation; that Contractor has carefully examined the Project Plans, Invitation for Bids and conditions therefor, and is familiar with all bid requirements, that Contractor has examined this Contract and the provisions incorporated by reference herein, and Contractor hereby proposes, and agrees that if its bid is accepted by the City, Contractor will provide all necessary machinery, tools, apparatuses, and other means of construction, and to do all the work and furnish all the materials and services required to complete the construction in accordance with the Contract, the Special Provisions, the Project Plan(s), and Addenda to any of the above as incorporated by reference, in the time stated herein, for the unit prices and/or lump sum prices as follows:



NAME OF BIDDER: \_\_\_\_\_

Contract #: C02404

Project Title: LAGUNA TREATMENT PLANT AERATION BASINS IMPROVEMENTS

Line #	Description	Unit	Quantity	Unit Price	Total Price
1	Mobilization and Demobilization	LS	1	\$ _____	\$ _____
2	Installation of Phase A Bypass	LS	1	\$ _____	\$ _____
3	Operate Phase A Bypass	Week	5	\$ _____	\$ _____
4	Dewater Settled Sewage Channel and Aeration Basin No. 4	LS	1	\$ _____	\$ _____
5	Cleaning Settled Sewage Channel and Aeration Basin No. 4	CY	950	\$ _____	\$ _____
6	Installation of Phase B Bypass	LS	1	\$ _____	\$ _____
7	Operate Phase B Bypass	Week	4	\$ _____	\$ _____
8	Dewater Mixed Liquor Channel and Aeration Basin No. 1	LS	1	\$ _____	\$ _____
9	Cleaning Upstream Mixed Liquor Channel and Aeration Basin	CY	700	\$ _____	\$ _____
10	Dewatering Downstream Portion of the Mixed Liquor Channel	Day	1	\$ _____	\$ _____
11	Cleaning Downstream Portion of Mixed Liquor Channel	CY	90	\$ _____	\$ _____
12	Dewater Aeration Basin No. 2	LS	1	\$ _____	\$ _____
13	Cleaning of Aeration Basin No. 2	CY	400	\$ _____	\$ _____
14	Dewater Aeration Basin No. 3	LS	1	\$ _____	\$ _____
15	Cleaning of Aeration Basin No. 3	CY	400	\$ _____	\$ _____
16	Pressure Washing Walls in Dewatered Channels and Aeration Basins	SF	1,950	\$ _____	\$ _____
				Total:	\$ _____

In the case of any discrepancy between the unit price and the total set forth for the item, the unit price shall prevail; provided, however, that if the amount set forth as a unit price is ambiguous, unintelligible or uncertain for any reason, or is omitted, or in the case of lump sum items, is not the same amount as the entry in the "Total" column, then the amount set forth in the "Total" column for the item shall prevail in accordance with the following:

1. As to lump sum items, the amount set forth in the "Total" column shall be the unit price;
2. As to unit basis items, the amount set forth in the "Total" column shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price.

The Total Base Bid shall be the sum of the "Total" column. In case of discrepancy between the sum of the "Total" column and the amount entered as Total Base Bid, the sum of the "Total" column shall prevail. The bid comparison will be based on the sum of the "Total" column for each bidder.

If this Contract Bid is accepted by the City and the undersigned fails to execute the Contract and to give all the bonds required under the Contract, with a surety satisfactory to the Award Authority of the City of Santa Rosa, within ten calendar days after bidder has received the Notice of Award from the Engineer, then the Award Authority may, at its option, determine that the bidder has abandoned the Contract, and thereupon this bid and the acceptance thereof shall be null and void, and the forfeiture of the security accompanying this bid shall be in accordance with California Public Contract Code section 20172.

The undersigned understands and agrees that the City is not responsible for any error or omissions on the part of the undersigned in making this bid.

The bidder to whom the Contract is awarded agrees to execute the Contract in favor of the City, in the form attached, and to deliver any and all required bond(s) and insurance certificates within ten calendar days from the date of Contractor's receipt of the Notice of Award. Following the award of the Contract, Contractor shall commence work within ten calendar days from the day authorized in the Notice to Proceed and diligently prosecute the same to completion in accordance with Section 8-1.04.

## LIST OF SUBCONTRACTORS

**NAME OF BIDDER:** \_\_\_\_\_

The following is a list of each subcontractor who will perform work or labor or render services to the undersigned for the construction of the project in an amount in excess of ½ of 1% of the total amount of this bid.

The undersigned agrees that any portion of the work in excess of ½ of 1% of the total amount of this bid and for which no subcontractor is designated herein will be performed by the undersigned.

<b>SUBCONTRACTOR NAME</b>	<b>SUBCONTRACTOR LICENSE NUMBER</b>	<b>SUBCONTRACTOR DIR REGISTRATION NUMBER</b>	<b>SUBCONTRACTOR BUSINESS ADDRESS</b>	<b>DESCRIPTION OF WORK (ITEM NO.)</b>



NONCOLLUSION DECLARATION  
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the \_\_\_\_\_ of \_\_\_\_\_, the party making the foregoing bid. The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. 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. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on \_\_\_\_\_ [date], at \_\_\_\_\_ [city], \_\_\_\_\_ [state].

NOTE: The above Noncollusion Declaration is part of the Contract Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Noncollusion Declaration.

BID BOND AFFIDAVIT AND BIDDER'S SIGNATURE PAGE

Accompanying this bid is a guaranty in the form of (Notice: Insert the words "cash \$," "Cashier's Check," "Certified Check," or "Bidder's Bond" as the case may be):

\_\_\_\_\_
in an amount equal to at least ten percent of the total of this bid.

The undersigned further agrees that if Contractor does not execute the Contract and deliver the necessary bonds to the City within the period of time specified in this Invitation for Bids, the proceeds of the security accompanying this bid shall become the property of the City of Santa Rosa, California, and this bid and the acceptance thereof may, at the option of the City, be considered null and void.

The undersigned is licensed in accordance with an act providing for the registration of Contractors, License No. \_\_\_\_\_, Class \_\_\_\_\_, expiration date \_\_\_\_\_.

The undersigned in registered with the Department of Industrial Relations, Registration No. \_\_\_\_\_.

IMPORTANT NOTICE: If bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager of the corporation; if a partnership, state true name of partnership, also the names of all partners in the partnership; if the bidder is a sole proprietor, state the business name and the proprietor's name in full.

Secretary of State Business Entity Number: \_\_\_\_\_.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Business Address

\_\_\_\_\_  
Telephone Number

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

BIDDER'S SIGNATURE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

**CITY OF SANTA ROSA COMMUNITY WORKFORCE AGREEMENT**

**CONTRACTOR AGREEMENT TO BE BOUND**

The undersigned, as a Contractor or Subcontractor ("Contractor") for the \_\_\_\_\_ Project, (hereinafter the "Covered Project"), for and in consideration of the award to it of a contract to perform work on said Covered Project, and in further consideration of the mutual promises made in the "City of Santa Rosa Community Workforce Agreement" (hereinafter "Agreement"), a copy of which was received and is acknowledged, hereby:

- (1) Accepts and agrees to be bound by the terms and conditions of the Agreement, together with any and all amendments and supplements now existing or which are later made thereto.
- (2) Agrees to be bound by the legally established local trust agreements as set forth in Article 17 of this Agreement.
- (3) Authorizes the parties to such local trust agreements to appoint trustees and successor trustees to administer the trust funds and hereby ratifies and accepts the trustees so appointed as if made by the Contractor;
- (4) Certifies that it has no commitments or agreements which would preclude its full and complete compliance with the terms and conditions of the Agreement.
- (5) Agrees to secure from any Contractor(s) (as defined in said Agreement) which is or becomes a subcontractor (of any tier) to it, a duly executed Agreement to be Bound in form identical to this document.

The obligation to be a party to and bound by the Agreement shall extend to all work for the Covered Project undertaken by the Contractor.

This letter shall constitute a subscription agreement, to the extent of the terms of the letter.

CONTRACTOR/SUBCONTRACTOR: \_\_\_\_\_

California Contractor State License No. or Motor Carrier (CA) Permit No.: \_\_\_\_\_

Name of Authorized Person (print): \_\_\_\_\_

Signature of Authorized Person: \_\_\_\_\_

Title of Authorized Person: \_\_\_\_\_

Telephone Number of Authorized Person: \_\_\_\_\_

Address of Authorized Person: \_\_\_\_\_

State Public Works Registration Number: \_\_\_\_\_

*[SIGNATURES APPEAR ON THE FOLLOWING PAGE]*

In witness whereof, the Parties have caused this Agreement to be executed as of the Effective Date.

**SIGNATURES**

CITY OF SANTA ROSA

NORTH BAY BUILDING AND  
CONSTRUCTION TRADES COUNCIL

By: \_\_\_\_\_

\_\_\_\_\_  
By: Michael Allen, Secretary/Treasurer

Title: \_\_\_\_\_

APPROVED AS TO FORM

\_\_\_\_\_  
City Attorney

**SIGNATORY UNIONS:**

\_\_\_\_\_

\_\_\_\_\_



**CONTRACT**

**CITY OF SANTA ROSA**

**CALIFORNIA**

**CONTRACT NO. C02404  
LAGUNA TREATMENT PLANT AERATION BASINS IMPROVEMENTS**

This Contract is made and entered into as of date to be added upon award at Santa Rosa, California, between the City of Santa Rosa ("City") and \_\_\_\_\_ of \_\_\_\_\_ ("Contractor").

ARTICLE I - For and in consideration of the payment and agreement hereinafter mentioned, to be made and performed by City, and under the conditions expressed in the required bonds hereunto annexed, Contractor agrees that for the benefit of City, at its own cost and expense, to do all the work and furnish all the materials, except such as are mentioned in the Special Provisions to be furnished by City, necessary to construct and complete the work herein described in a good, workmanlike, and substantial manner. The work embraced herein shall be done in accordance with the Standard Specifications of the State of California Department of Transportation, dated 2010, insofar as the same may apply (Standard Specifications); in accordance with the City of Santa Rosa Construction Specifications for Public Improvements (City Specifications); in accordance with the City of Santa Rosa Design and Construction Standards, (City Standards); in accordance with the State of California Department of Transportation Standard Plans, dated 2010 (Standard Plans), (collectively, "Contract Documents") and in accordance with the Special Provisions hereinabove set forth, all of which are hereby incorporated into and made part of this Contract.

ARTICLE II - Contractor agrees to receive and accept the following prices as full compensation for furnishing all materials and doing all the work contemplated and embraced in this Contract; also for all loss or damages arising out of the nature of the work aforesaid, or from the acts of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its acceptance by City and for all expenses incurred by or in consequence of the suspension or discontinuance of work, and for well and faithfully completing the work, and the whole thereof in the manner and according to the Project Plans and Invitation for Bids therefor, and the requirements of the Engineer under them to wit:

ITEM NUMBER	QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
			\$ _____	\$ _____
TOTAL BASE BID (SUM OF "TOTAL" COLUMN)			\$ _____	

**BID ITEMS IN THIS SECTION WILL BE INSERTED  
UPON AWARD OF THE CONTRACT AND SHALL BE  
THE SAME AS THOSE BID UPON.**

ARTICLE III - City and Contractor hereby promise and agree that Contractor shall provide the materials and do the work according to the terms and conditions herein contained and referred to, for the prices aforesaid, and City hereby agrees to pay for the same at the time, in the manner, and upon the conditions set forth; and the parties for themselves, their heirs, executors, administrators, successors, and assigns, do hereby agree to full performance of the covenants herein stated.

ARTICLE IV - By execution of this Contract, Contractor hereby represents and certifies that Contractor is aware of the provisions of Labor Code section 3700 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 Contractor hereby agrees to comply with such provisions before commencing the performance of the work of this Contract.

ARTICLE V - It is further expressly agreed by and between the parties hereto that the Invitation for Bids, containing the Notice to Bidders including any required Bonds, the Contract Documents, and any Addenda are all essential parts of this Contract and are specially referred to and by such reference made a part hereof. In the event of any conflict in the provisions thereof, the terms of said documents shall control each over the other, in the following order:

1. Special Provisions
2. City Standards
3. City Specifications
4. Standard Specifications

ARTICLE VI - Contractor agrees to commence work pursuant to this Contract within ten calendar days from the date authorized in the Notice to Proceed and to diligently prosecute the same to completion in accordance with Section 8-1.04C of the Special Provisions.

This Contract shall not be transferred or assigned without the prior written consent of City, which may be withheld by City in its sole and absolute discretion.

If Contractor is a corporation, two corporate officers of Contractor, one from each of the following two groups shall execute this Contract: a) the chairman of the board, president or any vice-president; b) the secretary, any assistant secretary, chief financial officer, or any assistant treasurer. The name and title of the corporate officers shall be printed under the signature.

In witness whereof, the parties hereto have executed this Contract as of the date first written above.

**City:**

City of Santa Rosa,  
a Municipal corporation

By: \_\_\_\_\_

Title: \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_

Title: \_\_\_\_\_

Approved as to form:

By: \_\_\_\_\_

Office of City Attorney

**Contractor:**

Name of Contractor,  
Type of entity

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_