



**Montara Water
and Sanitary District**
Serving the Community of Montara and Moss Beach

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To sensitively manage the natural resources entrusted to our care, to provide the people of Montara - Moss Beach with reliable, high – quality water, wastewater, and trash disposal at an equitable price, and to ensure the fiscal and environmental vitality of the district for future generations. Be open to providing other services desired by our community.

AGENDA

District Board of Directors

8888 Cabrillo Highway
Montara, California 94037

February 7, 2019 at 7:30 p.m.

CALL TO ORDER

ROLL CALL

PRESIDENT'S STATEMENT

ORAL COMMENTS (Items other than those on the agenda)

PUBLIC HEARING

CONSENT AGENDA

1. [Approve Minutes for January 17, 2019.](#)
2. [Approve Financial Statements for December 2018.](#)
3. Approve Warrants for February 1, 2018.
4. [SAM Flow Report for December.](#)
5. [Monthly Review of Current Investment Portfolio.](#)
6. [Connection Permit Applications Received.](#)
7. [Monthly Water Production Report for December 2018.](#)

8. [Rain Report.](#)
9. [Solar Energy Report.](#)
10. [Monthly Public Agency Retirement Service Report for November 2018.](#)

OLD BUSINESS

NEW BUSINESS

1. [Review and Possible Action Concerning Sewer Authority Mid-Coastside FY 18-19 Budget Amendment.](#)
2. [Review and Possible Action Concerning Wagner Well Rehabilitation and Water Main Replacement Project Authorization to Bid.](#)
3. [Review and Possible Action Concerning Confirmation of Officer's Appointment to CSDA.](#)
4. [Review of New Intake Structure for A.V.T.P.](#)
5. [Receipt of the Association of California Water Agencies Joint Powers Authority President's Special Recognition Award.](#)
6. [Review and Possible Action Concerning Cancellation of Next Regular Scheduled Meeting February 18, 2019.](#)

REPORTS

1. Sewer Authority Mid-Coastside Meetings (Boyd).
2. MidCoast Community Council Meeting (Slater-Carter).
3. CSDA Report (Slater-Carter).
4. Attorney's Report (Schricker).
5. Directors' Reports.
6. General Manager's Report (Heldmaier).

FUTURE AGENDAS

ADJOURNMENT

CONVENE IN CLOSED SESSION

CONFERENCE WITH LEGAL COUNSEL -- EXISTING LITIGATION

(Government Code §54956.9(d)(1))

Case Names: *City of Half Moon Bay v. Granada Community Services District, et al.*
(Santa Clara County Super, Crt. No. 17CV316927)

Regional Water Quality Control Board v. Sewer Authority Mid-Coastside
(ACL Complaint No. R2-2017-1024)

Regional Water Quality Control Board v. Montara Water and Sanitary District (ACL Complaint No. [unspecified])

CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION

(Government Code §54956.9(d)(2))

Significant Exposure to Litigation:

Number of cases: 2

REPORT OF ACTION TAKEN IN CLOSED SESSION, IF ANY ADJOURNMENT

The District has a curfew of 11:00 p.m. for all meetings. The meeting may be extended for one hour by vote of the Board.

NOTE: In accordance with the Government Code, members of the public may address the Board on specific agenda items when the matter is discussed by the Board. Any other items of interest that is within the subject matter jurisdiction of the District may be addressed during the Oral Comments portion of the meeting. Upon request, this Agenda will be made available in appropriate alternative formats to persons with a disability. Request for a disability-related modification or accommodation in order to participate in the public meeting should be made at (650) 728-3545. Materials related to an item on this Agenda submitted to the Board after distribution of the Agenda Packet are available in the District Clerk's office during normal business hours. Such documents may also be available on the District's web site (www.mwsd.montara.org) subject to staff's ability to post the documents before the meeting.



MONTARA WATER & SANITARY
DISTRICT

BOARD OF DIRECTORS MEETING
January 17, 2019

MINUTES

REGULAR SESSION BEGAN AT 7:33 p.m.

CALL TO ORDER

ROLL CALL

Directors Present: Boyd, Slater-Carter, Harvey, Marshall and Lohman

Directors Absent: None

Staff Present: General Manager, Clemens Heldmaier
District Clerk, Tracy Beardsley

Others Present: District Water Engineer, Tanya Yurovski
General Manager of Recology of the Coast, Chris Porter

PRESIDENT'S STATEMENT –

Director Boyd, President Pro-tem: I would like to take a minute to welcome the new members and the returning member, the transferee from Granada (Director Lohman). Having done this for a while, it is great to have people step up, come to meetings, do all the homework, engage in discussion, and debate to solve problems together, with a spirit of good will and community spirit, do things that affect the community. People often tell me that it must be a thankless job. But, it is not. The camaraderie that we get from building a team, solving problems together; the members of the community have always been so vocal in their appreciation for

what this Board does, and tonight it is going to be my pleasure to swear in three members of this Board—I will administer the oath—and I just want to start out by expressing my deeply held conviction that family members and loved ones of the people who are doing this work are making a great contribution in supporting their family and friends in contributing to this. One meeting is fun, the second meeting starts to get a little more real, and by the 30th meeting it really is a job. The help and support of family and friends are so important, and if you are one of those family members or friends, I would like to thank you for your support you've given the people for those currently on the Board and those family and friends joining the Board, for your patience, forbearance, and support. It really does take a group to make this happen. And at a time when our nation is in such turmoil, this small group of people come together and solve problems—even though we bring our different points-of-view, and/or experiences. Time after time, the people of this community have come to solve problems have proven that all politics are local, and when people of good will get together, we actually solve big problems--some problems that are way bigger than a handful of people in a small room ought to be able to solve. It is just a delight. With that, I am going to move *Business Item 2* to follow *Oral Comments*.

ORAL COMMENTS -

Director Slater-Carter: I would like to make a note that we have two former Board members in our audience, Lou Wall and Bob Ptacek. It shows the involvement and dedication of members of this community. Two there solely elected Board for Montara and Moss Beach and one member from the Midcoast Community Council (MCC), Barbra Mathewson. Her dedication to serving our community is very important. It is an honor, and a pleasure to have Lou, Bob, and Barbara here. Thank you very much.

Director Harvey: Bob Ptacek played a heavy role in the purchasing of the District and was here for many late night/early morning meetings.

Bob Ptacek: Just the water part, not the poop part.

Director Harvey: And Lou Wall is our esteemed historian and was involved at the beginning of this Board and SAM. He attends all the meetings here and at SAM, and continues to make a big contribution.

Director Lohman: I just want to thank Clemens and the staff for the warm welcome, thorough tours, etc. we received as new members here.

General Manager Clemens Heldmaier: I would like to thank our former District Clerk, Judy Gromm, who retired about a year and a half ago, and she is still delivering cookies to us. And since we didn't have a late December meeting, she dropped off a whole batch of cookies for everyone right now. I'm just letting you

know. Please don't miss out on the opportunity to get some of Judy's homemade cookies.

Director Slater-Carter: Judy's cookies are the best ever.

All the Directors concurred and thanked General Manager Heldmaier and Judy Gromm.

Director Boyd: Let's move on to New Business item 2. We should do New Business item 1 first.

General Manager Heldmaier said that for New Business item One, we need the new Board members to be able to make the decision on New Business item one, the recommendation from District Counsel is to do New Business item 2 first.

2. Review and Possible Action Concerning the Administration of the Oath of Office to the Newly Elected Board Members.

Director Boyd said he will ask each new Board member, in turn, to stand and he will administer the Oath. He showed the audience a Certificate from Mark Church, the Chief Elections Officer and Assessor County Clerk Recorder, the beautiful Certification of Election Certificates for each newly elected member. Beginning with Eric Marshall, Director Boyd proceeded to administer the Oath of Office individually to each Board member, Eric Marshall, then Ric Lohman, and finally Jim Harvey. They each signed the Oath of Office and submitted it to General Manager Heldmaier.

Director Boyd congratulated all three Directors.

PUBLIC HEARING

1. Review and Possible Action Concerning Establishment of Prop 218 Limits for Solid Waste Disposal Fee Increase, effective January 1, 2019.

General Manager Heldmaier: Our Franchise agreement with Recology of the Coast requires that we review the solid disposal rates annually, and adjust them January 1st each calendar year. We received the calculations around October, then we went through a formal evaluation of the numbers through our accounting firm, Maze & Associates. The contract is structured so there is one year in which the cost is index-based, and one year in which it catches up and is cost-based. This year it is a cost-based year assessment, and with the formulas applied, according to the contract, the rate should be adjusted to a 12.14% rate increase over the prior year's 2018 rates. However, there is a cap in the contract in which the rate can't go over 6% at this time. The reason for the rate increase is labor costs (salaries, benefits, and pensions), fuel costs increased significantly, and not just a loss of income, but the costs to recycle. Part of the formal process also requires a

Prop 218 Public Hearing which is what we are doing now. Notices were mailed to all property owners in Montara and Moss Beach, notifying them of the proposed rate increase. The way the process works is if the majority of residents objects to the rate increase, we would need go back to the drawing board and re-negotiate again. Currently, we have two protest letters. The recommendation is to open the public hearing, allow relevant testimony, close the public hearing, then count all allowable Prop 218 protests received, determine whether or not the proposed rate limits should be approved in accordance with Prop 218, and then if that is the case, adopt the Ordinance of the Montara Water and Sanitary District (MWSD) establishing maximum rates for the collection, removal, and disposal of refuse and for recycling services effective January 1, 2019. General Manager of Recology of the Coast, Chris Porter, is here to answer any questions, make comments, etc.

Bob Ptacek, Montara resident: I am in support of the rate increase. I have dealt with Recology and its previous folks in a number of contracts when I was on the Board, and I have always found that Recology delivered quality service for valid expenses. They have been delivering service to this community, not to make profits for themselves, which is reasonable for any corporation, but they have done extra work, such as the big pick-ups a couple of times a year, sponsored things that we have needed funds for, and they are a good steward of what they do. They are very good at controlling expenses. The contract being asked for is valid, and I whole-heartily support it.

Director Boyd asked if anyone else would like to speak, and hearing none, he closed the Public Hearing and commenced the counting of the Protests.

General Manager Heldmaier counted the protest letters, and announced that there are 2 letters.

Director Boyd said that it sounds like we can determine that the rate limit should be approved.

Director Slater-Carter said that there are many retirees, many on fixed incomes, in this community, where pennies count. She suggested that MWSD publish on their website, billing, and newsletters, that customers can downsize to the 20-gallon cart, which is available, and suggest ideas to reduce a household's volume of garbage. For instance, choosing to buy items that have less packaging. While dumping garbage in the creek is not acceptable, she wants the District to help people be responsible for the amount of trash they discard and try to make efforts to reduce their footprint.

Director Slater-Carter made a motion to adopt the Ordinance of the Montara Water and Sanitary (MWSD) establishing maximum rates for the collection, removal, and disposal of refuse and for recycling services effective January 1, 2019. Director Marshall seconded the motion. All Directors were in favor and the motion passed unanimously 5 – 0.

2. Review and Possible Action Concerning Adoption of a Revised Master Fee Schedule to amend Solid Waters Disposal Fees.

General Manager Heldmaier announced that with the adoption of the Prop 2018 limit for solid waste removal fees, the new fees must be set in the Master Fee Schedule by adopting the Ordinance of the Montara Water and Sanitary District restating and amending the Master Fee Schedule. He recommended that the Public Hearing be opened, consider relevant public testimony heard, close the Public Hearing and then adopt the Ordinance of the Montara Water and Sanitary District restating and amending the Master Fee Schedule.

Director Boyd opened the Public Hearing.

General Manager Chris Porter: Hello, I am Chris Porter, the General Manager of Recology of the Coast for the last 34 years. I would like address Director Slater-Carter's point. For residents on the PG&E Care program for low income residents, and a copy of their statement received, Recology will give a 15% discount on a 20 gallon cart. If anyone is interested, you can contact the office, and they will be happy to help you. As far as the recycling, Recology as a corporation, has made the corporate decision not to landfill any of the recycled materials. I know this is an important issue for people on the Coastside. And it is costing us money. But I know that the citizens on the Coast appreciate that. There are other companies on the Coast that are landfilling recyclable materials. And if we stopped taking recyclable materials, what would happen? Recology of the Coast, within the corporate structure of Recology, has the most customers using the 20 gallon cart of all the Recologies. There is a reason for that—it is because we care about the environment on the Coastside. If we stopped taking recyclables, then people would have to get a bigger garbage cart, from a 20 gallon to a 32 gallon cart, and that is a \$15.00 difference. So, that is not acceptable either. So, as Director Slater-Carter was saying, we are asking everyone to be more prudent when shopping. Bring your own bag, or Tupperware, and when ordering take out from a restaurant, don't get all the serve ware and extras—they all have to go someplace. Be your own personal steward. We continually put ideas in the Half Moon Bay Review and Pacifica Tribune with ideas on how to simplify your everyday lives to cut down waste. We are very prudent about our expenses. We go all out to collect on delinquent customers, and we try to collect from customers as we go along, because that affects everyone's payment. We are trying a lot of different things. We started quarterly clean up, taking a lot more things than we were taking before. Our office staff complimented the Montara and Moss Beach customers, because there is never any problems at the events. We are available 5 days a week.

Director Harvey: What happens to the items that we put in recycling that you can't process or can't recycle?

Chris Porter: We are processing everything. We had a contract that expired in September 2018 in which we were getting paid \$30/ton for recycling. Right now, we have to pay \$20/ton in the secondary market to take the materials. That material is not being landfilled. It is costing them more to find markets to accept the material but it is not being landfilled. That is a \$50 dollar swing right there. But, again, we have made the decision not to landfill.

Director Harvey; That is very commendable, Chris. So, going down the line, when these buyers purchase the materials, it ends up being truly recycled?

Chris Porter: Recology has also reached out all over the world within the last 9-12 months and we have found new markets. However, it will take time to develop a relationship with them. So, we have signed a 2-year contract with our old supplier, secondary market, Green Waste Recovery, in San Jose, to get us over the hurdle, hoping that markets will open up. There is a lot of disclaimers in the contract, so that if things do change, the price will change of what we are paying. I am hopeful that we can break even. In the negotiations, the cleanliness of the materials from the Coastside really helped. It helped what I was fighting for at the table. Our workers are very focused when they pick up the recycling. When there are items that do not belong in there, they will tag the carts. All that hard work on our part the hard work of the residents help to keep costs low.

Director Harvey: So, it is worth it to clean that empty jar of peanut butter?

Chris Porter: Yes. It is much more important now than it was 6 months ago. There used to be a 5% contamination, so if people put plastic bags in the bin, or their recyclables in a plastic bag, we would take it because it would break out within the 5%. However, now we can't do it, because the contamination level is less than 1% so we can't accept any plastic bags. So around October and November, we were tagging carts like crazy. In every piece of material we send out, it specifically says "no plastic bags." Now, we definitely have to enforce it. That is where we are at right now. We are working hard with the community, and we have gotten feedback. We are part of the community too—82% of the workforce resides on the Coast.

She also showed everyone a copy of the 2019 Montara/Moss Beach Residential Green Waste Calendar & Service Brochure and said that they were mailed to all customers recently and extra copies are available in the office.

Director Slater-Carter: I have a suggestion. An issue that I have been following through Recycled Water is the issue of microfiber. And when I talked to you a while back, you said that microfiber can't be recycled. Perhaps when Recology is talking to their research folks, there could be a way to find how to recycle microfiber. Some environment organizations are starting to ban microfiber. It is a manmade product, which is invasive. There has been research that revealed microfiber has actually been found in the flesh of fish caught in the ocean offshore here. If we

could find a way to recycle it, I think that would be great. If we start asking the question now, we will get an answer sooner.

Chris Porter: I could definitely do that. Now, that we have a new governor, it is behoven upon us to say to the Department of Conservation, "what are you doing to help us?" They will come down and audit what we are doing and what we are picking up, and what are they doing to help in opening up markets? We get calls at the office asking "why are we taking the money at the supermarkets for recycling when there is nowhere to bring the recyclables for redemption?" The CRV money goes to fund the State programs. And the State needs to do something to help us now. If the president of this Board asks that question, it means a lot more than if I ask that question. I'm asking for help.

Director Boyd: So that would be Governor Gavin Newsom, and he has an office with a phone. Maybe it is worth a phone call.

Director Boyd: I would like to reiterate that the PG&E Care rate may not apply to you, but if you know of any of your neighbors that it may apply to, reach out to your neighbors. If you help your neighbors save 15% on their solid waste, that is solid thing to do. This is a great example on how we nerd out on the weirdest little details. Chris, you clearly love your work; thank you for being here.

Director Lohman made a motion to adopt the Ordinance of the Montara Water and Sanitary District restating and amending the Master Fee Schedule. Director Marshall seconded the motion. All Directors were in favor and the motion passed unanimously 5 – 0.

CONSENT AGENDA

1. Approve Minutes for December 6, 2018
2. Approve Financial Statements for November 2018
3. Approve Warrants for January 1, 2018
4. SAM Flow Report for November
5. Monthly Review of Current Investment Portfolio
6. Connection Permit Applications Received
7. Monthly Water Production Report for November 2018
8. Rain Report
9. Solar Energy Report
10. Monthly Public Agency Retirement Service Report for October 2018

Director Harvey moved to approve the Consent Agenda and Director Slater-Carter seconded the motion. All Directors were in favor and the motion passed unanimously 5 – 0.

OLD BUSINESS – None

NEW BUSINESS -

1. Review and Possible Action Concerning Certification of the Results of the November 6, 2018 Statewide General Election.

General Manager Heldmaier said that we are required to adopt a resolution declaring the results of the District election held on November 6, 2018. This is something usually done in December, and the Elections Board has one month to certify the elections. This time, the results were sent out December 6th (the last day), and we received it on December 13th. We have them now, and the recommendation is to adopt the resolution declaring the results of the District election held on November 6, 2018.

Director Slater-Carter moved to adopt the resolution declaring the results of the District election held on November 6, 2018. Director Marshall seconded the motion. All Directors were in favor and the motion passed unanimously 5 – 0.

3. Review and Possible Action Concerning Appointments of Board Officers and Committee Assignments for 2019.

General Manager Heldmaier: We prepared a spreadsheet showing the appointments assigned in 2018, and we are recommending the action to appoint Board officers and committee assignments for 2019.

Director Slater-Carter was nominated President by Director Marshall, and seconded by Director Lohman. By acclamation, Director Slater-Carter will now serve as Board President.

Director Harvey was nominated President Pro Tem by Director Slater-Carter, and seconded by Director Marshall.

Director Lohman was nominated as Secretary by Director Slater-Carter.

Director Boyd said that the Secretary Pro Tem is everyone else, besides the President. This is so that Directors can be available to sign documents and warrants.

Director Marshall was nominated as Treasurer by Director Slater Carter and seconded by Director Lohman.

Director Boyd: Let's move on to Agency Representatives. Let's start with SAM representatives.

Director Lohman was nominated as a SAM representative and Director Slater-Carter indicated that she would like to remain a SAM representative, with Director Boyd and Director Harvey as alternates.

Director Lohman was nominated as CSDA and ACWA member representative.

General Manager Heldmaier pointed out that Director Lohman would be representing MWSD in the Association of California Water Agencies (ACWA) as well as the ACWA Joint Powers Insurance Agency as well.

Director Slater-Carter and Director Marshall were appointed as the Budget and Finance representatives.

Director Harvey and Director Marshall were appointed as the Personnel representatives.

Director Boyd: The Budget and Finance committee and the Personnel committees are standing committees, which requires that they have a regular schedule, they be publically noticed and treated under the Brown Act as a public meeting. Ad hoc committees meet as needed. There is no requirement of a regular schedule, noticed, or open to the public. They can be at the discretion of the committee or the Board itself.

Director Harvey asked what had happened to the Water committee.

Director Slater-Carter replied that it had been discontinued when MWSD became a water district. Now it is the Planning Committee and it is overall for the whole District.

Director Slater-Carter and Director Harvey were appointed for the Recycling/Solid Waste and Outreach/Newsletter ad hoc committees. Gregg Dieguez volunteered to help if needed.

Director Boyd suggested discontinuing the WEB committee. It seems to be well in hand by staff and consultant.

Director Slater-Carter and Director Harvey were appointed for the Outreach/Newsletter ad hoc committee. Gregg Dieguez volunteered to help if needed.

Director Slater-Carter indicated that she wanted to stay on the Legislative ad hoc committee and she had been working through CSDA.

Director Boyd that Director Slater-Carter can work with staff as needed.

Director Boyd: We should discontinue the CCWD committee based upon their lack of interest. We would do well as a group to express our willingness to work with CCWD on any matter at any time as the Recycled water looks like it has a chance to pick up again. Right now, we don't have a need to meet with them, but I look forward to the opportunity to do that. Recycled Water committee...

General Manager Heldmaier said this is not actually a committee. It is a single seat at the Recycled water committee that Montara has—stakeholder committee.

Director Boyd: Given where things are with SAM right now, we can do away with this one. We can reconstitute it if the need should arise. We certainly have people here who are willing to work with recycled water. That seat was intended for Montara to have a seat at the table as a water agency in the Recycled water round table. If that picks up again, it makes sense to appoint someone to fill that role. Also, with the Wireless Lease, we have this well in hand now with the consultant and don't need it. Let's do away with this one.

Director Slater-Carter and Director Harvey were appointed for the Planning ad hoc committee and the Big Wave ad hoc committee.

Director Boyd: What about the Rate Study committee? Do we have any rate studies coming up? If not, we don't need a committee right now.

General Manager Heldmaier indicated that one would be needed in 2020.

Director Boyd: the Board President can appoint members to an ad hoc committee any time. We try to do this at once at the Board level for visibility and also so that everyone is willing to sign up for the commitment.

Director Slater-Carter and Director Marshall were appointed for the Connection Fee Committee and the Strategic Plan Progress committees.

Director Boyd said notes will be shared with the recording secretary and thanked the Board members for stepping up.

4. Review and Response to Resident Questions about Fire Flow

General Manager Heldmaier stated Montara Resident Gregg Dieguez came the November meeting with some important and timely questions about the fire flow in the District. The Board recommended that this topic be agendaized and addressed. It was not agendaized for the December meeting (as the District Engineer was not able to come), and some clarifications were needed. General Manager Heldmaier had also hoped that this would be a larger discussion with the community, having invited Cal Fire to come to the meeting to provide additional comments. However, there was no response from Cal Fire officially. District Water Engineer Tanya Yurovski was present to respond to Mr. Dieguez's inquiries.

District Water Engineer Tanya Yurovski: Mr. President, members of the Board, there were a few really detailed questions, and I'm just going to go over them with my responses.

Question 1: With the projected connection growth, how is pressure maintained throughout the system to fight fires?

This is a very good question, but also reflects how complex the water system is and how it is viewed in its dynamic. The distribution system, the pipes and other pertinences that deliver water to the customers, the pressure in that system is maintained by the tanks, and the level in the tanks dictate the pressure in the system. That is how the District will fight fires. These are elevations that are fixed and not dependent on water consumption. The reason being, that the storage in the tanks consist of several components. The components are emergency storage which this District chose a very conservative number of 2 days of maximum day demand. This would be for a severe emergency like an earthquake, and these tanks will maintain 2 days of supply for customers.

Director Slater-Carter: When you say conservative, you mean we are going for the higher values, not the lesser expensive values.

District Water Engineer Tanya Yurovski: Yes, conservative, meaning higher storage. The second component is fire storage, which is calculated, and I will talk about that later. And again it is very conservatively high for design fire. And the third component is operational storage which fluctuate over the course of the day and then gets replenished at night. So, that is how pressure is maintained in the system to fight fires or provide your daily service.

Question 2: Is a 2-hour design fire a reasonable depiction of the risks we face? What other scenarios would be prudent to plan for? The design fire for water systems is dictated by the Fire Code, and over the years the design fires have been reduced. This Board has elected to use a very high conservative design fire, which is 2,000 gallons/minute for 2 hours which results in 240,000 gallons of storage for fire alone—and that storage is always there. It is not being touched by the daily demands or any other issues. In comparison, the Fire Code would allow us to use 750 gallons/minute for 1.5 hours, and we have 2,000 gallons/minute for 2 hours. The Board has consistently supported that criteria. This was established when the water system was purchased and it is re-established when the Board adopts the Master Plan, every 5 years.

Question 3: Why isn't the "fire reserve" reserved and deducted from planned capacity in projections of how many connections MWSD could support?

The fire reserve is not a capacity number; it is a storage number, solely dedicated for fire-fighting and it is always in the tanks. The District doesn't drain the tanks. The volume of water in the tanks goes down during the day with consumption, but the fire reserve is always there intact, available plus the emergency storage.

Question 4: How does the "real peak fire reserve" compare to mid-year and end of year storage at each tank? How would the water be directed to the likely fire areas?

I must admit I struggled a little bit with this question, because we don't have real peak fire reserves. This question really relates to an agency that has lakes and storage reservoirs, for example, Hetch Hetchy, Crystal Springs or Dennison Reservoir. This District does not operate open air storage. The District has Montara Creek, and several ground water wells for supply, available at a moment's notice. It is utilized based upon its sequential order of preferences. The tanks are replenished daily, not seasonally, except for the fire storage, which is never used other than for a fire. The second part of the question is "*How would the water be directed to the likely fire areas?*" I apologize, I don't understand what the "likely fire areas are." If there is a fire, the distribution system is designed to deliver water to provide service to any point in the system. The fire flow is delivered to the hydrants, and the hydrants are always in the distribution system ready to go. The ability of the distribution system to deliver adequate flow and pressure is tested through hydraulic modeling in hydrant tests. The Fire District runs fire flow tests. The District has an annual capital improvements program that includes distribution system improvements and we implement projects every year to improve the ability to deliver fire flows—replacing old pipes with smaller diameters with regular diameter pipes, etc. which improves the fire flow everywhere.

Question 5: *Would a fire in Rancho Corral de Tierra affect our access to and use of water pumped and store there or other locations? How is any fire-related outage factored into our available capacity or reliable water supply?*

Rancho Corral de Tierra is not a District customer. So, a fire on their property should not affect the District at all unless it spreads to the District area. We don't have a criteria for fire-related outages, because we don't anticipate any. Fire-related outages for the water system are not customary. They do not exist in our industry.

General Manager Heldmaier: The pipes are not vulnerable, as they are underground. Thus, a fire related outage is not expected.

Director Lohman: What about the pumps and connecting controls. If there was a fire would that hurt us?

General Manager Heldmaier: No, it is all gravity. The tanks are on the hill....

District Water Engineer Tanya Yurovski: Fire flow is provided by gravity.

District Water Engineer Tanya Yurovski: The second part of that question deals with the reliable water supply. The way the District estimates its reliable water supply is with the largest source out of service. We are assuming for reliability, the District must operate with one larger source out of service always. This is the criteria used by the State to check the reliability of our water system and everything is planned around that number—that is with one source out of service. So, that is the conservative reliability number. Question 6: *What actions are being taken to remedy the 2017 Master Plan note that "39 percent of the nodes in the distribution system are unable to provide adequate fire flow"?* The District plans

projects to make improvements. The Master Plan reveals vulnerabilities/deficiencies in the system and we then plan projects and improvements every year. Those are outlined in the water system capital improvements program which is a 10 year projection, but it is adopted every year by this Board in the spring.

Director Boyd: The Fire flow capabilities are shared with the Fire Department, correct? Or, they have access to all of this? Have they raised any concerns with this?

General Manager Heldmaier: The Fire Department has access to all this information. This is closely looked at during the ISO assessment, where our flow are in the system, which is done on a Coastside wide basis. Then that gets calculated into some sort of factor that determines your house fire insurance. I would also like to point out that we are unable to provide adequate fire flow according to District standards set fire flow, and not the Fire Department standard of 750 gallons/minute. This is our own requirement, where we say we have to bring it up a little more. When we took over the water system 15 years ago, we began implementing a big project checking all the hydrants, replacing pipes, and making repairs. And since then, every year we are making improvements. Fire flow is something that is considered with every project. This is something we are proud of, having achieved significant improvements in our water system fire flow.

Director Boyd: Right off the bat, we went after some pressure regulating valves, which were key functional components that would have a big impact on the ability to deliver in a given zone—that was one of the first things we did. I also want to mention Kathryn, Gary Warhaftig and I (and staff) went up and spent time with the Coastal Commission and talked to them about how to accelerate the necessary improvements for fire flow. That was the very first thing that we did.

Director Slater-Carter: Fire flow was one of the driving mandates for taking over the water system. We had been working with the California Public Utilities commission in reference to the former water district charging customers for improvements never done. Point Montara Fire District coming up to testify with us to PUC staff and the CPUC. It has been a very strong focus of this community and this District. I would also like to point out in reference to the area of Rancho Corral de Tierra and areas outside the Urban Rural boundaries, we are limited by the County Local program and Public Works Plan to have our hydrant locations within the Urban Rural Boundary. It is important for a number of reasons. Cal Fire is very aware of this. When there was a fire a couple of years ago, outside the Urban Rural boundary, we had helicopters and tanker airplanes putting it out, and it was out in an hour or so.

Director Boyd: Cal Fire has the ability to perform fire suppression in rural areas. I've seen them in action and it is amazing.

Director Slater Carter pointed out that problems with other area fires had to do with the bad roads. The Counties are allowing development in areas with a lot of trees and dry brush. Cal Fire is very good about checking properties to make sure people have a fire safe area around your house and putting out notices to control brush. But the roads, as in Paradise, there were a lot of single lane road, that when a tree went across them, there was no alternate way out. For most places in Montara and Moss Beach, there is more than one way out.

General Manager Heldmaier pointed out the replacement of one tank and the addition of two tanks in the last 5 years, adding an additional 600,000 gallons of storage, and that is all for potential fire flow. He went on to say pressure reducing stations are fairly challenging. MWSD has a large number of pressure reducing stations, and the staff is trained in operating and maintaining--repair and replace parts, which has reduced the number of incidents involving PRV stations. This is all done in-house, and it is one of those day-to-day operations that the Board is not aware of. The staff has been very active in maintaining our PRV stations to ensure that fire flow is guaranteed.

Director Harvey: So, they are able to maintain and certify or calibrate...

General Manager Heldmaier: Staff is able to service them. They have to be checked on a regular basis. Some of them are above ground, but the majority are underground. There is a lot that needs to be taken care of when it comes to these stations.

Director Harvey: How many are there approximately?

General Manager Heldmaier: We have 13 big pressure zones, and 1 pressure zone that consists of 5 individual pressure zones; so 17 pressure zones. And within each pressure zone, there is 1-4 stations going.

Gregg Dieguez, Montara resident: Thank you, Clemens and staff, for a thorough and timely response to my questions. I can't find the Montara Water Capital improvement plan. The only thing I found was a 7 row list on page 26, of the June 2017 Master Plan. So, I don't see yet how that relates to my concern for example low hydrant pressures, and I do appreciate Clemens' explanation that it is maybe not that low in relation to District standards, in comparison to the lower State standard. I also understand that Rancho Corral de Tierra has its own water for fire-fighting and responsibility....but fire that spreads could impact us all. Also, I wondered about above ground electronics and controls and if it could be affected by a fire, and it is good to hear that it a gravity feed, and the lines are below ground. There may be an issue with replenishment rate. I read part of a study that Clemens you worked with a Professor who presented that in a drought year there was a boundary on the degree in which they could pump out of a granite fissure well. There may be some replenishment issues even if there isn't an immediate storage issue in a drought year. The bottom line is I'm not a water professional nor

a fire professional, I may be a professional worry wart... I would feel better if I knew that we had a recent fire-preparedness audit—not just in Montara—but in the Mid-Coast. That would give us a bill of health, or a series of actions steps that we could take as a joint community. Now, I recognize that this Board and staff have a lot on their “plate” and given this was given attention and deemed under control, this may not be something you want to do right away. I will leave it to the Board to determine if a fire preparedness audit is of interest, and I will again speak to the MCC about it. So, I leave it to you, and thank you for your time and attention.

Director Boyd inquired where the capital improvement section is in the Master Plan.

General Manager Heldmaier said that the capital improvement projects are listed in the Budget, which is online.

Director Boyd encouraged people to read the Master Plan update and find out just how much work goes into the planning of the water system. It’s on the website and most of it is quite readable.

Director Lohman: On the tour, we talked about the Portola estates area being somewhat separate. Do they have similar flow rate potentials?

General Manager Heldmaier said the fire flows is similar to what the hydrants provide. They are actually pressure and the pressure in that zone for most hydrants is good. The accessible volume is a little different in the Portola zone, and that is the only zone in which a pump would be needed to increase volume.

Director Slater-Carter thanked Gregg for bringing this topic up, as it is important to the community to get a review every once in a while about these critical issues.

5. Review and Possible Action Concerning Adoption of Connection Charge Report.

General Manager Heldmaier said this is an item we are required to do annually. Senate Bill 1760 requires that we review our development fees and charges. We are showing the amount of connection fees collected and these funds were used on capital projects. When the connection fee fund is filled, the money is taken out immediately and everything is spent on capital projects. That is why the remaining balance is always zero. Last fiscal year 2018, we received \$284,556 in water connection fees, and we spent much more in CIP projects.

Director Slater-Carter inquired about a fund that would set aside funds to purchase extra connections from SAM if needed. I see that we are spending 100% of our sewer connections on capital improvements. Is the plan then that the first

connection over our allotted SAM capacity is going to pay that new connection fee, or buy that capacity?

General Manager Heldmaier stated that the District does not have a fund that sets aside funds to purchase connections. During his tenure they looked at SAM's capacity twice, and it was determined both times that MWSD was so far from reaching that capacity limit that this District would never be in a position that would require purchasing new capacity.

Director Slater-Carter said that she would like to discuss this with the Managers. She said that she was reminded today, that another sewer district was carrying the interest on that fund as bad debt on their books. She is concerned about this.

Director Boyd: An opportunity to clarify. We don't carry it as a debt; we carry it as a tracking number for the cost of future acquisition. Perhaps if there was a discussion, perhaps they might be persuaded to clarify the language in the way they carry it on their books. It's not an easy discussion, but it is good to be very clear about that.

Director Boyd stated that hearing no objection, the Board authorizes the filing of the Annual Connection Report with the District Clerk. All Directors were in agreement.

6. Review of Half Moon Bay Terrace Groundwater Basin SGMA Prioritization.

General Manager: We have brought this item to the Board twice in reference to the SGMA prioritization. We were shocked by the Department of Water Resource (DWR) release of the draft updated ground water basin priorities that flipped the Half Moon Bay Terrace basin. DWR Bulletin 118 that defines what in California a ground water basin is, classified it as a low priority, meaning the assessment through the State indicating no concern for the Coastside aquifer—and we understand this includes a multitude of aquifers. It was considered in good health—no contamination issues, overdraft, salt water intrusion, or any other major issues. Then all of a sudden, it was re-classified as “very high priority,” with specific concern that triggered, at the time, that by the year 2020 we would need a Groundwater Management Agency in place, most likely a Joint Powers Agency with all the stakeholders--Counties, City, Coastside County Granada Water, etc. This would be very costly to all the agencies. The agencies all got together and fought this really hard. We were told that others have tried to fight this and re-consider the re-classification and failed. We learned now, that we were successful in changing the State's mind and the reclassification has now been changed to low priority again. The reason for this is bad data from the State, not anything that they have before considered in any reclassification; if the State provides bad data, so it is, and things are just based on bad data then. In this case, it was different. It was a great cooperation between all the stakeholders as we all got together and sent

comment letters. The reason here for the reclassification was the water production number, and it had to do with the Alta Vista well being located accidentally somewhere close to Half Moon Bay instead of the back of Montara. So, SRT helped us prepare a comment letter that corrected this and many other issues. We believe this letter had a great impact on the State's decision.

Director Boyd commended SRT for its succinct, informative letter.

Bob Ptacek asked if this would have impacted CCWD.

General Manager Heldmaier said it would have impacted CCWD, the City of Half Moon Bay, Granada and San Mateo County, etc.

Bob Ptacek stated that MWSD did a lot of work to get this accomplished and felt that the other stakeholders/agencies should reimburse the District in some way for the expense to do this—hours and money spent. At the very least, he stated that it should be documented so that when they are resistant to assisting us in the future, we can remind them that they benefited from our efforts.

General Manager Heldmaier pointed out that the success of this re-classification was the result of a joint effort by all the agencies. Every agency submitted a comment letter, spent resources, and they all did a great job.

Director Slater-Carter thanked staff and SRT for taking the lead on this and doing a superlative job. She said that they have been working with SRT and staff for a very long time, with quality work at reasonable cost, and had once again proven their worth.

Director Harvey thanked SRT and staff again for all their hard work. This was a threat and the Board appreciated it.

Director Boyd suggested invitations to a collective lunch celebration, and he offered his help in underwriting that.

7. Review and Possible Action Concerning Nomination of Representative for ACWA Region 5 Board.

Director Slater-Carter nominated and made a motion for Director Ric Lohman to become a member of the Association of California Water Agencies Region 5 Board member and Director Harvey seconded the nomination/motion. All Directors were in favor and the motion to adopt the resolution of the Montara Water and Sanitary District placing in nomination Ric Lohman as a member of the Association of California Water Agencies Region 5 Board Member passed unanimously 5 – 0.

General Manager Heldmaier suggested Director Lohman talk to former Director Ptacek about the duties and responsibilities of being on the ACWA Board.

REPORTS

1. Sewer Authority Mid-Coastside Meeting (Boyd) –

Director Boyd: The tone and tender of the meeting was collaborative. We approved the contract to extend legal services, and authorized the General Manager to execute a contract with Calcon Systems. We will be replacing two pumps at the Portola pump station. Half Moon Bay voiced their concern but voted to approve. We set up committees, standing committees—Board Operations and Finance. They will be publically noticed, and regularly scheduled.

Director Lohman said General Manager Marshall (SAM) sent out RFPs to 4 local legal firms with no responses.

2. Mid-Coast Community Council Meeting (Slater-Carter) – None

3. CSDA Report (Slater-Carter) – None (no meeting)

3. Attorney's Report (Schricker) – Not present

5. Directors' Report – None

6. General Manager's Report (Heldmaier) – None

Director Boyd: Today we nerded out about public service, solid waste, recycling, markets for recycling, calling the Governor, fire-preparedness, water systems, pressure zones, Ground Water Management. The Montara Water and Sanitary District is great place to nerd-out at more than one topic at every single meeting. Thanks for joining us and hope to see you again soon.

FUTURE AGENDAS

ADJOURNMENT

REGULAR MEETING ENDED at 9:25 P.M.

ADJOURNMENT

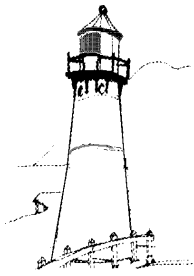
Respectfully Submitted,

Signed _____

Secretary

Approved on the 7th, February 2019

Signed _____
President



MONTARA WATER AND SANITARY DISTRICT AGENDA

Prepared for the Meeting Of: January 3, 2019

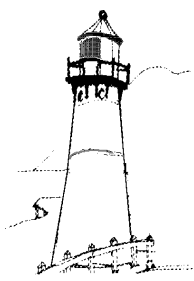
TO: BOARD OF DIRECTORS

FROM: Clemens H. Heldmaier, General Manager 

**SUBJECT: Unaudited Financial Statements – Executive
Summary**

Budget vs. Actual – Sewer July thru December 2018 Variances over \$2,000:

- 4400 Fees, \$40,000 above Budget – Major increase in the number of remodel fees purchased by customers.
- 4710 Sewer Service Charges, \$30,767 above Budget – Funds from the County are typically received in December.
- 4720 Sewer Service Refunds, customer, \$2,000 below Budget – no refunds issued to date.
- **Overall Total Operating Income for the period ending December 31, 2018 was \$75,662 above budget. Total revenue received to date is \$1,525,024.**
- 5200 Board of Directors \$4,307 below Budget – Elections expense has yet to be billed and paid.
- 5400 Legal, \$3,782 below Budget – Difference due to timing. Actual expense; \$75,968.
- 5510 Maintenance, Office \$2,901 below Budget – Budgeted projects have yet to occur.
- 5610 Accounting, \$2,300 below Budget – Difference due to the timing.
- 5630 Consulting, \$4,515 below Budget – Budgeted projects have yet to occur.
- 5640 Data Services, \$3,079 above Budget – Bill for the Parcel Management System for 2018-2019.
- 5720 Telephone & Internet, \$2,619 below Budget – expenditures are being held in check.
- 5800 Labor, \$10,846 above Budget – Employee benefits have been billed and paid a month ahead of time.
- 6170 Claims, Property Damage, \$7,283 above Budget – Payment made to the State Water Pollution Cleanup & Abatement.
- 6200 Engineering, \$21,030 below Budget – Majority of costs have been capital in nature.
- 6400 Pumping, \$3,920 below Budget – Large “catch-up” bill from PG&E expected later in the fiscal year.
- 6600 Collection/Transmission \$5,000 below Budget – No activity in current year.
- 6910 SAM Collections, \$25,408 below Budget – Difference due to timing.
- 6920 SAM Operations, \$104,096 below Budget – Difference due to timing.



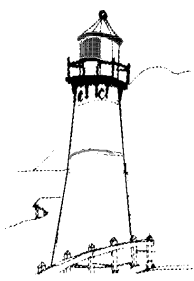
MONTARA WATER AND SANITARY DISTRICT AGENDA

Prepared for the Meeting Of: January 3, 2019

TO: BOARD OF DIRECTORS

FROM: Clemens H. Heldmaier, General Manager

- 6940 SAM Maintenance, Collection Sys, \$20,000 below Budget – No activity to date.
- 6950 SAM Maintenance, Pumping, \$12,975 below Budget – One bill paid to date for capitalizable costs related to pumping expenses.
- **Overall Total Operating Expenses for the period ending December 31, 2018 were \$186,649 below Budget.**
- **Total overall Expenses for the period ending December 31, 2018 were \$193,624 below budget. For a net ordinary income of \$269,286, budget vs. actual. Actual net ordinary income is \$498,002.**
- 7100 Connection Fees, \$17,197 below Budget – No new construction connections sold in December. 1 Remodel connection sold.
- 7200 Interest Income, LAIF, \$32,067 above budget – LAIF has been out-performing projections.
- 8000 CIP, \$721,805 below Budget – \$588K of activity in December.
- 9200 I-Bank Loan, \$10,698 below Budget – Difference due to timing.



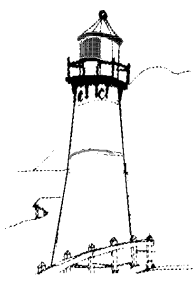
MONTARA WATER AND SANITARY DISTRICT AGENDA

Prepared for the Meeting Of: January 3, 2019

TO: BOARD OF DIRECTORS

FROM: Clemens H. Heldmaier, General Manager

- **Budget vs. Actual – Water July thru December 2018 Variances over \$2,000:**
- 4810 Water Sales, Domestic, \$62,300 above budget – Increase due to rate increase as well as increased usage.
- **Overall Total Operating Income for the period ending December 31, 2018 was \$53,766 above budget. Total revenue received to date is \$1,179,289.**
- 5200 Board of Directors, \$2,207 below Budget – PCT invoices appear to be delayed.
- 5240 CDPH Fees, \$5,464 below Budget – SWRCB bill paid in December.
- 5250 Conference Attendance, \$ 2,888 below Budget – Minimal activity in the current fiscal year.
- 5400 Legal, \$16,289 below Budget – Difference due to timing.
- 5510 Maintenance, office, \$2,350 over Budget – Electrical and plumbing projects paid for in December.
- 5530 Memberships, \$8,616 above Budget – Membership dues generally paid at the beginning of the calendar year, difference will decrease as fiscal year progresses.
- 5550 Postage, \$2,098 above Budget – Large mailing invoice paid in December.
- 5610 Accounting, \$ 2,300 below Budget – Difference due to timing.
- 5630 Consulting, \$11,430 below Budget – Budgeted projects (actuaries & rate studies) have yet to occur.
- 5800 Labor, \$72,000 below Budget – Major line items to decrease are staff wages due to the District not yet employing the services of a fourth operator.
- 6170 Claims, property Damage, \$4,979 below Budget – Minimal activity in this fiscal year.
- 6180 Communications, \$7,061 above Budget – SCADA system maintenance and purchase of additional equipment.
- 6200 Engineering, \$115,473 above Budget – Water Quality engineering costs are higher than anticipated due to changes at the State Water Board.
- 6400 Pumping, \$13,243 below Budget – Large “catch-up” bill expected later in the fiscal year.
- 6500 Supply, \$15,243 below Budget – Less water purchases than anticipated.
- 6600 Collection/Transmission, \$25,940 below Budget – Minimal activity in December.



MONTARA WATER AND SANITARY DISTRICT AGENDA

Prepared for the Meeting Of: January 3, 2019

TO: BOARD OF DIRECTORS

FROM: Clemens H. Heldmaier, General Manager

- 6700 Treatment, \$10,389 below budget – Chemicals & Filtering budget and treatment analysis costs held below expectations.
- 6800 Vehicles, \$2,560 below budget – Fuel costs and repair costs have been held below expected.
- **Overall Total Operating Expenses for the period ending December 30, 2018 were \$49,905 above Budget.**
- **Total overall Expenses for the period ending December 30, 2018 were \$50,461 below budget. For a net ordinary income of \$104,227, budgeted vs. actual. Actual net ordinary income is \$396,514.**
- 7100 Connection Fees, \$58,495 below Budget – No new connections sold in December.
- 8000 CIP, \$141,404 below Budget – \$46,761 of project expenses paid for in December.
- 9100 Interest Expense – GO Bonds \$107,349 below Budget – Difference due to timing.

RECOMMENDATION:

This is for Board information only

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
 July through December 2018

| | Jul - Dec 18 | Water Budget | \$ Over Budget |
|--|--------------|-----------------|----------------|
| Ordinary Income/Expense | | | |
| Income | | | |
| 4220 · Cell Tower Lease | 18,277.26 | 17,749.98 | 527.28 |
| 4400 · Fees | | | |
| 4410 · Administrative Fee (New Constr) | 1,563.00 | 2,749.98 | -1,186.98 |
| 4420 · Administrative Fee (Remodel) | 0.00 | 450.00 | -450.00 |
| 4430 · Inspection Fee (New Constr) | 1,480.00 | 2,500.02 | -1,020.02 |
| 4440 · Inspection Fee (Remodel) | 0.00 | 325.02 | -325.02 |
| 4460 · Remodel Fees | 1,534.72 | | |
| 4470 · Other Fees | 2,130.23 | | |
| Total 4400 · Fees | 6,707.95 | 6,025.02 | 682.93 |
| 4510 · Grants | 280.00 | | |
| 4610 · Property Tax Receipts | 137,300.10 | 137,500.02 | -199.92 |
| 4740 · Testing, Backflow | 7,476.00 | 7,999.98 | -523.98 |
| 4810 · Water Sales, Domestic | 1,008,161.29 | 957,748.02 | 50,413.27 |
| 4850 · Water Sales Refunds, Customer | -2,234.65 | -1,500.00 | -734.65 |
| 4990 · Other Revenue | 3,321.31 | | |
| Total Income | 1,179,289.26 | 1,125,523.02 | 53,766.24 |
| Gross Profit | 1,179,289.26 | 1,125,523.02 | 53,766.24 |
| Expense | | | |
| 5000 · Administrative | | | |
| 5190 · Bank Fees | 1,182.01 | 1,750.02 | -568.01 |
| 5200 · Board of Directors | | | |
| 5210 · Board Meetings | 430.26 | 1,999.98 | -1,569.72 |
| 5220 · Director Fees | 1,012.50 | 1,650.00 | -637.50 |
| Total 5200 · Board of Directors | 1,442.76 | 3,649.98 | -2,207.22 |
| 5240 · CDPH Fees | 2,286.00 | 7,750.02 | -5,464.02 |
| 5250 · Conference Attendance | 111.63 | 3,000.00 | -2,888.37 |
| 5270 · Information Systems | 1,079.50 | 1,500.00 | -420.50 |
| 5300 · Insurance | | | |
| 5310 · Fidelity Bond | 437.50 | 250.02 | 187.48 |
| 5320 · Property & Liability Insurance | 2,215.00 | 1,350.00 | 865.00 |
| Total 5300 · Insurance | 2,652.50 | 1,600.02 | 1,052.48 |
| 5350 · LAFCO Assessment | 0.00 | 1,249.98 | -1,249.98 |
| 5400 · Legal | | | |
| 5420 · Meeting Attendance, Legal | 13.50 | 4,249.98 | -4,236.48 |
| 5430 · General Legal | 11,162.50 | 30,000.00 | -18,837.50 |
| 5440 · Litigation | 6,785.00 | | |
| Total 5400 · Legal | 17,961.00 | 34,249.98 | -16,288.98 |

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
 July through December 2018

| | Jul - Dec 18 | Water Budget | \$ Over Budget |
|---|-------------------|-------------------|--------------------|
| 5510 · Maintenance, Office | 6,349.56 | 4,000.02 | 2,349.54 |
| 5520 · Meetings, Local | 55.28 | | |
| 5530 · Memberships | 18,866.00 | 10,249.98 | 8,616.02 |
| 5540 · Office Supplies | 4,308.13 | 3,499.98 | 808.15 |
| 5550 · Postage | 5,598.28 | 3,499.98 | 2,098.30 |
| 5560 · Printing & Publishing | 2,115.02 | 1,000.02 | 1,115.00 |
| 5600 · Professional Services | | | |
| 5610 · Accounting | 12,700.00 | 15,000.00 | -2,300.00 |
| 5620 · Audit | 5,000.00 | 6,499.98 | -1,499.98 |
| 5630 · Consulting | 6,070.06 | 17,500.02 | -11,429.96 |
| 5650 · Labor & HR Support | 1,221.00 | 1,249.98 | -28.98 |
| 5660 · Payroll Services | 435.36 | 499.98 | -64.62 |
| Total 5600 · Professional Services | 25,426.42 | 40,749.96 | -15,323.54 |
| 5710 · San Mateo Co. Tax Roll Charges | 119.00 | | |
| 5720 · Telephone & Internet | 11,978.53 | 12,499.98 | -521.45 |
| 5730 · Mileage Reimbursement | 1,128.86 | 1,000.02 | 128.84 |
| 5740 · Reference Materials | 0.00 | 400.02 | -400.02 |
| 5790 · Other Administrative | 624.23 | | |
| 5800 · Labor | | | |
| 5810 · CalPERS 457 Deferred Plan | 17,256.36 | 21,514.50 | -4,258.14 |
| 5820 · Employee Benefits | 40,971.73 | 40,029.00 | 942.73 |
| 5830 · Disability Insurance | 1,402.55 | 2,143.98 | -741.43 |
| 5840 · Payroll Taxes | 17,943.66 | 24,379.98 | -6,436.32 |
| 5850 · PARS | 15,096.05 | 17,866.98 | -2,770.93 |
| 5900 · Wages | | | |
| 5910 · Management | 52,135.52 | 51,862.50 | 273.02 |
| 5920 · Staff | 177,650.68 | 213,402.00 | -35,751.32 |
| 5930 · Staff Certification | 4,300.00 | 5,700.00 | -1,400.00 |
| 5940 · Staff Overtime | 25,302.40 | 34,666.98 | -9,364.58 |
| 5950 · Staff Standby | 12,226.88 | 13,061.52 | -834.64 |
| Total 5900 · Wages | 271,615.48 | 318,693.00 | -47,077.52 |
| 5960 · Worker's Comp Insurance | 0.00 | 11,658.48 | -11,658.48 |
| Total 5800 · Labor | 364,285.83 | 436,285.92 | -72,000.09 |
| Total 5000 · Administrative | 467,570.54 | 567,935.88 | -100,365.34 |
| 6000 · Operations | | | |
| 6160 · Backflow Prevention | 0.00 | 499.98 | -499.98 |
| 6170 · Claims, Property Damage | 21.75 | 4,999.98 | -4,978.23 |
| 6180 · Communications | | | |
| 6185 · SCADA Maintenance | 12,060.65 | 4,999.98 | 7,060.67 |
| Total 6180 · Communications | 12,060.65 | 4,999.98 | 7,060.67 |
| 6195 · Education & Training | 2,587.22 | 4,500.00 | -1,912.78 |

**Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
July through December 2018**

| | <u>Jul - Dec 18</u> | <u>Water Budget</u> | <u>\$ Over Budget</u> |
|---|---------------------|-------------------------|-----------------------|
| 6200 - Engineering | | | |
| 6210 - Meeting Attendance, Engineering | 0.00 | 250.02 | -250.02 |
| 6220 - General Engineering | 10,593.05 | 22,500.00 | -11,906.95 |
| 6230 - Water Quality Engineering | 177,629.90 | 49,999.98 | 127,629.92 |
| Total 6200 - Engineering | 188,222.95 | 72,750.00 | 115,472.95 |
| 6320 - Equipment & Tools, Expensed | 5,104.74 | 2,500.02 | 2,604.72 |
| 6330 - Facilities | | | |
| 6335 - Alarm Services | 359.04 | 400.02 | -40.98 |
| 6337 - Landscaping | 2,429.95 | 3,000.00 | -570.05 |
| Total 6330 - Facilities | 2,788.99 | 3,400.02 | -611.03 |
| 6370 - Lab Supplies & Equipment | 1,687.44 | 1,000.02 | 687.42 |
| 6400 - Pumping | | | |
| 6410 - Pumping Fuel & Electricity | 32,175.05 | 45,000.00 | -12,824.95 |
| 6420 - Pumping Maintenance, Generators | 7,445.50 | 4,999.98 | 2,445.52 |
| 6430 - Pumping Maintenance, General | 207.57 | 2,500.02 | -2,292.45 |
| 6440 - Pumping Equipment, Expensed | 0.00 | 349.98 | -349.98 |
| Total 6400 - Pumping | 39,828.12 | 52,849.98 | -13,021.86 |
| 6500 - Supply | | | |
| 6510 - Maintenance, Raw Water Mains | 1,644.21 | 1,050.00 | 594.21 |
| 6520 - Maintenance, Wells | 2,381.50 | 4,999.98 | -2,618.48 |
| 6530 - Water Purchases | 6,781.42 | 19,999.98 | -13,218.56 |
| Total 6500 - Supply | 10,807.13 | 26,049.96 | -15,242.83 |
| 6600 - Collection/Transmission | | | |
| 6610 - Hydrants | -570.00 | 499.98 | -1,069.98 |
| 6620 - Maintenance, Water Mains | 12,714.48 | 25,000.02 | -12,285.54 |
| 6630 - Maintenance, Water Svc Lines | 36.87 | 10,000.02 | -9,963.15 |
| 6640 - Maintenance, Tanks | 0.00 | 499.98 | -499.98 |
| 6650 - Maint., Distribution General | 0.00 | 3,499.98 | -3,499.98 |
| 6670 - Meters | 2,214.89 | 1,249.98 | 964.91 |
| 6600 - Collection/Transmission - Other | 413.98 | | |
| Total 6600 - Collection/Transmission | 14,810.22 | 40,749.96 | -25,939.74 |
| 6700 - Treatment | | | |
| 6710 - Chemicals & Filtering | 1,542.96 | 15,000.00 | -13,457.04 |
| 6720 - Maintenance, Treatment Equip. | 10,643.66 | 1,999.98 | 8,643.68 |
| 6730 - Treatment Analysis | 12,732.60 | 21,000.00 | -8,267.40 |
| 6700 - Treatment - Other | 2,691.60 | | |
| Total 6700 - Treatment | 27,610.82 | 37,999.98 | -10,389.16 |
| 6770 - Uniforms | 5,191.27 | 6,000.00 | -808.73 |

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Accrual Basis

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
 July through December 2018

| | Jul - Dec 18 | Water Budget | \$ Over Budget |
|---|-------------------|-------------------|-------------------|
| 6800 - Vehicles | | | |
| 6810 - Fuel | 2,933.51 | 4,000.02 | -1,066.51 |
| 6820 - Truck Equipment, Expensed | 108.64 | 499.98 | -391.34 |
| 6830 - Truck Repairs | 1,397.54 | 2,500.02 | -1,102.48 |
| Total 6800 - Vehicles | 4,439.69 | 7,000.02 | -2,560.33 |
| 6890 - Other Operations | 43.48 | | |
| Total 6000 - Operations | 315,204.47 | 265,299.90 | 49,904.57 |
| Total Expense | 782,775.01 | 833,235.78 | -50,460.77 |
| Net Ordinary Income | 396,514.25 | 292,287.24 | 104,227.01 |
| Other Income/Expense | | | |
| Other Income | | | |
| 7000 - Capital Account Revenues | | | |
| 7100 - Connection Fees | | | |
| 7110 - Connection Fees (New Constr) | 36,660.00 | 86,509.98 | -49,849.98 |
| 7130 - Conn. Fees, PFP (New Constr) | 29,322.73 | 40,000.02 | -10,677.29 |
| 7140 - Conn. Fees, PFP (Remodel) | 2,032.40 | | |
| Total 7100 - Connection Fees | 68,015.13 | 126,510.00 | -58,494.87 |
| 7600 - Bond Revenues, G.O. | 576,411.73 | 575,218.02 | 1,193.71 |
| Total 7000 - Capital Account Revenues | 644,426.86 | 701,728.02 | -57,301.16 |
| Total Other Income | 644,426.86 | 701,728.02 | -57,301.16 |
| Other Expense | | | |
| 8000 - Capital Improvement Program | | | |
| 8100 - Water | 99,095.98 | 240,499.98 | -141,404.00 |
| Total 8000 - Capital Improvement Program | 99,095.98 | 240,499.98 | -141,404.00 |
| 9000 - Capital Account Expenses | | | |
| 9075 - PFP Connection Expenses | 6,135.00 | | |
| 9100 - Interest Expense - GO Bonds | 20,593.81 | 127,943.00 | -107,349.19 |
| 9125 - PNC Equipment Lease Interest | 8,605.62 | 8,605.63 | -0.01 |
| 9150 - SRF Loan | 39,938.40 | 39,917.44 | 20.96 |
| 9210 - Conservation Program/Rebates | 1,300.00 | 1,000.02 | 299.98 |
| Total 9000 - Capital Account Expenses | 76,572.83 | 177,466.09 | -100,893.26 |
| Total Other Expense | 175,668.81 | 417,966.07 | -242,297.26 |
| Net Other Income | 468,758.05 | 283,761.95 | 184,996.10 |
| Net Income | 865,272.30 | 576,049.19 | 289,223.11 |

Montara Water & Sanitary District Revenue & Expenditures Budget vs. Actual - Sewer July through December 2018

| | Jul - Dec 18 | Sewer Budget | | \$ Over Budget |
|--|--------------|-----------------|--|----------------|
| Ordinary Income/Expense | | | | |
| Income | | | | |
| 4220 · Cell Tower Lease | 18,277.20 | 17,749.98 | | 527.22 |
| 4400 · Fees | | | | |
| 4410 · Administrative Fee (New Constr) | 2,084.00 | 1,750.02 | | 333.98 |
| 4420 · Administrative Fee (Remodel) | 0.00 | 1,000.02 | | -1,000.02 |
| 4430 · Inspection Fee (New Constr) | 1,972.00 | 1,750.02 | | 221.98 |
| 4440 · Inspection Fee (Remodel) | 0.00 | 1,999.98 | | -1,999.98 |
| 4460 · Remodel Fees | 44,431.00 | 1,999.98 | | 42,431.02 |
| 4470 · Other Fees | 13.07 | | | |
| Total 4400 · Fees | 48,500.07 | 8,500.02 | | 40,000.05 |
| 4610 · Property Tax Receipts | 137,300.12 | 137,500.02 | | -199.90 |
| 4710 · Sewer Service Charges | 1,306,879.11 | 1,276,112.52 | | 30,766.59 |
| 4720 · Sewer Service Refunds, Customer | 0.00 | -1,999.98 | | 1,999.98 |
| 4760 · Waste Collection Revenues | 11,316.44 | 11,500.02 | | -183.58 |
| 4990 · Other Revenue | 2,751.30 | | | |
| Total Income | 1,525,024.24 | 1,449,362.58 | | 75,661.66 |
| Gross Profit | 1,525,024.24 | 1,449,362.58 | | 75,661.66 |
| Expense | | | | |
| 5000 · Administrative | | | | |
| 5190 · Bank Fees | 4,572.95 | 3,250.02 | | 1,322.93 |
| 5200 · Board of Directors | | | | |
| 5210 · Board Meetings | 430.29 | 1,249.98 | | -819.69 |
| 5220 · Director Fees | 1,012.50 | 1,999.98 | | -987.48 |
| 5230 · Election Expenses | 0.00 | 2,500.02 | | -2,500.02 |
| Total 5200 · Board of Directors | 1,442.79 | 5,749.98 | | -4,307.19 |
| 5250 · Conference Attendance | 111.63 | 1,500.00 | | -1,388.37 |
| 5270 · Information Systems | 1,079.50 | 1,999.98 | | -920.48 |
| 5300 · Insurance | | | | |
| 5310 · Fidelity Bond | 437.50 | 250.02 | | 187.48 |
| 5320 · Property & Liability Insurance | 2,215.00 | 1,000.02 | | 1,214.98 |
| Total 5300 · Insurance | 2,652.50 | 1,250.04 | | 1,402.46 |
| 5350 · LAFCO Assessment | 0.00 | 1,000.02 | | -1,000.02 |
| 5400 · Legal | | | | |
| 5420 · Meeting Attendance, Legal | 13.50 | 4,750.02 | | -4,736.52 |
| 5430 · General Legal | 13,234.50 | 75,000.00 | | -61,765.50 |
| 5440 · Litigation | 62,719.57 | | | |
| Total 5400 · Legal | 75,967.57 | 79,750.02 | | -3,782.45 |

Montara Water & Sanitary District Revenue & Expenditures Budget vs. Actual - Sewer July through December 2018

| | Jul - Dec 18 | Sewer Budget | \$ Over Budget |
|---|-------------------|-------------------|-------------------|
| 5510 · Maintenance, Office | 1,098.74 | 4,000.02 | -2,901.28 |
| 5530 · Memberships | 3,370.00 | | |
| 5540 · Office Supplies | 2,745.01 | 4,000.02 | -1,255.01 |
| 5550 · Postage | 1,721.35 | 1,249.98 | 471.37 |
| 5560 · Printing & Publishing | 2,115.04 | 2,500.02 | -384.98 |
| 5600 · Professional Services | | | |
| 5610 · Accounting | 12,700.00 | 15,000.00 | -2,300.00 |
| 5620 · Audit | 5,000.00 | 6,499.98 | -1,499.98 |
| 5630 · Consulting | 5,485.06 | 10,000.02 | -4,514.96 |
| 5640 · Data Services | 6,079.02 | 3,000.00 | 3,079.02 |
| 5650 · Labor & HR Support | 1,221.00 | 1,249.98 | -28.98 |
| 5660 · Payroll Services | 435.36 | 499.98 | -64.62 |
| Total 5600 · Professional Services | 30,920.44 | 36,249.96 | -5,329.52 |
| 5710 · San Mateo Co. Tax Roll Charges | 119.00 | 1,249.98 | -1,130.98 |
| 5720 · Telephone & Internet | 9,380.97 | 12,000.00 | -2,619.03 |
| 5730 · Mileage Reimbursement | 1,032.93 | 750.00 | 282.93 |
| 5740 · Reference Materials | 0.00 | 100.02 | -100.02 |
| 5790 · Other Administrative | 448.24 | | |
| 5800 · Labor | | | |
| 5810 · CalPERS 457 Deferred Plan | 7,543.96 | 7,956.00 | -412.04 |
| 5820 · Employee Benefits | 29,121.65 | 17,817.48 | 11,304.17 |
| 5830 · Disability Insurance | 566.80 | 766.98 | -200.18 |
| 5840 · Payroll Taxes | 6,163.92 | 8,695.02 | -2,531.10 |
| 5850 · PARS | 7,644.13 | 7,708.02 | -63.89 |
| 5900 · Wages | | | |
| 5910 · Management | 52,135.60 | 51,862.50 | 273.10 |
| 5920 · Staff | 63,636.49 | 59,523.48 | 4,113.01 |
| 5930 · Staff Certification | 900.00 | 900.00 | 0.00 |
| 5940 · Staff Overtime | 958.68 | 1,372.02 | -413.34 |
| Total 5900 · Wages | 117,630.77 | 113,658.00 | 3,972.77 |
| 5960 · Worker's Comp Insurance | 0.00 | 1,223.52 | -1,223.52 |
| Total 5800 · Labor | 168,671.23 | 157,825.02 | 10,846.21 |
| Total 5000 · Administrative | 307,449.89 | 314,425.08 | -6,975.19 |
| 6000 · Operations | | | |
| 6170 · Claims, Property Damage | 17,283.02 | 10,000.02 | 7,283.00 |
| 6195 · Education & Training | 408.96 | 499.98 | -91.02 |
| 6200 · Engineering | | | |
| 6210 · Meeting Attendance, Engineering | 0.00 | 1,000.02 | -1,000.02 |
| 6220 · General Engineering | 9,969.70 | 30,000.00 | -20,030.30 |
| Total 6200 · Engineering | 9,969.70 | 31,000.02 | -21,030.32 |
| 6320 · Equipment & Tools, Expensed | 0.00 | 499.98 | -499.98 |

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Sewer
 July through December 2018

| | Jul - Dec 18 | Sewer Budget | \$ Over Budget |
|--|--------------|-----------------|----------------|
| 6330 - Facilities | | | |
| 6335 - Alarm Services | 2,709.84 | 2,850.00 | -140.16 |
| 6337 - Landscaping | 1,062.00 | 1,200.00 | -138.00 |
| Total 6330 - Facilities | 3,771.84 | 4,050.00 | -278.16 |
| 6400 - Pumping | | | |
| 6410 - Pumping Fuel & Electricity | 16,580.18 | 20,500.02 | -3,919.84 |
| Total 6400 - Pumping | 16,580.18 | 20,500.02 | -3,919.84 |
| 6600 - Collection/Transmission | | | |
| 6660 - Maintenance, Collection System | 0.00 | 4,999.98 | -4,999.98 |
| Total 6600 - Collection/Transmission | 0.00 | 4,999.98 | -4,999.98 |
| 6800 - Vehicles | | | |
| 6810 - Fuel | 206.69 | 499.98 | -293.29 |
| 6820 - Truck Equipment, Expensed | 0.00 | 79.98 | -79.98 |
| 6830 - Truck Repairs | 239.06 | 499.98 | -260.92 |
| Total 6800 - Vehicles | 445.75 | 1,079.94 | -634.19 |
| 6900 - Sewer Authority Midcoastside | | | |
| 6910 - SAM Collections | 138,610.23 | 164,017.98 | -25,407.75 |
| 6920 - SAM Operations | 520,477.90 | 624,573.48 | -104,095.58 |
| 6940 - SAM Maintenance, Collection Sys | 0.00 | 19,999.98 | -19,999.98 |
| 6950 - SAM Maintenance, Pumping | 12,025.16 | 25,000.02 | -12,974.86 |
| Total 6900 - Sewer Authority Midcoastside | 671,113.29 | 833,591.46 | -162,478.17 |
| Total 6000 - Operations | 719,572.74 | 906,221.40 | -186,648.66 |
| Total Expense | 1,027,022.63 | 1,220,646.48 | -193,623.85 |
| Net Ordinary Income | 498,001.61 | 228,716.10 | 269,285.51 |
| Other Income/Expense | | | |
| Other Income | | | |
| 7000 - Capital Account Revenues | | | |
| 7100 - Connection Fees | | | |
| 7110 - Connection Fees (New Constr) | 54,911.00 | 72,300.00 | -17,389.00 |
| 7120 - Connection Fees (Remodel) | 7,996.00 | 25,000.02 | -17,004.02 |
| 7130 - Conn. Fees, PFP (New Constr) | 1,996.40 | | |
| Total 7100 - Connection Fees | 64,903.40 | 97,300.02 | -32,396.62 |
| 7200 - Interest Income - LAIF | 44,567.46 | 12,500.00 | 32,067.46 |
| Total 7000 - Capital Account Revenues | 109,470.86 | 109,800.02 | -329.16 |
| Total Other Income | 109,470.86 | 109,800.02 | -329.16 |

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Accrual Basis

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Sewer
July through December 2018

| | Jul - Dec 18 | Sewer Budget | \$ Over Budget |
|---|--------------------|----------------------|---------------------|
| Other Expense | | | |
| 8000 - Capital Improvement Program | | | |
| 8075 - Sewer | 1,216,945.61 | 1,938,750.00 | -721,804.39 |
| Total 8000 - Capital Improvement Program | 1,216,945.61 | 1,938,750.00 | -721,804.39 |
| 9000 - Capital Account Expenses | | | |
| 9125 - PNC Equipment Lease Interest | 8,605.61 | 8,605.63 | -0.02 |
| 9200 - I-Bank Loan | 1,263.57 | 11,961.96 | -10,698.39 |
| Total 9000 - Capital Account Expenses | 9,869.18 | 20,567.59 | -10,698.41 |
| Total Other Expense | 1,226,814.79 | 1,959,317.59 | -732,502.80 |
| Net Other Income | -1,117,343.93 | -1,849,517.57 | 732,173.64 |
| Net Income | -619,342.32 | -1,620,801.47 | 1,001,459.15 |

Montara Water & Sanitary District
Restricted and Non Restricted Cash Assets
July 2018 through June 2019

Assets and Reserves Information

| Year to Date Cash Information | <u>July</u> | <u>August</u> | <u>September</u> | <u>October</u> | <u>November</u> | <u>December</u> | <u>January</u> | <u>February</u> | <u>March</u> | <u>April</u> | <u>May</u> | <u>June</u> | Target Reserves | \$ Over/(Under) Targets | % Over/Under Targets |
|------------------------------------|-----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------|-----------------|--------------|--------------|------------|-------------|------------------------|--------------------------------|-----------------------------|
| Sewer - Operations | | | | | | | | | | | | | | | |
| Wells Fargo Operating - Sewer | 2,527,401.70 | 2,272,516.58 | 2,196,490.71 | 1,364,083.77 | 1,531,356.14 | 2,510,774.87 | | | | | | | | | |
| Sewer - Reserve Accounts | | | | | | | | | | | | | | | |
| LAIF - | | | | | | | | | | | | | | | |
| Capital Reserve | 3,786,797.70 | 3,786,797.70 | 3,786,797.70 | 3,810,640.78 | 3,810,640.78 | 3,810,640.78 | | | | | | | 2,589,500.00 | 1,197,297.70 | 146% |
| Connection Fees Reserve | 194,600.00 | 194,600.00 | 194,600.00 | 194,600.00 | 194,600.00 | 194,600.00 | | | | | | | 194,600.00 | - | 100% |
| Operating Reserve | 406,882.00 | 406,882.00 | 406,882.00 | 406,882.00 | 406,882.00 | 406,882.00 | | | | | | | 406,882.00 | - | 100% |
| Sub-total | <u>4,388,279.70</u> | <u>4,388,279.70</u> | <u>4,388,279.70</u> | <u>4,412,122.78</u> | <u>4,412,122.78</u> | <u>4,412,122.78</u> | - | - | - | - | - | - | | | |
| Water - Operations | | | | | | | | | | | | | | | |
| Wells Fargo Operating - Water | 886,304.60 | 900,197.83 | 915,718.26 | 930,168.60 | 945,981.14 | 960,107.69 | | | | | | | | | |
| Water - Reserve Accounts | | | | | | | | | | | | | | | |
| Wells Fargo Bank- | | | | | | | | | | | | | | | |
| Capital Reserve | 398,249.00 | 398,249.00 | 398,249.00 | 398,249.00 | 398,249.00 | 398,249.00 | | | | | | | 945,817.00 | (547,568.00) | 42% |
| Connection Fees Reserve | 253,020.00 | 253,020.00 | 253,020.00 | 253,020.00 | 253,020.00 | 253,020.00 | | | | | | | 253,020.00 | - | 100% |
| SRF Reserve | 48,222.00 | 48,222.00 | 48,222.00 | 48,222.00 | 48,222.00 | 48,222.00 | | | | | | | 48,222.00 | - | 100% |
| Operating Reserve | 46,009.00 | 46,009.00 | 46,009.00 | 46,009.00 | 46,009.00 | 46,009.00 | | | | | | | 277,745.00 | (231,736.00) | 17% |
| Sub-total | <u>745,500.00</u> | <u>745,500.00</u> | <u>745,500.00</u> | <u>745,500.00</u> | <u>745,500.00</u> | <u>745,500.00</u> | - | - | - | - | - | - | | | |
| Water - Restricted accounts | | | | | | | | | | | | | | | |
| First Republic Bank - Water | | | | | | | | | | | | | | | |
| Acquisition & Improvement Fund | 376.13 | 346.13 | 316.13 | 286.13 | 346.13 | 316.13 | | | | | | | | | |
| Cost of issuance | 62.94 | 32.94 | 2.94 | - | - | - | | | | | | | | | |
| GO Bonds Fund | <u>1,514,515.09</u> | <u>939,297.05</u> | <u>940,709.77</u> | <u>940,709.77</u> | <u>940,709.77</u> | <u>959,237.50</u> | | | | | | | | | |
| Sub-total | <u>1,514,954.16</u> | <u>939,676.12</u> | <u>941,028.84</u> | <u>940,995.90</u> | <u>941,055.90</u> | <u>959,553.63</u> | - | - | - | - | - | - | | | |
| Total Cash and equivalents | <u><u>10,062,440.16</u></u> | <u><u>9,246,170.23</u></u> | <u><u>9,187,017.51</u></u> | <u><u>8,392,871.05</u></u> | <u><u>8,576,015.96</u></u> | <u><u>9,588,058.97</u></u> | <u>-</u> | <u>-</u> | <u>-</u> | <u>-</u> | <u>-</u> | <u>-</u> | | | |

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Sewer
July 2018 through June 2019

| | Jul 18 | Aug 18 | Sep 18 | Oct 18 | Nov 18 | Dec 18 | Jan 19 | Feb 19 | Mar 19 | Apr 19 | May 19 | Jun 19 | TOTAL | | | | |
|--|-----------|-----------|-----------|----------|-----------|--------------|--------|--------|--------|--------|--------|--------|------------------|--------------|----------------|-------------|-----------|
| | | | | | | | | | | | | | Jul '18 - Jun 19 | Budget | \$ Over Budget | % of Budget | |
| Ordinary Income/Expense | | | | | | | | | | | | | | | | | |
| Income | | | | | | | | | | | | | | | | | |
| 4220 · Cell Tower Lease | 3,046.20 | 3,046.20 | 3,046.20 | 3,046.20 | 3,046.20 | 3,046.20 | | | | | | | | 18,277.20 | 20,708.35 | -2,431.15 | 88.26% |
| 4400 · Fees | | | | | | | | | | | | | | | | | |
| 4410 · Administrative Fee (New Constr) | | 1,563.00 | | | 521.00 | | | | | | | | | 2,084.00 | 2,041.65 | 42.35 | 102.07% |
| 4420 · Administrative Fee (Remodel) | | | | | | | | | | | | | | | 1,166.65 | -1,166.65 | |
| 4430 · Inspection Fee (New Constr) | | 1,480.00 | | | 492.00 | | | | | | | | | 1,972.00 | 2,041.65 | -69.65 | 96.59% |
| 4440 · Inspection Fee (Remodel) | | | | | | | | | | | | | | | 2,333.35 | -2,333.35 | |
| 4460 · Remodel Fees | 20,010.50 | 612.50 | 22,485.00 | 114.00 | 114.00 | 1,095.00 | | | | | | | | 44,431.00 | 2,333.35 | 42,097.65 | 1,904.17% |
| 4470 · Other Fees | | | | | | 13.07 | | | | | | | | | 13.07 | | |
| Total 4400 · Fees | 20,010.50 | 3,655.50 | 22,485.00 | 114.00 | 1,127.00 | 1,108.07 | | | | | | | | 48,500.07 | 9,916.65 | 38,583.42 | 489.08% |
| 4610 · Property Tax Receipts | | | 635.07 | 227.05 | 24,855.28 | 111,582.72 | | | | | | | | 137,300.12 | 160,416.65 | -23,116.53 | 85.59% |
| 4710 · Sewer Service Charges | | 909.70 | | | | 1,305,969.41 | | | | | | | | 1,306,879.11 | 1,488,797.90 | -181,918.79 | 87.78% |
| 4720 · Sewer Service Refunds, Customer | | | | | | | | | | | | | | | -2,333.35 | 2,333.35 | |
| 4760 · Waste Collection Revenues | 1,054.27 | 3,013.27 | 1,067.16 | 2,616.64 | 1,008.41 | 2,556.69 | | | | | | | | 11,316.44 | 13,416.65 | -2,100.21 | 84.35% |
| 4990 · Other Revenue | | 512.29 | 1,100.00 | 1,000.00 | 139.01 | | | | | | | | | | 2,751.30 | | |
| Total Income | 24,110.97 | 11,136.96 | 28,333.43 | 7,003.89 | 30,175.90 | 1,424,263.09 | | | | | | | | 1,525,024.24 | 1,690,922.85 | -165,898.61 | 90.19% |
| Gross Profit | 24,110.97 | 11,136.96 | 28,333.43 | 7,003.89 | 30,175.90 | 1,424,263.09 | | | | | | | | 1,525,024.24 | 1,690,922.85 | -165,898.61 | 90.19% |
| Expense | | | | | | | | | | | | | | | | | |
| 5000 · Administrative | | | | | | | | | | | | | | | | | |
| 5190 · Bank Fees | 2,741.45 | 348.18 | 388.21 | 368.24 | 383.39 | 343.48 | | | | | | | | 4,572.95 | 3,791.65 | 781.30 | 120.61% |
| 5200 · Board of Directors | | | | | | | | | | | | | | | | | |
| 5210 · Board Meetings | 20.92 | 125.00 | | 148.73 | | 135.64 | | | | | | | | 430.29 | 1,458.35 | -1,028.06 | 29.51% |
| 5220 · Director Fees | | 187.50 | 262.50 | 375.00 | | 187.50 | | | | | | | | 1,012.50 | 2,333.35 | -1,320.85 | 43.39% |
| 5230 · Election Expenses | | | | | | | | | | | | | | | 2,916.65 | -2,916.65 | |
| Total 5200 · Board of Directors | 20.92 | 312.50 | 262.50 | 523.73 | | 323.14 | | | | | | | | 1,442.79 | 6,708.35 | -5,265.56 | 21.51% |
| 5250 · Conference Attendance | 111.63 | | | | | | | | | | | | | 111.63 | 1,750.00 | -1,638.37 | 6.38% |
| 5270 · Information Systems | 1,079.50 | | | | | | | | | | | | | 1,079.50 | 2,333.35 | -1,253.85 | 46.26% |
| 5300 · Insurance | | | | | | | | | | | | | | | | | |
| 5310 · Fidelity Bond | | 437.50 | | | | | | | | | | | | 437.50 | 291.65 | 145.85 | 150.01% |
| 5320 · Property & Liability Insurance | | | 2,215.00 | | | | | | | | | | | 2,215.00 | 1,166.65 | 1,048.35 | 189.86% |
| Total 5300 · Insurance | | 437.50 | 2,215.00 | | | | | | | | | | | 2,652.50 | 1,458.30 | 1,194.20 | 181.89% |
| 5350 · LAFCO Assessment | | | | | | | | | | | | | | | 1,166.65 | -1,166.65 | |
| 5400 · Legal | | | | | | | | | | | | | | | | | |
| 5420 · Meeting Attendance, Legal | | | | 13.50 | | | | | | | | | | 13.50 | 5,541.65 | -5,528.15 | 0.24% |
| 5430 · General Legal | | | | 5,900.00 | | 7,334.50 | | | | | | | | 13,234.50 | 87,500.00 | -74,265.50 | 15.13% |

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Sewer
July 2018 through June 2019

| | | | | | | | | | | | | | TOTAL | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|--------|--------|--------|--------|--------|--------|------------------|------------|----------------|-------------|
| | Jul 18 | Aug 18 | Sep 18 | Oct 18 | Nov 18 | Dec 18 | Jan 19 | Feb 19 | Mar 19 | Apr 19 | May 19 | Jun 19 | Jul '18 - Jun 19 | Budget | \$ Over Budget | % of Budget |
| 5440 · Litigation | 2,450.00 | | 24,430.00 | 15,995.00 | | 19,844.57 | | | | | | | 62,719.57 | | | |
| Total 5400 · Legal | 2,450.00 | | 24,430.00 | 21,908.50 | | 27,179.07 | | | | | | | 75,967.57 | 93,041.65 | -17,074.08 | 81.65% |
| 5510 · Maintenance, Office | | 528.74 | 100.00 | 160.00 | | 310.00 | | | | | | | 1,098.74 | 4,666.65 | -3,567.91 | 23.55% |
| 5530 · Memberships | | | | 3,370.00 | | | | | | | | | 3,370.00 | | | |
| 5540 · Office Supplies | 234.38 | 354.80 | 170.75 | 652.04 | | 1,333.04 | | | | | | | 2,745.01 | 4,666.65 | -1,921.64 | 58.82% |
| 5550 · Postage | 77.67 | 100.50 | 94.81 | 741.00 | 406.44 | 300.93 | | | | | | | 1,721.35 | 1,458.35 | 263.00 | 118.03% |
| 5560 · Printing & Publishing | 86.83 | 45.44 | 549.38 | 53.77 | 834.52 | 545.10 | | | | | | | 2,115.04 | 2,916.65 | -801.61 | 72.52% |
| 5600 · Professional Services | | | | | | | | | | | | | | | | |
| 5610 · Accounting | | 2,050.00 | | 8,400.00 | | 2,250.00 | | | | | | | 12,700.00 | 17,500.00 | -4,800.00 | 72.57% |
| 5620 · Audit | | | | 5,000.00 | | | | | | | | | 5,000.00 | 7,583.35 | -2,583.35 | 65.93% |
| 5630 · Consulting | 1,338.25 | 375.00 | | 3,385.56 | | 386.25 | | | | | | | 5,485.06 | 11,666.65 | -6,181.59 | 47.02% |
| 5640 · Data Services | | 6,079.02 | | | | | | | | | | | 6,079.02 | 3,500.00 | 2,579.02 | 173.69% |
| 5650 · Labor & HR Support | 203.50 | 203.50 | 203.50 | 203.50 | | 407.00 | | | | | | | 1,221.00 | 1,458.35 | -237.35 | 83.73% |
| 5660 · Payroll Services | 71.08 | 73.30 | 73.30 | 73.30 | 72.19 | 72.19 | | | | | | | 435.36 | 583.35 | -147.99 | 74.63% |
| Total 5600 · Professional Services | 1,612.83 | 8,780.82 | 276.80 | 17,062.36 | 72.19 | 3,115.44 | | | | | | | 30,920.44 | 42,291.70 | -11,371.26 | 73.11% |
| 5710 · San Mateo Co. Tax Roll Charges | | | | 119.00 | | | | | | | | | 119.00 | 1,458.35 | -1,339.35 | 8.16% |
| 5720 · Telephone & Internet | 1,440.07 | 1,496.77 | 154.48 | 3,974.09 | 233.36 | 2,082.20 | | | | | | | 9,380.97 | 14,000.00 | -4,619.03 | 67.01% |
| 5730 · Mileage Reimbursement | | | | 878.91 | | 154.02 | | | | | | | 1,032.93 | 875.00 | 157.93 | 118.05% |
| 5740 · Reference Materials | | | | | | | | | | | | | | 116.65 | -116.65 | |
| 5790 · Other Administrative | | | | | | 448.24 | | | | | | | 448.24 | | | |
| 5800 · Labor | | | | | | | | | | | | | | | | |
| 5810 · CalPERS 457 Deferred Plan | 1,293.41 | 1,337.49 | 1,235.40 | 1,348.41 | 1,315.65 | 1,013.60 | | | | | | | 7,543.96 | 9,282.00 | -1,738.04 | 81.28% |
| 5820 · Employee Benefits | 7,618.22 | 3,809.11 | 6,167.81 | 3,809.11 | 3,809.11 | 3,908.29 | | | | | | | 29,121.65 | 20,787.10 | 8,334.55 | 140.1% |
| 5830 · Disability Insurance | 113.36 | 113.36 | 113.36 | 113.36 | | 113.36 | | | | | | | 566.80 | 894.85 | -328.05 | 63.34% |
| 5840 · Payroll Taxes | 1,352.50 | 981.57 | 877.41 | 1,011.95 | 1,029.84 | 910.65 | | | | | | | 6,163.92 | 10,144.15 | -3,980.23 | 60.76% |
| 5850 · PARS | 1,265.24 | 1,301.24 | 1,210.88 | 1,305.65 | 1,274.08 | 1,287.04 | | | | | | | 7,644.13 | 8,992.65 | -1,348.52 | 85.0% |
| 5900 · Wages | | | | | | | | | | | | | | | | |
| 5910 · Management | 9,584.73 | 8,381.34 | 8,381.34 | 8,381.34 | 8,381.34 | 9,025.51 | | | | | | | 52,135.60 | 60,506.25 | -8,370.65 | 86.17% |
| 5920 · Staff | 10,472.97 | 11,003.05 | 9,730.60 | 11,244.04 | 11,142.76 | 10,043.07 | | | | | | | 63,636.49 | 69,444.10 | -5,807.61 | 91.64% |
| 5930 · Staff Certification | 150.00 | 150.00 | 150.00 | 150.00 | 150.00 | 150.00 | | | | | | | 900.00 | 1,050.00 | -150.00 | 85.71% |
| 5940 · Staff Overtime | 43.56 | 89.28 | | 245.52 | 580.32 | | | | | | | | 958.68 | 1,600.65 | -641.97 | 59.89% |
| Total 5900 · Wages | 20,251.26 | 19,623.67 | 18,261.94 | 20,020.90 | 20,254.42 | 19,218.58 | | | | | | | 117,630.77 | 132,601.00 | -14,970.23 | 88.71% |
| 5960 · Worker's Comp Insurance | | | | | | | | | | | | | | 1,427.40 | -1,427.40 | |
| Total 5800 · Labor | 31,893.99 | 27,166.44 | 27,866.80 | 27,609.38 | 27,683.10 | 26,451.52 | | | | | | | 168,671.23 | 184,129.15 | -15,457.92 | 91.61% |
| Total 5000 · Administrative | 41,749.27 | 39,571.69 | 56,508.73 | 77,421.02 | 29,613.00 | 62,586.18 | | | | | | | 307,449.89 | 366,829.10 | -59,379.21 | 83.81% |
| 6000 · Operations | | | | | | | | | | | | | | | | |

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Sewer
July 2018 through June 2019

| | | | | | | | | | | | | | TOTAL | | | |
|--|-------------|-------------|-------------|-------------|------------|--------------|--------|--------|--------|--------|--------|--------|------------------|--------------|----------------|-------------|
| | Jul 18 | Aug 18 | Sep 18 | Oct 18 | Nov 18 | Dec 18 | Jan 19 | Feb 19 | Mar 19 | Apr 19 | May 19 | Jun 19 | Jul '18 - Jun 19 | Budget | \$ Over Budget | % of Budget |
| 6170 · Claims, Property Damage | 339.30 | | | | 16,050.00 | 893.72 | | | | | | | 17,283.02 | 11,666.65 | 5,616.37 | 148.14% |
| 6195 · Education & Training | | | | | | 408.96 | | | | | | | 408.96 | 583.35 | -174.39 | 70.11% |
| 6200 · Engineering | | | | | | | | | | | | | | | | |
| 6210 · Meeting Attendance, Engineering | | | | | | | | | | | | | | 1,166.65 | -1,166.65 | |
| 6220 · General Engineering | | 2,184.00 | | 6,784.70 | | 1,001.00 | | | | | | | 9,969.70 | 35,000.00 | -25,030.30 | 28.49% |
| Total 6200 · Engineering | | 2,184.00 | | 6,784.70 | | 1,001.00 | | | | | | | 9,969.70 | 36,166.65 | -26,196.95 | 27.57% |
| 6320 · Equipment & Tools, Expensed | | | | | | | | | | | | | | 583.35 | -583.35 | |
| 6330 · Facilities | | | | | | | | | | | | | | | | |
| 6335 · Alarm Services | 518.82 | 391.80 | 444.30 | 518.82 | | 836.10 | | | | | | | 2,709.84 | 3,325.00 | -615.16 | 81.5% |
| 6337 · Landscaping | | 190.00 | 218.00 | 218.00 | 218.00 | 218.00 | | | | | | | 1,062.00 | 1,400.00 | -338.00 | 75.86% |
| Total 6330 · Facilities | 518.82 | 581.80 | 662.30 | 736.82 | 218.00 | 1,054.10 | | | | | | | 3,771.84 | 4,725.00 | -953.16 | 79.83% |
| 6400 · Pumping | | | | | | | | | | | | | | | | |
| 6410 · Pumping Fuel & Electricity | 3,313.73 | 3,759.06 | 5.26 | 6,043.52 | 332.02 | 3,126.59 | | | | | | | 16,580.18 | 23,916.65 | -7,336.47 | 69.33% |
| Total 6400 · Pumping | 3,313.73 | 3,759.06 | 5.26 | 6,043.52 | 332.02 | 3,126.59 | | | | | | | 16,580.18 | 23,916.65 | -7,336.47 | 69.33% |
| 6600 · Collection/Transmission | | | | | | | | | | | | | | | | |
| 6660 · Maintenance, Collection System | | | | | | | | | | | | | | 5,833.35 | -5,833.35 | |
| Total 6600 · Collection/Transmission | | | | | | | | | | | | | | 5,833.35 | -5,833.35 | |
| 6800 · Vehicles | | | | | | | | | | | | | | | | |
| 6810 · Fuel | 117.48 | | 89.21 | | | | | | | | | | 206.69 | 583.35 | -376.66 | 35.43% |
| 6820 · Truck Equipment, Expensed | | | | | | | | | | | | | | 93.35 | -93.35 | |
| 6830 · Truck Repairs | 31.45 | | 207.61 | | | | | | | | | | 239.06 | 583.35 | -344.29 | 40.98% |
| Total 6800 · Vehicles | 148.93 | | 296.82 | | | | | | | | | | 445.75 | 1,260.05 | -814.30 | 35.38% |
| 6900 · Sewer Authority Midcoastside | | | | | | | | | | | | | | | | |
| 6910 · SAM Collections | | | | 83,937.57 | | 54,672.66 | | | | | | | 138,610.23 | 191,354.35 | -52,744.12 | 72.44% |
| 6920 · SAM Operations | 104,095.58 | 104,095.58 | 104,095.58 | 104,095.58 | | 104,095.58 | | | | | | | 520,477.90 | 728,669.10 | -208,191.20 | 71.43% |
| 6940 · SAM Maintenance, Collection Sys | | | | | | | | | | | | | | 23,333.35 | -23,333.35 | |
| 6950 · SAM Maintenance, Pumping | | | | 12,025.16 | | | | | | | | | 12,025.16 | 29,166.65 | -17,141.49 | 41.23% |
| Total 6900 · Sewer Authority Midcoastside | 104,095.58 | 104,095.58 | 104,095.58 | 200,058.31 | | 158,768.24 | | | | | | | 671,113.29 | 972,523.45 | -301,410.16 | 69.01% |
| Total 6000 · Operations | 108,416.36 | 110,620.44 | 105,059.96 | 213,623.35 | 16,600.02 | 165,252.61 | | | | | | | 719,572.74 | 1,057,258.50 | -337,685.76 | 68.06% |
| Total Expense | 150,165.63 | 150,192.13 | 161,568.69 | 291,044.37 | 46,213.02 | 227,838.79 | | | | | | | 1,027,022.63 | 1,424,087.60 | -397,064.97 | 72.12% |
| Net Ordinary Income | -126,054.66 | -139,055.17 | -133,235.26 | -284,040.48 | -16,037.12 | 1,196,424.30 | | | | | | | 498,001.61 | 266,835.25 | 231,166.36 | 186.63% |
| Other Income/Expense | | | | | | | | | | | | | | | | |

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Sewer
July 2018 through June 2019

| | Jul 18 | Aug 18 | Sep 18 | Oct 18 | Nov 18 | Dec 18 | Jan 19 | Feb 19 | Mar 19 | Apr 19 | May 19 | Jun 19 | TOTAL | | | | |
|---|------------|-------------|-------------|-------------|------------|-------------|--------|--------|--------|--------|--------|--------|------------------|---------------|----------------|-------------|--|
| | | | | | | | | | | | | | Jul '18 - Jun 19 | Budget | \$ Over Budget | % of Budget | |
| Other Income | | | | | | | | | | | | | | | | | |
| 7000 - Capital Account Revenues | | | | | | | | | | | | | | | | | |
| 7100 - Connection Fees | | | | | | | | | | | | | | | | | |
| 7110 - Connection Fees (New Constr) | 24,913.00 | 24,913.00 | | 5,085.00 | | | | | | | | | 54,911.00 | 84,350.00 | -29,439.00 | 65.1% | |
| 7120 - Connection Fees (Remodel) | | | 6,979.00 | | | 1,017.00 | | | | | | | 7,996.00 | 29,166.65 | -21,170.65 | 27.42% | |
| 7130 - Conn. Fees, PFP (New Constr) | 1,996.40 | | | | | | | | | | | | 1,996.40 | | | | |
| Total 7100 - Connection Fees | 26,909.40 | 24,913.00 | 6,979.00 | 5,085.00 | | 1,017.00 | | | | | | | 64,903.40 | 113,516.65 | -48,613.25 | 57.18% | |
| 7200 - Interest Income - LAIF | 20,724.38 | | | 23,843.08 | | | | | | | | | 44,567.46 | 12,500.00 | 32,067.46 | 356.54% | |
| Total 7000 - Capital Account Revenues | 47,633.78 | 24,913.00 | 6,979.00 | 28,928.08 | | 1,017.00 | | | | | | | 109,470.86 | 126,016.65 | -16,545.79 | 86.87% | |
| Total Other Income | 47,633.78 | 24,913.00 | 6,979.00 | 28,928.08 | | 1,017.00 | | | | | | | 109,470.86 | 126,016.65 | -16,545.79 | 86.87% | |
| Other Expense | | | | | | | | | | | | | | | | | |
| 8000 - Capital Improvement Program | | | | | | | | | | | | | | | | | |
| 8075 - Sewer | | 164,486.00 | | 464,869.52 | | 587,590.09 | | | | | | | 1,216,945.61 | 2,261,875.00 | -1,044,929.39 | 53.8% | |
| Total 8000 - Capital Improvement Program | | 164,486.00 | | 464,869.52 | | 587,590.09 | | | | | | | 1,216,945.61 | 2,261,875.00 | -1,044,929.39 | 53.8% | |
| 9000 - Capital Account Expenses | | | | | | | | | | | | | | | | | |
| 9125 - PNC Equipment Lease Interest | 1,460.18 | 2,890.09 | | 2,847.57 | | 1,407.77 | | | | | | | 8,605.61 | 9,948.34 | -1,342.73 | 86.5% | |
| 9200 - I-Bank Loan | 1,263.57 | | | | | | | | | | | | 1,263.57 | 11,961.96 | -10,698.39 | 10.56% | |
| Total 9000 - Capital Account Expenses | 2,723.75 | 2,890.09 | | 2,847.57 | | 1,407.77 | | | | | | | 9,869.18 | 21,910.30 | -12,041.12 | 45.04% | |
| Total Other Expense | 2,723.75 | 167,376.09 | | 467,717.09 | | 588,997.86 | | | | | | | 1,226,814.79 | 2,283,785.30 | -1,056,970.51 | 53.72% | |
| Net Other Income | 44,910.03 | -142,463.09 | 6,979.00 | -438,789.01 | | -587,980.86 | | | | | | | -1,117,343.93 | -2,157,768.65 | 1,040,424.72 | 51.78% | |
| Net Income | -81,144.63 | -281,518.26 | -126,256.26 | -722,829.49 | -16,037.12 | 608,443.44 | | | | | | | -619,342.32 | -1,890,933.40 | 1,271,591.08 | 32.75% | |

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
July 2018 through June 2019

| | Jul 18 | Aug 18 | Sep 18 | Oct 18 | Nov 18 | Dec 18 | Jan 19 | Feb 19 | Mar 19 | Apr 19 | May 19 | Jun 19 | TOTAL | | | | |
|--|------------|------------|------------|------------|------------|------------|--------|--------|--------|--------|--------|--------|------------------|--------------|----------------|-------------|---------|
| | | | | | | | | | | | | | Jul '18 - Jun 19 | Budget | \$ Over Budget | % of Budget | |
| Ordinary Income/Expense | | | | | | | | | | | | | | | | | |
| Income | | | | | | | | | | | | | | | | | |
| 4220 - Cell Tower Lease | 3,046.21 | 3,046.21 | 3,046.21 | 3,046.21 | 3,046.21 | 3,046.21 | | | | | | | | 18,277.26 | 20,708.35 | -2,431.09 | 88.26% |
| 4400 - Fees | | | | | | | | | | | | | | | | | |
| 4410 - Administrative Fee (New Constr) | | 521.00 | | 521.00 | 521.00 | | | | | | | | | 1,563.00 | 3,208.35 | -1,645.35 | 48.72% |
| 4420 - Administrative Fee (Remodel) | | | | | | | | | | | | | | | 525.00 | -525.00 | |
| 4430 - Inspection Fee (New Constr) | | 496.00 | | 492.00 | 492.00 | | | | | | | | | 1,480.00 | 2,916.65 | -1,436.65 | 50.74% |
| 4440 - Inspection Fee (Remodel) | | | | | | | | | | | | | | | 379.15 | -379.15 | |
| 4450 - Mainline Extension Fees | | | | | | | | | | | | | | | | | |
| 4460 - Remodel Fees | 354.00 | | | | 1,180.72 | | | | | | | | | 1,534.72 | | | |
| 4470 - Other Fees | | | | | | 2,130.23 | | | | | | | | 2,130.23 | | | |
| Total 4400 - Fees | 354.00 | 1,017.00 | | 1,013.00 | 2,193.72 | 2,130.23 | | | | | | | | 6,707.95 | 7,029.15 | -321.20 | 95.43% |
| 4510 - Grants | | 280.00 | | | | | | | | | | | | 280.00 | | | |
| 4610 - Property Tax Receipts | | | 635.08 | 227.05 | 24,855.26 | 111,582.71 | | | | | | | | 137,300.10 | 160,416.65 | -23,116.55 | 85.59% |
| 4740 - Testing, Backflow | | | | | 3,372.00 | 4,104.00 | | | | | | | | 7,476.00 | 9,333.35 | -1,857.35 | 80.1% |
| 4760 - Waste Collection Revenues | | | | | | | | | | | | | | | | | |
| 4810 - Water Sales, Domestic | 139,171.95 | 220,638.79 | 181,536.41 | 154,670.09 | 164,406.51 | 147,737.54 | | | | | | | | 1,008,161.29 | 1,117,372.65 | -109,211.36 | 90.23% |
| 4850 - Water Sales Refunds, Customer | | -818.04 | -1,416.61 | | | | | | | | | | | -2,234.65 | -1,750.00 | -484.65 | 127.69% |
| 4990 - Other Revenue | | 512.30 | 1,100.00 | 1,570.00 | 139.01 | | | | | | | | | 3,321.31 | | | |
| Total Income | 142,572.16 | 224,676.26 | 184,901.09 | 160,526.35 | 198,012.71 | 268,600.69 | | | | | | | | 1,179,289.26 | 1,313,110.15 | -133,820.89 | 89.81% |
| Gross Profit | 142,572.16 | 224,676.26 | 184,901.09 | 160,526.35 | 198,012.71 | 268,600.69 | | | | | | | | 1,179,289.26 | 1,313,110.15 | -133,820.89 | 89.81% |
| Expense | | | | | | | | | | | | | | | | | |
| 5000 - Administrative | | | | | | | | | | | | | | | | | |
| 5190 - Bank Fees | 1,057.50 | 60.00 | 61.57 | 32.94 | -60.00 | 30.00 | | | | | | | | 1,182.01 | 2,041.65 | -859.64 | 57.9% |
| 5200 - Board of Directors | | | | | | | | | | | | | | | | | |
| 5210 - Board Meetings | 20.92 | 125.00 | | 148.71 | | 135.63 | | | | | | | | 430.26 | 2,333.35 | -1,903.09 | 18.44% |
| 5220 - Director Fees | | 187.50 | 262.50 | 375.00 | | 187.50 | | | | | | | | 1,012.50 | 1,925.00 | -912.50 | 52.6% |
| Total 5200 - Board of Directors | 20.92 | 312.50 | 262.50 | 523.71 | | 323.13 | | | | | | | | 1,442.76 | 4,258.35 | -2,815.59 | 33.88% |
| 5240 - CDPH Fees | | | | | | 2,286.00 | | | | | | | | 2,286.00 | 9,041.65 | -6,755.65 | 25.28% |
| 5250 - Conference Attendance | 111.63 | | | | | | | | | | | | | 111.63 | 3,500.00 | -3,388.37 | 3.19% |
| 5270 - Information Systems | 1,079.50 | | | | | | | | | | | | | 1,079.50 | 1,750.00 | -670.50 | 61.69% |
| 5300 - Insurance | | | | | | | | | | | | | | | | | |
| 5310 - Fidelity Bond | | 437.50 | | | | | | | | | | | | 437.50 | 291.65 | 145.85 | 150.01% |
| 5320 - Property & Liability Insurance | | | 2,215.00 | | | | | | | | | | | 2,215.00 | 1,575.00 | 640.00 | 140.64% |
| Total 5300 - Insurance | | 437.50 | 2,215.00 | | | | | | | | | | | 2,652.50 | 1,866.65 | 785.85 | 142.1% |

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
July 2018 through June 2019

| | Jul 18 | Aug 18 | Sep 18 | Oct 18 | Nov 18 | Dec 18 | Jan 19 | Feb 19 | Mar 19 | Apr 19 | May 19 | Jun 19 | TOTAL | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|--------|--------|--------|--------|--------|--------|------------------|------------|----------------|-------------|
| | | | | | | | | | | | | | Jul '18 - Jun 19 | Budget | \$ Over Budget | % of Budget |
| 5350 · LAFCO Assessment | | | | | | | | | | | | | 1,458.35 | -1,458.35 | | |
| 5400 · Legal | | | | | | | | | | | | | | | | |
| 5420 · Meeting Attendance, Legal | | | | 13.50 | | | | | | | | | 13.50 | 4,958.35 | -4,944.85 | 0.27% |
| 5430 · General Legal | | | | 3,850.00 | | 7,312.50 | | | | | | | 11,162.50 | 35,000.00 | -23,837.50 | 31.89% |
| 5440 · Litigation | | | | 6,785.00 | | | | | | | | | 6,785.00 | | | |
| Total 5400 · Legal | | | | 10,648.50 | | 7,312.50 | | | | | | | 17,961.00 | 39,958.35 | -21,997.35 | 44.95% |
| 5510 · Maintenance, Office | | 880.60 | 220.85 | 201.51 | 56.63 | 4,989.97 | | | | | | | 6,349.56 | 4,666.65 | 1,682.91 | 136.06% |
| 5520 · Meetings, Local | | | | | | 55.28 | | | | | | | 55.28 | | | |
| 5530 · Memberships | | 269.00 | | 3,370.00 | | 15,227.00 | | | | | | | 18,866.00 | 11,958.35 | 6,907.65 | 157.76% |
| 5540 · Office Supplies | 234.37 | 979.73 | 170.75 | 1,590.24 | | 1,333.04 | | | | | | | 4,308.13 | 4,083.35 | 224.78 | 105.51% |
| 5550 · Postage | 698.47 | 1,650.66 | 94.80 | 1,943.05 | 406.43 | 804.87 | | | | | | | 5,598.28 | 4,083.35 | 1,514.93 | 137.1% |
| 5560 · Printing & Publishing | 86.82 | 45.43 | 549.37 | 53.78 | 834.52 | 545.10 | | | | | | | 2,115.02 | 1,166.65 | 948.37 | 181.29% |
| 5600 · Professional Services | | | | | | | | | | | | | | | | |
| 5610 · Accounting | | 2,050.00 | | 8,400.00 | | 2,250.00 | | | | | | | 12,700.00 | 17,500.00 | -4,800.00 | 72.57% |
| 5620 · Audit | | | | 5,000.00 | | | | | | | | | 5,000.00 | 7,583.35 | -2,583.35 | 65.93% |
| 5630 · Consulting | 1,923.25 | 375.00 | | 3,385.56 | | 386.25 | | | | | | | 6,070.06 | 20,416.65 | -14,346.59 | 29.73% |
| 5650 · Labor & HR Support | 203.50 | 203.50 | 203.50 | 203.50 | | 407.00 | | | | | | | 1,221.00 | 1,458.35 | -237.35 | 83.73% |
| 5660 · Payroll Services | 71.08 | 73.30 | 73.30 | 73.30 | 72.19 | 72.19 | | | | | | | 435.36 | 583.35 | -147.99 | 74.63% |
| Total 5600 · Professional Services | 2,197.83 | 2,701.80 | 276.80 | 17,062.36 | 72.19 | 3,115.44 | | | | | | | 25,426.42 | 47,541.70 | -22,115.28 | 53.48% |
| 5710 · San Mateo Co. Tax Roll Charges | | | | 119.00 | | | | | | | | | 119.00 | | | |
| 5720 · Telephone & Internet | 2,085.07 | 2,637.72 | 154.49 | 4,378.96 | 233.35 | 2,488.94 | | | | | | | 11,978.53 | 14,583.35 | -2,604.82 | 82.14% |
| 5730 · Mileage Reimbursement | | | | 974.85 | | 154.01 | | | | | | | 1,128.86 | 1,166.65 | -37.79 | 96.76% |
| 5740 · Reference Materials | | | | | | | | | | | | | | 466.65 | -466.65 | |
| 5790 · Other Administrative | | | | 176.00 | | 448.23 | | | | | | | 624.23 | | | |
| 5800 · Labor | | | | | | | | | | | | | | | | |
| 5810 · CalPERS 457 Deferred Plan | 2,994.72 | 2,955.32 | 2,708.19 | 2,981.44 | 3,052.06 | 2,564.63 | | | | | | | 17,256.36 | 25,100.25 | -7,843.89 | 68.75% |
| 5820 · Employee Benefits | 12,335.62 | 6,167.81 | 3,809.11 | 6,167.81 | 6,167.81 | 6,323.57 | | | | | | | 40,971.73 | 46,700.50 | -5,728.77 | 87.73% |
| 5830 · Disability Insurance | 280.51 | 280.51 | 280.51 | 280.51 | | 280.51 | | | | | | | 1,402.55 | 2,501.35 | -1,098.80 | 56.07% |
| 5840 · Payroll Taxes | 3,386.07 | 2,947.62 | 2,695.50 | 3,001.50 | 3,108.64 | 2,804.33 | | | | | | | 17,943.66 | 28,443.35 | -10,499.69 | 63.09% |
| 5850 · PARS | 2,499.83 | 2,591.96 | 2,333.24 | 2,596.38 | 2,560.04 | 2,514.60 | | | | | | | 15,096.05 | 20,844.85 | -5,748.80 | 72.42% |
| 5900 · Wages | | | | | | | | | | | | | | | | |
| 5910 · Management | 9,584.72 | 8,381.32 | 8,381.32 | 8,381.32 | 8,381.33 | 9,025.51 | | | | | | | 52,135.52 | 60,506.25 | -8,370.73 | 86.17% |
| 5920 · Staff | 29,431.49 | 31,019.87 | 27,262.39 | 31,063.11 | 30,047.42 | 28,826.40 | | | | | | | 177,650.68 | 248,969.00 | -71,318.32 | 71.36% |
| 5930 · Staff Certification | 600.00 | 650.00 | 650.00 | 650.00 | 950.00 | 800.00 | | | | | | | 4,300.00 | 6,650.00 | -2,350.00 | 64.66% |
| 5940 · Staff Overtime | 5,183.35 | 3,200.36 | 3,770.54 | 3,853.31 | 5,927.44 | 3,367.40 | | | | | | | 25,302.40 | 40,444.85 | -15,142.45 | 62.56% |
| 5950 · Staff Standby | 2,034.26 | 2,072.54 | 1,964.04 | 2,080.21 | 2,122.46 | 1,953.37 | | | | | | | 12,226.88 | 15,238.40 | -3,011.52 | 80.24% |

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
July 2018 through June 2019

| | Jul 18 | Aug 18 | Sep 18 | Oct 18 | Nov 18 | Dec 18 | Jan 19 | Feb 19 | Mar 19 | Apr 19 | May 19 | Jun 19 | TOTAL | | | | |
|--|-----------|-----------|-----------|------------|-----------|-----------|--------|--------|--------|--------|--------|--------|------------------|------------|----------------|-------------|--|
| | | | | | | | | | | | | | Jul '18 - Jun 19 | Budget | \$ Over Budget | % of Budget | |
| Total 5900 · Wages | 46,833.82 | 45,324.09 | 42,028.29 | 46,027.95 | 47,428.65 | 43,972.68 | | | | | | | 271,615.48 | 371,808.50 | -100,193.02 | 73.05% | |
| 5960 · Worker's Comp Insurance | | | | | | | | | | | | | | | 13,601.60 | -13,601.60 | |
| Total 5800 · Labor | 68,330.57 | 60,267.31 | 53,854.84 | 61,055.59 | 62,317.20 | 58,460.32 | | | | | | | 364,285.83 | 509,000.40 | -144,714.57 | 71.57% | |
| Total 5000 · Administrative | 75,902.68 | 70,242.25 | 57,860.97 | 102,130.49 | 63,860.32 | 97,573.83 | | | | | | | 467,570.54 | 662,592.10 | -195,021.56 | 70.57% | |
| 6000 · Operations | | | | | | | | | | | | | | | | | |
| 6160 · Backflow Prevention | | | | | | | | | | | | | | | 583.35 | -583.35 | |
| 6170 · Claims, Property Damage | | 21.75 | | | | | | | | | | | 21.75 | 5,833.35 | -5,811.60 | 0.37% | |
| 6180 · Communications | | | | | | | | | | | | | | | | | |
| 6185 · SCADA Maintenance | | 6,300.00 | | 2,503.19 | | 3,257.46 | | | | | | | 12,060.65 | 5,833.35 | 6,227.30 | 206.75% | |
| Total 6180 · Communications | | 6,300.00 | | 2,503.19 | | 3,257.46 | | | | | | | 12,060.65 | 5,833.35 | 6,227.30 | 206.75% | |
| 6195 · Education & Training | 1,498.58 | 200.00 | 166.09 | 522.55 | | 200.00 | | | | | | | 2,587.22 | 5,250.00 | -2,662.78 | 49.28% | |
| 6200 · Engineering | | | | | | | | | | | | | | | | | |
| 6210 · Meeting Attendance, Engineering | | | | | | | | | | | | | | | 291.65 | -291.65 | |
| 6220 · General Engineering | | 1,785.00 | 2,033.75 | 4,149.30 | | 2,625.00 | | | | | | | 10,593.05 | 26,250.00 | -15,656.95 | 40.35% | |
| 6230 · Water Quality Engineering | | 38,201.29 | 21,065.50 | 39,120.00 | | 79,243.11 | | | | | | | 177,629.90 | 58,333.35 | 119,296.55 | 304.51% | |
| Total 6200 · Engineering | | 39,986.29 | 23,099.25 | 43,269.30 | | 81,868.11 | | | | | | | 188,222.95 | 84,875.00 | 103,347.95 | 221.77% | |
| 6320 · Equipment & Tools, Expensed | 1,525.40 | 1,001.58 | 305.35 | 1,013.20 | 207.68 | 1,051.53 | | | | | | | 5,104.74 | 2,916.65 | 2,188.09 | 175.02% | |
| 6330 · Facilities | | | | | | | | | | | | | | | | | |
| 6335 · Alarm Services | 127.02 | | 52.50 | 127.02 | | 52.50 | | | | | | | 359.04 | 466.65 | -107.61 | 76.94% | |
| 6337 · Landscaping | | 497.95 | 483.00 | 483.00 | 483.00 | 483.00 | | | | | | | 2,429.95 | 3,500.00 | -1,070.05 | 69.43% | |
| 6330 · Facilities - Other | | | | | | | | | | | | | | | | | |
| Total 6330 · Facilities | 127.02 | 497.95 | 535.50 | 610.02 | 483.00 | 535.50 | | | | | | | 2,788.99 | 3,966.65 | -1,177.66 | 70.31% | |
| 6370 · Lab Supplies & Equipment | | 460.08 | | 493.92 | | 733.44 | | | | | | | 1,687.44 | 1,166.65 | 520.79 | 144.64% | |
| 6400 · Pumping | | | | | | | | | | | | | | | | | |
| 6410 · Pumping Fuel & Electricity | 6,089.22 | 6,538.30 | 1,571.22 | 10,330.63 | 1,937.73 | 5,707.95 | | | | | | | 32,175.05 | 52,500.00 | -20,324.95 | 61.29% | |
| 6420 · Pumping Maintenance, Generators | | 393.39 | 428.62 | | | 6,623.49 | | | | | | | 7,445.50 | 5,833.35 | 1,612.15 | 127.64% | |
| 6430 · Pumping Maintenance, General | | 207.57 | | | | | | | | | | | 207.57 | 2,916.65 | -2,709.08 | 7.12% | |
| 6440 · Pumping Equipment, Expensed | | | | | | | | | | | | | | 408.35 | -408.35 | | |
| Total 6400 · Pumping | 6,089.22 | 7,139.26 | 1,999.84 | 10,330.63 | 1,937.73 | 12,331.44 | | | | | | | 39,828.12 | 61,658.35 | -21,830.23 | 64.6% | |
| 6500 · Supply | | | | | | | | | | | | | | | | | |
| 6510 · Maintenance, Raw Water Mains | | | | 1,445.65 | 35.85 | 162.71 | | | | | | | 1,644.21 | 1,225.00 | 419.21 | 134.22% | |
| 6520 · Maintenance, Wells | | 2,189.25 | | 192.25 | | | | | | | | | 2,381.50 | 5,833.35 | -3,451.85 | 40.83% | |

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
July 2018 through June 2019

| | | | | | | | | | | | | TOTAL | | | | |
|---|-----------|------------|------------|------------|------------|------------|--------|--------|--------|--------|--------|--------|------------------|------------|----------------|-------------|
| | Jul 18 | Aug 18 | Sep 18 | Oct 18 | Nov 18 | Dec 18 | Jan 19 | Feb 19 | Mar 19 | Apr 19 | May 19 | Jun 19 | Jul '18 - Jun 19 | Budget | \$ Over Budget | % of Budget |
| 6530 · Water Purchases | | | | 6,781.42 | | | | | | | | | 6,781.42 | 23,333.35 | -16,551.93 | 29.06% |
| Total 6500 · Supply | | 2,189.25 | | 8,419.32 | 35.85 | 162.71 | | | | | | | 10,807.13 | 30,391.70 | -19,584.57 | 35.56% |
| 6600 · Collection/Transmission | | | | | | | | | | | | | | | | |
| 6610 · Hydrants | | -570.00 | | | | | | | | | | | -570.00 | 583.35 | -1,153.35 | -97.71% |
| 6620 · Maintenance, Water Mains | | 6,313.73 | 6,374.76 | | | 25.99 | | | | | | | 12,714.48 | 29,166.65 | -16,452.17 | 43.59% |
| 6630 · Maintenance, Water Svc Lines | | | | | | 36.87 | | | | | | | 36.87 | 11,666.65 | -11,629.78 | 0.32% |
| 6640 · Maintenance, Tanks | | | | | | | | | | | | | | 583.35 | -583.35 | |
| 6650 · Maint., Distribution General | | | | | | | | | | | | | | 4,083.35 | -4,083.35 | |
| 6670 · Meters | | | 2,214.89 | | | | | | | | | | 2,214.89 | 1,458.35 | 756.54 | 151.88% |
| 6600 · Collection/Transmission - Other | | | | | | 413.98 | | | | | | | 413.98 | | | |
| Total 6600 · Collection/Transmission | | 5,743.73 | 8,589.65 | | | 476.84 | | | | | | | 14,810.22 | 47,541.70 | -32,731.48 | 31.15% |
| 6700 · Treatment | | | | | | | | | | | | | | | | |
| 6710 · Chemicals & Filtering | | 193.52 | 292.50 | 570.92 | | 486.02 | | | | | | | 1,542.96 | 17,500.00 | -15,957.04 | 8.82% |
| 6720 · Maintenance, Treatment Equip. | 7.16 | 10.09 | 9,686.80 | 696.40 | | 243.21 | | | | | | | 10,643.66 | 2,333.35 | 8,310.31 | 456.15% |
| 6730 · Treatment Analysis | 61.80 | 374.60 | 6,598.10 | 602.60 | | 5,095.50 | | | | | | | 12,732.60 | 24,500.00 | -11,767.40 | 51.97% |
| 6700 · Treatment - Other | | | | | | 2,691.60 | | | | | | | 2,691.60 | | | |
| Total 6700 · Treatment | 68.96 | 578.21 | 16,577.40 | 1,869.92 | | 8,516.33 | | | | | | | 27,610.82 | 44,333.35 | -16,722.53 | 62.28% |
| 6770 · Uniforms | 1,024.15 | 814.00 | 905.15 | 829.35 | | 1,618.62 | | | | | | | 5,191.27 | 7,000.00 | -1,808.73 | 74.16% |
| 6800 · Vehicles | | | | | | | | | | | | | | | | |
| 6810 · Fuel | 665.72 | 594.74 | -89.21 | 1,218.67 | | 543.59 | | | | | | | 2,933.51 | 4,666.65 | -1,733.14 | 62.86% |
| 6820 · Truck Equipment, Expensed | | | | 108.64 | | | | | | | | | 108.64 | 583.35 | -474.71 | 18.62% |
| 6830 · Truck Repairs | 178.20 | 595.30 | 581.16 | 42.88 | | | | | | | | | 1,397.54 | 2,916.65 | -1,519.11 | 47.92% |
| Total 6800 · Vehicles | 843.92 | 1,190.04 | 491.95 | 1,370.19 | | 543.59 | | | | | | | 4,439.69 | 8,166.65 | -3,726.96 | 54.36% |
| 6890 · Other Operations | | | | 43.48 | | | | | | | | | 43.48 | | | |
| Total 6000 · Operations | 11,177.25 | 66,122.14 | 52,670.18 | 71,275.07 | 2,664.26 | 111,295.57 | | | | | | | 315,204.47 | 309,516.75 | 5,687.72 | 101.84% |
| Total Expense | 87,079.93 | 136,364.39 | 110,531.15 | 173,405.56 | 66,524.58 | 208,869.40 | | | | | | | 782,775.01 | 972,108.85 | -189,333.84 | 80.52% |
| Net Ordinary Income | 55,492.23 | 88,311.87 | 74,369.94 | -12,879.21 | 131,488.13 | 59,731.29 | | | | | | | 396,514.25 | 341,001.30 | 55,512.95 | 116.28% |
| Other Income/Expense | | | | | | | | | | | | | | | | |
| Other Income | | | | | | | | | | | | | | | | |
| 7000 · Capital Account Revenues | | | | | | | | | | | | | | | | |
| 7100 · Connection Fees | | | | | | | | | | | | | | | | |
| 7110 · Connection Fees (New Constr) | | 17,457.00 | | 19,203.00 | | | | | | | | | 36,660.00 | 100,928.35 | -64,268.35 | 36.32% |

Montara Water & Sanitary District
Revenue & Expenditures Budget vs. Actual - Water
July 2018 through June 2019

| | Jul 18 | Aug 18 | Sep 18 | Oct 18 | Nov 18 | Dec 18 | Jan 19 | Feb 19 | Mar 19 | Apr 19 | May 19 | Jun 19 | TOTAL | | | |
|---|------------------|------------------|------------------|-------------------|-------------------|-------------------|--------|--------|--------|--------|--------|--------|-------------------|-------------------|-------------------|----------------|
| | | | | | | | | | | | | | Jul '18 - Jun 19 | Budget | \$ Over Budget | % of Budget |
| 7130 - Conn. Fees, PFP (New Constr) | | 8,706.00 | 11,910.73 | 8,706.00 | | | | | | | | | 29,322.73 | 46,666.65 | -17,343.92 | 62.83% |
| 7140 - Conn. Fees, PFP (Remodel) | | 2,032.40 | | | | | | | | | | | 2,032.40 | | | |
| Total 7100 - Connection Fees | | 28,195.40 | 11,910.73 | 27,909.00 | | | | | | | | | 68,015.13 | 147,595.00 | -79,579.87 | 46.08% |
| 7600 - Bond Revenues, G.O. | | | 1,412.72 | 1,349.22 | 17,178.51 | 556,471.28 | | | | | | | 576,411.73 | 671,087.65 | -94,675.92 | 85.89% |
| Total 7000 - Capital Account Revenues | | 28,195.40 | 13,323.45 | 29,258.22 | 17,178.51 | 556,471.28 | | | | | | | 644,426.86 | 818,682.65 | -174,255.79 | 78.72% |
| Total Other Income | | 28,195.40 | 13,323.45 | 29,258.22 | 17,178.51 | 556,471.28 | | | | | | | 644,426.86 | 818,682.65 | -174,255.79 | 78.72% |
| Other Expense | | | | | | | | | | | | | | | | |
| 8000 - Capital Improvement Program | | | | | | | | | | | | | | | | |
| 8100 - Water | | 5,337.50 | 11,684.01 | 34,053.37 | 1,260.00 | 46,761.10 | | | | | | | 99,095.98 | 280,583.35 | -181,487.37 | 35.32% |
| Total 8000 - Capital Improvement Program | | 5,337.50 | 11,684.01 | 34,053.37 | 1,260.00 | 46,761.10 | | | | | | | 99,095.98 | 280,583.35 | -181,487.37 | 35.32% |
| 9000 - Capital Account Expenses | | | | | | | | | | | | | | | | |
| 9075 - PFP Connection Expenses | | | | 6,135.00 | | | | | | | | | 6,135.00 | | | |
| 9100 - Interest Expense - GO Bonds | | 20,593.81 | | | | | | | | | | | 20,593.81 | 127,943.00 | -107,349.19 | 16.1% |
| 9125 - PNC Equipment Lease Interest | 1,460.19 | 2,890.10 | | 2,847.56 | | 1,407.77 | | | | | | | 8,605.62 | 9,948.34 | -1,342.72 | 86.5% |
| 9150 - SRF Loan | | | | | | 39,938.40 | | | | | | | 39,938.40 | 78,455.00 | -38,516.60 | 50.91% |
| 9200 - I-Bank Loan | | | | | | | | | | | | | | | | |
| 9210 - Conservation Program/Rebates | | 300.00 | | 400.00 | | 600.00 | | | | | | | 1,300.00 | 1,166.65 | 133.35 | 111.43% |
| Total 9000 - Capital Account Expenses | 1,460.19 | 23,783.91 | | 9,382.56 | | 41,946.17 | | | | | | | 76,572.83 | 217,512.99 | -140,940.16 | 35.2% |
| Total Other Expense | 1,460.19 | 29,121.41 | 11,684.01 | 43,435.93 | 1,260.00 | 88,707.27 | | | | | | | 175,668.81 | 498,096.34 | -322,427.53 | 35.27% |
| Net Other Income | -1,460.19 | -926.01 | 1,639.44 | -14,177.71 | 15,918.51 | 467,764.01 | | | | | | | 468,758.05 | 320,586.31 | 148,171.74 | 146.22% |
| Net Income | 54,032.04 | 87,385.86 | 76,009.38 | -27,056.92 | 147,406.64 | 527,495.30 | | | | | | | 865,272.30 | 661,587.61 | 203,684.69 | 130.79% |

Montara Water & Sanitary District Funds Balance Sheet As of December 31, 2018

| | Sewer | Water | TOTAL |
|--|---------------------|---------------------|----------------------|
| ASSETS | | | |
| Current Assets | | | |
| Checking/Savings | | | |
| Sewer - Bank Accounts | | | |
| Wells Fargo Operating - Sewer | 2,510,774.87 | 0.00 | 2,510,774.87 |
| LAIF Investment Fund | | | |
| Capital Reserve | 3,810,640.78 | 0.00 | 3,810,640.78 |
| Connection Fees Reserve | 194,600.00 | 0.00 | 194,600.00 |
| Operating Reserve | 406,882.00 | 0.00 | 406,882.00 |
| Total LAIF Investment Fund | 4,412,122.78 | 0.00 | 4,412,122.78 |
| Total Sewer - Bank Accounts | 6,922,897.65 | 0.00 | 6,922,897.65 |
| Water - Bank Accounts | | | |
| Wells Fargo Operating - Water | 0.00 | 960,107.69 | 960,107.69 |
| Capital Reserve | 0.00 | 398,249.00 | 398,249.00 |
| Operating Reserve | 0.00 | 46,009.00 | 46,009.00 |
| SRF Reserve | 0.00 | 48,222.00 | 48,222.00 |
| Restricted Cash | | | |
| Acq & Improv Fund | 0.00 | 316.13 | 316.13 |
| Connection Fees Reserve | 0.00 | 253,020.00 | 253,020.00 |
| GO Bonds Fund | 0.00 | 959,237.50 | 959,237.50 |
| Total Restricted Cash | 0.00 | 1,212,573.63 | 1,212,573.63 |
| Total Water - Bank Accounts | 0.00 | 2,665,161.32 | 2,665,161.32 |
| Total Checking/Savings | 6,922,897.65 | 2,665,161.32 | 9,588,058.97 |
| Accounts Receivable | | | |
| Sewer - Accounts Receivable | | | |
| Accounts Receivable | -1,693.55 | 0.00 | -1,693.55 |
| Sewer - Accounts Receivable - Ot... | 2,559.74 | 0.00 | 2,559.74 |
| Total Sewer - Accounts Receivable | 866.19 | 0.00 | 866.19 |
| Water - Accounts Receivable | | | |
| Accounts Receivable | 0.00 | -2,727.54 | -2,727.54 |
| Accounts Rec. - Backflow | 0.00 | 17,293.11 | 17,293.11 |
| Accounts Rec. - Water Residents | 0.00 | 183,729.86 | 183,729.86 |
| Unbilled Water Receivables | 0.00 | 259,634.72 | 259,634.72 |
| Total Water - Accounts Receivable | 0.00 | 457,930.15 | 457,930.15 |
| Total Accounts Receivable | 866.19 | 457,930.15 | 458,796.34 |
| Other Current Assets | | | |
| Due from Kathryn Slater-Carter | 232.31 | 382.31 | 614.62 |
| Maint/Parts Inventory | 0.00 | 42,656.32 | 42,656.32 |
| Prepaid Refuse Charges | 16,968.67 | 0.00 | 16,968.67 |
| Total Other Current Assets | 17,200.98 | 43,038.63 | 60,239.61 |
| Total Current Assets | 6,940,964.82 | 3,166,130.10 | 10,107,094.92 |
| Fixed Assets | | | |
| Sewer - Fixed Assets | | | |
| General Plant | 3,690,152.50 | 0.00 | 3,690,152.50 |
| Land | 5,000.00 | 0.00 | 5,000.00 |
| Other Capital Improv. | | | |
| Sewer-Original Cost | 685,599.18 | 0.00 | 685,599.18 |
| Other Cap. Improv. | 2,564,810.39 | 0.00 | 2,564,810.39 |
| Total Other Capital Improv. | 3,250,409.57 | 0.00 | 3,250,409.57 |

Montara Water & Sanitary District
Funds Balance Sheet
As of December 31, 2018

| | | | |
|--|-----------------------------|-----------------------------|-----------------------------|
| Seal Cove Collection System | 995,505.00 | 0.00 | 995,505.00 |
| Sewage Collection Facility | | | |
| Collection Facility - Org. Cost | 1,349,064.00 | 0.00 | 1,349,064.00 |
| Collection Facility - Other | 3,991,243.33 | 0.00 | 3,991,243.33 |
| Total Sewage Collection Facility | <u>5,340,307.33</u> | <u>0.00</u> | <u>5,340,307.33</u> |
| Treatment Facility | 244,539.84 | 0.00 | 244,539.84 |
| Accumulated Depreciation | -8,463,505.00 | 0.00 | -8,463,505.00 |
| Total Sewer - Fixed Assets | <u>5,062,409.24</u> | <u>0.00</u> | <u>5,062,409.24</u> |
| Water - Fixed Assets | | | |
| General Plant | 0.00 | 26,866,754.62 | 26,866,754.62 |
| Land & Easements | 0.00 | 734,500.00 | 734,500.00 |
| Surface Water Rights | 0.00 | 300,000.00 | 300,000.00 |
| Water Meters | 0.00 | 1,058,985.00 | 1,058,985.00 |
| Fixed Assets - Other | 0.00 | 48,171.78 | 48,171.78 |
| Accumulated Depreciation | 0.00 | -10,818,472.00 | -10,818,472.00 |
| Total Water - Fixed Assets | <u>0.00</u> | <u>18,189,939.40</u> | <u>18,189,939.40</u> |
| Total Fixed Assets | <u>5,062,409.24</u> | <u>18,189,939.40</u> | <u>23,252,348.64</u> |
| Other Assets | | | |
| Sewer - Other Assets | | | |
| Def'd Amts Related to Pensions | 101,367.00 | 0.00 | 101,367.00 |
| Due from Water Fund | -450,349.95 | 0.00 | -450,349.95 |
| Joint Power Authority | | | |
| SAM - Orig Collection Facility | 981,592.00 | 0.00 | 981,592.00 |
| SAM - Expansion | 1,705,955.08 | 0.00 | 1,705,955.08 |
| Total Joint Power Authority | <u>2,687,547.08</u> | <u>0.00</u> | <u>2,687,547.08</u> |
| Total Sewer - Other Assets | <u>2,338,564.13</u> | <u>0.00</u> | <u>2,338,564.13</u> |
| Water - Other Assets | | | |
| Def'd Amts Related to Pensions | 0.00 | 190,536.00 | 190,536.00 |
| Bond Acquisition Cost OID | 0.00 | 47,864.40 | 47,864.40 |
| Bond Issue Cost | 0.00 | 51,409.55 | 51,409.55 |
| Total Water - Other Assets | <u>0.00</u> | <u>289,809.95</u> | <u>289,809.95</u> |
| Total Other Assets | <u>2,338,564.13</u> | <u>289,809.95</u> | <u>2,628,374.08</u> |
| TOTAL ASSETS | <u><u>14,341,938.19</u></u> | <u><u>21,645,879.45</u></u> | <u><u>35,987,817.64</u></u> |
| LIABILITIES & EQUITY | | | |
| Liabilities | | | |
| Current Liabilities | | | |
| Accounts Payable | | | |
| Accounts Payable - Sewer | -163,586.09 | 0.00 | -163,586.09 |
| Accounts Payable - Water | 0.00 | 281,171.49 | 281,171.49 |
| Total Accounts Payable | <u>-163,586.09</u> | <u>281,171.49</u> | <u>117,585.40</u> |
| Other Current Liabilities | | | |
| Water - Net Pension Liability | 0.00 | -52,155.00 | -52,155.00 |
| Sewer - Net Pension Liability | -27,826.00 | 0.00 | -27,826.00 |
| Sewer - Current Liabilities | | | |
| Accrued Vacations | 5,532.92 | 0.00 | 5,532.92 |
| Deposits Payable | 24,347.73 | 0.00 | 24,347.73 |
| PNC Equip. Loan - S/T | 26,369.27 | 0.00 | 26,369.27 |
| Total Sewer - Current Liabilities | <u>56,249.92</u> | <u>0.00</u> | <u>56,249.92</u> |

Montara Water & Sanitary District
Funds Balance Sheet
As of December 31, 2018


| | | | |
|--|----------------------|----------------------|----------------------|
| Water - Current Liabilities | | | |
| Accrued Vacations | 0.00 | 14,310.99 | 14,310.99 |
| Deposits Payable | 0.00 | 46,507.23 | 46,507.23 |
| GO Bonds - S/T | 0.00 | 450,640.59 | 450,640.59 |
| PFP Water Deposits | 0.00 | 4,302.50 | 4,302.50 |
| PNC Equip. Loan - S/T | 0.00 | 26,369.25 | 26,369.25 |
| SRF Loan Payable X102 - Current | 0.00 | 42,456.30 | 42,456.30 |
| SRF Loan Payable X109 - Current | 0.00 | 84,479.41 | 84,479.41 |
| Total Water - Current Liabilities | 0.00 | 669,066.27 | 669,066.27 |
| Payroll Liabilities | | | |
| Employee Benefits Payable | 11,050.07 | 0.00 | 11,050.07 |
| Total Payroll Liabilities | 11,050.07 | 0.00 | 11,050.07 |
| Total Other Current Liabilities | 39,473.99 | 616,911.27 | 656,385.26 |
| Total Current Liabilities | -124,112.10 | 898,082.76 | 773,970.66 |
| Long Term Liabilities | | | |
| Sewer - Long Term Liabilities | | | |
| Accrued Vacations | 8,801.76 | 0.00 | 8,801.76 |
| I-Bank Loan | 755,347.13 | 0.00 | 755,347.13 |
| PNC Equip. Loan - L/T | 541,886.32 | 0.00 | 541,886.32 |
| Total Sewer - Long Term Liabilities | 1,306,035.21 | 0.00 | 1,306,035.21 |
| Water - Long Term Liabilities | | | |
| Accrued Vacations | 0.00 | 10,041.80 | 10,041.80 |
| Deferred on Refunding | 0.00 | -187,712.00 | -187,712.00 |
| Due to Sewer Fund | 0.00 | -450,349.95 | -450,349.95 |
| GO Bonds - L/T | 0.00 | 9,705,129.52 | 9,705,129.52 |
| PNC Equip. Loan - L/T | 0.00 | 541,886.37 | 541,886.37 |
| SRF Loan Payable - X102 | 0.00 | 42,900.63 | 42,900.63 |
| SRF Loan Payable - X109 | 0.00 | 3,214,657.45 | 3,214,657.45 |
| Total Water - Long Term Liabilities | 0.00 | 12,876,553.82 | 12,876,553.82 |
| Deferred Inflows (Pensions) | | | |
| Sewer | 21,452.00 | 0.00 | 21,452.00 |
| Water | 0.00 | 40,208.00 | 40,208.00 |
| Total Deferred Inflows (Pensions) | 21,452.00 | 40,208.00 | 61,660.00 |
| Total Long Term Liabilities | 1,327,487.21 | 12,916,761.82 | 14,244,249.03 |
| Total Liabilities | 1,203,375.11 | 13,814,844.58 | 15,018,219.69 |
| Equity | | | |
| Sewer - Equity Accounts | | | |
| Capital Assets Net | 3,408,252.20 | 0.00 | 3,408,252.20 |
| Fund Balance - Unrestricted | 8,646,292.87 | 0.00 | 8,646,292.87 |
| Retained Earnings | 545,523.39 | 0.00 | 545,523.39 |
| Total Sewer - Equity Accounts | 12,600,068.46 | 0.00 | 12,600,068.46 |
| Water - Equity Accounts | | | |
| Capital Assets Net | 0.00 | 2,868,858.70 | 2,868,858.70 |
| Restricted Debt Service | 0.00 | 1,384,997.90 | 1,384,997.90 |
| Unrestricted | 0.00 | -1,562,801.59 | -1,562,801.59 |
| Retained Earnings | 0.00 | -545,523.39 | -545,523.39 |
| Total Water - Equity Accounts | 0.00 | 2,145,531.62 | 2,145,531.62 |
| Equity Adjustment Account | 1,157,836.94 | 4,820,230.95 | 5,978,067.89 |
| Net Income | -619,342.32 | 865,272.30 | 245,929.98 |
| Total Equity | 13,138,563.08 | 7,831,034.87 | 20,969,597.95 |
| TOTAL LIABILITIES & EQUITY | 14,341,938.19 | 21,645,879.45 | 35,987,817.64 |



MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: **February 7, 2019**

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager 

SUBJECT: SAM Flow Report for December 2018

The Sewer Authority Mid-Coastside (SAM) has prepared the following attached reports for the SAM Board of Directors and the California Regional Water Quality Control Board:

- Flow Report for December 2018.
- Collection System Monthly Overflow Report – December 2018.

The Average Daily Flow for Montara was 0.261 MGD in December 2018. There was no reportable overflow in December in the Montara System. SAM indicates there were 1.92 inches of rain in December 2018.

RECOMMENDATION:

Review and file.

Attachments

Sewer Authority Mid-Coastside

Monthly Collection System Activity/SSO Distribution Report, December 2018

December 2018

| Total | Number of S.S.O.'s | | | |
|--------------|--------------------|----------|----------|----------|
| | HMB | GCSD | MWSD | SAM |
| Roots | 0 | 0 | 0 | 0 |
| Grease | 0 | 0 | 0 | 0 |
| Mechanical | 0 | 0 | 0 | 0 |
| Wet Weather | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 |

12 Month Moving Total

| Total | 12 month rolling Number | | | |
|--------------|-------------------------|----------|----------|----------|
| | HMB | GCSD | MWSD | SAM |
| Roots | 0 | 0 | 0 | 0 |
| Grease | 0 | 0 | 0 | 0 |
| Mechanical | 0 | 0 | 0 | 0 |
| Wet Weather | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 |

Reportable SSOs

| Total | Reportable Number of S.S.O.'s | | | |
|-----------------------|-------------------------------|------|------|-----|
| | HMB | GCSD | MWSD | SAM |
| December 2018 | 0 | 0 | 0 | 0 |
| 12 Month Moving Total | 0 | 0 | 0 | 0 |

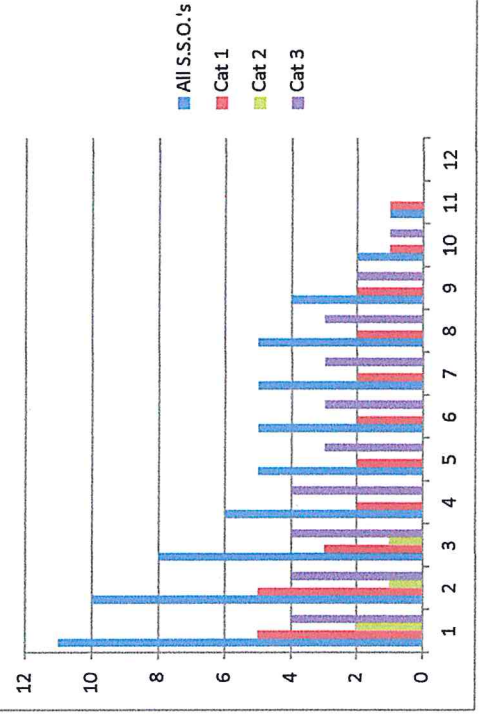
SSOs / Year / 100 Miles

| Total | Number of S.S.O.'s / Year / 100 Miles | | | |
|-----------------------|---------------------------------------|-------|-------|-------|
| | HMB | GCSD | MWSD | SAM |
| December 2018 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12 Month Moving Total | 0.0 | 0.0 | 0.0 | 0.0 |
| Category 1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Category 2 | 0.0 | 0.0 | 0.0 | 0.0 |
| Category 3 | 0.0 | 0.0 | 0.0 | 0.0 |
| Miles of Sewers | 104.5 | 37.0 | 33.2 | 27.0 |
| | | 35.4% | 31.8% | 25.8% |
| | | | | 7.3 |
| | | | | 7.0% |

12 Month Rolling Total Sewer Cleaning Summary

| Month | HMB | GCSD | MWSD | Total Feet | Total Miles |
|-------------------|----------------|----------------|----------------|----------------|--------------|
| Jan - 18 | 26,653 | 13,069 | 11,444 | 51,166 | 9.7 |
| Feb - 18 | 10,011 | 6,913 | 11,998 | 28,922 | 5.5 |
| Mar - 18 | 15,529 | 10,672 | 9,585 | 35,786 | 6.8 |
| Apr - 18 | 13,294 | 11,588 | 11,614 | 36,496 | 6.9 |
| May - 18 | 12,081 | 12,563 | 10,730 | 35,374 | 6.7 |
| June - 18 | 17,720 | 17,272 | 9,086 | 44,078 | 8.3 |
| July - 18 | 29,678 | 19,093 | 9,715 | 58,486 | 11.1 |
| Aug - 18 | 22,610 | 22,232 | 16,155 | 60,997 | 11.6 |
| Sep - 18 | 15,448 | 16,407 | 11,416 | 43,271 | 8.2 |
| Oct - 18 | 21,189 | 10,969 | 14,786 | 46,944 | 8.9 |
| Nov - 18 | 19,571 | 27,546 | 10,338 | 57,455 | 10.9 |
| Dec - 18 | 27,756 | 17,357 | 9,422 | 54,535 | 10.3 |
| Annual ft | 231,540 | 185,681 | 136,289 | 553,510 | |
| Annual Mi. | 43.9 | 35.2 | 25.8 | | 104.8 |

12 Month Moving SSO Totals Through December 2018



Attachment A

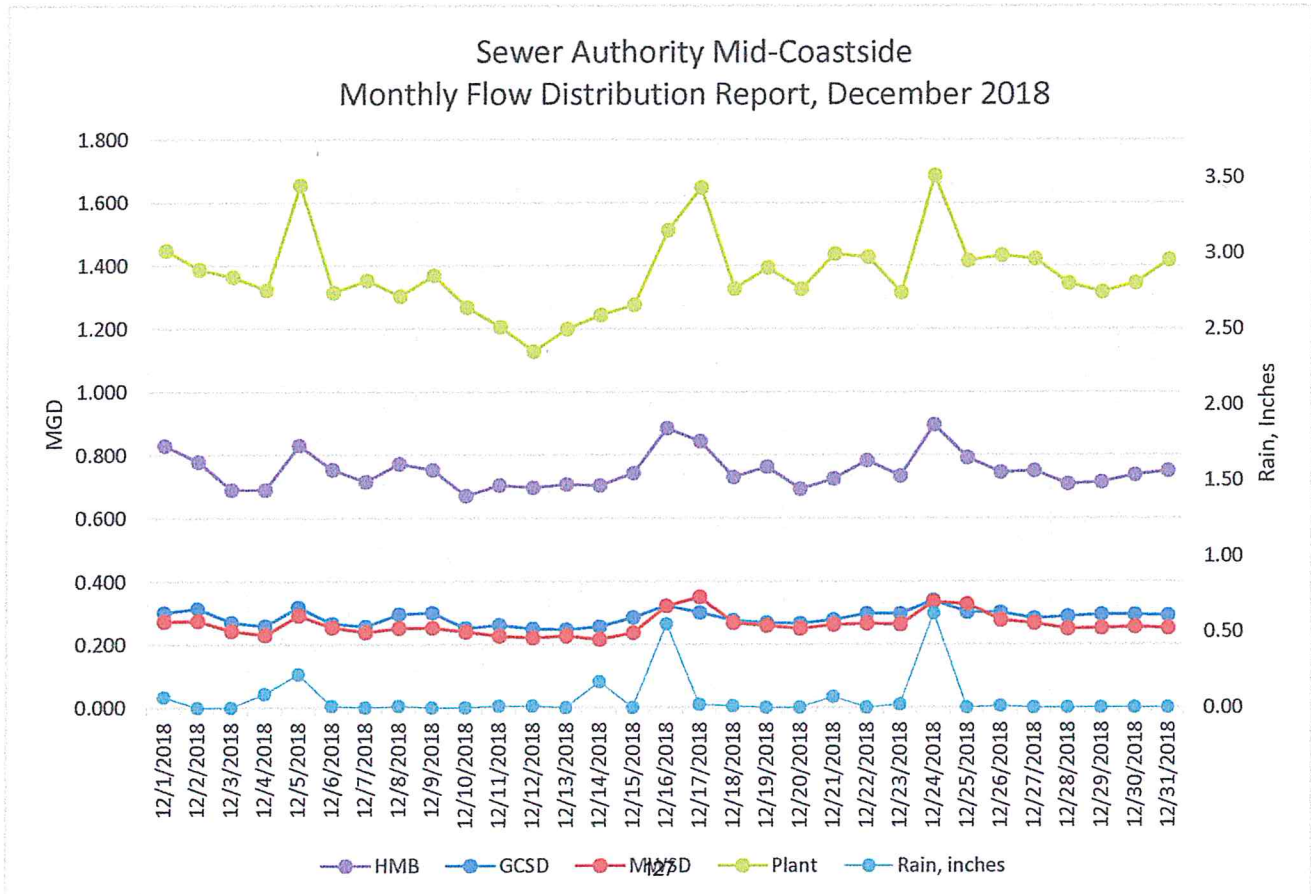
Flow Distribution Report Summary for December 2018

The daily flow report figures for the month of December 2018
have been converted to an Average

Daily Flow (ADF) for each Member Agency.
The results are attached for your review.

The summary of the ADF information is as follows:

| | <u>MGD</u> | <u>%</u> |
|-------------------------------------|--------------|---------------|
| The City of Half Moon Bay | 0.751 | 57.9% |
| Granada Community Services District | 0.284 | 21.9% |
| Montara Water and Sanitary District | <u>0.261</u> | <u>20.2%</u> |
| Total | 1.296 | 100.0% |



Sewer Authority Mid-Coastside

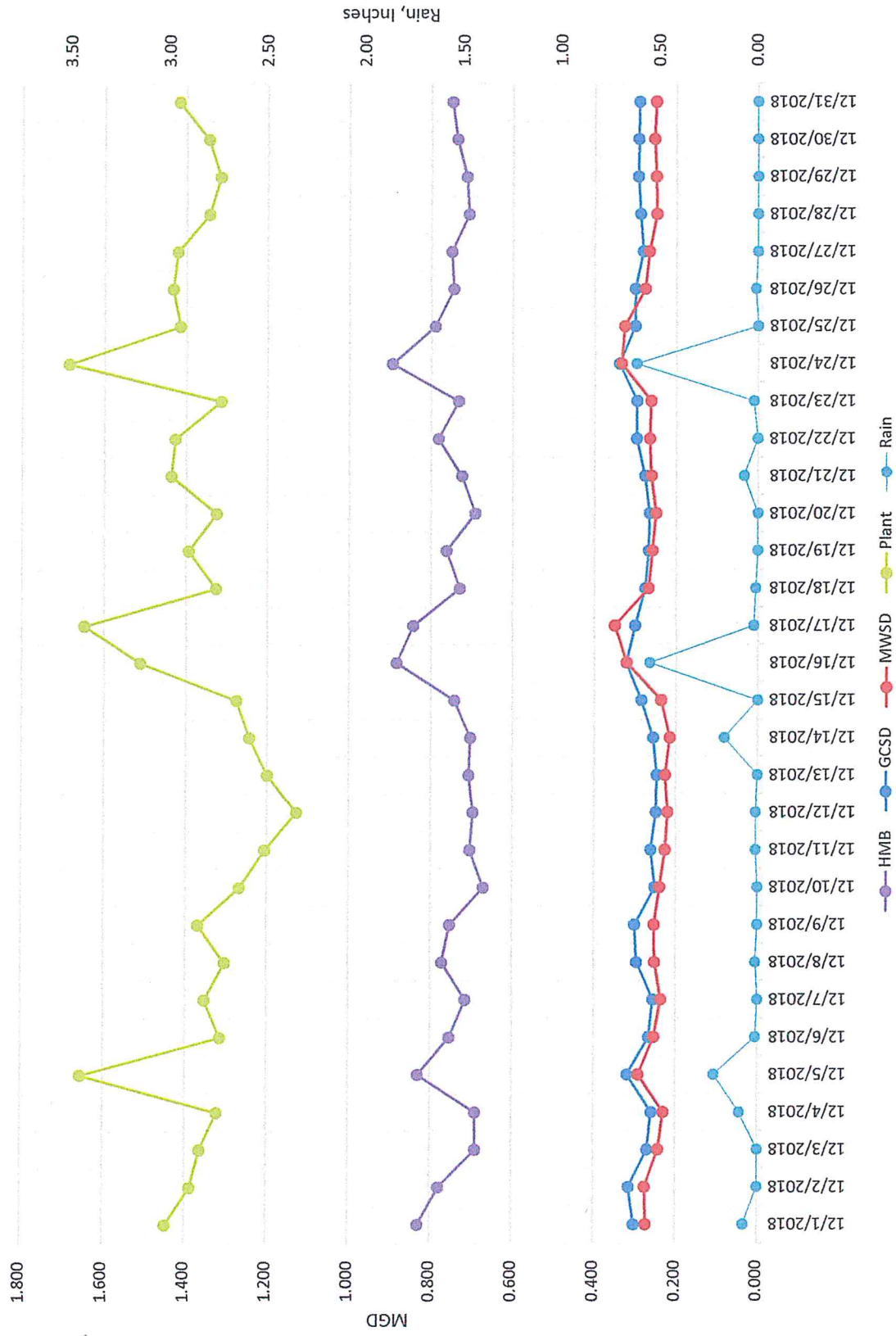
Monthly Flow Distribution Report for December 2018

| <u>Date</u> | <u>HMB</u> | <u>GCSD</u> | <u>MWSD</u> | <u>Plant</u> | <u>Rain Plant</u> | <u>Rain Portola</u> | <u>Rain Montara</u> |
|---------------|---------------|--------------|--------------|---------------|-------------------|---------------------|---------------------|
| 12/1/2018 | 0.829 | 0.301 | 0.272 | 1.447 | 0.07 | 0.10 | 0.06 |
| 12/2/2018 | 0.779 | 0.313 | 0.274 | 1.387 | 0.00 | 0.00 | 0.00 |
| 12/3/2018 | 0.689 | 0.269 | 0.242 | 1.363 | 0.00 | 0.00 | 0.00 |
| 12/4/2018 | 0.690 | 0.258 | 0.229 | 1.322 | 0.09 | 0.03 | 0.05 |
| 12/5/2018 | 0.830 | 0.318 | 0.291 | 1.655 | 0.22 | 0.47 | 0.29 |
| 12/6/2018 | 0.753 | 0.266 | 0.253 | 1.314 | 0.01 | 0.00 | 0.00 |
| 12/7/2018 | 0.715 | 0.255 | 0.237 | 1.353 | 0.00 | 0.00 | 0.00 |
| 12/8/2018 | 0.772 | 0.295 | 0.251 | 1.303 | 0.01 | 0.00 | 0.00 |
| 12/9/2018 | 0.752 | 0.300 | 0.252 | 1.368 | 0.00 | 0.00 | 0.00 |
| 12/10/2018 | 0.671 | 0.250 | 0.239 | 1.267 | 0.00 | 0.00 | 0.00 |
| 12/11/2018 | 0.704 | 0.261 | 0.226 | 1.205 | 0.01 | 0.00 | 0.00 |
| 12/12/2018 | 0.696 | 0.249 | 0.220 | 1.128 | 0.01 | 0.00 | 0.02 |
| 12/13/2018 | 0.707 | 0.246 | 0.226 | 1.199 | 0.00 | 0.00 | 0.00 |
| 12/14/2018 | 0.703 | 0.255 | 0.215 | 1.243 | 0.17 | 0.03 | 0.04 |
| 12/15/2018 | 0.742 | 0.284 | 0.236 | 1.276 | 0.00 | 0.00 | 0.00 |
| 12/16/2018 | 0.884 | 0.322 | 0.321 | 1.511 | 0.55 | 0.52 | 0.85 |
| 12/17/2018 | 0.843 | 0.300 | 0.350 | 1.647 | 0.02 | 0.00 | 0.01 |
| 12/18/2018 | 0.730 | 0.275 | 0.267 | 1.326 | 0.01 | 0.00 | 0.00 |
| 12/19/2018 | 0.762 | 0.267 | 0.258 | 1.393 | 0.00 | 0.00 | 0.00 |
| 12/20/2018 | 0.692 | 0.265 | 0.249 | 1.325 | 0.00 | 0.00 | 0.00 |
| 12/21/2018 | 0.725 | 0.277 | 0.261 | 1.436 | 0.07 | 0.10 | 0.12 |
| 12/22/2018 | 0.782 | 0.297 | 0.265 | 1.427 | 0.00 | 0.00 | 0.00 |
| 12/23/2018 | 0.733 | 0.296 | 0.262 | 1.314 | 0.02 | 0.02 | 0.04 |
| 12/24/2018 | 0.895 | 0.340 | 0.335 | 1.686 | 0.62 | 0.37 | 0.44 |
| 12/25/2018 | 0.791 | 0.301 | 0.327 | 1.415 | 0.00 | 0.00 | 0.00 |
| 12/26/2018 | 0.745 | 0.301 | 0.276 | 1.432 | 0.01 | 0.00 | 0.00 |
| 12/27/2018 | 0.750 | 0.281 | 0.266 | 1.421 | 0.00 | 0.00 | 0.00 |
| 12/28/2018 | 0.708 | 0.288 | 0.248 | 1.343 | 0.00 | 0.00 | 0.00 |
| 12/29/2018 | 0.713 | 0.294 | 0.250 | 1.316 | 0.00 | 0.00 | 0.00 |
| 12/30/2018 | 0.736 | 0.293 | 0.254 | 1.345 | 0.00 | 0.00 | 0.00 |
| 12/31/2018 | 0.749 | 0.291 | 0.250 | 1.417 | 0.00 | 0.00 | 0.00 |
| Totals | 23.270 | 8.808 | 8.102 | 42.585 | 1.89 | 1.64 | 1.92 |

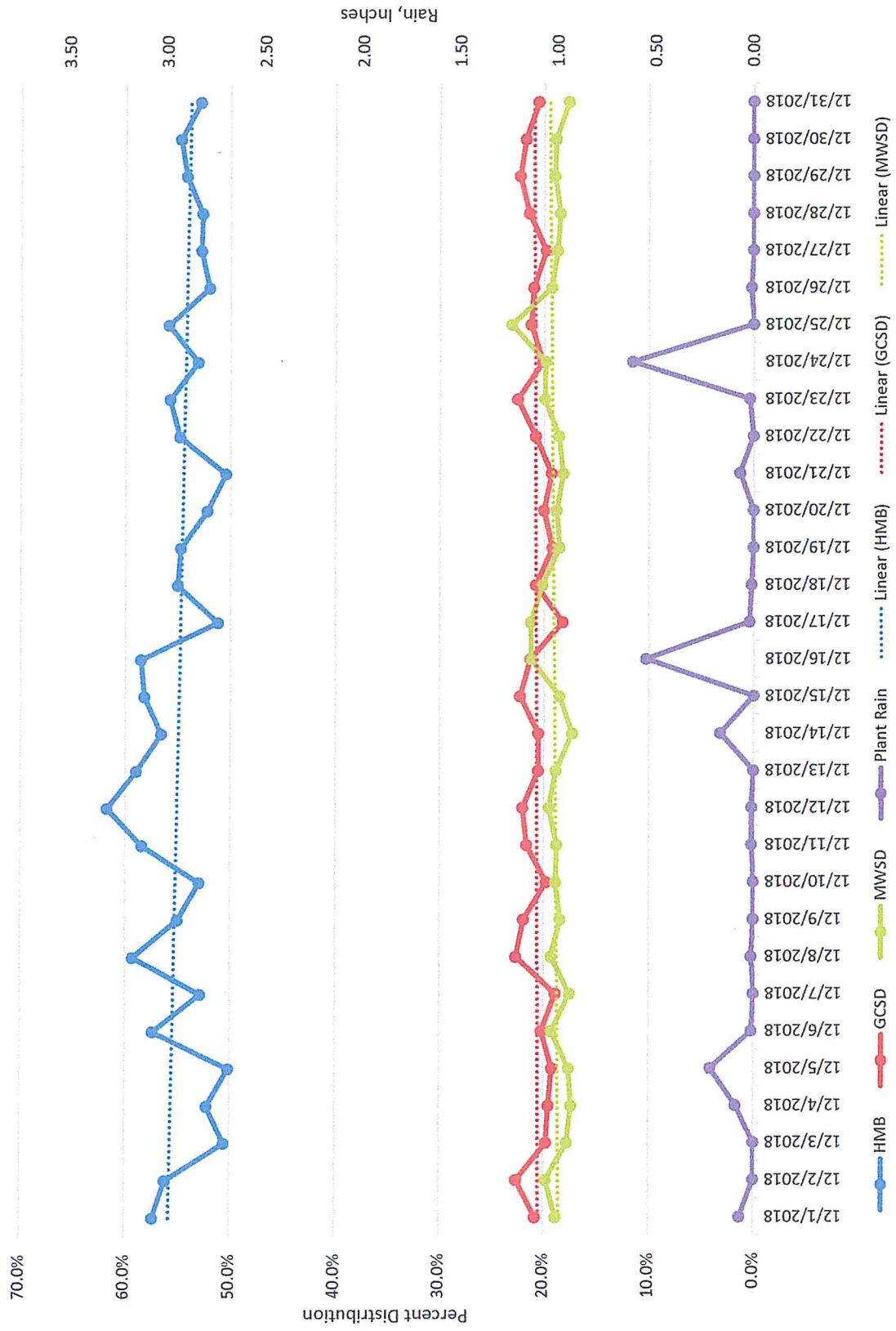
Summary

| | <u>HMB</u> | <u>GCSD</u> | <u>MWSD</u> | <u>Plant</u> |
|---------------------|--------------|--------------|--------------|---------------|
| Minimum | 0.671 | 0.246 | 0.215 | 1.128 |
| Average | 0.751 | 0.284 | 0.261 | 1.296 |
| Maximum | 0.895 | 0.340 | 0.350 | 1.686 |
| Distribution | 57.9% | 21.9% | 20.2% | 100.0% |

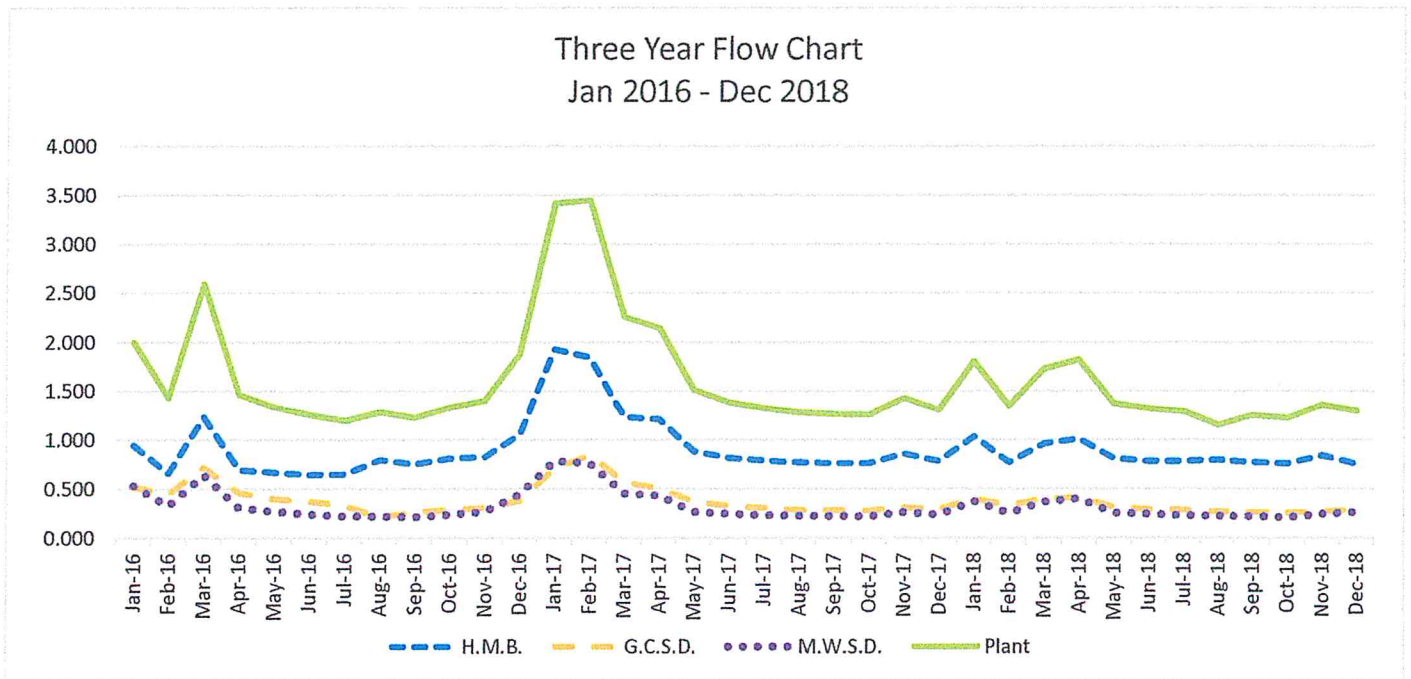
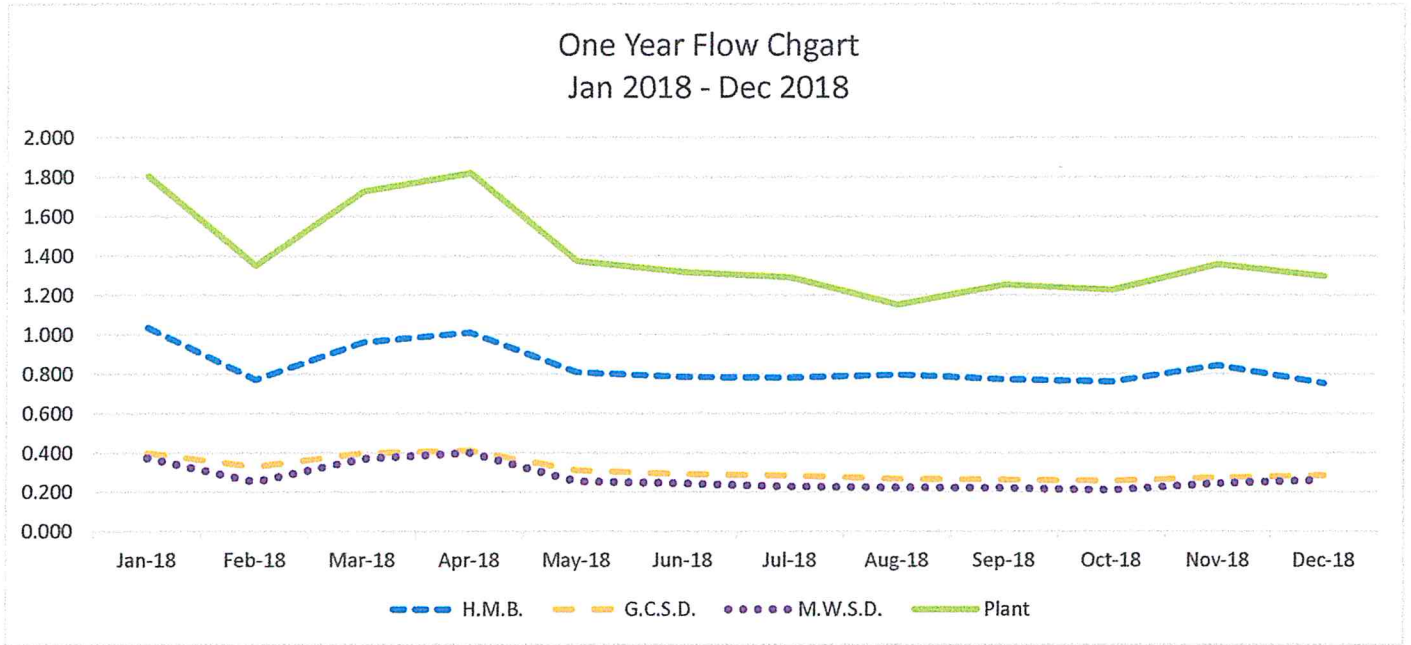
Sewer Authority Mid-Coastside Monthly Flow Distribution Report, December 2018



Percent Distribution December 2018

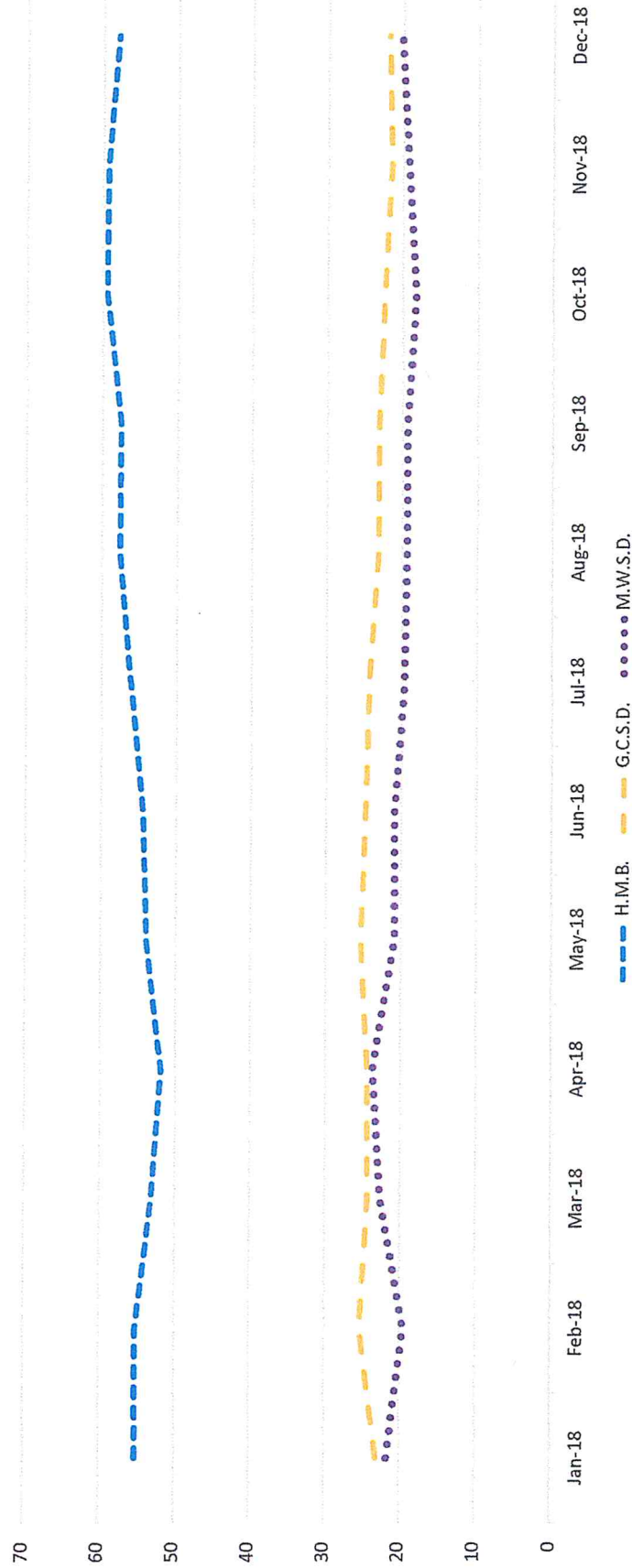


Most recent flow calibration April 2018 PS, April 2018 Plant



Flow based percent distribution based for past year

1 year Distribution by %
Jan 2018 - Dec 2018





MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: February 7, 2019

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

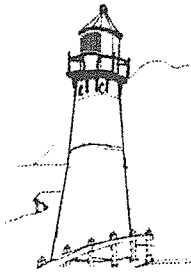
SUBJECT: Review of Current Investment Portfolio

The District's Investment Policy and Guidelines requires that the Board review the status of the current investment portfolio. The following summarizes the status of these accounts:

- The District has most of its idle sewer funds deposited in the State of California's Local Agency Investment Fund (LAIF). The Monthly Average interest rate for December 2018 the rate was 2.291.
- The District has one checking account with Wells Fargo Bank for Water and Sewer Funds that is largely backed by Federal securities.

RECOMMENDATION:


District staff attempts to cash manage idle funds in LAIF as long as possible before transferring to the Wells Fargo checking accounts for disbursements.



MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: February 7, 2019

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager 

SUBJECT: Connection Permit Applications Received

As of February 7, 2019 the following new Sewer Connection Permit application was received since the last report:

| Date of Application | Property Owner | Site Address | Home Size |
|---------------------|----------------|--------------|-----------|
| | | | |

As of February 7, 2019 the following new Water (Private Fire Sprinkler) Connection Permit application was received since the last report:

| Date of Application | Property Owner | Site Address | Home Size |
|---------------------|----------------|--------------|-----------|
| | | | |

As of February 7, 2019 the following new Water Connection Permit application was received since the last report:

| Date of App. | Property Owner | Site Address | Home Size | Type of Connection |
|--------------|----------------|--------------|-----------|--------------------|
| | | | | |

RECOMMENDATION:

No action is required. This is for Board information only.



MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: February 7th, 2018

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager 

SUBJECT: Monthly Water Production Report

The attached two charts summarize the monthly water production for the District.

The first shows a consolidated from all sources by month. The second shows each water source the District uses, both wells and surface water. The production is shown in gallons of water produced.

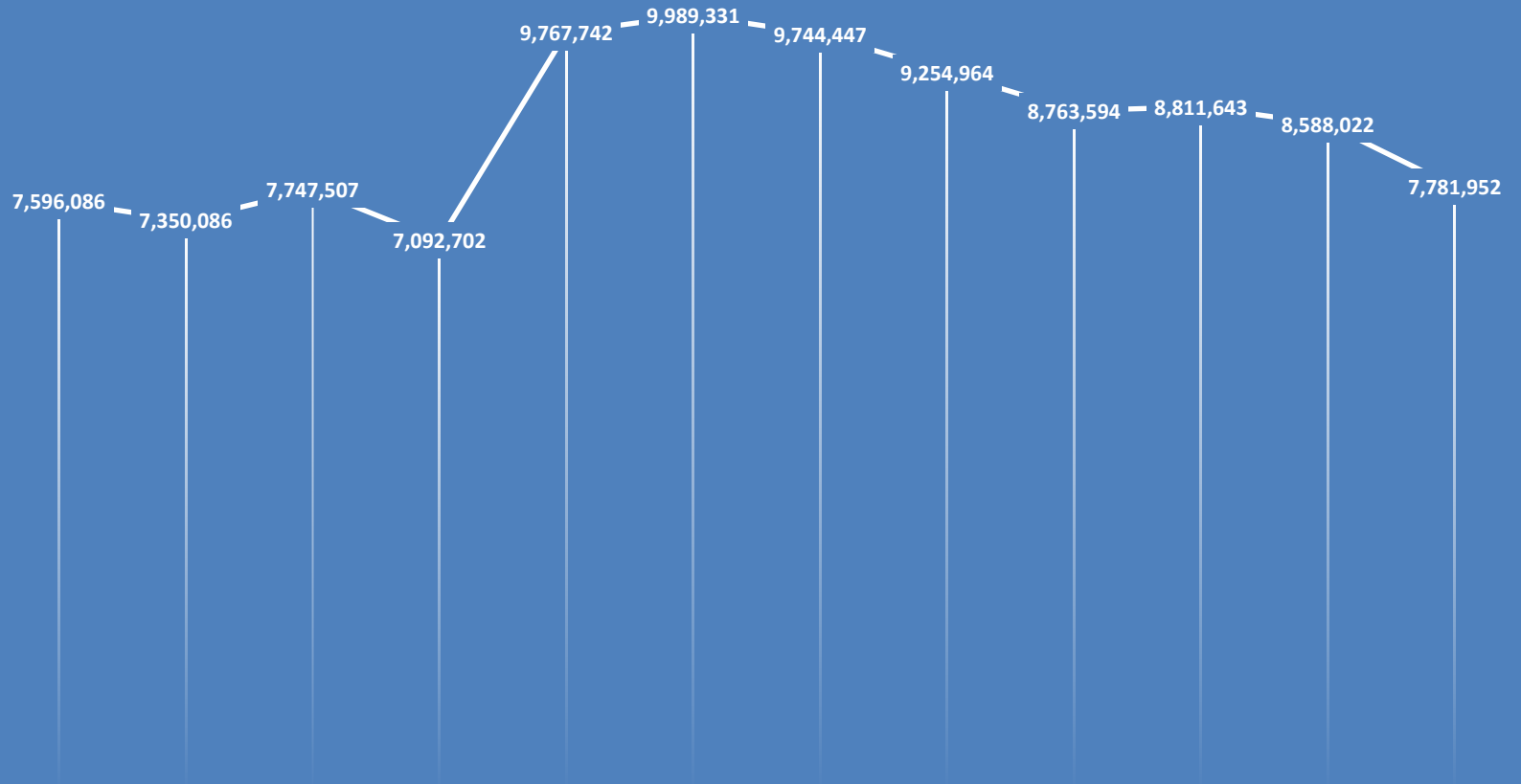
RECOMMENDATION:

No action is required. These reports are provided for the Board's information only.

Attachments: 2

TOTAL PRODUCTION 2018(GALLONS)

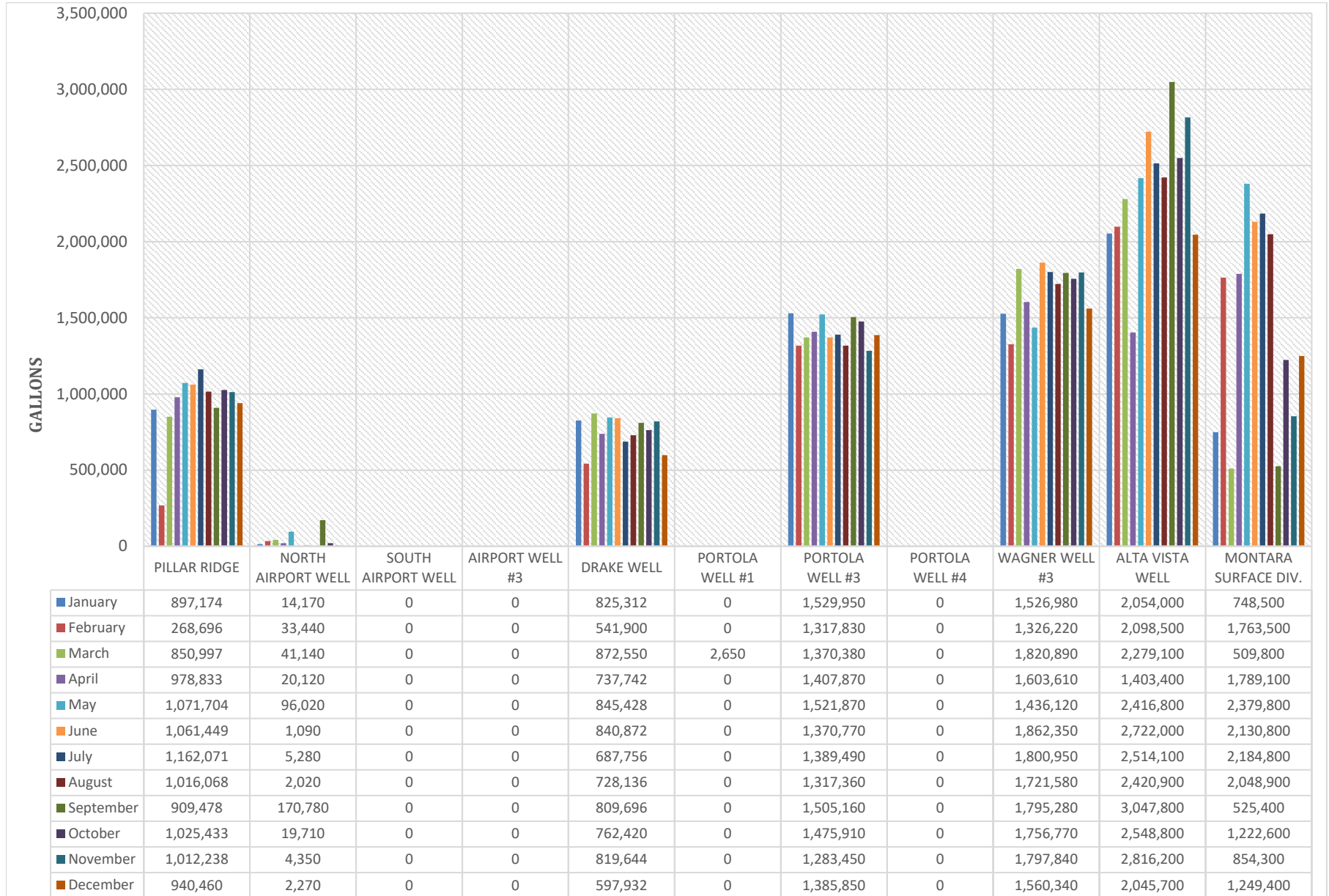
GALLONS



| | January | February | March | April | May | June | July | August | September | October | November | December |
|----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total Production (Gallons) | 7,596,086 | 7,350,086 | 7,747,507 | 7,092,702 | 9,767,742 | 9,989,331 | 9,744,447 | 9,254,964 | 8,763,594 | 8,811,643 | 8,588,022 | 7,781,952 |

MONTH

Annual Water Production 2018





MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting of: February 7th, 2019

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

A handwritten signature in blue ink, appearing to be 'C Heldmaier'.

SUBJECT: Rain Report

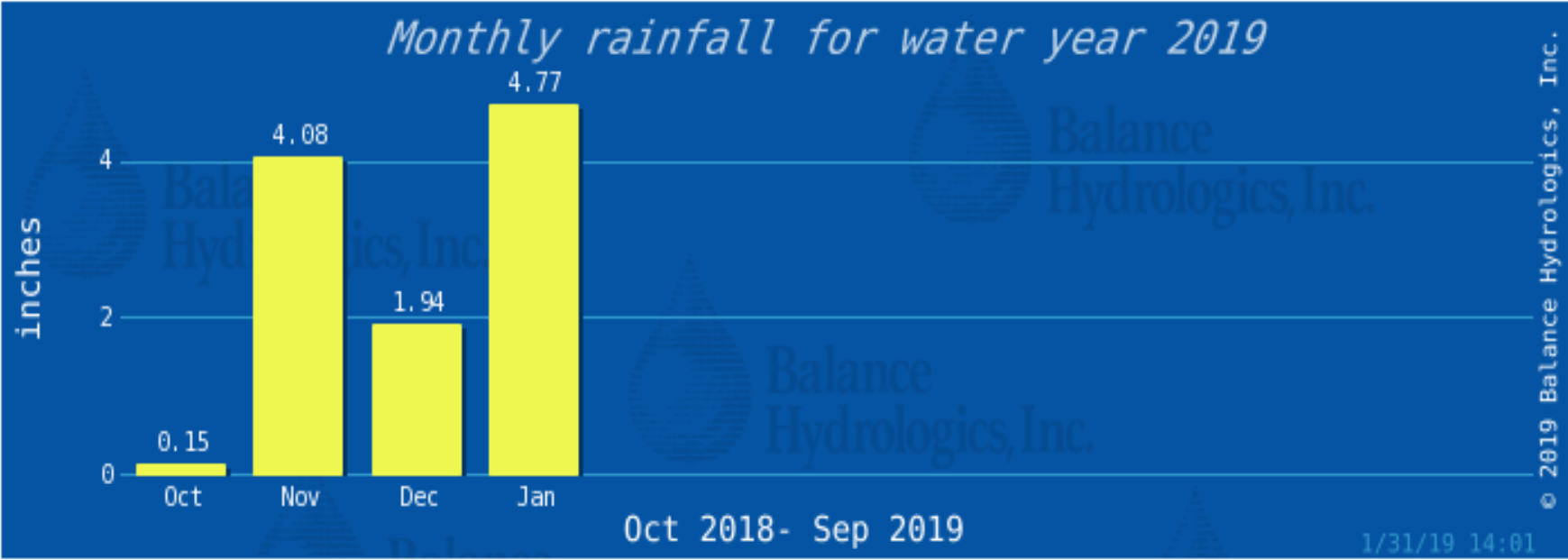
The attached chart shows the monthly rainfall at Alta Vista Treatment Plant for the current and prior water years along with seven-year average rain fall.

RECOMMENDATION:

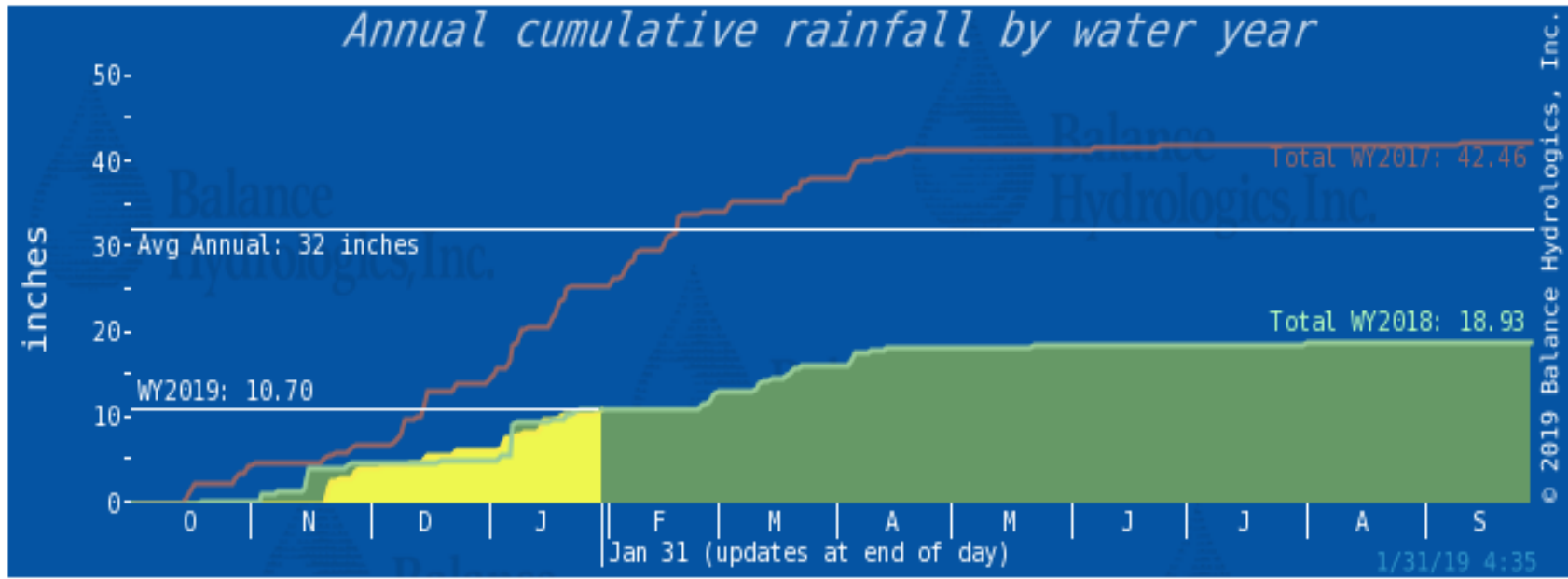
No action is required. These reports are provided for the Board's information only.

Attachments: 2

Monthly Cumulative Rainfall



Annual Cumulative Rainfall





MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: February 7th, 2019

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

SUBJECT: Monthly Solar Energy Report

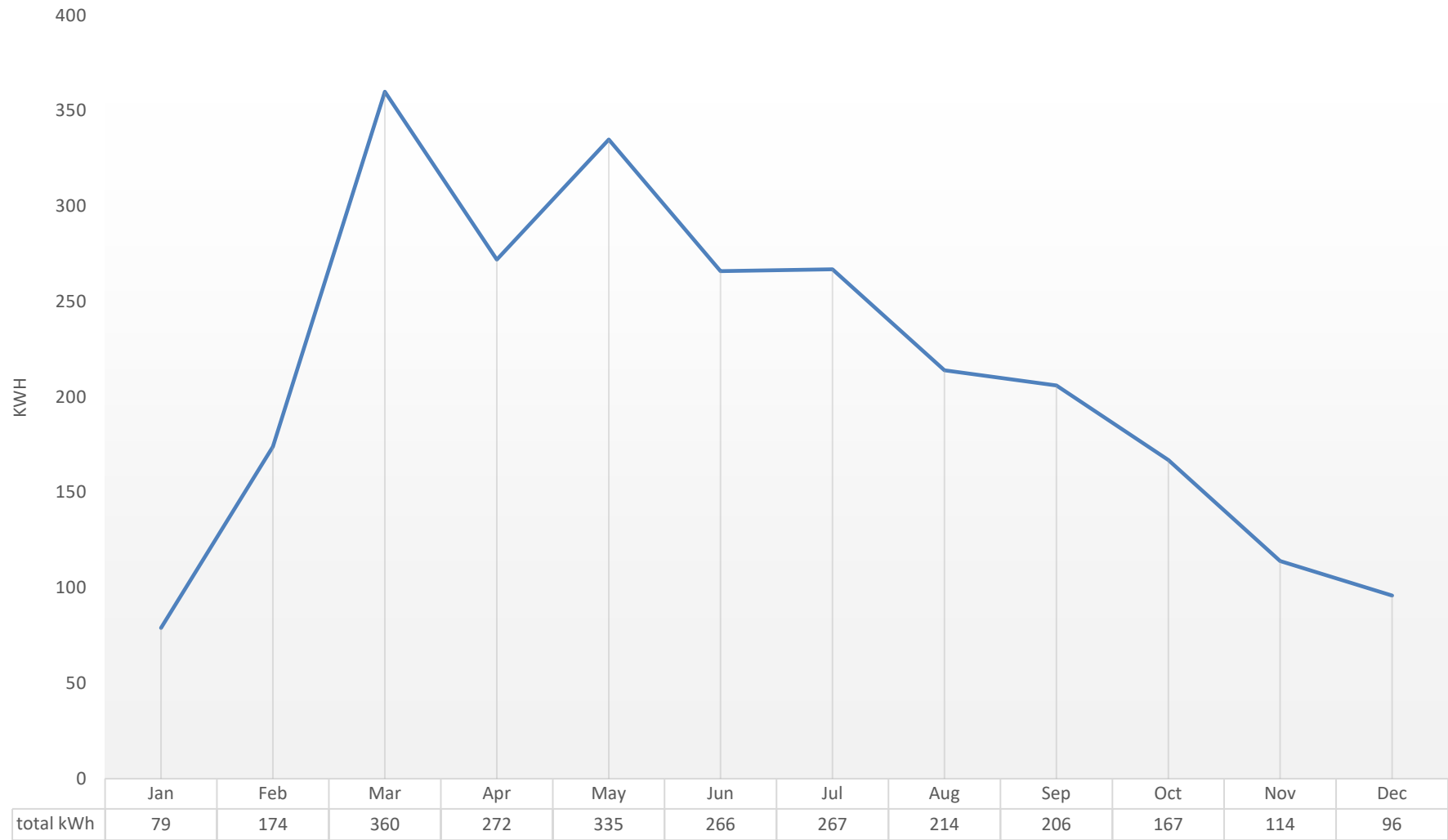
The attached chart summarizes the monthly solar production at the Alta Vista Array. Since the installation of the solar panels the District produced 42246 kWh and saved 71816 lbs of CO₂.

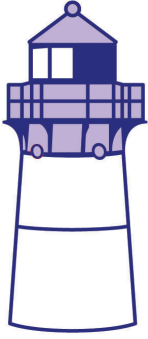
RECOMMENDATION:

No action is required. This information is provided for the Board's information only.

Attachments: 1

SOLAR ENERGY PRODUCED IN 2018 (kWh)





MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: **February 7, 2019**

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

**SUBJECT: Monthly Public Agency Retirement Service
Report for November 2019.**

The District has received the monthly PARS report for November 2019.

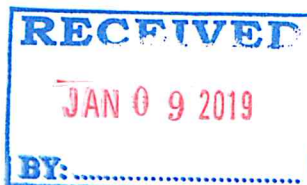
Contributions are calculated on a bi-weekly basis, and contributions are made on a monthly basis.

The following monthly reports are submitted as consent agenda items on a monthly basis.

RECOMMENDATION:

This is for Board information only.

Attachment



**Montara Water and San
Retirement Enhancement Plan**

**Monthly Account Report for the Period
11/1/2018 to 11/30/2018**

Clemens H. Heldmaier
General Manager
Montara Water and San
P.O. Box 370131
Montara, CA 94037

Plan ID: P7-REP15A

Account Summary

| Source | Beginning Balance as of 11/1/2018 | Contributions | Earnings | Expenses | Distributions | Transfers | Ending Balance as of 11/30/2018 |
|---------------|---|-------------------|-------------------|-----------------|-------------------|---------------|---------------------------------------|
| Contributions | \$645,842.34 | \$6,974.92 | \$9,976.28 | \$293.97 | \$1,063.36 | \$0.00 | \$661,436.21 |
| TOTAL | \$645,842.34 | \$6,974.92 | \$9,976.28 | \$293.97 | \$1,063.36 | \$0.00 | \$661,436.21 |

Investment Selection

PARS Capital Appreciation INDEX PLUS

Investment Objective

The primary goal of the Capital Appreciation objective is growth of principal. The major portion of the assets are invested in equity securities and market fluctuations are expected.

Investment Return

| Source | 1-Month | 3-Months | 1-Year | Annualized Return | | | Plan's Inception Date |
|---------|---------|----------|--------|-------------------|---------|----------|-----------------------|
| | | | | 3-Years | 5-Years | 10-Years | |
| General | 1.54% | -4.58% | 0.94% | - | - | - | 03/08/16 |

Information as provided by US Bank, Trustee for PARS; Not FDIC Insured; No Bank Guarantee; May Lose Value.

Past performance does not guarantee future results. Performance returns may not reflect the deduction of applicable fees, which could reduce returns. Information is deemed reliable but may be subject to change. Account balances are inclusive of Trust Administration, Trustee and Investment Management fees.

Investment Return: Annualized rate of return is the return on an investment over a period other than one year multiplied or divided to give a comparable one-year return.

**November 2018 PARS Statement
Detail Information**

PARS Beginning Balance as of November 1, 2018 \$ 645,842.34

Contributions:

October 15, 2018 Calculation

| | | |
|------------------------|----|-----------|
| Wages | \$ | 27,331.95 |
| Employer - 6.92% | \$ | 1,891.37 |
| Employee - 7.75% | \$ | 1,469.64 |
| Contributions Subtotal | \$ | 3,361.01 |

October 31, 2018 Calculation

| | | |
|------------------------|----|-----------|
| Wages | \$ | 29,055.87 |
| Employer - 6.92% | \$ | 2,010.67 |
| Employee - 7.75% | \$ | 1,603.25 |
| Contributions Subtotal | \$ | 3,613.91 |

Rounding

| | | |
|----------------------------------|----|----------|
| Total Contributions thru October | \$ | 6,974.92 |
| Rounding | \$ | (0.01) |
| | \$ | 6,974.91 |

Earnings \$9,976.28

Expenses \$ (293.97)

Distributions \$ (1,063.36)

PARS Ending Balance as of November 30 \$ 661,436.21

| Fund Impact - PARS Wages | | | |
|---------------------------------|-------------|--------------|--------------|
| | Sewer | Water | Total |
| | \$ 9,205.70 | \$ 18,126.26 | \$ 27,331.95 |
| | \$ 637.03 | \$ 1,254.34 | \$ 1,891.37 |
| | | | |
| | \$ 9,662.18 | \$ 19,393.70 | \$ 29,055.87 |
| | \$ 668.62 | \$ 1,342.04 | \$ 2,010.67 |



MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: **February 7, 2019**

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager 

SUBJECT: Review and Possible Action Concerning Sewer Authority Mid-Coastside FY 18-19 Budget Amendment.

At the January 28 meeting the Sewer Authority Mid-Coastside (SAM) approved a budget amendment for the distribution to the member agencies. SAM is asking for an additional \$328,000 (5.4% budget increase) to this current year’s budget. MWSD’s share is \$67,568. The majority of the items on the list were already approved for use by the SAM board.

| | |
|---|-----------|
| Additional Legal Services for ERF lawsuit, etc. | \$100,000 |
| Legal counsel for ERF lawsuit, etc. | \$100,000 |
| Accounting Services | \$60,000 |
| Fire control Panel, Sprinklers, etc. | \$68,000 |

RECOMMENDATION:

Adopt Resolution No.____, Resolution of the Montara Water and Sanitary District Consenting to Approval of Amendment to Sewer Authority Mid-Coastside General Budget for Fiscal Year 2018-2019.

Attachments

RESOLUTION NO. _____

RESOLUTION OF THE MONTARA WATER AND SANITARY DISTRICT CONSENTING TO APPROVAL OF AMENDMENT TO SEWER AUTHORITY MID-COASTSIDE GENERAL BUDGET FOR FISCAL YEAR 2018-2019

WHEREAS, Sewer Authority Mid-Coastside (“SAM”) has, pursuant to Article V, Section (A) of the joint exercise of powers agreement dated February 3, 1976, as amended, establishing said Authority, adopted its General Budget for fiscal year July 1, 2018 – June 30, 2019; and

WHEREAS, subsequent to adoption of the budget SAM has incurred expenditures for work, materials and services unknown and unanticipated at the time of adoption of the budget (“Additional Costs”); and

WHEREAS, the Additional Costs are identified and discussed in the Staff Report dated *January 28, 2019* from SAM’s General Manager to the Board of Directors of the Sewer Authority Mid-Coastside, the subject of which is “Authorize the General Manager to Submit a Budget Amendment for Fiscal Year 2018/19 to Member Agencies for Approval”, a copy of which is on file in the District’s Administrative Offices to which reference is hereby made for the full particulars thereof; and

WHEREAS, this Board has reviewed the proposed amendment and desires to signify approval thereof;

NOW THEREFORE, be it resolved by the Board of the Montara Water and Sanitary District, a public agency in the County of San Mateo, California, as follows:

1. Consent is hereby given to approval by Sewer Authority Mid-Coastside of an amendment to its General Budget for fiscal year 2018-2019 that includes the line-item expenditures for Additional Costs set forth as “Attachment A” in the attachment to the above-referenced memorandum in the total amount of Three Hundred Twenty Eighty Thousand and No One-Hundredths Dollars (\$328,000.00).

2. The District Secretary is hereby authorized and directed to transmit a certified copy of this resolution to Sewer Authority Mid-Coastside, the Granada Community Services District and the City of Half Moon Bay.

RESOLUTION NO. _____

**RESOLUTION OF THE MONTARA WATER AND SANITARY DISTRICT
CONSENTING TO APPROVAL OF AMENDMENT TO SEWER AUTHORITY
MID-COASTSIDE GENERAL BUDGET FOR FISCAL YEAR 2018-2019**

President, Montara Water and Sanitary District

COUNTERSIGNED:

Secretary, Montara Water and Sanitary District

* * * *

I HEREBY CERTIFY that the foregoing Resolution No. _____ was duly and regularly passed and adopted by the Board of the Montara Water and Sanitary District, County of San Mateo, California, at a Regular Meeting thereof held on the 7th day of February, 2019, by the following vote:

AYES, Directors:

NOES, Directors:

ABSENT, Directors:

Secretary, Montara Water and Sanitary District



SEWER AUTHORITY MID-COASTSIDE

Staff Report

TO: Honorable Board of Directors

FROM: Beverli A. Marshall, General Manager

SUBJECT: **Authorize the General Manager to Submit a Budget Amendment for Fiscal Year 2018/19 to Member Agencies for Approval**

Executive Summary

The purpose of this report is for the Board of Directors to discuss the proposed budget amendment for Fiscal Year 2018/19.

Fiscal Impact

The fiscal impact of the budget amendment for FY 2018/19 is \$328,000. The impact to the member agency assessments is (rounded to nearest \$):

JPA Assessments for Each Member Agency

| | <u>FY 2018/19</u> | <u>Amended</u> | <u>\$ Change</u> | <u>% Change</u> |
|---------------|--------------------------|-----------------------|-------------------------|------------------------|
| Half Moon Bay | \$3,360,430 | \$3,542,142 | \$ 181,712 | 5.4% |
| GCSD | \$1,454,171 | \$1,532,891 | \$ 78,720 | 5.4% |
| MWSD | \$1,249,147 | \$1,316,715 | \$ 67,568 | 5.4% |
| Total | \$6,063,748 | \$6,391,748 | \$ 328,000 | 5.4% |

Strategic Plan Compliance

The recommendation complies with the SAM Strategic Plan Goal 3: *“Consider long-term costs and ensure that finances are stable and understandable by the board, member agencies, and the public.”*

| | | | |
|---------------------------|--------------|------------|------------------|
| BOARD MEMBERS: | J. Blanchard | B. Dye | R. Lohman |
| | D. Penrose | D. Ruddock | K. Slater-Carter |
| ALTERNATE MEMBERS: | S. Boyd | M. Clark | A. Eisen |
| | J. Harvey | H. Rarback | |

Background and Discussion/Report

The General Budget for FY 2018/19 was presented based on the issues known as of June 2018. Since that time, several events (listed below) occurred that required funds above the adopted budget.

| | |
|--|-----------------|
| Additional legal services for ERF lawsuit and special projects | \$100,000 |
| Legal counsel for ERF lawsuit and special projects | \$100,000 |
| Accounting services in response to Auditor's comments | \$60,000 |
| Fire control panel replacement and related permits | \$30,000 |
| Inspection and installation of fire sprinkler system | \$23,000 |
| Electrical work related to fire control system replacement | <u>\$15,000</u> |
| | \$328,000 |

- At the October 22, 2018, meeting the SAM Board approved a contract with Edgcomb Law Group LLP to represent SAM in response to the federal lawsuit filed by the Ecological Rights Foundation (ERF).
- At the January 14, 2019, meeting the SAM Board approved a contract term extension and increase to the contract with Bold, Polisner, Madow, Nelson & Judson through June 30, 2019. The additional contract costs are estimated at \$100,000 to cover assistance with the ERF lawsuit and special projects requested by the Board.
- The comments made by the auditor in the FYE June 30, 2017, financial statements reflected the need for high level accounting services to supplement staff resources. At the October 22, 2018, meeting the SAM Board approved a contract with Maze & Associates to provide these services through December 31, 2019. The estimated cost for FY 2018/19 is \$60,000.
- The existing fire control system sends out false alarms requiring the fire district and SAM staff to respond. Additionally, it was determined that the current system does not meet current code. Therefore, the necessary parts and services were procured to resolve the false alarms and to update the system to code. These are yet to be installed for which we are waiting on a proposal.

Sufficient cash reserves continues to be an issue. As recommended by the auditor, staff included \$250,000 in the FY 2018/19 Adopted Budget to repay the Emergency Project Reserve. Unfortunately, the additional funding is not sufficient to cover the unplanned expenses that have occurred subsequent to budget adoption. In addition, if these funds were to be applied to the unexpected expenses, the Emergency Project Reserve would

| | | | |
|--------------------|--------------|------------|------------------|
| BOARD MEMBERS: | J. Blanchard | B. Dye | R. Lohman |
| | D. Penrose | D. Ruddock | K. Slater-Carter |
| ALTERNATE MEMBERS: | S. Boyd | M. Clark | A. Eisen |
| | J. Harvey | H. Rarback | |

show no improvement from when the auditor reviewed the financial statements last fiscal year.

If this budget amendment is authorized by the SAM Board, the General Manager will submit the request to the member agencies for their consideration. If approved by the member agencies, the applicable assessments will be billed in a single invoice to each agency within 30 days of their approval.

Staff Recommendation

Staff recommends that the Board of Directors authorize the General Manager to submit the budget amendment for FY 2018/19 to the member agencies and to request that this item be placed on the next regular meeting for each agency to consider and approve.

Supporting Documents

Attachment A: FY 2018/19 Mid-Year Budget Amendment Request

| | | | |
|--------------------|--------------|------------|------------------|
| BOARD MEMBERS: | J. Blanchard | B. Dye | R. Lohman |
| | D. Penrose | D. Ruddock | K. Slater-Carter |
| ALTERNATE MEMBERS: | S. Boyd | M. Clark | A. Eisen |
| | J. Harvey | H. Rarback | |

FY 2018/19 Mid-Year Budget Amendment Request

| Item # | Amount | Description | Justification | SAM Board Approval | JPA Allocations | | |
|-------------------|------------|--|--|--------------------|-------------------|------------------|------------------|
| | | | | | HMB | GCSD | MWSD |
| 1 | \$ 100,000 | Contract with Edgcomb Law Group LLP for EFR lawsuit | Budget did not include funds for the additional services needed for the ERF lawsuit | 10/22/18 | \$ 55,400 | \$ 24,000 | \$ 20,600 |
| 2 | \$ 100,000 | Additional legal services for ERF lawsuit and special projects | Budget did not include funds for the additional services in response to SAM Board action | 1/14/19 | \$ 55,400 | \$ 24,000 | \$ 20,600 |
| 3 | \$ 60,000 | Accounting services performed by Maze & Assoc. | Conform with auditor's recommendations for FYE 6/30/17 | 10/22/18 | \$ 33,240 | \$ 14,400 | \$ 12,360 |
| 4 | \$ 30,000 | PO to Johnson Controls for parts, labor, and permits for fire control panel | Unanticipated costs to replace failing fire control system | | \$ 16,620 | \$ 7,200 | \$ 6,180 |
| 5 | \$ 23,000 | PO to Walschon Fire Protection Inc. to inspect and install fire sprinkler system | Unanticipated costs to replace failing fire control system | | \$ 12,742 | \$ 5,520 | \$ 4,738 |
| 6 | \$ 15,000 | PO to Calcon Systems Inc. for electrical work related to fire control panel | Unanticipated costs to replace failing fire control system | | \$ 8,310 | \$ 3,600 | \$ 3,090 |
| \$ 328,000 | | | | | \$ 181,712 | \$ 78,720 | \$ 67,568 |



MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: **February 7, 2019**

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

SUBJECT: Review and Possible Action Concerning Wagner Well Rehabilitation and Water Main Replacement Project Authorization to Bid

The Montara Water and Sanitary District's (MWSD or District) Wagner Well and its associated water main need rehabilitation. Wagner Well is critical to MWSD's ability to supply water to Alta Vista Tank No.2. Based on the condition at Wagner Well site, the well needs to be rehabilitated, and its wellhead piping and water main need to be replaced to further promote water infrastructure reliability. This project is included in the District's Water System Capital Improvements Program (CIP) and the annual budget. The project includes rehabilitation of existing facilities and qualifies for a coastal development permit exemption (CDX) and a CEQA exemption (14 CCR §15302).

Project plans and bid documents have been prepared by District staff and are ready to be advertised. The Project includes furnishing all labor, materials and equipment for the construction of rehabilitating Wagner Well, demolishing existing wellhead piping and appurtenances, demolishing part of existing fence and a woodshed on the site, demolishing existing 4-inch water main, installing new wellhead piping and appurtenances, installing new fence, and installing new 6-inch C900 PVC water main from the wellhead to south of Montara Creek. The District Water Engineer completed the design. The Engineer's Opinion of Probable Construction Cost was in a range of \$190 to \$250 thousand.

RECOMMENDATION:

Adopt Resolution No. ____, RESOLUTION OF THE MONTARA WATER AND SANITARY DISTRICT APPROVING CONTRACT DOCUMENTS, INCLUDING DESIGN, PLANS AND SPECIFICATIONS, FOR THE WAGNER WELL REHABILITATION AND WATER MAIN REPLACEMENT PROJECT; AUTHORIZING AND DIRECTING ADVERTISEMENT FOR BIDS THEREFOR; DETERMINING PROJECT EXEMPT UNDER CALIFORNIA ENVIRONMENTAL QUALITY ACT AND AUTHORIZING AND DIRECTING FILING NOTICE OF EXEMPTION

Attachments

RESOLUTION NO. _____

RESOLUTION OF THE MONTARA WATER AND SANITARY DISTRICT APPROVING CONTRACT DOCUMENTS, INCLUDING DESIGN, PLANS AND SPECIFICATIONS, FOR THE WAGNER WELL REHABILITATION AND WATER MAIN REPLACEMENT PROJECT; AUTHORIZING AND DIRECTING ADVERTISEMENT FOR BIDS THEREFOR; DETERMINING PROJECT EXEMPT UNDER CALIFORNIA ENVIRONMENTAL QUALITY ACT AND AUTHORIZING AND DIRECTING FILING NOTICE OF EXEMPTION

WHEREAS, contract documents for the *Wagner Well Rehabilitation and Water Main Replacement Project* (“Project”) have been presented to and reviewed by this Board; and

WHEREAS, the Project consists of replacement or reconstruction of existing facilities and is thereby categorically exempt from the requirements of the California Environmental Quality Act (Pub. Res. C. §21000 et seq.; 14 CCR §15302); and

WHEREAS, this Board desires to proceed with the Project.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF THE MONTARA WATER AND SANITARY DISTRICT, A PUBLIC AGENCY IN THE COUNTY OF SAN MATEO, CALIFORNIA, AS FOLLOWS:

1. Those certain contract documents entitled, “Wagner Wellhead Rehabilitation and Water Main Replacement Project,” including, without limitation, the design, plans and specifications, a copy of which documents is on file in the District Administrative Offices to which reference is hereby made for the full particulars thereof, are hereby approved and the General Manager is hereby authorized and directed to advertise for bids for the Project.

2. This Board hereby determines that the Project is categorically exempt from the requirements of the California Environmental Quality Act (“CEQA;” Pub. Res. C. §21000 et seq.; 14 CCR §15302) because it consists of replacement or reconstruction of existing facilities. The Project is hereby approved for purposes of CEQA and the General Manager hereby authorized and directed to file a Notice of Exemption for the Project with the County Clerk, County of San Mateo, California (14 CCR §15062).

President, Montara Water and Sanitary District

RESOLUTION NO. _____

RESOLUTION OF THE MONTARA WATER AND SANITARY DISTRICT APPROVING CONTRACT DOCUMENTS, INCLUDING DESIGN, PLANS AND SPECIFICATIONS, FOR THE WAGNER WELL REHABILITATION AND WATER MAIN REPLACEMENT PROJECT; AUTHORIZING AND DIRECTING ADVERTISEMENT FOR BIDS THEREFOR; DETERMINING PROJECT EXEMPT UNDER CALIFORNIA ENVIRONMENTAL QUALITY ACT AND AUTHORIZING AND DIRECTING FILING NOTICE OF EXEMPTION

COUNTERSIGNED:

Secretary, Montara Water and Sanitary District

* * * * *

I HEREBY CERTIFY that the foregoing Resolution No. ____ was duly and regularly adopted and passed by the Board of the Montara Water and Sanitary District, San Mateo County, California, at a regular meeting thereof held on the 7th day of February 2019, by the following vote:

AYES, Directors:

NOES, Directors:

ABSENT, Directors:

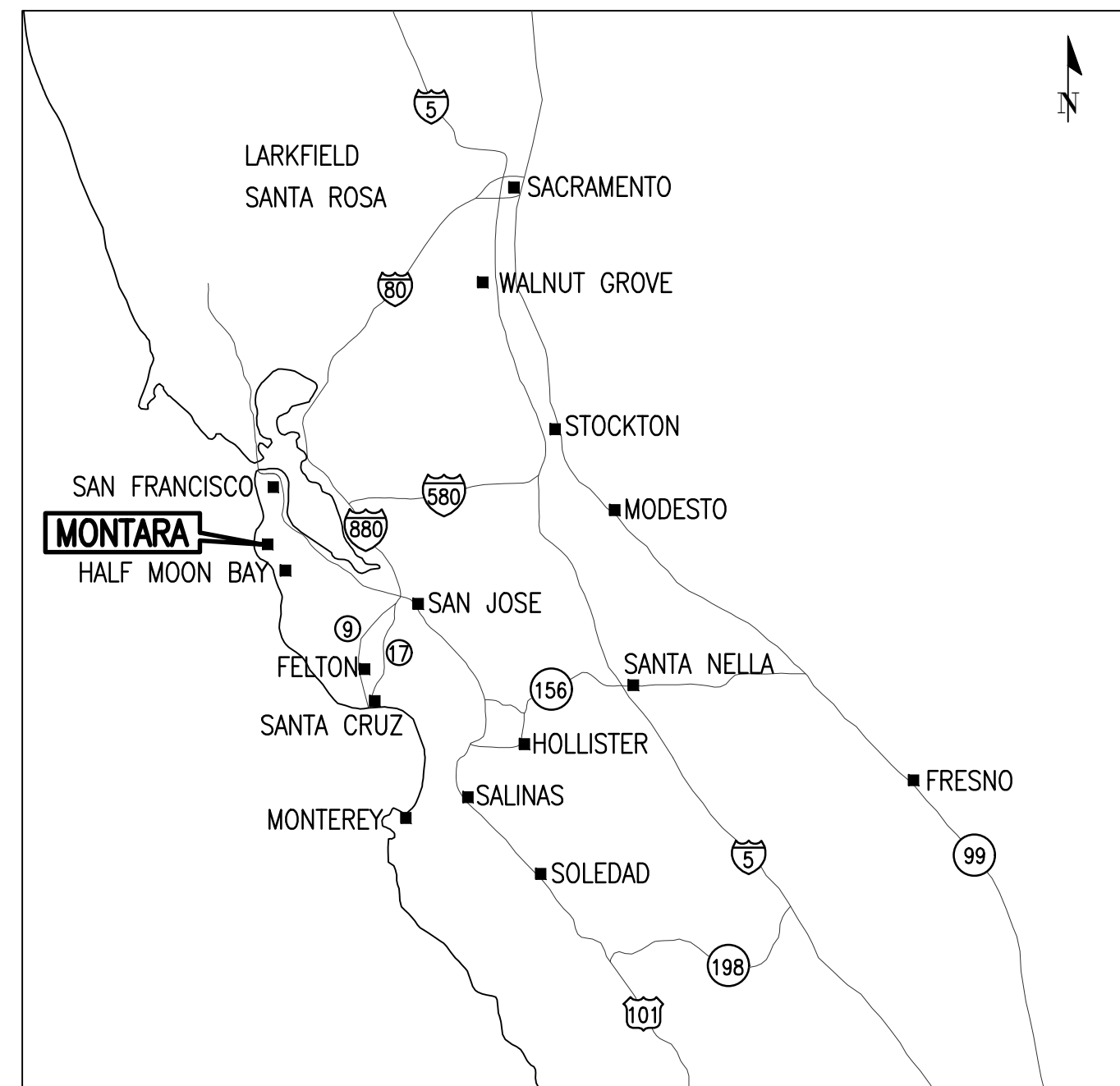
Secretary, Montara Water and Sanitary District



MONTARA WATER AND SANITARY DISTRICT WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT VOLUME 2 DRAWINGS BID SET



LOCATION MAP
SCALE: NONE



VICINITY MAP
SCALE: NONE

SHEET INDEX

| DRAWING NO. | SHEET NO. | TITLE |
|-------------|-----------|---|
| G1 | 1 | TITLE SHEET |
| G2 | 2 | NOTES, LEGEND, AND ABBREVIATIONS |
| G3 | 3 | SPECIFICATIONS AND TRENCH DETAIL |
| D1 | 4 | EXISTING WELLHEAD PIPING DEMOLITION |
| D2 | 5 | EXISTING WATER MAIN DEMOLITION PLAN AND PROFILE |
| C1 | 6 | NEW WELLHEAD PIPING PLAN AND SECTION |
| C2 | 7 | NEW WATER MAIN PLAN AND PROFILE |

PROJECT DIRECTORY

| | | |
|---|--|-------------------------------|
| OWNER: MONTARA WATER AND SANITARY DISTRICT 8888 CABRILLO HIGHWAY MONTARA, CA 94037 PH: (650)728-3545 | CIVIL ENGINEER: SRT CONSULTANTS 90 NEW MONTGOMERY STREET SUITE 905 SAN FRANCISCO, CA 94105 PH: (415)776-5800 | CONTRACTOR: TBD |
|---|--|-------------------------------|

VERIFY SCALE

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| SYMBOL | DESCRIPTION | DATE | APPROVED |
|--------|-------------|---------|----------|
| - | BID SET | 07/2019 | TJM |



SRT
Consultants
 90 New Montgomery Street
 Suite 905
 San Francisco, CA 94105
 Ph 415.776.5800
 Fx 415.776.5200

**MONTARA WATER AND
SANITARY DISTRICT**
 8888 CABRILLO HIGHWAY
 MONTARA CA 94037

**WAGNER WELLHEAD
REHABILITATION AND WATER
MAIN REPLACEMENT PROJECT**

 TITLE SHEET

| | |
|--------|-------------|
| DATE | JAN 2019 |
| SCALE | AS SHOWN |
| DESIGN | T. MONAHAN |
| DRAWN | N. MAO |
| CHECK | T. YUROVSKY |
| SHEET | 1 of 7 |

G01

DRAWING NAME: \\Network\proj\01_PROJECTS\Montara Water and Sanitary District (1000)\01_ACTIVE\Wagner Well and Pipeline (2017)\CAD\WAGNER_G.dwg
 PLOT DATE: Jun 31, 2019 - 12:49pm
 PLOTTED BY: Nma

GENERAL NOTES

1. NOTIFY UNDERGROUND SERVICE ALERT (USA) 48 HOURS PRIOR TO ANY EXCAVATION. CALL 811.
2. CONTRACTOR'S ATTENTION SHALL BE MADE TO THE TYPICAL TRENCH DETAIL.
3. CONTRACTOR'S SUPERINTENDENT IS REQUIRED TO ATTEND A PRE-CONSTRUCTION WALK-THROUGH MEETING. SUPERINTENDENT IS REQUIRED TO BE ON JOB SITE DURING ALL PHASES OF THE WORK AND CONTRACTOR SHALL NOT REPLACE SUPERINTENDENT WITHOUT PRIOR WRITTEN APPROVAL OF MONTARA WATER AND SANITARY DISTRICT (MWSD). A MOBILE PHONE NUMBER AND A 24-HOUR EMERGENCY NUMBER SHALL BE PROVIDED FOR CONTRACTOR'S SUPERINTENDENT.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING FACILITIES AND EXISTING UTILITIES AND POT HOLING AS NECESSARY TO CONFIRM SIZE, DEPTH, ALIGNMENT AND MATERIAL OF EXISTING FACILITIES. THE TYPES, LOCATIONS, SIZES, AND DEPTHS OF EXISTING OR PLANNED UNDERGROUND OR ABOVEGROUND UTILITIES, STRUCTURES, ROADS, PIPELINES, TOPOGRAPHY, ETC., AS SHOWN ON THESE PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE UTILITIES AND STRUCTURES. HOWEVER, MWSD IS NOT RESPONSIBLE FOR THE COMPLETENESS OR ACCURACY OF SAID INFORMATION.
5. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE SAFETY LAWS OF ALL JURISDICTIONAL AGENCIES. CONTRACTOR IS ALSO RESPONSIBLE FOR PROJECT SITE SAFETY AND FOR PUBLIC SAFETY INCLUDING TRAFFIC CONTROL, 24 HOURS PER DAY FOR ALL DAYS FROM NOTICE TO PROCEED THROUGH THE NOTICE OF FINAL COMPLETION.
6. ALL MATERIALS AND INSTALLATION OF WATER SYSTEM APPURTENANCES SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF MWSD AND SAN MATEO COUNTY. CONTRACTOR TO PROVIDE A MATERIALS SUBMITTAL TO MWSD FOR APPROVAL PRIOR TO BEGINNING WORK.
7. CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL DAMAGE TO EXISTING PROPERTY AND STRUCTURES RESULTING FROM HIS OPERATIONS DURING CONSTRUCTION AND SHALL REPLACE IN KIND OR BETTER TO THE SATISFACTION OF THE PROPERTY OWNER AND/OR MWSD PRIOR TO THE FINAL PAYMENT. THE CONTRACTOR SHALL EXERCISE CARE WHEN WORKING NEAR RETAINING WALLS AND SHALL BE RESPONSIBLE FOR RESTORING ANY WALL TIE-BACKS DISTURBED DURING EXCAVATION. ANYTHING NOT SPECIFICALLY CALLED OUT ON PLANS TO BE PROTECTED IN PLACE SHALL BE ASSUMED TO REQUIRE PROTECTION IN PLACE.
8. ALL FACILITIES TO BE OWNED AND MAINTAINED BY MWSD SHALL BE INSPECTED AND APPROVED BY MWSD, INCLUDING INSPECTION AND APPROVAL OF ALL FITTINGS, PIPES, AND CONNECTIONS PRIOR TO BACKFILLING.
9. GENERAL CONSTRUCTION SEQUENCE:
 - MOBILIZE
 - LOCK OUT TAG OUT
 - DEMOLISH EXISTING SYSTEM AND DISPOSE OFF SITE
 - INSTALL NEW MECHANICAL PIPING AND EQUIPMENT
 - PRESSURE TEST ALL NEW PIPING
 - TEST NEW SYSTEMS
 - VENDOR STARTUP AND MWSD STAFF TRAINING
 - DEMOBLIZE
11. STAGING AREA TO BE DETERMINED IN THE FIELD WITH MWSD REPRESENTATIVE.
12. CONSTRUCTION OPERATION TO BE COORDINATED WITH MWSD REPRESENTATIVE.

LEGEND

- GAS--- P.G.&E. NATURAL GAS
- E--- ELECTRICAL
- SS--- SANITARY SEWER
- W--- WATER
- T--- TELECOMMUNICATION CABLE
- PROPERTY LINE
- ⊗ VALVE
- ⋈ GATE VALVE
- ⋈ BUTTERFLY VALVE
- ⋈ CHECK VALVE
- FLOW ARROW

ABBREVIATIONS

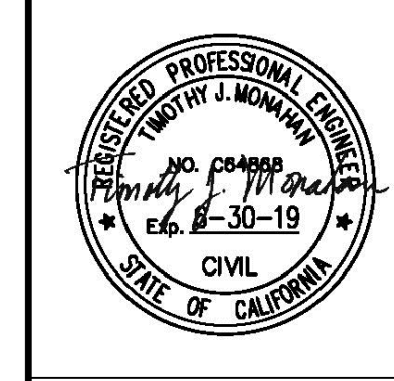
- (E) EXISTING
- (E/F) EXISTING AND FINISHED
- AC ASPHALT CONCRETE
- AGG AGGREGATE
- APPROX. APPROXIMATE
- ARV AIR RELEASE VALVE
- BO BLOW OFF
- CB CATCH BASIN
- CIP CAST IRON PIPE
- CMP CORRUGATED METAL PIPE
- CONC CONCRETE
- DI DUCTILE IRON
- DIA DIAMETER
- EP EDGE OF PAVEMENT
- GRD GRADE
- BRK BREAK
- HORIZ. HORIZONTAL
- HWY HIGHWAY
- INV INVERT
- LF LINEAR FEET
- MOV MOTOR OPERATED VALVE
- MAX MAXIMUM
- MIN MINIMUM
- MWSD MONTARA WATER AND SANITARY DISTRICT
- N/C NOT IN CONTRACT
- PB PULL BOX
- PP POWER POLE
- PVC POLYVINYL CHLORIDE PIPE
- SHT SHEET
- SPECS SPECIFICATIONS
- SS SANITARY SEWER
- SSMH SANITARY SEWER MANHOLE
- SST STAINLESS STEEL
- STA STATION
- SVC SERVICE
- T.O.P. TOP OF PIPE
- TBD TO BE DETERMINED
- TYP TYPICAL
- UG UNDERGROUND
- VCP VITRIFIED CLAY PIPE
- V.I.F. VERIFY IN FIELD
- VERT. VERTICAL
- VFD VARIABLE FREQUENCY DRIVE
- W/ WITH
- WTR WATER

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

| | |
|--------|-------------|
| DATE | JAN 2019 |
| SCALE | AS SHOWN |
| DESIGN | T. MONAHAN |
| DRAWN | N. MAO |
| CHECK | T. YUROVSKY |
| SHEET | 2 OF 7 |

G2



SRT CONSULTANTS
 90 New Montgomery Street
 Suite 905
 San Francisco, CA 94105
 Ph. 415.776.5800
 Fx. 415.776.5200

MONTARA WATER AND SANITARY DISTRICT
 8888 CABRILLO HIGHWAY
 MONTARA CA 94037

WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT
 NOTES, LEGEND AND ABBREVIATIONS

DRAWING NAME: \\Nersesov\p1\PROJECTS\Montara Water and Sanitary District (1000)\01_ACTIVE\Wagner Well and Pipeline (2017)\CAD\WAGNER_C.dwg
 PLOT DATE: Jun 30, 2019 - 2:15pm
 PLOTTED BY: Nina

SPECIFICATIONS

PIPES AND FITTINGS

- UNDERGROUND PVC PIPES SHALL CONFORM TO AWWA C900 PRESSURE CLASS 235 PSI (DR 18), AND CARRIES APPROVAL OF ANSINSF STANDARD 61, UL 1285 AND FM 1612 (DR 18 AND DR 14 ONLY). PIPES SHALL BE MANUFACTURED BY JM EAGLE OR APPROVED EQUAL.
- ABOVE GROUND PIPING THAT HAVE A DIAMETER 6 INCH OR LARGER SHALL BE DUCTILE IRON; PIPES THAT HAVE DIAMETER SMALLER THAN 6 INCH SHALL BE STEEL UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.
- DUCTILE IRON PIPES SHALL BE MANUFACTURED PER AWWA C110, C111, C115, C150, C151 AND C153. DUCTILE IRON PIPE AND FITTINGS SHALL BE PRESSURE RATED FOR 250 PSI OR MORE.
- JOINTS FOR DUCTILE IRON PIPE AND FITTINGS THAT ARE ABOVE GROUND SHALL BE FLANGED. DUCTILE IRON FLANGES SHALL BE IN ACCORDANCE WITH AWWA C115, RATED AT A WORKING PRESSURE OF 250 PSI. FLANGES SHALL BE INTEGRALLY CAST PER AWWA C110 OR SHOP-THREADED PER AWWA C115. FLANGES SHALL BE SOLID. HOLLOW-BACK FLANGES ARE NOT PERMITTED. JOINTS FOR DUCTILE IRON PIPE AND FITTINGS THAT ARE BURIED SHALL BE MECHANICAL JOINT. THREADING OF FLANGES IN THE FIELD IS NOT PERMITTED.
- FLANGE GASKETS SHALL BE 1/8" THICK ACRYLIC OR ARAMID FIBERS BOUND WITH NITRILE FOR ALL SIZES OF PIPE. GASKETS SHALL BE FULL-FACE TYPE WITH PRE-PUNCHED HOLES. BOLTS AND NUTS SHALL BE TYPE 304 STAINLESS STEEL, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- GROOVED END FITTINGS (VICTAULIC OR APPROVED EQUAL) ARE ACCEPTABLE ALTERNATIVES TO FLANGED CONNECTIONS.
- STEEL PIPE AND FITTINGS SHALL BE PROVIDED IN ACCORDANCE WITH ASTM A53, ASTM A106, OR AWWA C200.
- MALLEABLE IRON THREADED FITTINGS AND APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A47 OR ASTM A197, AND ANSI B163.
- UNLESS OTHERWISE SPECIFIED, STEEL FITTINGS AND APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A234, ASTM A105, OR ANSI B16.111; AND FABRICATED STEEL FITTINGS AND APPURTENANCES SHALL CONFORM TO AWWA C208.
- UNLESS OTHERWISE SPECIFIED, ALL FITTINGS SHALL BE RATED FOR PRESSURE AND LOADINGS EQUAL TO THE PIPE WITH CLASS D (150 OR 175 PSI) MINIMUM.
- ALL ABOVE GROUND PIPING SHALL RECEIVE AN EPOXY PAINT SYSTEM CONSISTING OF AN EPOXY PRIME COAT, AN EPOXY IMMEDIATE COAT AND EPOXY FINISH COAT(S) TO PROVIDE A TOTAL DRY FILM THICKNESS OF 15 MILS.
- HYDROSTATIC LEAKAGE TESTING FOR PVC PIPE, DUCTILE IRON PIPE, AND STEEL PIPE SHALL COMPLY WITH AWWA C600. IF TEST SECTION FAILS, THE CONTRACTOR SHALL REPAIR OR REPLACE ALL DEFECTIVE MATERIALS AND/OR WORKMANSHIP AT NO ADDITIONAL COST TO THE DISTRICT.
- ALL WELLHEAD PIPING AND APPURTENANCE SHALL BE TESTED AT 120 PSI FOR 1 HOUR.
- ALL UNDERGROUND PIPING SHALL BE TESTED AT 120 PSI FOR 1 HOUR.
- FLUSHING AND DISINFECTING OF POTABLE WATER SYSTEMS SHALL BE IN ACCORDANCE WITH AWWA C652, AWWA M55 CHAPTER 10. MWSD WILL PROVIDE BACTERIOLOGICAL TESTING FOR SAMPLES PROVIDED BY THE CONTRACTOR. UPON COMPLETION, THE SYSTEM SHALL BE THOROUGHLY FLUSHED WITH FRESH WATER, AND RETESTED TO VERIFY THE DISINFECTANT CHLORINE LEVEL HAS BEEN REDUCED TO POTABLE WATER CONCENTRATIONS IN ALL NEWLY INSTALLED PIPES.

APPURTENANCES

- GATE VALVES SHALL BE RESILIENT WEDGE GATE VALVES AND SHALL MEET THE REQUIREMENTS OF AWWA C515 AND BE NSF 61 LISTED. VALVES SHALL HAVE A PROTECTIVE INTERIOR AND EXTERIOR EPOXY COATING PER AWWA C550. ABOVE GROUND GATE VALVES SHALL BE OUTSIDE SCREW AND YOKE (OS&Y). VALVES SHALL BE RATED FOR A MINIMUM OF 150 PSI WORKING PRESSURE. WASHERS, NUTS AND BOLTS SHALL BE TYPE 304 STAINLESS STEEL. FLANGED VALVES SHALL BE MUELLER R2361 OR APPROVED EQUAL.
- BUTTERFLY VALVES SHALL BE HIGH PERFORMANCE TYPE, RESILIENT SEATED, ONE-PIECE DISC AND STEM, LUG STYLE. BODY CLASS SHALL BE 150 PSI MAX DIFFERENTIAL PRESSURE. BODY SHALL BE STAINLESS STEEL. DISC SHALL BE CF-8M STAINLESS STEEL, STEM SHALL BE 17-4PH STAINLESS STEEL. SEAT SHALL BE BUNA-N. STEM PACKING SHALL BE TEFLON. RETAINING RING AND GLAND ASSEMBLY SHALL BE TYPE 316 STAINLESS STEEL, GLAND NUTS SHALL BE SILICON BRONZE. BEARINGS SHALL BE TYPE 316 STAINLESS STEEL BACKED TEFLON. VALVE SHALL BE BRAY SERIES 20, OR APPROVED EQUAL.
- BUTTERFLY VALVE ACTUATOR SHALL CONFORM TO REQUIREMENTS OF AWWA C504, INSOFAR AS APPLICABLE AND AS SPECIFIED HEREIN. GEARING FOR ACTUATORS WHERE REQUIRED SHALL BE TOTALLY ENCLOSED IN A GEAR CASE IN ACCORDANCE WITH AWWA C504. ACTUATORS SHALL HAVE PERMANENT INDICATORS WITH RAISED OR ENGRAVED MARKS TO SHOW POSITION OF VALVE DISC. ELECTRIC VALVE ACTUATORS SHALL BE BRAY SERIES 70, OR APPROVED EQUAL. MANUAL VALVE ACTUATOR SHALL BE BRAY SERIES 01, OR APPROVED EQUAL.
- CHECK VALVES SHALL BE SWING TYPE AND SHALL MEET THE REQUIREMENTS OF AWWA C508. VALVES SHALL BE IRON BODY, BRONZE MOUNTED, SINGLE DISC, MINIMUM 175 PSI WORKING PRESSURE, NON-SHOCK AND HYDROSTATICALLY TESTED AT 300 PSI. WHEN THERE IS NO FLOW THROUGH LINE, DISC SHALL SWING CLEAR OF WATERWAY. VALVES SHALL BE SO CONSTRUCTED THAT DISC AND BODY SEAT MAY EASILY BE REMOVED AND REPLACED WITHOUT REMOVING VALVE FROM LINE. CHECK VALVES SHALL HAVE BRONZE SEAT AND BODY RINGS, BRONZE CLAPPER ARM AND BRONZE NUTS ON THE BOLTS OF BOLTED COVERS. SHAFT ASSEMBLY AND SHALL BE ASTM A582 TYPE 416 STAINLESS STEEL. HINGE SHAFT SHALL EXTEND FROM BODY OF VALVE, SEALED WITH STUFFING BOX, PACKING AND GLAND. SHAFT SIDE PLUG BEARING, STUFFING BOX AND GLAND SHALL BE BRONZE, PACKING SHALL BE REINFORCED TEFLON, BOTH SIDE PLUG AND STUFFING BOX SHALL BE PROVIDED WITH GREASE FITTINGS. CHECK VALVES SHALL BE MANUFACTURED BY MUELLER, OR APPROVED EQUAL.

- AIR RELEASE VALVE SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS. THE VALVE SHALL HAVE A 3/8" ORIFICE WITH VALVE SEALING FACES OF STAINLESS STEEL AND BUNA-N RUBBER, AND SHALL HAVE A RATED PRESSURE OF 300 PSIG. VALVES WHICH USE A NEEDLE VALVE TO SEAL THE ORIFICE SHALL NOT BE ACCEPTABLE. VALVE CONSTRUCTION SHALL BE 1" NPT SCREWED, CAST IRON BODY AND TOP FLANGE WITH STAINLESS STEEL FLOAT AND TRIM. AIR RELEASE VALVE SHALL BE CRISPIN AR10 SERIES 118-11 OR APPROVED EQUAL.
- PRESSURE GAUGE SHALL BE BOURDON TUBE ACTUATED DIAL FACE PRESSURE GAUGE. THE GAUGE CASE SHALL BE TYPE 316 STAINLESS STEEL FOR SURFACE/STEM MOUNTING WITH A PRESSURE RELIEVING BACK. THE CASE SHALL BE VENTED FOR TEMPERATURE/ATMOSPHERIC COMPENSATION. GAUGE SHALL BE CAPABLE OF BEING LIQUID FILLED IN THE FIELD OR AT THE FACTORY. THE CONNECTION SHALL BE 1/2" NPT. THE WINDOW SHALL BE CLEAR ACRYLIC OR SHATTER PROOF GLASS. THE BOURDON TUBE SHALL BE STAINLESS STEEL. THE GAUGE SIZE SHALL BE A MINIMUM OF 4 INCH. THE GAUGE SHALL HAVE A PRESSURE RANGE OF 0 TO 200 PSI. THE GAUGE SHALL BE MANUFACTURED BY WIKA, OR APPROVED EQUAL.

THE FLOW METER SHALL BE MAGNETICALLY COUPLED PROPELLER/TURBINE FLOW METER. THE PROPELLER OR ROTOR SHALL BE COMPATIBLE WITH PROCESS FLUID IN WHICH IT IS MEASURING. PROPELLER SHAFTS SHALL DRIVE THE VERTICAL SHAFT THROUGH A MAGNETIC COUPLING. METERS SHALL BE FLANGE MOUNTED WITH ANSI 150 LB FLANGED ENDS THAT SHALL BE COMPATIBLE AND SIMILAR TO PROCESS PIPE. ALL EXTERNAL SURFACES SHALL HAVE A CHEMICAL AND CORROSION RESISTANT FINISH. THE FLOW METER SHALL BE EQUIPPED WITH A TOTALIZER/TRANSMITTER THAT IS COMPATIBLE WITH THE METER PROVIDED. THE FLOW METER AND TOTALIZER/TRANSMITTER SHALL BE MANUFACTURED BY MCCROMETER, OR APPROVED EQUAL.

TEMPORARY CONSTRUCTION FENCE

- INSTALL TEMPORARY CONSTRUCTION FENCE ON EITHER SIDE OF THE WORK AREA AS SHOWN ON THE DRAWINGS.
- FENCE SHALL BE 4 FOOT HIGH ORANGE "SNOW FENCE" WITH 1" X 4" MESH SIZE AS MANUFACTURED BY TENAX CORPORATION OR APPROVED EQUAL. U CHANNEL FENCE POSTS SHALL HAVE AN EFFECTIVE HEIGHT OF 4 FEET; 14 GAUGE PVC COATED STEEL; AND LOCATED EVERY 8 FEET ALONG THE FENCE ALIGNMENT.

HYDRO SEED NATIVE GRASS

- TO REDUCE RUNOFF AND SOIL EROSION INTO THE DRAINAGE DITCHES, ALL DISTURBED AREAS SHALL BE RE-VEGETATED AS SOON AS POSSIBLE AFTER CONSTRUCTION ACTIVITIES ARE COMPLETE. RE-VEGETATION WILL BE CONDUCTED ACCORDING TO GENERAL RESTORATION METHODS, SUCH AS PREPARATION OF SOIL CONDITIONS, USE OF NATIVE PLANTS, PLANT PROTECTION, IRRIGATION, AND CONTROL OF AGGRESSIVE NON-NATIVE SPECIES. RE-VEGETATION WILL BE COMPLETED THROUGH A SEED MIXTURE APPLIED BY HYDROSEED. HAND BROADCASTING IS UNACCEPTABLE. THE CONTRACTOR SHALL EMPLOY THE SERVICES OF AN EXPERIENCED LANDSCAPING CONTRACTOR TO ASSIST IN THE REDISTRIBUTION OF STOCKPILED TOPSOIL TO THE AREAS DISTURBED BY CONSTRUCTION; PREPARATION OF THE FINISH SURFACE; HYDROSEED APPLICATION; AND MAINTENANCE DURING INITIAL GERMINATION AND GROWTH AND ESTABLISHMENT OF GROUND COVER.
- A LICENSED HYDROSEEDING COMPANY WILL BE RETAINED TO PERFORM THE WORK SPECIFIED HEREIN.
- CONTRACTOR TO PROVIDE A ONE-YEAR WARRANTY FROM THE DATE OF SUBSTANTIAL COMPLETION FOR THE RE-ESTABLISHMENT OF GROUND COVER TO BE EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITIONS
- SEED MIX SHALL CONTAIN THE FOLLOWING:
 - 30% CALIFORNIA BROME
 - 30% MEADOW BARLEY
 - 20% ZORRO ANNUAL FESCUE
 - 10% PURPLE NEEDLE GRASS
 - 10% CALIFORNIA COVER NATIVE FLOWER MIX
- ALL SEED SHALL BE FRESH, CLEAN, NEW CROP SEED, MECHANICALLY PRE-MIXED TO SPECIFIED CONDITIONS.
- IF APPROVED BY MWSD IN WRITING, MIX PERCENTAGES MAY BE ADJUSTED TO MATCH SEED AVAILABILITY.
- WOOD FIBER MULCH: CONFORM TO CALTRANS STANDARD SPECIFICATIONS SECTION 20-2.08, "MULCH."
- FERTILIZER SHALL BE 16-20-0 (NITROGEN-PHOSPHORIC ACID-WATER SOLUBLE POTASH).
- STABILIZING EMULSION SHALL BE M. BINDER, FISH-STIK, OR APPROVED SUBSTITUTE.
- SLURRY MIX COMPONENTS

WATER: QUANTITY OF WATER ADDED TO MIX AS RECOMMENDED BY STABILIZING EMULSION MANUFACTURER.

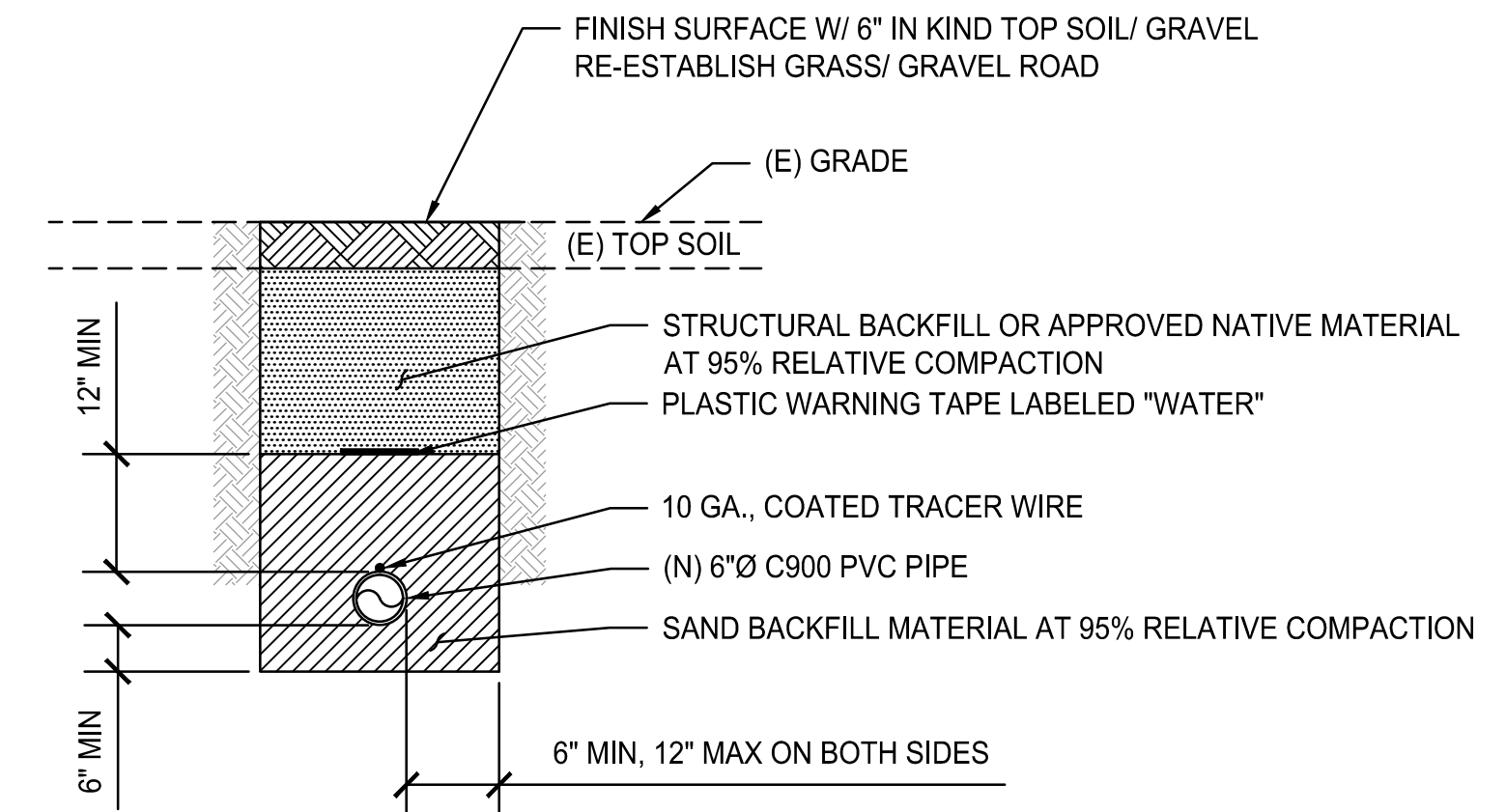
SEED - 60 LB. PER ACRE

FIBER - 3,000 LB. PER ACRE

FERTILIZER - 300 LB. PER ACRE

STABILIZING EMULSION - APPROVED STABILIZING EMULSION

- STOCKPILED TOPSOIL SHALL BE PLACED UNIFORMLY TO A MINIMUM DEPTH OF 6 INCHES AND FREE OF CLAY OR GRAVEL THAT WILL INHIBIT REVEGETATION. TOPSOIL SHALL BE TILLED AND RAKED TO AND EVEN CONSISTENCY. ALL CLODS SHALL BROKEN AND DISBURSED AND ROCKS AND STONES LARGER THAN 1/2" DIAMETER DISCARDED. THE SURFACE SHALL BE PREPARED TO RECEIVE HYDROSEED APPLICATION OF THE COASTAL GRASS MIX SPECIFIED HEREIN.
- PREPARE SLURRY BY MIXING SPECIFIED AMOUNTS OF FIBER, SEED, FERTILIZER, STABILIZATION EMULSION AND WATER. DETERMINE WEIGHTS OF VARIOUS MATERIALS TO BE USED IN SLURRY FROM MARKED WEIGHTS PER SACK AND SACK COUNT OR BY WEIGHING ON AN APPROVED SCALE.
- LOAD MATERIALS INTO MIXER IN SUCH SEQUENCE AS TO PROVIDE THOROUGHLY MIXED HOMOGENEOUS SLURRY. MIX SLURRY TO A CONSISTENCY TO ADHERE TO TOPSOIL WITHOUT CLUMPING OR RUNNING.
- DO NOT EXCEED A MIXING TIME OF 60 MINUTES FROM TIME SEEDS COME INTO CONTACT WITH WATER IN MIXER TO COMPLETE DISCHARGE OF PREPARED SLURRY ONTO TOPSOIL. DO NOT USE ANY SLURRY MIXTURE THAT HAS NOT BEEN APPLIED WITHIN 60 MINUTES OF MIXING.
- APPLY HYDROSEED SLURRIES IN A UNIFORM COAT.
- PLACE SLURRY MIXTURE USING A METHOD OF HYDRAULIC PLANTING DETAILED IN CALTRANS STANDARD SPECIFICATIONS, SECTION 20, "EROSION CONTROL AND HIGHWAY PLANTING," OR OTHER PRE- APPROVED METHOD.
- ALL AREAS OUTSIDE OF SPECIFIED LIMITS WHERE THE VEGETATIVE GROWTH HAS BEEN INJURIOUSLY DISTURBED OR DESTROYED BY THE CONTRACTOR SHALL BE RESTORED AND SEEDED IN ACCORDANCE WITH THESE SPECIFICATIONS BY THE CONTRACTOR AT HIS/HER OWN EXPENSE.



1 TRENCH DETAIL
Scale: 1" = 2'

VERIFY SCALE
0 1"
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

| | |
|--------|-------------|
| DATE | JAN 2019 |
| SCALE | AS SHOWN |
| DESIGN | T. MONAHAN |
| DRAWN | N. MAO |
| CHECK | T. YUROVSKY |
| SHEET | 3 of 7 |

G3

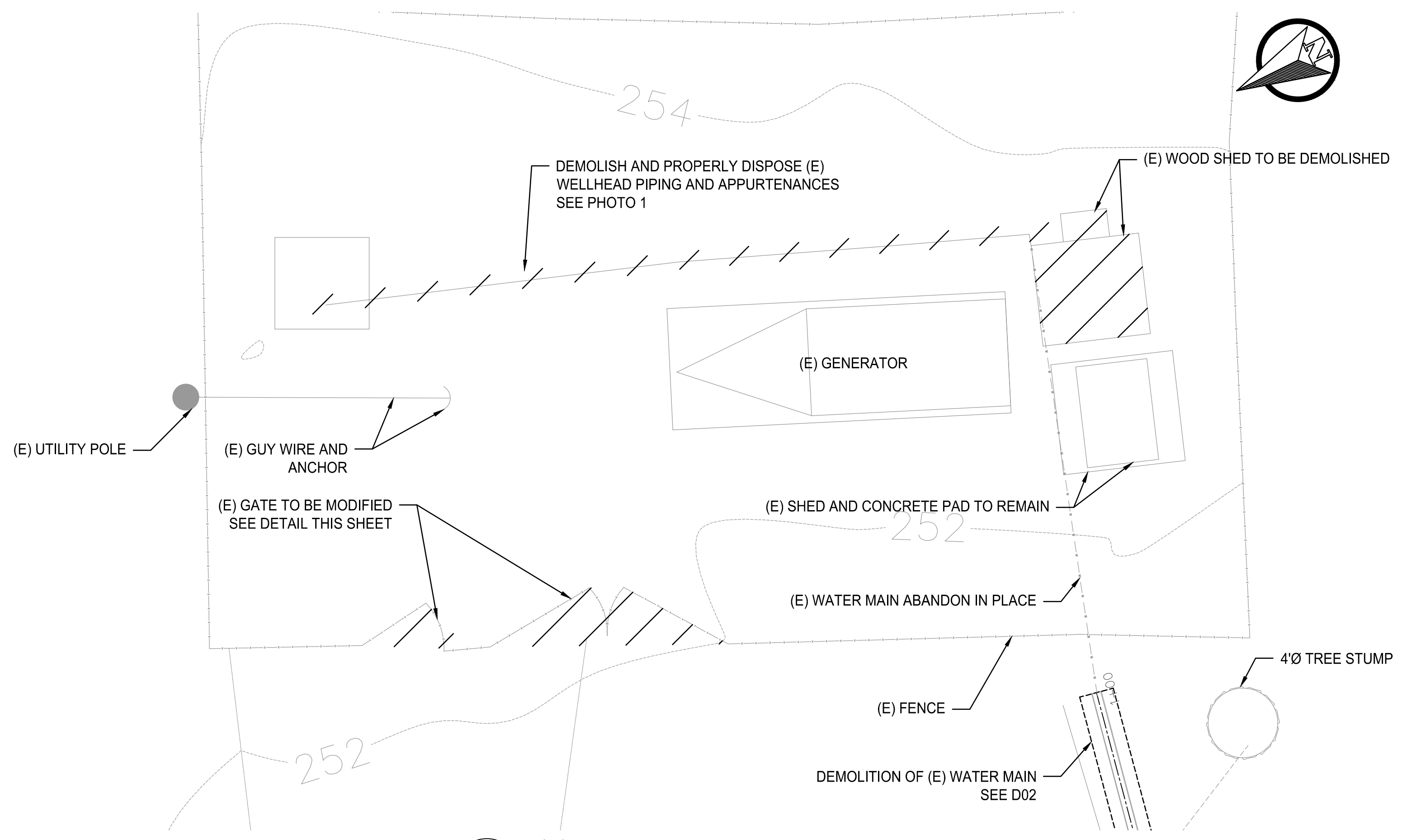
WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT SPECIFICATIONS AND TRENCH DETAIL

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Ph. 415.776.5800
Ft. 415.776.5200

MONTARA WATER AND SANITARY DISTRICT
8888 CABRILLO HIGHWAY
MONTARA CA 94037

REGISTERED PROFESSIONAL ENGINEER
No. 28888
Exp. 8-30-19
CIVIL
STATE OF CALIFORNIA

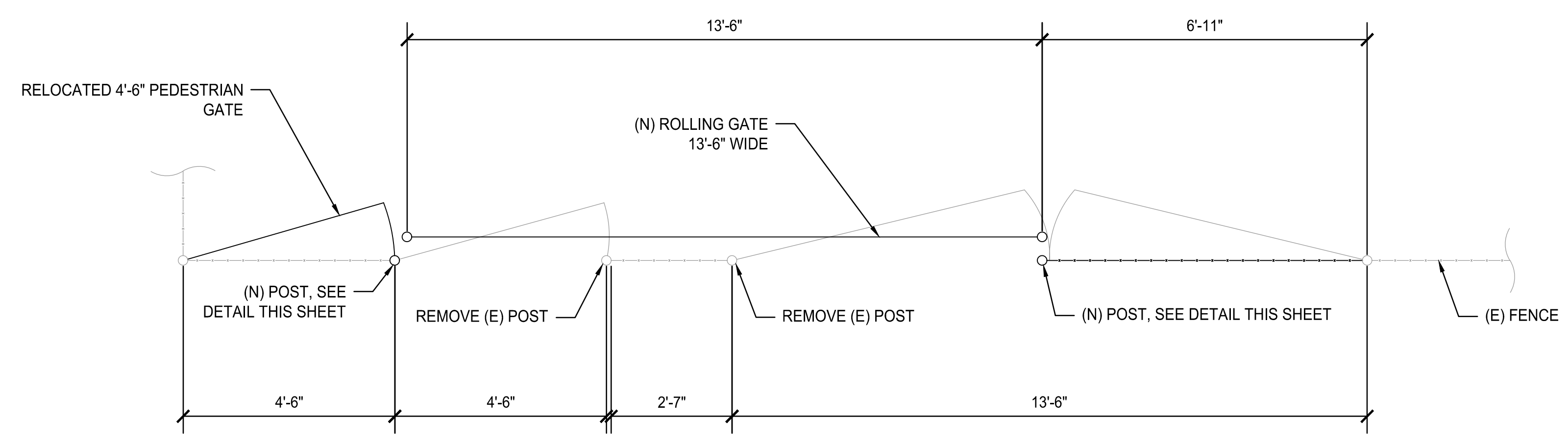
DRAWING NAME: \\Nevares\er\01_PROJECTS\Montara Water and Sanitary District (1000)\01_ACTIVE\Wagner Well and Pipeline (2017)\CAD\WAGNER_C.dwg
PLOT DATE: Jun 30, 2019 - 7:09pm
PLOTTED BY: Nina



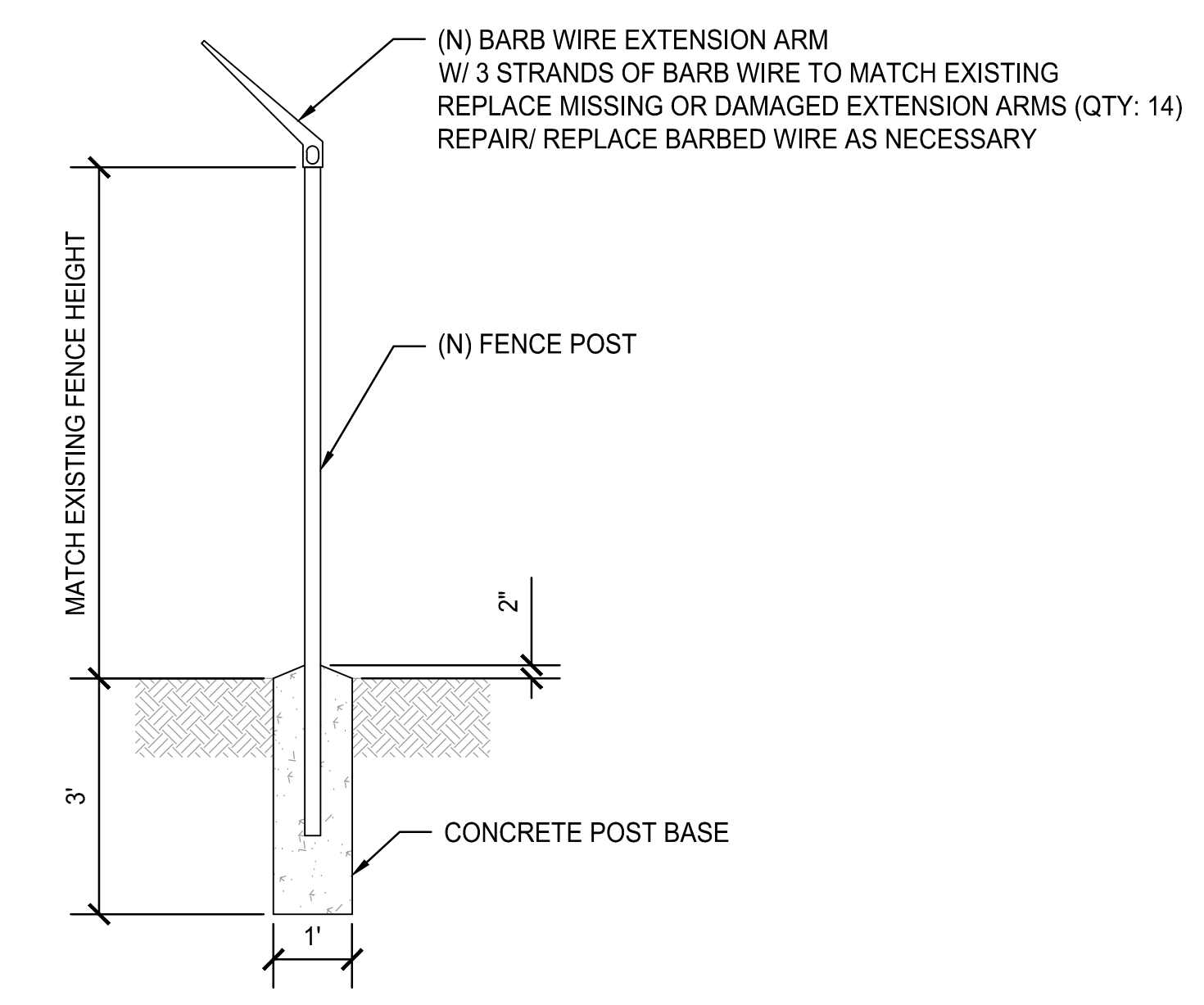
1 (E) WAGNER WELLHEAD DEMOLITION PLAN
Scale: 1" = 5'



2 (E) WAGNER WELLHEAD DEMOLITION PHOTO
Scale: N/A



3 (E) GATES AND FENCE MODIFICATION PLAN VIEW
Scale: 1" = 2'



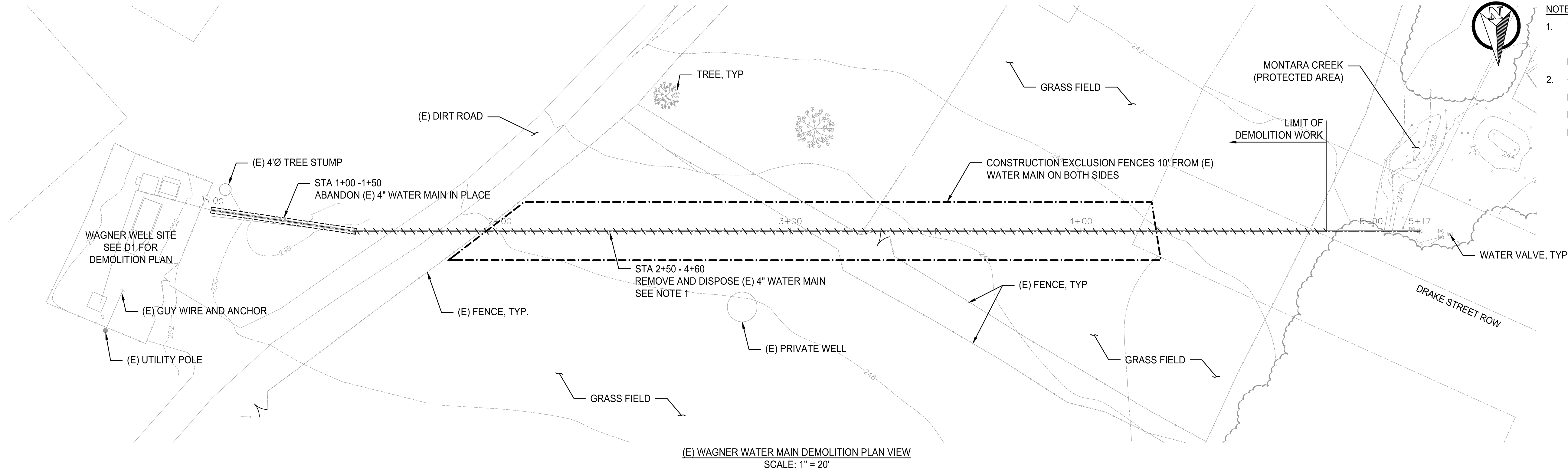
4 FENCE POST DETAIL
Scale: 1" = 2'

VERIFY SCALE
0 1"
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

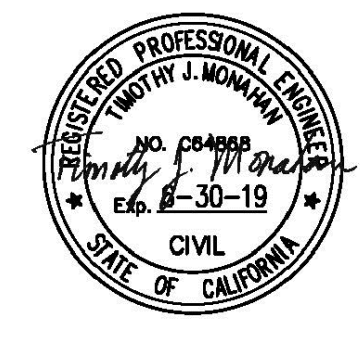
DRAWING NAME: \\Naresen\p1\PROJECTS\Montara Water and Pipeline (2017)\CAD\WAGNER_D.dwg
PLOT DATE: Jan 30, 2019 - 2:18pm PLOTTED BY: Nina

| | | | |
|---|-------------|---------|----------|
| SYMBOL | DESCRIPTION | DATE | APPROVED |
| - | EBD SET | 01/2019 | TJM |
| | | | |
| S R T consultants 90 New Montgomery Street, Suite 905 San Francisco, CA 94105 Ph 415.776.5800 Fx 415.776.5200 | | | |
| MONTARA WATER AND SANITARY DISTRICT 8888 CABRILLO HIGHWAY MONTARA, CA 94037 | | | |
| WAGNER WELL REHABILITATION AND WATER MAIN REPLACEMENT PROJECT EXISTING WELLHEAD PIPING DEMOLITION | | | |
| DATE | JAN 2019 | | |
| SCALE | AS SHOWN | | |
| DESIGN | T. MONAHAN | | |
| DRAWN | N. MAO | | |
| CHECK | T. YUROVSKY | | |
| SHEET | 4 of 7 | | |
| D1 | | | |

DRAWING NAME: \\Niners\proj\01_PROJECTS\Montara Water and Sanitary District (1000)\01_ACTIVE\Wagner Well and Pipeline (2017)\CAD\WAGNER_D.dwg
 PLOT DATE: Jan 30, 2019 - 2:18pm
 PLOTTED BY: Nina



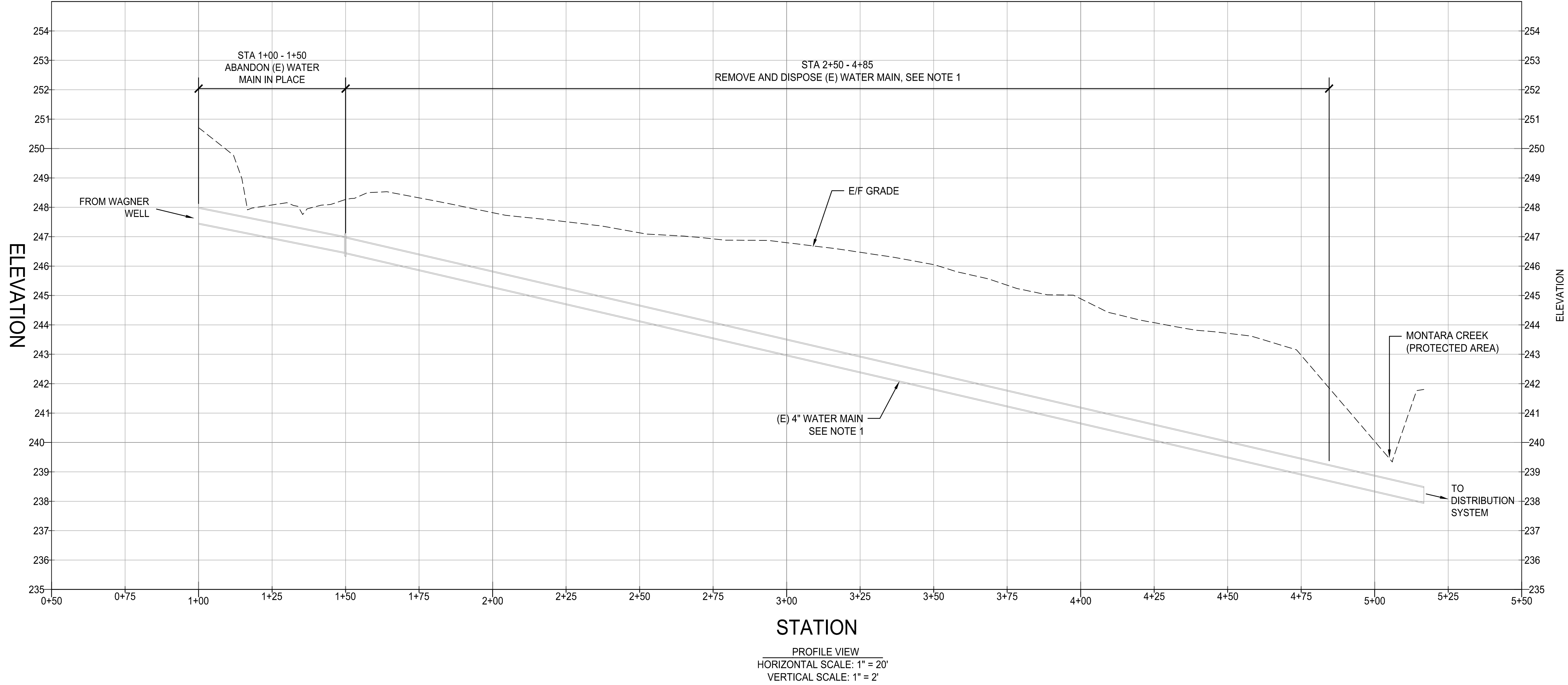
- NOTES:**
1. VERIFY SIZE, DEPTH, ALIGNMENT OF (E) WATER MAIN IN FIELD.
 2. CONTRACTOR SHALL PROPERLY DISPOSE WATER MAIN SECTIONS THAT ARE REMOVED.



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 MONTARA, CA 94037

WAGNER WELL REHABILITATION AND WATER MAIN REPLACEMENT PROJECT
 EXISTING WATER MAIN DEMOLITION PLAN AND PROFILE



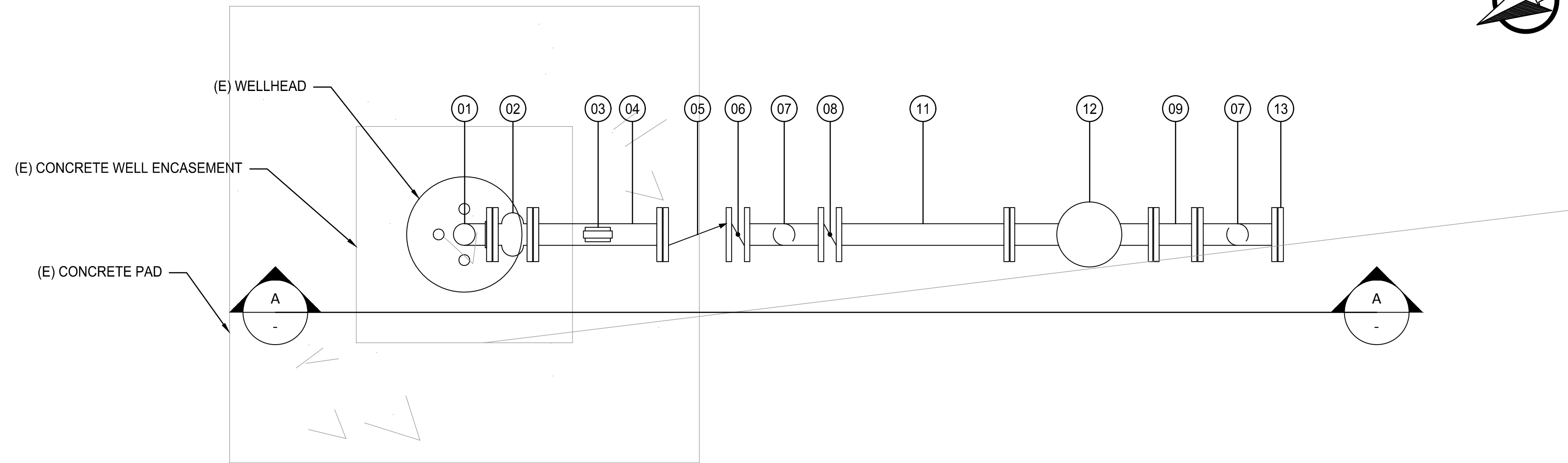
VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

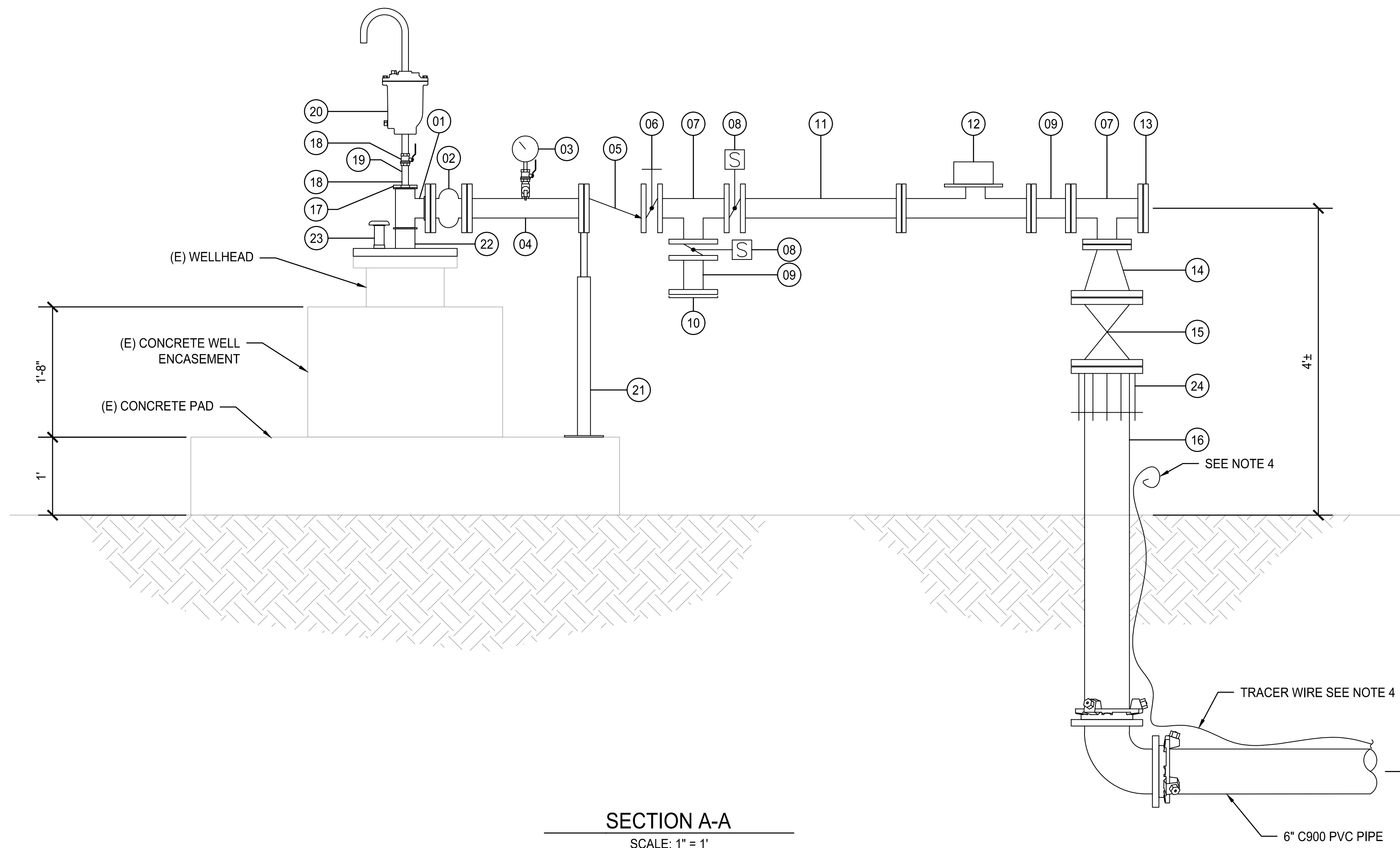
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|--------|-------------|
| DATE | JAN 2019 |
| SCALE | AS SHOWN |
| DESIGN | T. MONAHAN |
| DRAWN | N. MAO |
| CHECK | T. YUROVSKY |
| SHEET | 5 of 7 |

D2

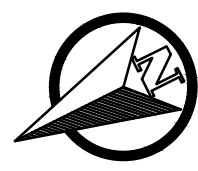
| SYN. | DESCRIPTION | DATE | APPROVED |
|------|-------------|---------|----------|
| - | BD SET | 01/2019 | TJM |



WELLHEAD PIPING PLAN VIEW
SCALE: 1" = 1'



SECTION A-A
SCALE: 1" = 1'

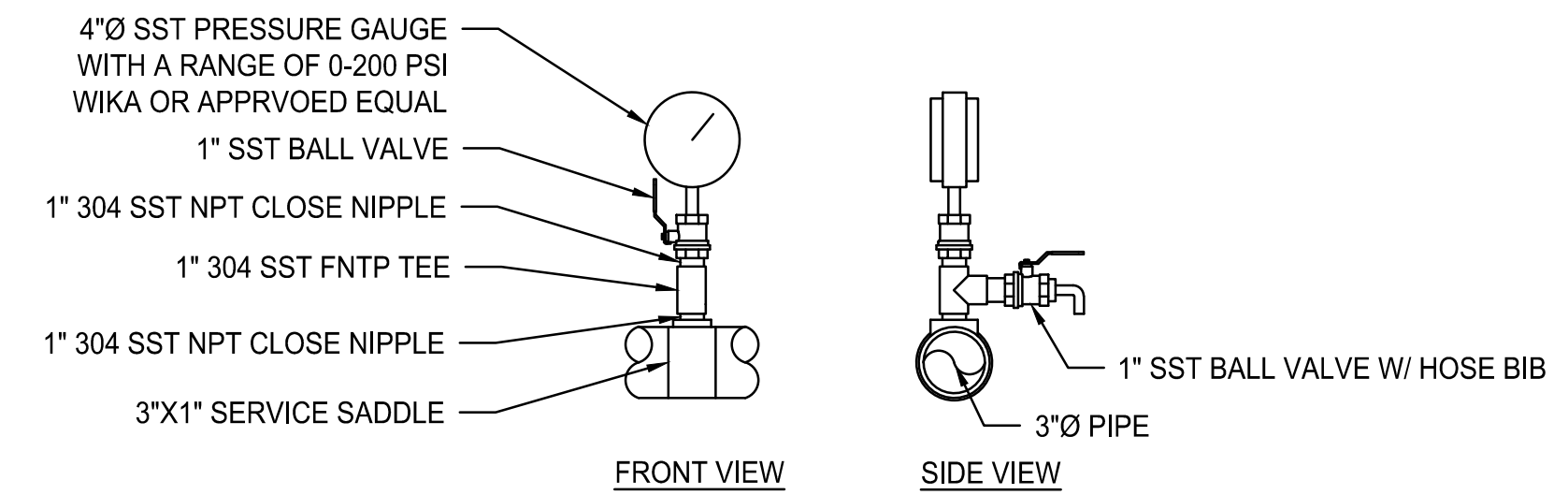


LIST OF EQUIPMENT

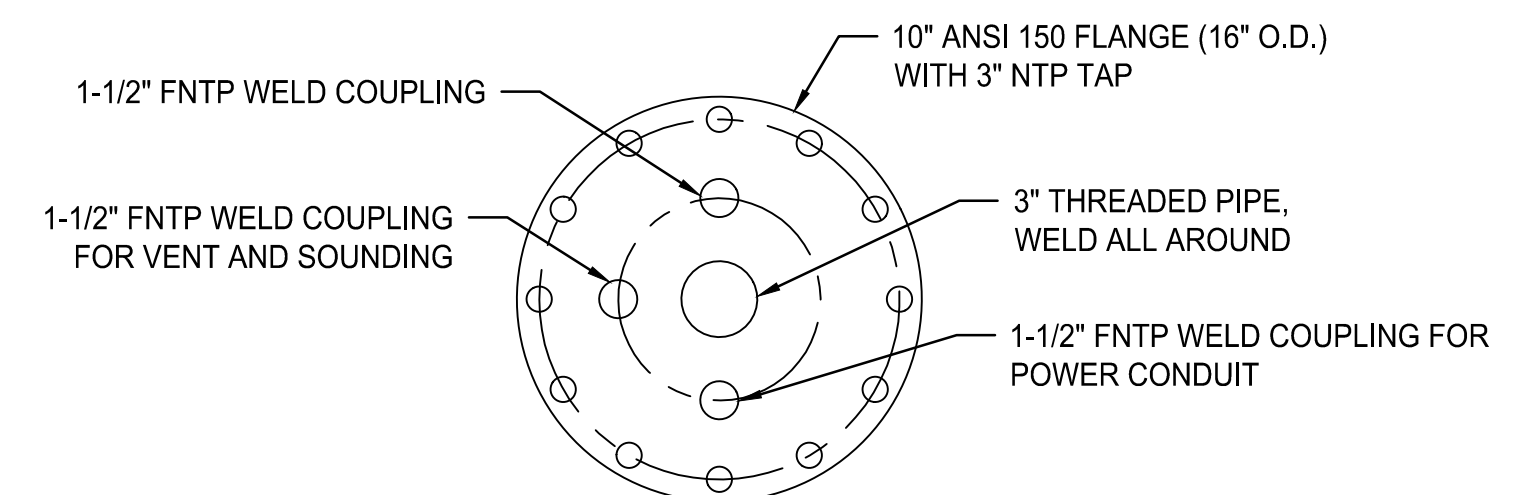
1. 3" THREADED TEE WITH 3" THREADED FLANGE
2. 3" RUBBER EXPANSION JOINT, PROCCO OR APPROVED EQUAL
3. PRESSURE GAUGE ASSEMBLY AND SAMPLING PORT ASSEMBLY, SEE DETAIL 1 ON THIS SHEET
4. 3"Ø X 18"L SPOOL, FL X FL
5. 3" CHECK VALVE, FL X FL
6. 3" BUTTERFLY VALVE WITH MANUAL ACTUATOR, BRAY SERIES 20 OR APPROVED EQUAL
7. 3" FLANGED TEE
8. 3" BUTTERFLY VALVE WITH SOLENOID ACTUATOR, BRAY SERIES 20 VALVE AND SERIES 70 ACTUATOR OR APPROVED EQUAL
9. 3"Ø X 6"L SPOOL, FL X FL
10. #24 MESH SCREEN
11. 3"Ø X 24"L SPOOL, FL X FL
12. 3" FLANGED PROPELLER METER, MCCROMETER WATER SPECIALTIES FLOWCOM MODEL NO. FC101-02-M-OC6 OR APPROVED EQUAL
13. 3"Ø BLIND FLANGE
14. 3" X 6" FLANGED INCREASER
15. 6" GATE VALVE, FL X FL, MUELLER OR APPROVED EQUAL
16. 6"Ø FL X PE DI PIPE, LENGTH AS NECESSARY
17. HEX BUSHING, 3" X 1", MNPT X FNPT, SST
18. 1"Ø X 3" THREADED NIPPLE, SST
19. 1" THREADED BALL VALVE, SST
20. AIR RELEASE VALVE WITH GOOSENECK PIPE, CRISPIN AR10 SERIES 118-11 OR APPROVED EQUAL
21. ADJUSTABLE PIPE SUPPORT, STANDON MODEL S89 OR APPROVED EQUAL
22. WELLHEAD SOLE PLATE, SEE DETAIL 2
23. WELL VENT AND SOUNDING PORT, SEE DETAIL 3
24. 6" FLANGE COUPLING ADAPTER

NOTES:

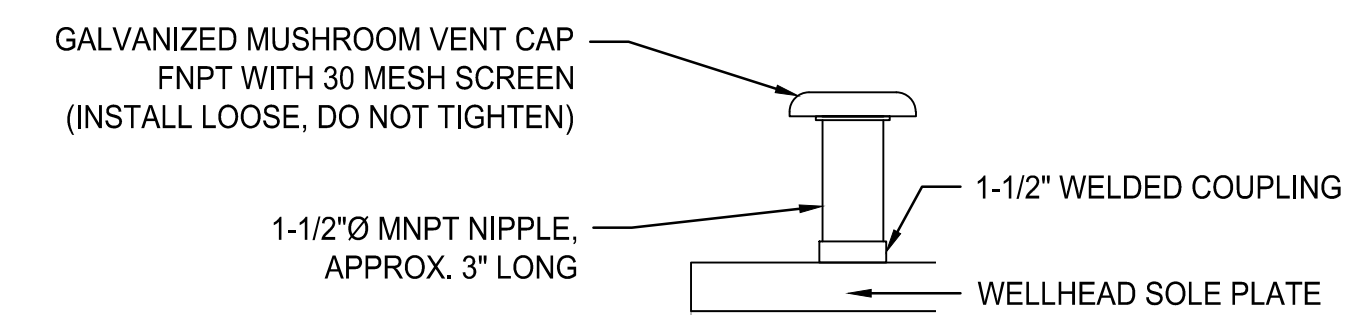
1. ALL ABOVE GROUND PIPING SHALL RECEIVE AN EPOXY PRIME COAT, AN EPOXY IMMEDIATE COAT AND EPOXY FINISH COAT(S) WITH A TOTAL DRY FILM THICKNESS OF 9 MILS TO 15 MILS.
2. THE BURIED WATER PIPE SHALL HAVE A MINIMUM COVER OF 3'.
3. ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. VERIFY SIZE AND DIMENSIONS IN FIELD.
4. PROVIDE 3'-0" OF EXPOSED 10 GAUGE TRACER WIRE ABOVE GROUND. SECURE TRACER WIRE TO PIPE WITH HEAVY DUTY ZIP TIES EVERY 6'-0" ALONG NEW PIPE ALIGNMENT.



1 PRESSURE GAUGE AND SAMPLING PORT ASSEMBLY
Scale: 1" = 1'



2 WELLHEAD SOLE PLATE PLAN VIEW
Scale: 1" = 1'



3 WELL VENT AND SOUNDING PORT
Scale: NTS

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.



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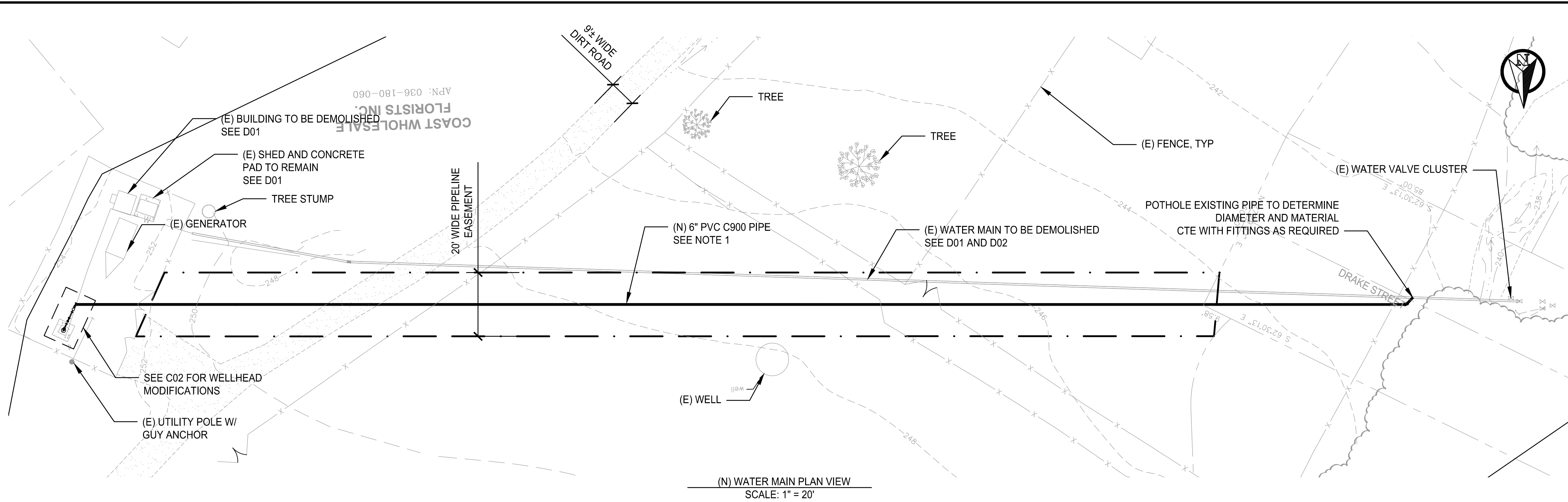
MONTARA WATER AND SANITARY DISTRICT
8888 CABRILLO HIGHWAY
MONTARA, CA 94037

WAGNER WELL REHABILITATION AND WATER MAIN REPLACEMENT PROJECT
NEW WELL HEAD PIPING PLAN AND SECTION

| | |
|--------|-------------|
| DATE | JAN 21019 |
| SCALE | AS SHOWN |
| DESIGN | T. MONAHAN |
| DRAWN | N. MAO |
| CHECK | T. YUROVSKY |
| SHEET | 6 of 7 |

C1

DRAWING NAME: \\Nevares\proj\01_PROJECTS\Montara Water and Sanitary District (1000)\01_ACTIVE\Wagner Well and Pipeline (2017)\CAD\WAGNER_C.dwg
 PLOT DATE: Jun 30, 2019 - 2:30pm
 PLOTTED BY: Nina



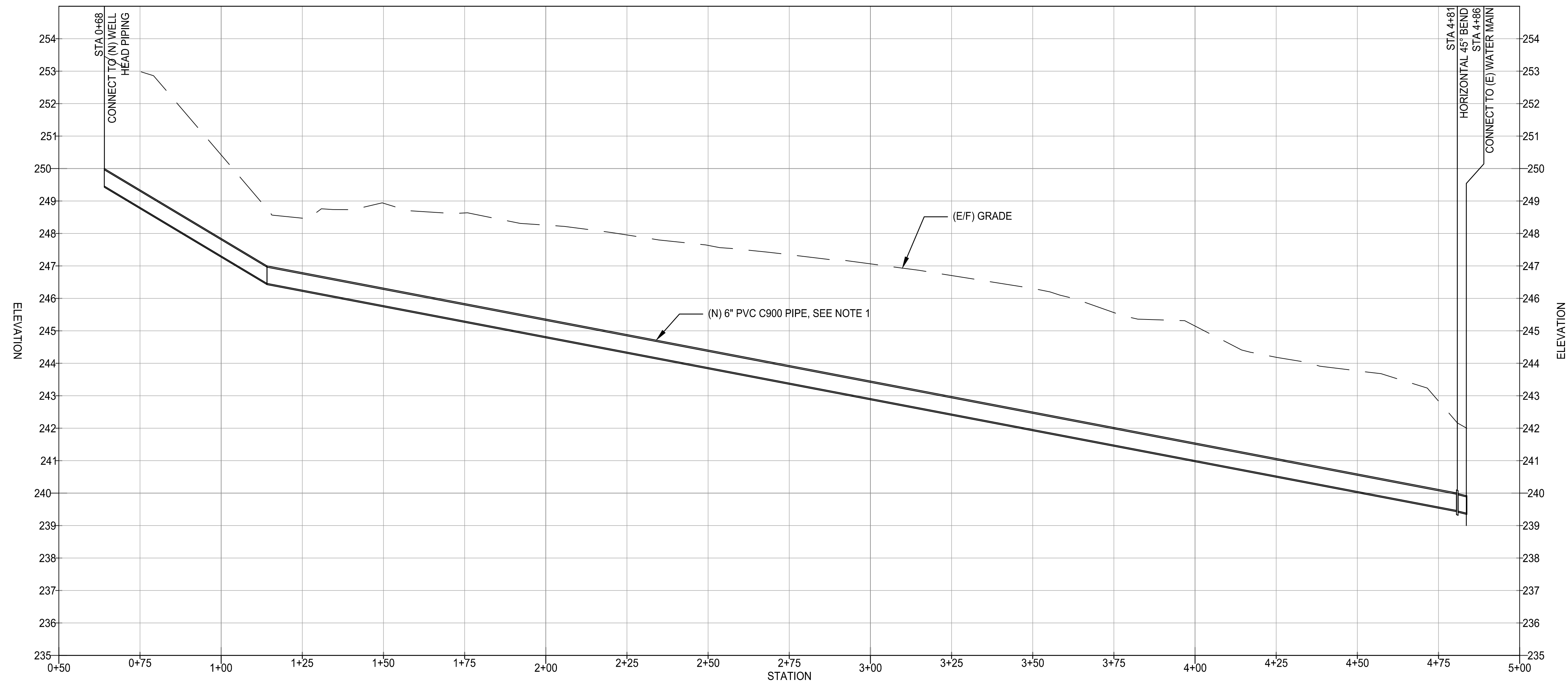
- NOTES:**
- 3' COVER MINIMUM FOR THE NEW WATER MAIN.
 - ALL EXISTING UTILITIES SHOWN ON THE PLAN ARE TO THE BEST KNOWLEDGE OF THE OWNER. CONTRACTOR TO VERIFY THE DIAMETER, MATERIAL AND DEPTH OF THE EXISTING WATER MAIN IN FIELD.



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WAGNER WELL REHABILITATION AND WATER MAIN REPLACEMENT PROJECT
 NEW WATER MAIN PLAN AND PROFILE



VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

| | |
|--------|-------------|
| DATE | JAN 2019 |
| SCALE | AS SHOWN |
| DESIGN | T. MONAHAN |
| DRAWN | N. MAO |
| CHECK | T. YUROVSKY |
| SHEET | 7 OF 7 |

C2

REVISIONS

| SYN. | DESCRIPTION | DATE | APPROVED |
|------|-------------|---------|----------|
| 1 | END SET | 07/2019 | TJM |

MONTARA WATER AND SANITARY DISTRICT



WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT

Volume I – SPECIFICATIONS

BID SET

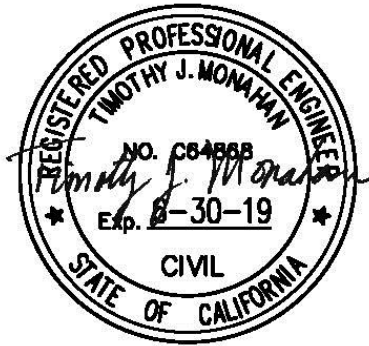
Bid Due: March 12, 2019 at 2:00 p.m.

Each bid is to be enclosed in an envelope bearing the superscription:
"Bid for WAGNER WELL HEAD REHABILITATION AND WATER MAIN REPLACEMENT
PROJECT"

Mandatory Pre-Bid Conference: February 28, 2019

00 01 07 SEAL PAGE

The specifications for the Wagner WELLHEAD Rehabilitation and Water Main Replacement Project have been prepared under the direction of the following design professionals, licensed in the State of California.



PROJECT MANAGER, CIVIL ENGINEER
Timothy J. Monahan, P.E.

END OF SECTION 00 01 07

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- 00 01 10 TABLE OF CONTENTS
- 00 01 15 LIST OF DRAWINGS

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- 00 21 13 INSTRUCTIONS TO BIDDERS
- 00 41 00 BID FORM
- 00 45 13 BIDDER'S STATEMENT OF QUALIFICATIONS FORM
- 00 45 14 BIDDER'S STATEMENT OF PAST CONTRACT DISQUALIFICATIONS FORM

CONTRACTING REQUIREMENTS

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- 00 52 00 AGREEMENT FORM
- 00 55 00 NOTICE TO PROCEED FORM
- 00 61 13.13 PERFORMANCE BOND FORM
- 00 61 13.16 PAYMENT BOND FORM
- 00 62 16 CERTIFICATE OF INSURANCE FORM
- 00 65 19 RELEASE OF CONTRACT FORM
- 00 72 00 GENERAL CONDITIONS OF THE CONTRACT

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- 02 85 00 WELL REHABILITATION

DIVISION 9 FINISHES

- 09 97 13 PAINTING AND COATINGS

DIVISION 31 EARTH WORK

- 31 20 00 EARTH MOVING

DIVISION 32 EXTERIOR IMPROVEMENTS

- 32 31 13 CHAIN LINK FENCES AND GATES

DIVISION 33 UTILITIES

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33 12 00 WATER UTILITY DISTRIBUTION EQUIPMENT
33 13 00 DISINFECTING WATER MAINS

END OF SECTION 00 01 10

00 01 15 LIST OF DRAWINGS**Drawing No. Sheet No. Drawing Title****GENERAL**

| | | |
|-----|---|----------------------------------|
| G01 | 1 | TITLE SHEET |
| G02 | 2 | NOTES, LEGEND, AND ABBREVIATIONS |
| G03 | 3 | SPECIFICATIONS AND TRENCH DETAIL |

DEMOLITION

| | | |
|-----|---|---|
| D01 | 4 | EXISTING WELLHEAD PIPING DEMOLITION |
| D02 | 5 | EXISTING WATER MAIN DEMOLITION PLAN AND PROFILE |

CIVIL

| | | |
|-----|---|--------------------------------------|
| C01 | 6 | NEW WELLHEAD PIPING PLAN AND SECTION |
| C02 | 7 | NEW WATER MAIN PLAN AND PROFILE |

END OF SECTION 00 01 15

BIDDING REQUIREMENTS

00 11 13 ADVERTISEMENT FOR BIDS**NOTICE INVITING SEALED BIDS
MONTARA WATER AND SANITARY DISTRICT
SAN MATEO COUNTY, CALIFORNIA****WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT**

NOTICE IS HEREBY GIVEN that for and on behalf of the District Board, the General Manager of the Montara Water and Sanitary District, San Mateo County, California, will receive up to, but not later than 2:00 p.m. on March 12, 2019 sealed bids for the award of a contract for the construction of improvements in the District in strict accordance with the Contract Documents including, without limitation, the specifications, design and drawings therefor, entitled, "WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT," dated January 2019, prepared by SRT Consultants, and on file in the District Administrative Offices.

The work includes the furnishing of all labor, materials and equipment for rehabilitating Wagner Well, installing new wellhead piping and 6-inch C900 PVC pipeline, and furnishing and installing all required appurtenances to complete the operational project as shown on the drawings and as specified in the Contract Documents.

Sealed bids shall be delivered to the District's General Manager on or before said date and time, at the District Administrative Offices, 8888 Cabrillo Highway, Montara, CA 94037. Any bids received after the scheduled closing time shall be returned unopened. Bids will be publicly opened and examined on said day and hour by the District's General Manager or his authorized representative and will be referred to and considered by the Montara Water and Sanitary District Board of Directors.

Each bid shall be in accordance with the Contract Documents, including, without limitation, the specifications, design and drawings, on file in the Administrative Offices of the District. Digital copies may be downloaded from the construction eBidboard website www.eBidboard.com. Paper copies may be obtained for a non-refundable price of seventy-five dollars (\$75.00) excluding postage from:

Quanxin (Nina) Mao, P.E.
SRT Consultants
90 New Montgomery Street, Suite 905, San Francisco, CA 94105
Tel: 415-231-6272
Fax: 415-776-5200
Email: nina@srtconstulatns.com

Questions regarding the bid process or the Contract Documents shall be submitted in writing (fax or email) to the same contact person before 5:00 p.m. on March 5, 2019.

The successful bidder shall immediately provide the District with a credit report or financial (solvency) report for the District's review prior to final award of the contract. For privacy purposes, the report may be submitted in an envelope marked "CONFIDENTIAL". To be considered a responsible Bidder on this project, either the bidder's credit report shall indicate a Dun & Bradstreet credit risk rating of 1A2 or better, or the bidder's bank shall issue a financial

BIDDING REQUIREMENTS

statement.

NOTICE IS HEREBY GIVEN that for any moneys earned by the successful bidder ("Contractor") and withheld by the District to ensure performance of the contract, the Contractor may, at his/her 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 Public Contract Code of the State of California.

All bids shall be presented under sealed cover and shall be accompanied by one of the following forms of bidder's security: cash, a certified or cashier's check made payable to the order of the Montara Water and Sanitary District or a bidder's bond executed by a surety admitted in the state of California naming the District as beneficiary, all amounting to ten percent (10%) of the bid. The bidder's security shall be forfeited to the District in case the bidder depositing the same does not, within twenty days after written notice that the contract has been awarded to him/her, enter into a contract with the District, which contract shall be accompanied by a payment bond and a faithful performance bond, each in a sum equal to one hundred percent (100%) of the amount bid, under the provisions of Sections 3247 through 3252, inclusive, of the California Civil Code.

The Project is a "public work" as defined in Section 1720 of the California Labor Code ("Labor Code"). Therefore, the Contractor and all subcontractors for the Project must be registered with the California Department of Industrial Relations pursuant to the provisions of Labor Code Section 1725.5 in order to be qualified to bid on, be listed in a bid proposal, or engage in the performance of any work for the Project. A bid shall not be accepted nor any contract or subcontract be entered into without proof of the contractor's or subcontractor's current registration to perform public work pursuant to said Section 1725.5. The bidder must certify to that registration.

Pursuant to Labor Code Section 1771.4, the Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. The Contractor shall post jobsite notices as prescribed by regulation and each subcontractor shall furnish the records specified in Section Labor Code Section 1776 directly to the Labor Commissioner as specified in Labor Code Section 1771.4. Pursuant to Labor Code Section 1773.3, the District shall provide notice to the Department of Industrial Relations of the award of the contract for the Project within five days of the award.

NOTICE IS HEREBY FURTHER GIVEN that, pursuant to Labor Code Section 1773, the District has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for overtime work for each craft, classification, or type of worker required to execute the contract. A copy of said prevailing rate of per diem wages is on file in the Administrative Offices of the District and available from the California Department of Industrial Relations internet web site at <http://www.dir.ca.gov>, to which reference is hereby made for further particulars. Said prevailing rate of per diem wages shall be made available to any interested party upon request, and a copy thereof shall be posted at the job site. Not less than the prevailing rate of per diem wages shall be paid for any work on the Project. The Contractor will be required to comply with all provisions of Labor Code Section 1770 et seq.

The award of contract shall only be made to a Contractor who possesses a Class A (California Contractor's) License, pursuant to Section 3300 of the Public Contract Code.

BIDDING REQUIREMENTS

The District Board may, at its discretion, reject any and all bids or waive any irregularities or informalities in any bid.

No bidder may withdraw his/her bid for a period of sixty (60) days after the date set for opening of bids which is March 12, 2019

END OF DOCUMENT

00 21 13 INSTRUCTIONS TO BIDDERS**ARTICLE 1 – GENERAL OBLIGATIONS**

- A. The Bidder shall present satisfactory evidence that he/she and his/her subcontractor(s) have paid the business license fee(s) of the County of San Mateo.
- B. The Bidder may be required to furnish a complete statement of the origin, composition, and manufacturer of any or all materials to be used in the construction of the work, together with samples, which samples may be subjected to the tests provided for in these Specifications to determine their quality and fitness of the work.
- C. The Bidder and his/her subcontractor(s) shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations.

ARTICLE 2 – MANDATORY PRE-BID CONFERENCE

- A. Prior to submitting a bid for the project, the Bidder shall attend a Mandatory Pre-Bid Conference and Site Visit, which will be conducted on February 28, 2019 at 10:00 am at the District's Office at 8888 Cabrillo Highway, Montara, CA, 94037.
- B. The District will not accept bids of Contractors who fail to attend the Pre-Bid Conference and Site Visit.

ARTICLE 3 – EXISTING CONDITIONS

- A. Information obtained by District and Engineer regarding site conditions, subsurface information, and existing underground utilities and similar data are shown on the Drawings or in these Specifications.
- B. Prior to bidding, Bidders may make their own subsurface investigations subject to time schedules and arrangements approved in advance by the Engineer. Before any subsurface test holes are excavated, Bidders shall obtain permits from the District and San Mateo County to perform such work.
- C. Information derived from inspecting topographic maps or Drawings showing locations of utilities and structures will not in any way relieve the Bidder from making such additional investigations as the Contractor may elect, or from properly fulfilling all the terms of the Contract Documents.

BIDDING REQUIREMENTS

- D. Portions of the work require removal and disposal of existing below grade materials.
- E. The Bidder shall satisfy himself or herself as to:
 - 1. The nature and location of the work;
 - 2. The general and local conditions (particularly those bearing upon availability of transportation, disposal, handling, and storage of materials; availability of labor, water, electric power, roads; and uncertainties of weather, or similar physical conditions at the site);
 - 3. The conformation and conditions of the ground;
 - 4. The character of equipment facilities needed before and during the execution of the Work; and
 - 5. All other matters that can affect the Work in any way, or the cost thereof under this Contract.
- F. The Bidder shall become familiar with the character, quality, and quantity of surface and subsurface materials to be encountered from inspecting the site, any exploratory work done by the District, and from information presented by the Drawings and Specifications made a part of this Contract. Any failure by the Bidder to become acquainted with all the available information will not relieve Him or Her from responsibility for properly estimating the difficulty or cost of successfully performing the Work.

ARTICLE 4 – BID SECURITY

- A. The Bidder shall include in his/her Bid one of the following forms of bid security: cash, a certified or cashier's check made payable to the order of the Montara Water and Sanitary District or a bidder's bond executed by a surety admitted in the state of California naming the District as beneficiary, all amounting to ten percent (10%) of the bid.
- B. The bid security will become the property of Montara Water and Sanitary District if the Bidder fails to, or refuses to, execute the Contract and to furnish satisfactory bonds within twenty (20) days after the same be awarded to the Bidder.
- C. The bid security accompanying the successful bid will be returned upon the execution of the Contract and the filing of satisfactory bonds.
- D. Bid securities accompanying rejected bids will be returned upon the awarding of the contract.

BIDDING REQUIREMENTS

ARTICLE 5 – FORMS FOR THE BID

- A. Accompanying these specifications, and made a part hereof, is a set of Drawings and forms for the bid designated "Bid". Blank spaces in the Bid shall be properly filled in and the phraseology thereof shall not be changed. Additions shall not be made to the items mentioned therein. Any unauthorized conditions, limitations, or provisions attached to the Bid will be liable to render it informal and may cause its rejection. Alterations by erasure or interlineation shall be explained or noted in the Bid over the signature of the Bidder.
- B. The Bidder shall complete and furnish with his/her bid the applicable forms listed below. Any Bid not complying with this requirement may be rejected without further consideration. Applicable forms are the following:
1. Bid Form
 2. Disadvantaged Business Enterprise Information Form
 3. Bidder's Statement of Qualifications Form
 4. Bidder's Statement of Past Contract Disqualifications Form
- C. The bids will be based upon full completion of all the work as shown on the Drawings and indicated in the Specifications. It is expressly understood that the Drawings are drawn with as much accuracy as is possible in advance, but should errors, omissions or discrepancies exist in the Drawings, which show conditions that vary from those encountered in construction, the Contractor specifically agrees to construct a completed work ready for the use and in the manner that is intended. The bids for the work are intended to establish a total cost for the work in its entirety. Should the Contractor feel that the cost for the work has not been established by specific items in the bid form, the costs for that work shall be included in some related bid item so that the bid for the project does reflect the total cost for completing the work in its entirety. In the event of increasing or decreasing of work, the total amount of work actually done or materials or equipment furnished shall be paid for according to the unit or lump sum price established for such work under the contract, wherever such unit or lump sum price has been established. In the event no prices are named in the contract to cover such changes or alterations, the cost of such changes shall be covered as hereinafter provided for extra work.

ARTICLE 6 – AWARD OF CONTRACT

- A. The District will award the contract to the lowest responsible bidder complying with all instructions and with the provision of the advertised Notice Inviting Bids. The competency and responsibility of bidders as evidenced by the information accompanying the bids, which will be subject to verification, will be considered in determining the responsibility of the Bidder and in making the award.
- B. The Bidder to whom award is made shall execute a written contract with the District within twenty (20) calendar days after notice of the award has been sent by mail to him at the address given in his bid. The Contract shall be made in the form adopted by the District and incorporated in these Specifications.
- C. If the Bidder to whom award is made fails to enter into contract as herein provided, the

BIDDING REQUIREMENTS

award will be annulled, the bid bond or security will be forfeited by the Bidder, and an award may be made to the next lowest responsible bidder, and such bidder shall fulfill every stipulation embraced herein as if he were the party to whom the first award was made. The Notice Inviting Sealed Bids, Bid, bonds, Drawings, and Specifications shall be considered as incorporated in the contract. A corporation to which an award is made will be required before the contract is finally executed, to furnish evidence of its corporate existence and evidence that the officer signing the contract and bonds for the corporation is duly authorized to do so.

- D. The Contractor shall not assign, transfer, convey or otherwise dispose of the contract, or his right, title of interest therein, or his power to execute such contract to any other person, firm or corporation without previous consent in writing by the Montara Water and Sanitary District.

ARTICLE 7 – SUBCONTRACTING

- A. If any part of the work to be done under this contract is subcontracted, the subcontract shall be in writing and shall provide that all work to be performed thereunder shall be performed in accordance with the terms of the general contract. Upon request, the Bidder shall furnish certified copies of any or all subcontracts to the District. The subcontracting of any or all of the work to be done will in no way relieve the Bidder of any part of his responsibility under the contract.
- B. Violation of any of the above provisions will be considered a violation of the contract, and the District may: cancel the contract, assess the Bidder a penalty of not more than 10 percent of the subcontract involved, or cancel the contract and assess the penalty.
- C. All persons engaged in the work, including subcontractors, will be considered as employees of the Contractor. The Bidder will be held responsible for their work. The District will deal directly with and make all payments to the prime Contractor.
- D. When subcontracted work is not being prosecuted in a manner satisfactory to the Engineer, the Bidder shall be notified to take corrective action. The Engineer may report the facts to the District Board. If the Board so orders and on receipt by the Bidder of written instructions from the Engineer, the subcontractor shall be removed immediately from the work. The subcontractor shall not be reemployed on the work.

END OF SECTION 00 21 13

00 41 00 BID FORM

**MONTARA WATER AND SANITARY DISTRICT
BID FOR WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT
PROJECT**

BIDDER

Name _____

Street Address _____

City/State _____ Zip Code _____

Telephone Number _____

Fax Number _____

Email Address _____

BIDDING REQUIREMENTS

To the General Manager
Montara Water & Sanitary District Montara, California

Pursuant to the foregoing notice inviting bids, the undersigned declares that the undersigned has carefully examined the location of the proposed work, that the undersigned has examined the Drawings and Specifications and read the accompanying Instructions to Bidders, and hereby proposes to furnish all materials and to do all the work required to complete the said work in accordance with said Drawings and Specifications for the prices set forth in the following proposed schedule.

The undersigned further agrees that in case of default in executing the required contract, with necessary bonds, within twenty (20) days, not including Sunday, after having received notice that the contract is ready for signature, the proceeds of the check of bond accompanying the bid shall become the property of Montara Water and Sanitary District.

The Bidder by signature below also certifies under the penalty of perjury that the representations made in this Bid are true and accurate in accordance with the Business and Professions Code Section 7028.15(e).

Licensed in accordance with an act providing for the registration of Contractors, License No. _____ and Expiration Date _____ Class/Type _____

By: _____

Signature

Name of Person Signing the Bid

Title of Person Signing the Bid

(If an individual, so state. If a firm or co-partnership, state the firm name and give the names of all individuals or co-partners composing the firm. If a corporation, state legal name or corporation, also names of president, secretary, treasurer and manager thereof.)

DATED: _____, 2019

BIDDING REQUIREMENTS

**SCHEDULE OF WORK AND PRICES FOR WAGNER WELLHEAD REHABILITATION AND
WATER MAIN REPLACEMENT PROJECT**

| Item No. | Description | Reference | Estimated Quantity | | Unit Price | Total |
|------------------------------|--|------------------------|--------------------|----|------------|-------|
| 1 | Mobilization | 01 50 00 | 1 | LS | | |
| 2 | Demolition of existing wellhead piping and appurtenances, fence, 4-inch water main, and wood shed | 02 41 00 D01 D02 | 1 | LS | | |
| 3 | Rehabilitation of (E) Wagner Well | 02 85 00 C01 | 1 | LS | | |
| 4 | Procurement and installation of wellhead piping and appurtenances, 6-inch C900 PVC piping, and site improvements | C01-C02 C02 | 1 | LS | | |
| 5 | Demobilization and contract closeout | 01 70 00 | 1 | LS | | |
| Total (items 1 to 5): | | | | | | |

BIDDING REQUIREMENTS

Notes:

- The Bidder shall bid on all items in the bid tab and provide a total value.
- The Bidder shall refer to Section 01 20 00 Price And Payment Procedures when establishing its Bid.

Name of Bidder

I acknowledge I have received Addendum No. _____, signed: _____

I acknowledge I have received Addendum No. _____, signed: _____

I acknowledge I have received Addendum No. _____, signed: _____

END OF DOCUMENT

00 45 13 BIDDER’S STATEMENT OF QUALIFICATIONS FORM

**MONTARA WATER AND SANITARY DISTRICT
BID FOR WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT
PROJECT**

Acceptable documentation demonstrating that the Bidder and his designated subcontractor(s) meet the requirements listed in this section shall be included in the bid. Failure to provide that information will disqualify the Bidder from Contract award.

ARTICLE 8 – PRIME CONTRACTOR PRE-QUALIFICATION

- A. All potential bidders shall:
 - 1. Have been in the business of conducting similar civil engineering projects for a minimum of ten (10) years, and
- B. All potential bidders must list these projects below in the space provided, to be included with their bid (listings on separate sheets is acceptable). Start with the most recent jobs. Be specific when listing “Type of Work Performed.” Provide at least five jobs and applicable references.

| Prime Contractor Reference No.1 | |
|--|---|
| Date of Job | Start: Complete: |
| Project Name: | |
| Job Location: | |
| Type of Work Performed: | |
| Reference Name and Address: | |
| Reference Phone Number: | |

BIDDING REQUIREMENTS

| Prime Contractor Reference No.2 | |
|--|------------------------------|
| Date of Job | Start: _____ Complete: _____ |
| Project Name: | |
| Job Location: | |
| Type of Work Performed: | |
| Reference Name and Address: | |
| Reference Phone Number: | |

| Prime Contractor Reference No.3 | |
|--|------------------------------|
| Date of Job | Start: _____ Complete: _____ |
| Project Name: | |
| Job Location: | |
| Type of Work Performed: | |
| Reference Name and Address: | |
| Reference Phone Number: | |

BIDDING REQUIREMENTS

| Prime Contractor Reference No.4 | |
|--|---------------------------|
| Date of Job | Start:_____Complete:_____ |
| Project Name: | |
| Job Location: | |
| Type of Work Performed: | |
| Reference Name and Address: | |
| Reference Phone Number: | |

| Prime Contractor Reference No.5 | |
|--|---------------------------|
| Date of Job | Start:_____Complete:_____ |
| Project Name: | |
| Job Location: | |
| Type of Work Performed: | |
| Reference Name and Address: | |
| Reference Phone Number: | |

CONTRACTING REQUIREMENTS

00 51 00 NOTICE OF AWARD FORM

TO: _____

DATE: _____

**MONTARA WATER AND SANITARY DISTRICT
WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT
CONTRACT NO. _____**

MONTARA WATER AND SANITARY DISTRICT (The District) has considered the Bid submitted by you for the above-described work. It appears that it is to the best interest of the District to accept your Bid in the amount of _____
_____ DOLLARS (\$_____). You are hereby notified that your Bid has been accepted.

You are required to execute the Contract with the District and to furnish the required bonds and insurance certificates within twenty (20) calendar days from the mailing date of this Notice to you.

Dated this ____ day of _____, 2019

MONTARA WATER AND SANITARY DISTRICT

By _____
Title General Manager

ACCEPTANCE OF NOTICE OF AWARD

Receipt of the above Notice of Award is hereby acknowledged
this _____ day of _____, 2019.

By _____
Title _____

END OF DOCUMENT

00 52 00 AGREEMENT FORM**MONTARA WATER AND SANITARY DISTRICT****WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT
CONTRACT NO. _____**

The MONTARA WATER AND SANITARY DISTRICT, a public agency in the county of San Mateo, California, hereinafter referred to as "District", and _____ of _____ hereinafter referred to as "Contractor", for the consideration hereinafter stated, hereby agree as follows:

ARTICLE 1 – WORK

- A. Contractor shall perform everything required to be performed, shall provide and furnish all of the labor, equipment, materials, and tools to perform the following work: "WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT " as specified or indicated in the Contract Documents.

ARTICLE 2 – ENGINEER

- A. The Project has been designed by SRT Consultants (Engineer), which is to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work.

ARTICLE 3 – CONTRACT TIMES; LIQUIDATED DAMAGES

- A. Time limit for Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.
- B. The Work will be substantially completed within 90 consecutive calendar days after the Notice To Proceed, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 120 consecutive calendar days after the Notice To Proceed.
- C. Liquidated Damages
1. The parties hereby agree that in case all work called for under the agreement is not finished or completed on or before the time set forth in this agreement, damage will be sustained by District, and that it is and will be impracticable and extremely difficult to ascertain and determine the actual damage which District will sustain in the event of, and by reason of such delay; it is therefore agreed:
 - a. Contractor will pay to District \$500 for each calendar day that expires after the time specified in Paragraph B for Substantial Completion until the Work is substantially complete.

CONTRACTING REQUIREMENTS

- b. After Substantial Completion, Contractor will pay to District \$500 for each calendar day that expires after the time specified in Paragraph B above for completion and readiness for final payment until the Work is completed and ready for final payment.
- 2. In case liquidated damages are not paid, Contractor agrees that District may deduct the amount thereof from any monies due or that may become due under this agreement.
- 3. It is further agreed that in case the work called for under this agreement is not completed in all its parts and requirements within the number of calendar days specified, District shall have the right to increase the number of calendar days or not, as may seem best to serve the interest of District; and if it is decided to increase the said number of calendar days, District shall further have the right to charge to the Contractor, and deduct from the final payment for the work, all or any part, as District may deem proper, of the actual cost of engineering, inspection, superintendence, and other overhead expenses of District which are directly chargeable to this agreement, except that the cost of final surveys and the preparation of final estimates shall not be included in such charges to be paid by Contractor.

ARTICLE 4 – CONTRACT PRICE

- A. District shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraphs A.1, A.2, and A.3 below:
 - 1. For all Work other than Unit Price Work, a lump sum of: \$_____

All specific cash allowances are included in the above price in accordance with Paragraph 11.02 of the General Conditions.
 - 2. For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item:

| Item No. | Description | Reference | Estimated Quantity | | Unit Price | Total |
|----------|-------------|-----------|--------------------|--|------------|-------|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

The Bid prices for Unit Price Work set forth as of the Effective Date of the Agreement are based on estimated quantities. As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 9.06 of the General Conditions.

- 3. For all Work, at the prices stated in Contractor’s Bid, incorporated herein by reference

CONTRACTING REQUIREMENTS

thereto as if herein fully set forth.

ARTICLE 5 – PAYMENT PROCEDURES; RETAINAGE

- A. Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Engineer will process Applications for Payment as provided in the General Conditions.
- B. District will make monthly progress payments on the basis of Contractor's Applications for Payment during performance of the Work. All such payments will be measured by the Schedule of Values established as provided in Paragraph 3 of the General Conditions (and in the case of Unit Price Work based on the number of units completed).

Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or District may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions.

- 1. 95 percent of Work completed (with the balance being retainage); and
 - 2. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- C. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 14.07.

ARTICLE 6 – BONDS AND INSURANCE

A. Performance Bond

Contractor shall provide a good and sufficient corporate surety bond in the penal sum of one hundred percent (100%) of amount bid, which bond shall be conditioned upon the faithful performance of all work required to be performed by Contractor under this agreement. Said bond shall be liable for any and all penalties and obligations which may be incurred by Contractor under this Agreement.

B. Payment Bond

In addition to the bond required under Paragraph A hereof, Contractor shall furnish a good and sufficient corporate surety bond in the penal sum of one hundred Percent (100%) of amount of bid, which bond shall conform strictly with the provisions of the Civil Code of the State of California.

C. Insurance

- 1. Contractor, at its sole cost and expense, shall acquire and maintain in full force and effect throughout the term of this agreement (i) Workers' Compensation, (ii) employer's liability, (iii) comprehensive general liability, and (iv) owned, non-owned and hired automobile liability insurance coverage relating to Contractor's work to be

CONTRACTING REQUIREMENTS

performed hereunder covering District's risks in form subject to the approval of District.

2. The minimum amounts of coverage corresponding to the aforesaid categories of insurance per insurable event shall be as follows:

| <u>Insurance Category</u> | <u>Minimum Limits</u> |
|---------------------------------|--|
| Workers' Compensation | Statutory minimum, with limits not less than \$1,000,000 |
| Employer's Liability | \$1,000,000 per accident for bodily injury or disease |
| Comprehensive General Liability | \$1,000,000 per occurrence and \$2,000,000 in aggregate for bodily injury and property damage |
| Automobile Liability | \$1,000,000 per accident for bodily injury and property damage (coverage required to the extent applicable to Contractor's vehicle usage in performing work hereunder) |

3. The Contractor shall not allow any subcontractor to commence work on its subcontract until all similar insurance required of the Contractor has been obtained.
4. Any deductibles or self-insured retention must be declared to, and approved by, the District. In the event the District does not approve a deductible amount, at the option of the District, either the Contractor's insurer shall reduce or eliminate the deductibles or self-insured retention with respect to the District, its Board, officers, employees, agents and consultants, or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.
5. Concurrently with the execution of this Agreement, the Contractor shall furnish the District with certificates and copies of information or declaration pages of the insurance required hereunder and, with respect to evidence of comprehensive general liability and automobile liability insurance coverage, original endorsements:
 - a. Precluding cancellation or reduction in coverage before the expiration of thirty (30) days after District shall have received written notification of cancellation or reduction in coverage by certified mail, return receipt requested;
 - b. Providing that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability (cross liability endorsement);
 - c. Naming District, its Board, officers, employees, agents and consultants as additional insureds; and

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- d. Providing that Contractor's insurance shall be primary insurance relating to Contractor's work hereunder with respect to District, its Board, officers, employees, agents and consultants and further providing that any insurance or self-insurance maintained by District for itself, its Board, officers, employees, agents and consultants shall not be excess of Contractor's insurance and shall not be contributory with it.

ARTICLE 7 – CONTRACTOR'S GUARANTEE

- A. Contractor guarantees for one (1) full year from the date of final completion of the Work to repair or replace any part of the work performed hereunder which constitutes a defect resulting from the use of inferior or defective materials, equipment or workmanship.
- B. If, within said period, any repairs or replacements in connection with the work are, in the opinion of the Engineer, rendered necessary as the result of the use of inferior or defective materials, equipment or workmanship, Contractor agrees, upon receipt of notice from District, and without expense to District, to promptly repair or replace such material or workmanship and/or correct any and all defects therein.
- C. If Contractor, after such notice, fails to proceed promptly to comply with the terms of this guarantee, District may perform the work necessary to effectuate such correction and recover the cost thereof from Contractor or his sureties.
- D. Any and all other special guarantees which may be applicable to definite parts of the Work shall be considered as an additional guarantee and shall not reduce or limit the guarantee as provided by Contractor pursuant to this Article 7.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- A. In order to induce District to enter into this Agreement, Contractor makes the following representations:
 1. Contractor has examined and carefully studied the Contract Documents.
 2. Contractor has visited the site and become familiar with and is satisfied as to the general, local, and site conditions that may affect cost, progress, and performance of the Work.
 3. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
 4. Contractor has carefully studied the report of explorations and tests of subsurface conditions at or contiguous to the Site.
 5. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques,

CONTRACTING REQUIREMENTS

sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor's safety precautions and programs.

6. Based on the information and observations referred to in Paragraph A.5 above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
7. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
8. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 9 – NO DAMAGE FOR DELAY

- A. The Contractor agrees to make no monetary claim for delays, interferences or hindrances of any kind in the performance of this Contract occasioned by the following conditions and agrees that any such claim shall be fully compensated for by an extension of Contract Time to complete performance of the work:
 1. Changed biological conditions at the construction site as revealed by the preconstruction biological survey; and
 2. Operational constraints associated with the existing water system.

ARTICLE 10 – CONTRACT DOCUMENTS

- A. The Contract Documents consist of the following:
 1. This Agreement;
 2. Performance bond;
 3. Payment bond;
 4. Specifications, including the Contracting Requirements;
 5. Drawings consisting of 9 sheets;
 6. Addenda Y to Z;
 7. Contractor's Bid;
 8. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Notice to Proceed;
 - b. Work Change Directives; and

CONTRACTING REQUIREMENTS

- c. Change Orders.
- B. The documents listed in previous Paragraph are attached to this Agreement.
- C. There are no Contract Documents other than those listed above in this Article.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 4.02 of the General Conditions.

ARTICLE 11 – MISCELLANEOUS**A. California Labor Code Provisions**

1. Contractor shall comply with all applicable provisions of Sections 1810 to 1815, inclusive, of the California Labor Code, relating to working hours. Contractor shall, as a penalty to District, forfeit Twenty-Five Dollars (\$25.00) for each worker employed in the execution of the contract by Contractor or by any subcontractor for each calendar day during which such worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week, unless such worker receives compensation for all hours worked in excess of 8 hours at not less than 1½ times the basic rate of pay.
2. Pursuant to the provision of California Labor Code, Sections 1770 et seq., Contractor and any subcontractor under him shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. Pursuant to the provisions of California Labor Code Section 1773.2, Contractor is hereby advised that copies of the prevailing rate of per diem wages and a general prevailing rate for holidays, Saturdays and Sundays and overtime work in the locality in which the work is to be performed for each craft, classification, or type of worker required to execute the contract, are on file in the administrative offices of District, which copies shall be made available to any interested party on request. Contractor shall post a copy of said prevailing rate of per diem wages at the job site.
3. As required by Section, 1773.8 of the California Labor Code, Contractor shall pay travel and subsistence payments to each worker needed to execute the work, as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with this Section.
4. To establish, such travel and subsistence payments, the representative of any craft, classification, or type of workman needed to execute the contracts shall file with the Department of Industrial Relations fully executed copies of collective bargaining agreements for the particular craft, classification or type of work involved. Such agreements shall be filed within 10 days after their execution and thereafter shall establish such travel and subsistence payments whenever filed 30 days prior to the call for bids.
5. Contractor shall comply with the provisions of Section 1775 of the California Labor Code and shall, as a penalty to District, forfeit Twenty-Five Dollars (\$25.00) for each calendar day, or portion thereof, for each worker paid less than the prevailing rate of

CONTRACTING REQUIREMENTS

per diem wages for each craft, classification, or type of worker needed to execute the contract.

6. As required under the provisions of Section 1776 of the California Labor Code, Contractor and each subcontractor shall keep an accurate payroll record, showing the name address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work. Said payroll shall be certified and shall be available for inspection at all reasonable hours at the principal office of Contractor on the following basis:
 - a. A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.
 - b. A certified copy of all payroll records enumerated herein shall be made available for inspection or furnished upon request to District, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations.
 - c. A certified copy of all payroll records enumerated herein shall be made available upon request by the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either District, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to subparagraph A.6.a herein, the requesting party shall, prior to being provided the records, reimburse the costs of preparation by Contractor, subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal offices of Contractor.

Contractor and each subcontractor shall file a certified copy of the records, enumerated herein with the entity that requested the records within 10 days after receipt of a written request. Any copy of records made available for inspection and copies furnished upon request to the public or District, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of Contractor awarded the contract or performing the contract shall not be marked or obliterated. Contractor shall inform District of the location of the records enumerated herein, including the street address, city and county, and shall, within 5 working days, provide a notice of change of location and address. In the event of noncompliance with the herein requirements, Contractor shall have 10 days in which to comply subsequent to receipt of written notice specifying in what respects Contractor must comply with said paragraph. Should noncompliance still be evident after the 10-day period, Contractor shall, as a penalty to the state or District, forfeit Twenty-Five Dollars (\$25.00) for each calendar day, or portion thereof, for each worker, until strict compliance is

CONTRACTING REQUIREMENTS

effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. Responsibility for compliance with previous paragraph lies with Contractor.

7. Contractor and any subcontractors shall, when they employ any person in any apprenticeable craft or trade, apply to the joint apprenticeship committee administering the apprenticeship standards of the craft or trade in the area of the construction site for a certificate approving Contractor or subcontractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected; and shall comply with all other requirements of Section 1777.5 of the California Labor Code. The responsibility of compliance with California Labor Code Section 1777.5 during the performance of this contract rests with Contractor. Pursuant to California Labor Code Section 1777.7, in the event Contractor willfully fails to comply with the provisions of California Labor Code Section 1717.5, Contractor shall be denied the right to bid on any public works contract for one year from the date noncompliance is determined and be assessed civil penalties.
8. In accordance with the provisions of Article 5, Chapter 1, Part 7, Division 2 (commencing with Section 1860), and Chapter 4, Part 1, Division 4 (commencing with Section 3700) of the California Labor Code, Contractor is required to secure the payment of compensation to his employees and for that purpose obtain and keep in effect adequate Worker's Compensation insurance. If Contractor, in the sole discretion of District satisfies District of the responsibility and capacity under the applicable Workers' Compensation laws, if any, to act as self-insurer, he may so act, and in such case, the insurance required by this paragraph need not be provided.
9. Contractor is advised of the provisions of Section 3100 of the California Labor Code, which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and shall comply with such provisions before commencing the performance of the work of this contract.
10. Before the agreement between District and Contractor is entered into, Contractor shall submit written evidence that it and any subcontractors have obtained for the period of the contract full Workers' Compensation insurance coverage for all persons whom they employ or may employ in carrying out the work under this contract. This insurance shall be in accordance with the requirements of the most current and applicable state Workers' Compensation insurance laws. In accordance with the provisions of Section 1861 of the California Labor Code, the Contractor in signing this agreement certifies to District as true the following statement:
 - a. "I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this contract."

CONTRACTING REQUIREMENTS

11. In accordance with the provisions of Section 1727 of the California Labor Code, District, before making payment to Contractor of money due under a contract for public works, shall withhold and retain therefrom all amounts which have been forfeited pursuant to any stipulation in the contract, and the terms of Chapter 1, Part 7, Division 2 of the California Labor Code (commencing with Section 1720). But no sum shall be withheld, retained or forfeited, except from the final payment, without a full investigation by either the Division of Labor Law Enforcement or by District.
12. Pursuant to California Public Contract Code Section 7100, the acceptance by Contractor of an undisputed payment made under the terms of the contract shall operate as, and shall be, a release to District, and its duly authorized agents, from all claim of and/or liability to Contractor arising by virtue of the contract related to those amounts. Contractor may specifically exclude disputed contract claims in stated amounts from the operation of the release.
13. Contractor may substitute securities for the amounts retained by District to ensure performance of the contract in accordance with the provisions of Section 4590 of the Government Code.

The representations made herein, including Contractor's licensing information furnished with Contractor's bid (and incorporated herein) are made under penalty of perjury. The undersigned understands that any bid not containing said licensing information, or containing any information, which is subsequently proven false, shall be considered nonresponsive, and shall be rejected by District.

**SPECIFICATIONS
CONTRACTING REQUIREMENTS**

**WAGNER WELLHEAD REHABILITATION AND
WATER MAIN REPLACEMENT PROJECT**

IN WITNESS WHEREOF, the parties hereto have executed this agreement this _____
day of _____, 2019.

MONTARA WATER AND SANITARY DISTRICT, A public entity of the State of California

BY:

President, Board of Directors

ATTEST:

Secretary, Board of Directors

CONTRACTOR:

BY:

Signature

Name, Title

END OF DOCUMENT

00 55 00 NOTICE TO PROCEED FORM

TO: _____

DATE: _____

**MONTARA WATER AND SANITARY DISTRICT
WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT
CONTRACT NO. _____**

You are hereby notified to commence work in accordance with the Contract dated _____, 2019, on or before _____, 2019 and you are to complete the work in One Hundred and Eighty (180) calendar days from the date hereof. The completion date of the work is, therefore, _____, 2019.

Dated this ____ day of _____, 2019

MONTARA WATER AND SANITARY DISTRICT

By _____

Title _____ General Manager _____

ACCEPTANCE OF NOTICE TO PROCEED

Receipt of the above Notice to Proceed is hereby acknowledged
this ____ day of _____, 2019.

By _____

Title _____

END OF DOCUMENT

00 61 13.13 PERFORMANCE BOND FORM**MONTARA WATER AND SANITARY DISTRICT
WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT
CONTRACT NO. _____**

KNOW ALL PEOPLE BY THESE PRESENTS: that, WHEREAS, the Montara Water and Sanitary District Board, San Mateo County, State of California, has awarded to _____ hereinafter designated as the "Principal," a Contract, the terms and provisions of which Contract are incorporated herein by reference, for constructing the WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT, and

WHEREAS, said Principal is required under the terms of said Contract to furnish a bond for the faithful performance of said Contract;

NOW, THEREFORE, we the Principal, and _____, as surety, are held and firmly bound unto the Montara Water and Sanitary District, San Mateo County, California, in the penal sum of _____ Dollars (\$ _____), lawful money of the United States, being one hundred percent (100%) of the Contract amount, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bounden Principal, Principal's heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and faithfully perform the covenants, conditions and agreements in the said Contract and any alterations made as therein provided, on the Principal's part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the Montara Water and Sanitary District, its officers and agents, as therein stipulated, then this obligation shall be null and void; otherwise it shall be and remain in full force and virtue.

As a condition precedent to the satisfactory completion of the said Contract, the above obligation shall hold good for a period of one (1) year from the date of final payment by the District, during which time, if the above bounden Principal, Principal's heirs, executors, administrators, successors or assigns shall fail to make full, complete and satisfactory repair and replacements or totally protect the said District from loss or damage made evident during said period of one (1) year from the date of acceptance of said work, and resulting from or caused by defective materials or faulty installation, in the prosecution of the work done, the above obligation shall be and remain in full force and virtue.

And the said Surety, for value received, hereby stipulates and agrees to waive the provisions of California Civil Code Section 2819 regarding consent to change, extension of time, alteration or addition to the terms of the Contract, or to the work to be performed thereunder, or the Specifications accompanying the same shall in any way affect its obligations on this bond; and

SPECIFICATIONS

**WAGNER WELLHEAD REHABILITATION AND
WATER MAIN REPLACEMENT PROJECT**

CONTRACTING REQUIREMENTS

it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract, or to the work, or to the Specifications.

In the event the District, or its successors or assigns, shall be the prevailing party in an action brought upon this bond, then, in addition to the penal sum herein above specified, we agree to pay to the said District, or its successors or assigns, a reasonable sum on account of attorney's fees in such action, which sum shall be fixed by the court.

In WITNESS WHEREOF, the above bounden parties have executed this instrument under their seals this _____ day of _____, 2019, the name and corporate seal of each corporate party being hereto affixed, and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

ATTEST:

Principal Secretary

Principal

(SEAL)

By

Witness as to Principal

Address

Witness to Surety

Surety

Address

Telephone

Attorney-in-Fact

Address

If Contractor is partnership, all partners must execute the BOND.

The signature of the Surety on this bond must be acknowledged before a Notary Public.

END OF DOCUMENT

00 61 13.16 PAYMENT BOND FORM

MONTARA WATER AND SANITARY DISTRICT

**WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT
CONTRACT NO. _____**

KNOW ALL PEOPLE BY THESE PRESENTS:

That we, _____, as Principal, and _____, organized and existing under the laws of the State of _____, and authorized to execute bonds and undertaking as sole surety, as Surety, are held and firmly bound unto any and all persons named in California Civil Code Section 3181, whose claim has not been paid by the Contractor, company or corporation in the aggregate total of _____ Dollars (\$ _____) (being 100% of the Contract amount) for payment whereof, well and truly to be made, said Principal and Surety bond themselves, their heirs, administrators, successors and assigns, jointly and severally, firmly by these presents.

The condition of the foregoing obligation is such that, whereas the above bounden Principal has entered into a Contract ___ day of _____, 2019, with the Montara Water and Sanitary District to perform the following work, to wit: WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT.

NOW, THEREFORE, if the above bounden Principal or his/her subcontractors fail to pay any of the persons named in Section 3181 of the Civil Code of the State of California, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the Contract, or for any amounts required to be deducted, withheld and paid over to the Employment Development Department from the wages of employees of the Contractor or his/her subcontractor pursuant to Section 13020 of the Unemployment Insurance Code of the State of California, with respect to such work and labor, the surety will pay for the same, in the amount not exceeding the sum specified in this bond, and also, in case suit is brought upon this bond, a reasonable attorney's fee, to be fixed by the court.

This bond shall inure to the benefit of any person named in Section 3181 of the Civil Code of the State of California so as to give a right of action to them or their assignees in suit brought upon this bond.

This bond is executed and filed to comply with the provisions of the act of Legislature of the State of California as designated in Civil Code Section 3247 to 3252, inclusive, and all amendments thereto.

And the said Surety, for value received, hereby stipulates and agrees to waive the provisions of California Civil Code Section 2819 regarding consent to change, extension of time alteration, or addition to the terms of the Contract, or to the work to be performed thereunder, or the Specifications accompanying the same, shall in any way affect its obligations on this bond; and

SPECIFICATIONS

**WAGNER WELLHEAD REHABILITATION AND
WATER MAIN REPLACEMENT PROJECT**

CONTRACTING REQUIREMENTS

it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract, or to the work, or to the Specifications.

In the event the District, or its successors or assigns, shall be the prevailing party in an action brought upon this bond, then, in addition to the penal sum hereinabove specified, we agree to pay to the said District, or its successors or assigns, a reasonable sum on account of attorney's fees in such action, which sum shall be fixed by the court.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their seals this ___ day of _____, 2019, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

ATTEST:

Principal Secretary

Principal

(SEAL)

By

Witness as to Principal

Address

Witness to Surety

Surety

Address

Telephone

Attorney-in-Fact

Address

If Contractor is partnership, all partners must execute the BOND.

The signature of the Surety on this bond must be acknowledged before a Notary Public.

END OF DOCUMENT

CONTRACTING REQUIREMENTS

00 62 16 CERTIFICATE OF INSURANCE FORM

MONTARA WATER AND SANITARY DISTRICT (MWSD OR DISTRICT)
WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT
P.O. Box 370131
Montara, CA 94037

This certifies to the District that the following described policies have been issued to the insured named below and are in force at this time.

Insured: _____

Address: _____

| Polices and Insurers | Limits | Policy Number | Expiration Date | Best's Rating |
|--|---|---------------|-----------------|---------------|
| Workers' Compensation | Workers' Compensation.....\$ _____ Employers' Liability.....\$ _____ | | | |
| (Insurer) | | | | |
| General Liability | General Aggregate.....\$ _____ Products/Completed Operations Aggregate.....\$ _____ Personal Injury.....\$ _____ Each Occurrence.....\$ _____ Fire Damage.....\$ _____ | | | |
| (Insurer) | | | | |
| Business Auto Policy Liability Coverage Occurrence Basis | Bodily Injury/Ea. Person.....\$ _____ Physical Damage/Ea. Accident.....\$ _____ Combined Liab./Ea. Accident.....\$ _____ | | | |
| (Insurer) | | | | |
| Umbrella Liability | Occurrence/Aggregate.....\$ _____ Self-Insured Retention.....\$ _____ | | | |
| (Insurer) | | | | |

The following coverages or conditions are in effect:

The District, its officials, employees and volunteers are named as Additional Insureds on all liability policies described above as respects:

- a) Activities _____ for the District by or on behalf of the Named Insured Yes No
- (b) Products and Completed Operations of the Named Insured Yes No

The undersigned will mail to the District 30 days' written notice of cancellation or reduction of coverage or limits; 10 days for non-payment of premium.

- Cross Liability Clause (or equivalent wording) Yes No
- X, C, U Hazards Included Yes No
- Contractual Liability Coverage applying to this Contract Yes No
- Coverage afforded to the District, its officials, employees and volunteers as an insured apply as primary and not excess or contributing to any other insurance issued in the name of the District Yes No
- Waiver of subrogation of Workers' Compensation Insurer Yes No

**CERTIFICATE OF INSURANCE
(CONTINUED)**

Agency or Brokerage

Insurance Company

Address

Home Office

Name of Person to be Contacted

Authorized Signature

Telephone Number

Date

Note: Authorized signature may be the agent's if agent has placed insurance through an agency agreement with the insurer. If insurance is brokered, authorized signature must be that of official of insurer.

*** Provide A.M. Best's alpha Financial Performance Rating and numeric Financial Size Category Rating of Insurer**

CONTRACTING REQUIREMENTS

GENERAL LIABILITY ENDORSEMENT

MONTARA WATER AND SANITARY DISTRICT ("MWSD or the District")

P.O. Box 370131
Montara, CA 94037

A. POLICY INFORMATION

- 1. Insurance Company: _____ Policy No. _____;
- 2. Policy Term: (From) _____ (To) _____
Endorsement Effective Date: _____
- 3. Named Insured: _____
- 4. Address of Named Insured: _____
- 5. Limit of Liability Any One Occurrence/Aggregate: \$ _____
- 6. Deductible or Self Insured Retention (Nil unless otherwise specified):
\$ _____

B. POLICY AMENDMENTS

This endorsement is issued in consideration of the policy premium. Notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any other endorsement attached thereto, it is agreed as follows:

- 1. **INSURED.** The District, its elected or appointed officials, employees, agents and volunteers are included as insureds with regard to damages and defense of claims arising from: (a) activities performed by or on behalf of the Named Insured.
- 2. **CONTRIBUTION NOT REQUIRED.** As respects: (a) work performed by the Named Insured for or on behalf of the District; or products sold by the Named Insured to the District, the insurance afforded by this policy shall be primary insurance as respects the District, its elected or appointed officials, employees, agents or volunteers; or stand in an unbroken chain of coverage excess of the Named Insured's scheduled underlying primary coverage. In either event, any other insurance maintained by the District, its elected or appointed officials, employees, agents or volunteers shall be excess of this insurance and shall not contribute with it.
- 3. **SCOPE OF COVERAGE.** The policy: (1) if primary, affords coverage at least as broad as Insurance Services Office Form No. GL00 02 01 73 Rev., Comprehensive General Liability Insurance, and Insurance Services Office Form No. GL04 04 05 81, Broad Form Comprehensive General Liability Endorsement; or (2) if excess, affords coverage which is at least as broad as the primary insurance forms referenced in the preceding section (1). Insurance is on an occurrence basis.
- 4. **SEVERABILITY OF INTEREST.** The insurance afforded by this policy applies separately to each insured who is seeking coverage or against whom a claim is made or

CONTRACTING REQUIREMENTS

a suit is brought, except with respect to the Company's limit of liability.

5. PROVISIONS REGARDING THE INSURED'S DUTIES AFTER ACCIDENT OR LOSS. Any failure to comply with reporting provisions of the policy shall not affect coverage provided to the District, its elected or appointed officials, employees, agents or volunteers.

6. CANCELLATION NOTICE. The insurance afforded by this policy shall not be suspended, voided, canceled, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested has been given to the District. (10 days for non-payment of premium). Such notice shall be addressed as shown in the heading of this endorsement.

C. SIGNATURE OF INSURER OR AUTHORIZED REPRESENTATIVE OF THE INSURER

I, _____, warrant that I have authority to bind the below listed insurance company and by my signature hereon do so bind this company.

Signature of: _____

Authorized Representative (original signature required on endorsement furnished to the District)

ORGANIZATION: _____ TITLE: _____

ADDRESS: _____ TELEPHONE: _____

CONTRACTING REQUIREMENTS

UMBRELLA LIABILITY ENDORSEMENT

MONTARA WATER AND SANITARY DISTRICT ("MWSD or the District")

P.O. Box 370131

Montara, CA 94037

A. POLICY INFORMATION

- 1. Insurance Company: _____ Policy No. _____;
- 2. Policy Term: (From) _____ (To) _____
Endorsement Effective Date: _____
- 3. Named Insured: _____
- 4. Address of Named Insured: _____
- 5. Limit of Liability Any One Occurrence/Aggregate: \$ _____
- 6. Deductible or Self Insured Retention (Nil unless otherwise specified):
\$ _____

B. POLICY AMENDMENTS

This endorsement is issued in consideration of the policy premium. Notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any other endorsement attached thereto, it is agreed as follows:

1. **INSURED.** The District, its elected or appointed officials, employees, agents and volunteers are included as insureds with regard to damages and defense of claims arising from: (a) activities performed by or on behalf of the Named Insured, and/or (b) products and completed operations of the Named Insured and/or (c) the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by the Named Insured, regardless of whether liability is attributable to the Named Insured or a combination of the Named Insured and the District, its elected or appointed officials, employees, agents or volunteers.

2. **CONTRIBUTION NOT REQUIRED.** As respects: (a) work performed by the Named Insured for or on behalf of the District; or products sold by the Named Insured to the District, the insurance afforded by this policy shall be primary insurance as respects the District, its elected or appointed officials, employees, agents or volunteers; or stand in an unbroken chain of coverage excess of the Named Insured's scheduled underlying primary coverage. In either event, any other insurance maintained by the District, its elected or appointed officials, employees, agents or volunteers shall be excess of this insurance and shall not contribute with it.

3. **SCOPE OF COVERAGE.** The Umbrella Liability Policy is for:
- General Liability – The policy: (1) if primary, affords coverage at least as broad as Insurance Services Office Form No. GL00 02 01 73 Rev., Comprehensive

CONTRACTING REQUIREMENTS

General Liability Insurance, and Insurance Services Office Form no. GL04 04 05 81, Broad Form Comprehensive General Liability Endorsement; or (2) if excess, affords coverage which is at least as broad as the primary insurance forms referenced in the preceding section (1). Insurance is on an occurrence basis.

- Auto Liability – The policy affords coverage to the Named Insured, which is at least as broad as Insurance Services Form No. CA 0001 in its latest State of California approved form. Code 1 (“any auto”). Insurance is on an occurrence basis

4. SEVERABILITY OF INTEREST. The insurance afforded by this policy applies separately to each insured who is seeking coverage or against whom a claim is made or a suit is brought, except with respect to the Company's limit of liability.

5. PROVISIONS REGARDING THE INSURED'S DUTIES AFTER ACCIDENT OR LOSS. Any failure to comply with reporting provisions of the policy shall not affect coverage provided to the District, its elected or appointed officials, employees, agents or volunteers.

6. CANCELLATION NOTICE. The insurance afforded by this policy shall not be suspended, voided, canceled, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested has been given to the District. (10 days for non-payment of premium). Such notice shall be addressed as shown in the heading of this endorsement.

C. SIGNATURE OF INSURER OR AUTHORIZED REPRESENTATIVE OF THE INSURER

I, _____(print/type name), warrant that I have authority to bind the below listed insurance company and by my signature hereon do so bind this company.

Signature of: _____

Authorized Representative (original signature required on endorsement furnished to the District)

ORGANIZATION: _____ TITLE: _____

ADDRESS: _____ TELEPHONE: _____

CONTRACTING REQUIREMENTS

AUTOMOBILE LIABILITY ENDORSEMENT

MONTARA WATER AND SANITARY DISTRICT ("MWSD or the District")

P.O. Box 370131

Montara, CA 94037

A. POLICY INFORMATION

- 1. Insurance Company: _____ Policy No. _____;
- 2. Policy Term: (From) _____ (To) _____
Endorsement Effective Date: _____
- 3. Named Insured: _____
- 4. Address of Named Insured: _____
- 5. Limit of Liability Any One Occurrence/Aggregate: \$ _____
- 6. Deductible or Self Insured Retention (Nil unless otherwise specified):
\$ _____

B. POLICY AMENDMENTS

This endorsement is issued in consideration of the policy premium. Notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any other endorsement attached thereto, it is agreed as follows:

1. **INSURED.** The District, its elected or appointed officials, employees, agents and volunteers are included as insureds with regard to damages and defense of claims arising from the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by the Named Insured, regardless of whether liability is attributable to the Named Insured or a combination of the Named Insured and the District, its elected or appointed officials, employees, agents or volunteers.

2. **CONTRIBUTION NOT REQUIRED.** As respects work performed by the Named Insured for or on behalf of the District, the insurance afforded by this policy shall: (a) be primary insurance as respects the District, its elected or appointed officials, employees, agents or volunteers; or (b) stand in an unbroken chain of coverage excess of the Named Insured's primary coverage. In either event, any other insurance maintained by the District, its elected or appointed officials, employees, agents or volunteers shall be excess of this insurance and shall not contribute with it.

3. **SCOPE OF COVERAGE.** The policy affords coverage to the Named Insured, which is at least as broad as Insurance Services Form No. CA 0001 in its latest State of California approved form. Code 1 ("any auto"). Insurance is on an occurrence basis:

4. **SEVERABILITY OF INTEREST.** The insurance afforded by this policy applies separately to each insured who is seeking coverage or against whom a claim is made or a suit is brought, except with respect to the Company's limit of liability.

CONTRACTING REQUIREMENTS

5. PROVISIONS REGARDING THE INSURED'S DUTIES AFTER ACCIDENT OR LOSS. Any failure to comply with reporting provisions of the policy shall not affect coverage provided to the District, its elected or appointed officials, employees, agents or volunteers.

6. CANCELLATION NOTICE. The insurance afforded by this policy shall not be suspended, voided, canceled, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested has been given to the District. (10 days for non-payment of premium). Such notice shall be addressed as shown in the heading of this endorsement.

C. SIGNATURE OF INSURER OR AUTHORIZED REPRESENTATIVE OF THE INSURER

I, _____ (print/type name), warrant that I have authority to bind the below listed insurance company and by my signature hereon do so bind this company.

Signature of: _____

Authorized Representative (original signature required on endorsement furnished to the District)

ORGANIZATION: _____ TITLE: _____

ADDRESS: _____ TELEPHONE: _____

END OF DOCUMENT

00 65 19 RELEASE OF CONTRACT FORM

MONTARA WATER AND SANITARY DISTRICT

**WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT
RELEASE OF CONTRACT NO. _____**

WHEREAS, by the terms of the contract dated _____ entered into by the MONTARA WATER AND SANITARY DISTRICT and the undersigned Contractor, _____, the undersigned Contractor agreed to perform certain work for the compensation specified in said contract; and

WHEREAS, the Contractor represents that said work is fully completed and that final payment is due to the Contractor under terms of said contract;

NOW, THEREFORE, in consideration of the promises and the payment by the MONTARA WATER AND SANITARY DISTRICT to the Contractor of the amount due under the contract, to wit, the sum of \$ _____, receipt of which is hereby acknowledged by the Contractor, the Contractor hereby releases and forever discharges the MONTARA WATER AND SANITARY DISTRICT of and from all manner of debts, dues, demands, sum or sums of money, accounts, claims and causes of action, in law and in equity, under or by virtue of said contract except as listed herein. (If not, so indicate.)

IN WITNESS HEREOF, the hand and seal of the Contractor have been hereunto set this _____ day of _____, 2019.

Contractor

THIS FORM MUST BE NOTARIZED

By: _____

Title: _____

END OF DOCUMENT

00 72 00 GENERAL CONDITIONS OF THE CONTRACT**ARTICLE 1 – DEFINITIONS**

Whenever in these specifications, or in any documents where these specifications govern, the following terms, abbreviations or definitions are used, the intent and meaning shall be interpreted as follows:

- A. Addenda – Written or graphic instruments issued prior to the opening of bids, which clarify, correct, or change the Drawings or Specifications, including the bidding requirements.
- B. Agreement – The written instrument, which is evidence of the agreement between the District and the Contractor covering the Work.
- C. Acceptance – Formal acceptance by action of the District Board of an entire contract or agreement or work that has been completed in all respects in accordance with the Drawings and Specifications and any modifications thereof previously approved.
- D. Application for Payment – The form acceptable to the Engineer to be used by Contractor during the course of the Work in requesting progress or final payments.
- E. Bid – The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
- F. Bidder – The individual or entity that submits a Bid directly to the District.
- G. Calendar Day – All days including weekends and holidays.
- H. Change Order – A document recommended by the Engineer, which is signed by Contractor and District and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
- I. Claim – A demand or assertion by District or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
- J. Contract – The entire and integrated written agreement between the District and the Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.
- K. Contract Documents – Drawings, Specifications, Performance Bond, Payment Bond, Addenda, accepted Contractor's Bid, Work Change Directives, and Change Orders as stated in the Agreement. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
- L. Contract Price – The moneys payable by District to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement.
- M. Contract Times – The number of days stated in the Agreement to complete the Work so that it is ready for final payment.

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- N. Contractor – The entity with which District has entered into the Agreement.
- O. County – The County of San Mateo, State of California.
- P. District – The Montara Water and Sanitary District located in San Mateo County, CA, as represented by the District Board, District Administrator or District Engineer.
- Q. District Board – The governing body of the District.
- R. District Engineer – The Engineer of the District, licensed by the State of California as a Civil Engineer, acting either directly or through authorized agents.
- S. Drawings – That part of the Contract Documents, which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
- T. Engineer – See Article 9
- U. General Manager – The General Manager of the District acting either directly or through authorized agents.
- V. Notice of Award – The written notice by the District to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions listed therein, District will sign and deliver the Agreement.
- W. Notice to Proceed – A written notice given by District to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
- X. Right-of-Way – All land or interest therein which by deed, conveyance, agreement, easement, dedication, usage or process of law is reserved for or dedicated to the use of the general public, within which the District shall have the right to install and maintain public water facilities.
- Y. Specifications – That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
- Z. Subcontractor – An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
- AA. Substantial Completion – The time at which the Work has progressed to the point where, in the opinion of the Engineer, the Work is sufficiently complete, in accordance with the Contract Documents, so that the Work can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
- BB. Successful Bidder – The Bidder submitting a responsive Bid to whom District makes an award.
- CC. Surety – Any firm or corporation executing a surety bond or bonds payable to the District, securing the performance of the Contract either in whole or in part.
- DD. Supplier – A manufacturer, fabricator, supplier, distributor, or vendor having a direct

CONTRACTING REQUIREMENTS

contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.

- EE. Work – The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
- FF. Work Change Directive – A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by District ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.
- GG. Work Day – All days of the calendar minus weekends, District designated holidays, and rain days.

ARTICLE 2 – REFERENCE STANDARDS**2.01 STATE STANDARD SPECIFICATIONS**

- A. Whenever the words "State Standard Specifications" are referred to in the Drawings and Specifications, the reference is to the State of California, Business, Transportation and Housing Agency, Department of Transportation, (Caltrans) Standard Specifications, latest edition. All work shall be done in conformance with applicable provisions of the State Standard Specifications, except as modified in these Specifications. Where the terms "State" or "Engineer" are used in the State Standard Specifications, they shall be considered as meaning the "District" as defined herein. In case of a conflict between these specifications and the State Standard Specifications, these specifications will apply.

2.02 COUNTY SPECIFICATIONS

- A. Whenever the words "County Specifications" are referred to the specifications, the reference is to the County of San Mateo, Department of Public Works, Standard Specifications and other applicable standards promulgated by the County.

ARTICLE 3 – PRELIMINARY MATTERS**3.01 BEFORE STARTING CONSTRUCTION**

- A. Within 10 days after the Notice to Proceed, Contractor shall submit to Engineer for timely review:
1. A preliminary Progress Schedule indicating the times (numbers of days or dates) for

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- starting and completing the various stages of the Work;
2. A preliminary Schedule of Submittals; and
 3. A preliminary Schedule of Values for all of the Work that includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.
 4. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
- B. Before any Work at the Site is started, a conference attended by District, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 3.01-A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records. At this conference District, Contractor, and Engineer each shall designate a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

ARTICLE 4 – CONTRACT DOCUMENTS: INTENT, AMENDING**4.01 REPORTING AND RESOLVING DISCREPANCIES**

- A. Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
- B. If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as specified herein) until an amendment or supplement to the Contract Documents has been issued.
- C. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 1. The provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract

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Documents); or

2. The provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

4.02 AMENDING AND SUPPLEMENTING CONTRACT DOCUMENTS

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized by one or more of the following ways:
 1. A Field Order;
 2. Engineer's approval of a Shop Drawing; or
 3. Engineer's written interpretation or clarification.

**ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS;
HAZARDOUS ENVIRONMENTAL CONDITIONS****5.01 AVAILABILITY OF LANDS**

- A. District shall furnish the Site. District shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. District will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities.
- B. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 SUBSURFACE AND PHYSICAL CONDITIONS

- A. Contractor may rely upon the accuracy of the technical data contained in such report, but such report is not part of the Contract Documents. Except for such reliance on such technical data, Contractor may not rely upon or make any claim against District, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 1. The completeness of such report for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 2. Other data, interpretations, opinions, and information contained in such report; or
 3. Any interpretation of or conclusion drawn by Contractor from any technical data or any such other data, interpretations, opinions, or information.

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5.03 DIFFERING SUBSURFACE OR PHYSICAL CONDITIONS

- A. If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:
1. Is of such a nature as to establish that any technical data on which Contractor is entitled to rely as provided in Paragraph 5.02 is materially inaccurate; or
 2. Is of such a nature as to require a change in the Contract Documents; or
 3. Differs materially from that shown or indicated in the Contract Documents; or
 4. Is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;
 5. Then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency), notify Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.
- B. After receipt of written notice, Engineer will promptly review the pertinent condition, determine the necessity of District's obtaining additional exploration or tests with respect thereto, and advise District in writing with a copy to Contractor of findings and conclusions.
- C. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
1. Such condition must meet any one or more of the categories described in Paragraph 5.03-A; and
 2. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.06 and 11.03.
- D. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
1. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to District with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 2. The existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
 3. Contractor failed to give the written notice as required by Paragraph 5.03-A.
- E. If District and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may

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be made therefor as provided in Paragraph 10.05. However, the District and its officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

5.04 UNDERGROUND FACILITIES

- A. The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to District by the owners of such Underground Facilities, including District.
- B. District and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
- C. The cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - 1. Reviewing and checking all such information and data;
 - 2. Locating all Underground Facilities shown or indicated in the Contract Documents;
 - 3. Coordination of the Work with the owners of such Underground Facilities, including District, during construction; and
 - 4. The safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.
- D. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph G), identify the owner of such Underground Facility and give written notice to that owner and to Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- E. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If District and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, District or Contractor may make a Claim therefor as provided in Paragraph 10.05.

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5.05 HAZARDOUS ENVIRONMENTAL CONDITION AT SITE

- A. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site, which was not shown or indicated in Drawings or Specifications to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- B. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph G); and (iii) notify Engineer (and promptly thereafter confirm such notice in writing). District shall promptly decide whether it is necessary to hire a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, District shall take such actions as are necessary to permit District to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.05-C.
- C. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after District has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If District and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- D. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then District may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If District and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. District may have such deleted portion of the Work performed by District's own forces or others in accordance with Article 8.

5.06 ARCHAEOLOGICAL MATERIAL AT SITE

- A. If Contractor encounters possible buried cultural materials (including potential Native American skeletal remains), Contractor shall immediately stop all Work in connection with such condition and in any area affected thereby and notify Engineer (and promptly thereafter confirm such notice in writing).
- B. The District will then retain a qualified professional archaeologist to (i) review and

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evaluate the find, and (ii) inform the District of the necessary plans for treatment of the find and mitigation of impacts if the finds are found to be significant according to the California Environmental Quality Act (CEQA).

- C. In the event of the exposure of possible Native American skeletal remains, the San Mateo County coroner shall be notified. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission within 24 hours. Native American monitors shall be allowed to observe conditions following any such discovery. If it is determined that an intact archaeological deposit will be further damaged by construction activities, it shall be the responsibility of the District to submit a plan for the evaluation and mitigation of any such resource to the relevant agency and receive approval of that plan before construction can resume in the area of the archeological deposit. Disposition of the Native American human remains shall comply with CEQA Guidelines Section 15064.5(e).
- D. Contractor shall not be required to resume Work in connection with such condition until after District has obtained any required permits/authorizations related thereto and delivered written notice to Contractor. If District and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

ARTICLE 6 – CONTRACTOR’S INSURANCE

- A. The Contractor shall not commence work under the contract until he has obtained all insurance as specified herein; nor shall the Contractor allow any subcontractor to commence work on this project until the same insurance requirements have been complied with by each subcontractor and are approved by the District.
- B. The types of insurance the Contractor shall obtain and maintain for the full period of the contract will be Workmen's Compensation Insurance, Comprehensive General Liability Insurance and Automobile Liability Insurance, as detailed below. Any insurance bearing on adequacy of performance will be maintained after completion of the project for the full guarantee period. The Contractor shall be solely responsible for damage payments up to the amount of the deductible. Nothing contained in these insurance requirements is to be construed as limiting the extent of the Contractor's responsibility for payment of damages resulting from his operations.
 - 1. Worker's Compensation Insurance – The Contractor and all subcontractors shall obtain for the period of the contract full Workmen's Compensation Insurance coverage for all persons whom they employ or may employ in carrying out the work under this contract, with limits not less than one million dollars (\$1,000,000). This insurance will be in strict accordance with the requirements of the most current and applicable State Workmen's Compensation Insurance laws. In case any class of employees engaged in hazardous work under the contract at the site of the project is not protected under the Workmen's Compensation statute, the Contractor shall provide and shall cause

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- each subcontractor to provide adequate insurance for the protection of his employees not otherwise protected. The Contractor shall sign and file with the District the certification required pursuant to Section 1861 of the Labor Code.
2. Comprehensive General Liability – The Contractor and all his subcontractors shall obtain for the period of the contract full Comprehensive General Liability Insurance coverage. This coverage shall provide for both bodily injury and property damage, including coverage for injury, sickness or disease, death, and destruction of property arising directly or indirectly out of or in connection with the performance of work under this contract, including explosion, collapse, underground exposure and flooding, and will provide for a limit of not less than one million dollars (\$1,000,000) for all damages arising out of bodily injury, sickness or disease to, or death of one person in any one occurrence, and an aggregate limit of not less than two million dollars (\$2,000,000). Included in such insurance will be contractual coverage sufficiently broad to encompass requirements set forth in Paragraph 7.13.
 3. Automobile Liability Insurance – The Contractor and all of his subcontractors shall obtain for the period of the contract Automobile Liability Insurance with a combined single limit of \$1,000,000 for bodily injury or death and property damage. This insurance shall cover all vehicles, whether rented or owned, while being used in connection with performance of the work.
- C. Proof of Carriage of Insurance – Before commencing work, the Contractor shall furnish the District a certificate or certificates, evidencing issuance of all insurance policies mentioned above. The Comprehensive General Liability insurance policy shall bear the following endorsements:
1. Endorsement precluding cancellation or reduction in coverage before the expiration of thirty-five (35) days after the District shall have received written notification by registered mail from the insurance carrier.
 2. A standard cross liability endorsement.
 3. An endorsement naming as additional insureds:
 - a. The District, District Board, District Engineer and each of their officers, agents and employees, and
 - b. The State of California Department of public Health, its officers, agents, employees, and servants.
 4. An endorsement that the insurance as provided is primary insurance, and no other insurance available to the above shall be called upon to contribute to a loss.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES**7.01 SUPERVISION AND SUPERINTENDENCE**

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be

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necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of District or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction, which is shown or indicated in and expressly required by the Contract Documents.

- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Engineer except under extraordinary circumstances.

7.02 SERVICES, MATERIALS, AND EQUIPMENT

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of District. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier.

7.03 PROGRESS SCHEDULE ADJUSTMENTS

- A. Contractor shall submit to Engineer for acceptance proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the Specifications applicable thereto.
- B. Proposed adjustments in the Progress Schedule that will change the Contract Times may only be made by a Change Order.

7.04 SUBSTITUTES AND “OR-EQUALS”

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or “or equal” item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
- B. “Or Equal” Items: If in Engineer’s sole discretion an item of material or equipment

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proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an “or equal” item, in which case review and approval of the proposed item may, in Engineer’s sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 7.04-B, a proposed item of material or equipment will be considered functionally equal to an item so named if:

1. In the exercise of reasonable judgment Engineer determines that: (1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics; (2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and (3) it has a proven record of performance and availability of responsive service.
2. Contractor certifies that, if approved and incorporated into the Work: (1) there will be no increase in cost to the District or increase in Contract Times; and (2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

C. Substitute Items:

1. If in Engineer’s sole discretion an item of material or equipment proposed by Contractor does not qualify as an “or-equal” item, it will be considered a proposed substitute item.
2. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
3. Engineer shall decide under the circumstances the requirements for review.
4. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application shall certify that the proposed substitute item will: (1) perform adequately the functions and achieve the results called for by the general design, (2) be similar in substance to that specified, and (3) be suited to the same use as that specified. The application shall also state (1) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor’s achievement of Substantial Completion on time, (2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with District for other work on the Project) to adapt the design to the proposed substitute item, and (3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty. The application shall identify (1) all variations of the proposed substitute item from that specified, and (2) available engineering, sales, maintenance, repair, and replacement services. The application shall contain an itemized estimate of all costs or credits that

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- will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
- D. If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents.
- E. Engineer's Evaluation: Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal". Engineer will advise Contractor in writing of any negative determination.
- F. District may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- G. Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse District for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse District for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with District) resulting from the acceptance of each proposed substitute.
- H. Contractor shall provide all data in support of any proposed substitute or "or equal" at Contractor's expense.

7.05 CONCERNING SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, against whom District may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. Contractor shall be fully responsible to District and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
1. Shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between District or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 2. Shall create any obligation on the part of District or Engineer to pay or to see to the

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payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

- C. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- D. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- E. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- F. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier, which specifically binds the Subcontractor or Supplier to the applicable terms and, conditions of the Contract Documents for the benefit of District and Engineer.

7.06 PATENT FEES AND ROYALTIES

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others.

7.07 PERMITS

- A. Contractor shall obtain and pay for all construction permits and licenses. District shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids.

7.08 LAWS AND REGULATIONS

- B. Contractors and subcontractors shall comply with all applicable federal and state laws, rules and regulations, permits, and all applicable local ordinances, specifically including, but not limited to, environmental, procurement and safety laws, rules, regulations, permits, and ordinances.
- C. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither District nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- D. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages arising out of or relating to such Work.
- E. Changes in Laws or Regulations not known at the time of opening of Bids having an effect

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on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If District and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

7.09 SAFETY AND PROTECTION

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
1. All persons on the Site or who may be affected by the Work;
 2. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. Other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.
- C. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- D. Contractor shall inform District and Engineer of the specific requirements of Contractor's safety program with which District's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of District or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice

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to District and Contractor that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

- G. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.10 SHOP DRAWINGS AND SAMPLES

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information.
- B. Any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. Submittal Procedures:
1. Before submitting each Shop Drawing or Sample, Contractor shall have:
 - a. Reviewed and coordinated it with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. Determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. Determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. Determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
 2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
 3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made

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on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. Engineer's Review:

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample.

E. Resubmittal Procedures: Contractor shall make corrections required by Engineer and shall re-submit, as required, for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

7.11 CONTINUING THE WORK

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with District. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as District and Contractor may otherwise agree in writing.

7.12 CONTRACTOR'S GENERAL WARRANTY AND GUARANTEE

- A. Contractor warrants and guarantees to District that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
1. Abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

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2. Normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. Observations by Engineer;
 2. Recommendation by Engineer or payment by District of any progress or final payment;
 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by District;
 4. Use or occupancy of the Work or any part thereof by District;
 5. Any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
 6. Any inspection, test, or approval by others; or
 7. Any correction of defective Work by District.

7.13 INDEMNIFICATION

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless District and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against District or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

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1. The preparation or approval of, or the failure to prepare or approve Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
2. Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

ARTICLE 8 – OTHER WORK AT THE SITE

- A. District may perform other work related to the Project at the Site with District's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 1. Written notice thereof will be given to Contractor prior to starting any such other work; and
- B. If District and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- C. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and District, if District is performing other work with District's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between District and such utility owners and other contractors.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Part, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION**9.01 DISTRICT'S REPRESENTATIVE**

- A. Engineer will be District's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as District's representative

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during construction are set forth in the Contract Documents.

9.02 VISITS TO SITE

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of District, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for District a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep District informed of the progress of the Work and will endeavor to guard District against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.08. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 AUTHORIZED VARIATIONS IN WORK

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on District and also on Contractor, who shall perform the Work involved promptly. If District or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.04 REJECTING DEFECTIVE WORK

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.05 SHOP DRAWINGS, CHANGE ORDERS, AND PAYMENTS

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- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 7.10.
- B. In connection with Engineer's authority as to Change Orders, see Article 10, Article 11, and Article 12.
- C. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.06 DETERMINATION FOR UNIT PRICE WORK

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon District and Contractor, subject to the provisions of Paragraph 10.05.

9.07 DECISIONS ON REQUIREMENTS OF CONTRACT DOCUMENTS AND ACCEPTABILITY OF WORK

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between District and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will render a written decision on the issue referred with reasonable promptness. If District or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph B.
- C. Engineer's written decision on the issue referred will be final and binding on District and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.07, Engineer will not show partiality to District or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.08 LIMITATIONS ON ENGINEER'S AUTHORITY AND RESPONSIBILITIES

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

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- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with the Contract Documents.
- E. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS**10.01 AUTHORIZED CHANGES IN THE WORK**

- A. Without invalidating the Contract and without notice to any surety, District may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved, which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If District and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 UNAUTHORIZED CHANGES IN THE WORK

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 4.02, except in the case of an emergency as provided in Paragraph G or in the case of uncovering Work as provided in Paragraph D.

10.03 EXECUTION OF CHANGE ORDERS

- A. District and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

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1. Changes in the Work which are: (i) ordered by District pursuant to Paragraph A, (ii) required because of acceptance of defective Work under Paragraph A or District's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 2. Changes in the Contract Price or Contract Times, which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
- B. Changes in the Contract Price or Contract Times, which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph A.

10.04 NOTIFICATION TO SURETY

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 CLAIMS

- A. Engineer's Decision Required: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by District or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. Notice: Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).
- C. Engineer's Action: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take

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one of the following actions in writing:

1. Deny the Claim in whole or in part;
 2. Approve the Claim; or
 3. Notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05-3 or denial pursuant to Paragraphs 10.05-3 or 10.05-D will be final and binding upon District and Contractor, unless District or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**11.01 COST OF THE WORK**

- A. Costs Included: The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01-B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by District, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01-B, and shall include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by District and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by District.
 2. Cost of all materials and equipment furnished and incorporated in the Work, including

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costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless District deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to District. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to District, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by District, Contractor shall obtain competitive bids from subcontractors acceptable to District and Contractor and shall deliver such bids to District, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by District with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work, provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor,

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or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of District. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as long-distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.
- B. Costs Excluded: The term Cost of the Work shall not include any of the following items:
- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01-1 or specifically covered by Paragraph 11.01-4, all of which are to be considered administrative costs covered by the Contractor's fee.
 - 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 - 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 - 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 - 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01-A.
- C. Contractor's Fee: When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph C.
- D. Documentation: Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01-A and 11.01-B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting

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data.

11.02 ALLOWANCES

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to District and Engineer.
- B. Cash Allowances: Contractor agrees that:
 - 1. The cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 UNIT PRICE WORK

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.06.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. District or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
 - 1. The quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - 2. There is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or District believes that District is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES**12.01 CHANGE OF CONTRACT PRICE**

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
1. Where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01-2); or
 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01-B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01-C).
- C. Contractor's Fee: The Contractor's fee for overhead and profit shall be determined as follows:
1. A mutually acceptable fixed fee; or
 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 1 and 2, the Contractor's fee shall be 15 percent;
 - b. For costs incurred under Paragraph 3, the Contractor's fee shall be five percent;
 - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01-C.2-a and 12.01-C.2-b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 1 and 2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
 - d. No fee shall be payable on the basis of costs itemized under Paragraphs 4, 5, and B;
 - e. The amount of credit to be allowed by Contractor to District for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. When both additions and credits are involved in any one change, the adjustment in

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Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01-C.2-a through 12.01-C.2-e, inclusive.

12.02 CHANGE OF CONTRACT TIMES

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 DELAYS

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by District, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If District, Engineer, or other contractors or utility owners performing other work for District as contemplated by Article 7, or anyone for whom District is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of District, or other causes not the fault of and beyond control of District and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph C.
- D. District, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a

Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 NOTICE OF DEFECTS

- A. Prompt notice of all defective Work of which District or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 ACCESS TO WORK

- A. District, Engineer, their consultants and other representatives and personnel of District, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 TESTS AND INSPECTIONS

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. District shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
1. For inspections, tests, or approvals covered by Paragraphs 13.03-C and 13.03-D below;
 2. That costs incurred in connection with tests or inspections conducted pursuant to Paragraph B shall be paid as provided in Paragraph C; and
 3. As otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for District's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to District and Engineer.

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- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03-E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 UNCOVERING WORK

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and District shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, District may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 DISTRICT MAY STOP THE WORK

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, District may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of District to stop the Work shall not give rise to any duty on the part of District to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 CORRECTION OR REMOVAL OF DEFECTIVE WORK

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work,

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whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair District's special warranty and guarantee, if any, on said Work.

13.07 CORRECTION PERIOD

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents), any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by District or permitted by Laws and Regulations is found to be defective, Contractor shall promptly, without cost to District and in accordance with District's written instructions:
1. Repair such defective land or areas; or
 2. Correct such defective Work; or
 3. If the defective Work has been rejected by District, remove it from the Project and replace it with Work that is not defective, and
 4. Satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of District's written instructions, or in an emergency where delay would cause serious risk of loss or damage, District may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation

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or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 ACCEPTANCE OF DEFECTIVE WORK

- A. If, instead of requiring correction or removal and replacement of defective Work, District (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, District may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to District's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and District shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, District may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, Contractor will pay an appropriate amount to District.

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13.09 DISTRICT MAY CORRECT DEFECTIVE WORK

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, District may, seven days after written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, District shall proceed expeditiously. In connection with such corrective or remedial action, District may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which District has paid Contractor but which are stored elsewhere. Contractor shall allow District, District's representatives, agents and employees, District's other contractors, and Engineer and Engineer's consultants access to the Site to enable District to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by District in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and District shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, District may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by District of District's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION**14.01 SCHEDULE OF VALUES**

- A. The Schedule of Values will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 PROGRESS PAYMENTS

- A. Applications for Payments:
1. At least 20 days before the date established in the Agreement for each progress

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payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that District has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect District's interest therein, all of which must be satisfactory to District.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. Review of Applications:

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to District or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to District, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. The Work has progressed to the point indicated;
 - b. The quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.06, and any other qualifications stated in the recommendation); and
 - c. The conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

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- a. Inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
 - b. There may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by District or entitle District to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. To supervise, direct, or control the Work, or
 - b. For the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. For Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. To make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. To determine that title to any of the Work, materials, or equipment has passed to District free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to District stated in Paragraph 14.02-B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect District from loss because:
- a. The Work is defective, or completed Work has been damaged, requiring correction or replacement;
 - b. The Contract Price has been reduced by Change Orders;
 - c. District has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
 - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph A.
- C. Payment becomes due ten days after presentation of the Application for Payment to District with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02-D) become due, and when due will be paid by District to Contractor.
- D. Reduction in Payment:

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1. District may refuse to make payment of the full amount recommended by Engineer because:
 - a. Claims have been made against District on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to District to secure the satisfaction and discharge of such Liens;
 - c. There are other items entitling District to a set off against the amount recommended; or
 - d. District has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02-a through 14.02-c or Paragraph A.
2. If District refuses to make payment of the full amount recommended by Engineer, District will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. District shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by District and Contractor, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that District's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02-C and subject to interest as provided in the Agreement.

14.03 CONTRACTOR'S WARRANTY OF TITLE

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to District no later than the time of payment free and clear of all Liens.

14.04 SUBSTANTIAL COMPLETION

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify District and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, District, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to District a tentative certificate of Substantial Completion, which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. District shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer

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concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to District, notify Contractor in writing, stating the reasons therefor. If, after consideration of District's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to District and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from District.

- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to District and Contractor a written recommendation as to division of responsibilities pending final payment between District and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless District and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on District and Contractor until final payment.
- E. District shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 PARTIAL UTILIZATION

- A. Prior to Substantial Completion of all the Work, District may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which District, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by District for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
- B. District at any time may request Contractor in writing to permit District to use or occupy any such part of the Work which District believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, District, and Engineer will follow the procedures of Paragraph A through D for that part of the Work.
- C. Contractor at any time may notify District and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
- D. Within a reasonable time after either such request, District, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify District and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the

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Work and the division of responsibility in respect thereof and access thereto.

14.06 FINAL INSPECTION

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, the Engineer will promptly make a final inspection with the District, the Representative of the State of California Department of Public Health and the Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 FINAL PAYMENT

A. Application for Payment:

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, record documents, and other documents, Contractor may make application for final payment following the procedure for progress payments.
 2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. All documentation called for in the Contract Documents;
 - b. Consent of the surety, if any, to final payment;
 - c. A list of all Claims against District that Contractor believes are unsettled; and
 - d. Complete and legally effective releases or waivers (satisfactory to District) of all Lien rights arising out of or Liens filed in connection with the Work.
 3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07-A.2 and as approved by District, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which District might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to District to indemnify District against any Lien.
- B. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and

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present the Application for Payment to District for payment. At the same time Engineer will also give written notice to District and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

- A. Payment becomes due thirty days after the presentation to District of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum District is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by District to Contractor.

14.08 FINAL COMPLETION DELAYED

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, District shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by District for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 WAIVER OF CLAIMS

- A. The making and acceptance of final payment will constitute:
1. A waiver of all Claims by District against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
 2. A waiver of all Claims by Contractor against District other than those previously made in accordance with the requirements herein and expressly acknowledged by District in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION**15.01 DISTRICT MAY SUSPEND WORK**

- A. At any time and without cause, District may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer, which will fix the date on which Work will be resumed. Contractor shall resume

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the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 DISTRICT MAY TERMINATE FOR CAUSE

- A. The occurrence of any one or more of the following events will justify termination for cause:
1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 3.01 as adjusted from time to time pursuant to Paragraph 7.03);
 2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 3. Contractor's repeated disregard of the authority of Engineer; or
 4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02-A occur, District may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
1. Exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
 2. Incorporate in the Work all materials and equipment stored at the Site or for which District has paid Contractor but which are stored elsewhere; and
 3. Complete the Work as District may deem expedient.
- C. If District proceeds as provided in Paragraph 15.02-B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by District arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to District. Such claims, costs, losses, and damages incurred by District will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, District shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02-B and 15.02-C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more

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than 30 days of receipt of said notice.

- E. Where Contractor's services have been so terminated by District, the termination will not affect any rights or remedies of District against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by District will not release Contractor from liability.
- F. The termination procedures of the performance bond shall supersede the provisions of Paragraphs 15.02-B and 15.02-C.

15.03 DISTRICT MAY TERMINATE FOR CONVENIENCE

- A. Upon seven days written notice to Contractor and Engineer, District may, without cause and without prejudice to any other right or remedy of District, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. Completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. Expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 - 3. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
 - 4. Reasonable expenses directly attributable to termination.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 CONTRACTOR MAY STOP WORK OR TERMINATE

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by District or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) District fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to District and Engineer, and provided District or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from District payment on the same terms as provided in Paragraph 15.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or District has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to District and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest

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thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

- A. Either District or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph E.
- B. District and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the Claim is not resolved by mediation, Engineer's action under Paragraph C or a denial pursuant to Paragraphs 3 or D shall become final and binding 30 days after termination of the mediation unless, within that time period, District or Contractor:
 - 1. Elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or
 - 2. Agrees with the other party to submit the Claim to another dispute resolution process; or
 - 3. Gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

END OF SECTION 00 72 00

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DIVISION 1: GENERAL REQUIREMENTS

01 11 00 SUMMARY OF WORK**ARTICLE 1 – GENERAL****1.01 CONTRACT DESCRIPTION**

- A. Project Work consists of furnishing all labor, materials, equipment, and incidentals to perform all work required to construct facilities that comprise The WAGNER WELLHEAD REHABILITATION AND WATER MAIN REPLACEMENT PROJECT as described in the Contract Documents. The Project is located in an unincorporated part of San Mateo County, in Montara, California.
- B. The Project consists of:
1. Demolishing and disposing existing fences, wood shed, wellhead piping and its appurtenances, and 4-inch water main as specified on Drawing D01 and D02.
 2. Rehabilitating existing Wagner Well.
 3. Modifying existing fencing to include new rolling gate and posts and relocation of pedestrian gate.
 4. Installing wellhead piping and associated mechanical appurtenances. MWSD's electrical contractor will perform all electrical and instrumentation work.
 5. Install new 6-inch PVC C900 water main.
 6. Connecting new wellhead piping to new 6-inch water main.

1.02 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Construction operations shall be coordinated with the landowner and Montara Water and Sanitary District.
- B. Construction operations shall be limited to areas noted on the Drawings and as allowed by permits and easements.
- C. Construction site, storage areas, and disposal sites are the responsibility of the Contractor. A gated storage area is provided near the District office for the contractor's use.
- D. Contractor shall provide vehicular access to operating facilities at all times for Operations Staff.
- E. Contractor shall provide access within streets at all times for residential access.

DIVISION 1: GENERAL REQUIREMENTS

- F. Project construction activities are restricted to hours between 7:00 am and 5:00 pm Monday through Friday.

1.03 WORK SEQUENCE AND CONSTRAINTS**A. General Requirements**

1. The Contractor is to conduct work such that the District's ability to meet its customer demands for drinking water shall not be impaired or reduced in terms of the required quantity and quality of drinking water.
2. The Contractor is to employ personnel knowledgeable and experienced in water infrastructure construction.
3. It is the Contractor's responsibility for scheduling and coordinating the Work of subcontractors, suppliers, and other individuals or entities performing or furnishing any of Contractor's Work.
4. 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 facilities. Modifications that affect or may affect the operation of the facilities shall not be made without first obtaining written permission from the Engineer.
5. The Contractor shall note that not all valves and gates that may be used to isolate lines will completely seal. The Contractor shall allow for leakage in planning its work and may, with the District's concurrence, test certain valves and gates before work involving isolation is begun.
6. Shutdown, isolation, and lock out and tag out (LOTO) of existing facilities by closing existing valves/gates and operating electrical control panels will be performed by District staff.
7. 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.
8. 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 District to incur extra cost, said extra cost will be assessed against the Contractor.
9. The Contractor shall note that only certain 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.

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B. General Construction Sequence

1. LOTO Wagner Well (performed by District).
2. Demolish existing WELLHEAD and discharge piping system, fence, and wood shed and dispose off-site
3. Pothole to determine connection location, diameter and material of existing water main.
4. Install new 6-inch PVC C900 pipe from existing water main connection point near the Drake Well site to Wagner Well site as shown on the plans.
5. Rehabilitate existing Wagner Well video inspect, clean and flush, post cleaning video.
6. Install new wellhead piping and appurtenances.
7. Pressure test new piping.
8. Paint new above ground piping and appurtenances.
9. Connect new piping to existing water system.
10. Modify existing fence to include new rolling gate, pedestrian gate and posts
11. Power and controls upgrade by others (not included in this contract)
12. Vendor startup and MWSD staff training
13. Demobilize

ARTICLE 2 – PRODUCTS – NOT USED**ARTICLE 3 – EXECUTION – NOT USED**

END OF SECTION 01 11 00

DIVISION 1: GENERAL REQUIREMENTS

01 20 00 PRICE AND PAYMENT PROCESS**ARTICLE 1 – GENERAL****1.01 SUMMARY**

- A. Payment for the various items of the Bid Schedule, as further specified herein, shall be the sole compensation to be received by the Contractor for furnishing all tools, equipment, supplies, manufactured articles, professional services, labor, operations, and incidentals appurtenant to the items of work being described as required to complete the Work, and to result in a complete and operating product, in accordance with the requirements of the Contract Documents.
- B. Said compensation shall also include all costs of compliance with the regulations of public agencies having jurisdiction, including, but not limited to:
1. The safety and health requirements of the California Department of Industrial Relations and the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA)
 2. The California State Department of Public Health, and The County of San Mateo. The contractor is responsible for coordinating inspections as necessary with the San Mateo Department of Public Works (Contact person: Ryan Rasmussen, Construction Inspector II, Phone: 650-599-7296, Email: rasmussen@smcgov.org).
- C. No separate payment will be made for any item that is not specifically set forth in the Bid Schedule, and all prices placed therein by the Contractor shall include all costs for the various items of the Work.

1.02 MEASUREMENT

- A. Measurement by Volume: Measured by cubic dimension using mean length, width, and height or thickness.
1. Measurement by Area: Measured by square dimensions using mean length and width, or radius.
 2. Linear quantities of pipe shall be considered as being the true length measured along the longitudinal axis of the pipe.
- B. The Engineer will make measurements and compute quantities accordingly. The Contractor shall assist in taking of measurements.

DIVISION 1: GENERAL REQUIREMENTS

- C. Quantities and measurements indicated in the Bid Schedule are for contract bid purposes. Quantities and measurements supplied or placed in the work shall determine payment.
- D. When actual work requires more or fewer quantities than those indicated, the Contractor shall provide the required quantities at unit prices contracted.
- E. When actual work requires 20 percent or greater change in quantity than those quantities indicated, District or Contractor may claim for Contract Price adjustment.
- F. Final payment for work governed by unit prices will be made on the basis of actual measurements and quantities accepted by the Engineer multiplied by the unit price for Work incorporated in or made necessary by the Work.
- G. Lump Sum Breakdown Submittals
1. Immediately after award of the Contract and prior to approval of the initial payment request, the Contractor shall submit to the Engineer a schedule of prices providing a cost breakdown for lump sum bid items.
 2. The list shall itemize all major elements of Work that make up each of the lump sum bid items and shall be used for determining progress pay estimates.
 3. The Contractor shall provide amounts for each element, pro-rating general costs, such as mobilization, setup, temporary facilities and controls, and overhead and profit for each element.
 4. The distribution breakdown that the Contractor indicates for any lump sum bid item may be revised as deemed necessary by the Engineer if such items appear imbalanced, unless the Contractor can substantiate the costs. Only elements of Work that are of value to the District shall be included in the list.
- H. The Bids for the Work are intended to establish a total cost for the work in its entirety, such that the Bid constitutes a firm, fixed price for the Work in total. If the Contractor feels that the cost for the Work has not been established by specific items in the Bid Schedule, he or she shall include the cost for such work in some related bid item so that his or her bid for the Project reflects his or her total cost for completing the Work in its entirety.

1.03 PAYMENT**A. Progress Payment Requirements**

1. Payment for Work performed shall be in accordance with the Contractor's Construction Schedule described in Section 01 33 00. The Engineer will verify

DIVISION 1: GENERAL REQUIREMENTS

measurements and quantities. Each activity necessary to manage and complete the Work is to be identified on the Bid Schedule. Each activity will be assigned its respective value, a portion of the Contract Price, as shown on the Bid Schedule.

2. Payment for all lump sum costs and services shall be based on the earned value of Work accomplished during the reporting activity. Earned value is determined by the completion percentage of each activity applied to the total value of the activity.
3. Earned value is derived from the current status of the Contractor's construction schedule as determined by the monthly schedule status submittals. The Engineer must review and approve each schedule status submittal before approving the Contractor's application for payment.
4. The retention specified in the Agreement shall apply to all payments to the Contractor, including permits and mobilization.

B. Application for Payment

1. Application for Payment (Progress Pay Estimate Request) shall be on a form pre-approved by the Engineer, and shall be certified by signature of an authorized officer of the Contractor. Application shall be made monthly, and is to be based upon Work completed through the last day of the previous month or through the date established by the Engineer. Use the approved Schedule of Values (submitted for review through the pre-construction meeting) for bid items for which the basis of payment is a Lump Sum amount.
2. The Application for Payment shall contain all necessary references and attachments that substantiate the invoice for progress payment, (for example, materials on hand, labor reports, progress schedule data, and summary of earned values, all as applicable to the Work.) The Application for Payment must be accompanied by an updated progress schedule and status data.
3. With each Application for Payment, the Contractor shall certify that disbursements to subcontractors, suppliers, and employees have been made from previous payments and that accounts payable are current to date. As required by the Engineer, include with each Application for Payment:
 - a. Substantiating data justifying dollar amount in question;
 - b. Partial Release of Lien from major sub-contractors and vendors;
 - c. Affidavits attesting to off-site storage of products;

DIVISION 1: GENERAL REQUIREMENTS

d. Certified payroll for the Contractor's employees.

C. Defect Assessment

1. Replace the work, or portions of the work, not conforming to specified requirements.
2. If, in the opinion of the Engineer, it is not practical to remove and replace the defective portion of the work, the Engineer will direct appropriate remedy, or adjust payment.
3. The authority of the Engineer to assess defects and identify payment adjustments is final.

1.04 BID ITEMS

A. Bid Item 1 – Mobilization: Payment shall be on the basis of the fixed lump sum indicated in the bid schedule, and shall be considered as full compensation for furnishing all labor, equipment, and materials necessary to:

1. Mobilize/demobilize;
2. Supervise work on site;
3. Coordinate with all parties (the Authority, the Engineer, the Subcontractors, etc.);
4. Attend periodic project meetings;
5. Prepare submittals and obtain necessary permits;
6. Design and implement all needed temporary controls and facilities;
7. Perform detailed construction surveys; and
8. Comply with applicable project reporting, invoicing, progress payment processes.

B. Bid Item 2 – Demolition of existing fences, wood shed, wellhead piping and its appurtenances, and 4-inch water main wellhead piping: Payment shall be made on the basis of a fixed lump sum bid price and shall be considered as full compensation for furnishing all labor, equipment, and materials necessary to demolish existing wellhead piping, in compliance with all codes and requirements.

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- C. Bid Item 3 – Rehabilitation of existing Wagner Well: Payment shall be made on the basis of a fixed lump sum bid price and shall be considered as full compensation for furnishing all labor, equipment, and materials necessary for rehabilitating the existing well including, but not limited to:
1. Pre-treatment video
 2. Chemical treatment
 3. Post-treatment video
 4. Equipment Rentals
 5. Cleanup
 6. Acceptance by MWSD.
- D. Bid Item 4 – Procurement and installation of wellhead piping and appurtenances, and site improvements: Payment shall be made on the basis of a fixed lump sum bid price and shall be considered as full compensation for furnishing all labor, equipment, and materials necessary to complete the work as shown on the Contract Drawings and specified herein.
1. Install above ground piping and appurtenances
 2. Pothole existing water main
 3. Install new underground piping by open trench excavation and proper disposal of trench spoils
 4. Connect new underground piping to existing water main and new above ground piping
 5. Subgrade installation and backfill
 6. Disinfect and pressure test all above- and underground piping
 7. Upgrade Wagner Well perimeter fence as shown on the drawings
- E. Bid Item 5 – Demobilization and Contract Closeout: Payment shall be made on the basis of a fixed lump sum bid price and shall be considered as full compensation for furnishing all labor, tools, equipment, materials and all other incidentals associated with the demobilization and contract closeout requirements specified herein. Contract close out include submission of as built drawing to the Engineer and punch list completion.

DIVISION 1: GENERAL REQUIREMENTS

ARTICLE 2 – PRODUCTS – NOT USED

ARTICLE 3 – EXECUTION– NOT USED

END OF SECTION 01 20 00

DIVISION 1: GENERAL REQUIREMENTS

01 33 00 SUBMITTAL PROCEDURES**ARTICLE 1 – GENERAL****1.01 SUBMITTAL PROCEDURES**

- A. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.
- B. Identify Project, Contractor, subcontractor, and supplier; pertinent drawing and detail number, and specification section number appropriate to submittal.
- C. Contractor shall sign on initial submittal form, certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
- D. Schedule submittals to expedite Project, and deliver to Engineer. Coordinate submission of related items.
- E. For each submittal for review, allow 10 working days excluding delivery time to and from Engineer.
- F. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of completed work.
- G. When revised for resubmission, identify changes made since previous submission.

1.02 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedules within 15 days after date of Notice of Award. After review, resubmit required revised data within 10 days.
- B. Submit revised Progress Schedules with each Application for Payment.
- C. Submit horizontal bar chart (Gantt Chart) with separate line for each major portion of Work or operation, identifying first workday of each week.
- D. Show complete sequence of construction by activity, identifying work of separate stages and other logically grouped activities. Indicate early and late start, early and late finish, float dates, and duration.
- E. Indicate estimated percentage of completion for each item of Work at each revised Progress Schedule submission.

DIVISION 1: GENERAL REQUIREMENTS

- F. Submit separate schedule of submittal dates for Shop Drawings, product data, and samples, and dates reviewed submittals will be required from Engineer.
- G. Indicate decision dates for selection of finishes.
- H. Revisions to Schedules:
 - 1. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
 - 2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
 - 3. Prepare narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect including effect of changes on schedules of separate contractors.

1.03 CONSTRUCTION MANAGEMENT PLAN

- A. Submit Construction Management Plan within 10 days after date of Notice to Proceed. After review, resubmit required revised data within 10 days.
- B. Prepare a short narrative report of the plan that will include, but is not limited to the identification of the following:
 - 1. Project Description and Disturbance
 - 2. Project Construction Schedule
 - 3. Hours of Construction
 - 4. Construction Personnel and Anticipated Construction Equipment
 - 5. Safety and Security
 - 6. Communication Plan
 - 7. Temporary Construction Management Field Office and Parking
 - 8. Temporary Utilities and Sanitary Facilities
 - 9. Temporary Fences and Barricades
 - 10. Temporary Project Signage
 - 11. Temporary wildlife, trees and plants protection

DIVISION 1: GENERAL REQUIREMENTS

- 12. Traffic Control
- 13. Stormwater Pollution Control; Erosion and Sediment Control
- 14. Air Quality Control and Fugitive Dust Control
- 15. Noise Control, Vibration Control and Monitoring
- 16. Waste Management and Disposal
- 17. Enforcement

ARTICLE 2 – PRODUCTS – NOT USED

ARTICLE 3 – EXECUTION – NOT USED

END OF SECTION 01 33 00

DIVISION 1: GENERAL REQUIREMENTS

01 40 00 QUALITY REQUIREMENTS**ARTICLE 1 – GENERAL****1.01 QUALITY CONTROL AND CONTROL OF INSTALLATION**

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. When manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where codes, specified requirements, or tolerances that are more stringent indicate higher standards or workmanship that is more precise.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify field measurements are as indicated on Shop Drawings or as instructed by manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.02 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. When manufacturers' tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.03 REFERENCES

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard, except when requirements that are more rigid are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on date of Contract Documents, except where specific date is established by code.

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- C. Obtain copies of standards where required by product specification sections.
- D. When specified reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
- E. The contractual relationships, duties, and responsibilities of parties in Contract and those of Engineer shall not be altered from Contract Documents by mention or inference otherwise in reference documents.

1.04 TESTING AND INSPECTION SERVICES

- A. The Contractor will pay for all testing and laboratory services for all Work, unless specifically stated otherwise in these Specifications.
- B. Prior to start of Work, submit testing laboratory name, contact information, and names of full-time registered Engineer or another certified specialist and responsible officer.
- C. The independent firm will perform tests, inspections, and other services specified in individual specification sections and as required by Engineer.
 - 1. Laboratory: Authorized to operate in State of California.
 - 2. Laboratory Staff: Maintain full time registered Engineer or other certified specialist on staff to review services.
 - 3. Testing Equipment: Calibrated at required intervals by appropriate oversight agency or certified calibration service provider.
- D. Testing, inspections and source quality control may occur on or off project site.
- E. Reports will be submitted by independent firm to Contractor who will then forward them to Engineer, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents. Submit final report indicating correction of Work previously reported as noncompliant.
- F. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
 - 1. Notify Engineer and independent firm 48 hours prior to expected time for operations requiring services.
 - 2. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.

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- G. Testing and employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- H. The same independent firm shall perform re-testing or re-inspection required because of non-conformance to specified requirements. Payment for re-testing or re-inspection will be Contractor's responsibility.
- I. Limits on Testing Authority:
1. Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents
 2. Laboratory may not approve or accept any portion of the Work
 3. Laboratory may not assume duties of Contractor
 4. Agency or laboratory has no authority to stop the Work

ARTICLE 2 – PRODUCTS – NOT USED**ARTICLE 3 – EXECUTION****3.01 EXAMINATION**

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new work means acceptance by the Contractor, of existing conditions.
- B. Verify existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.

3.02 PREPARATION

- A. Clean surfaces prior to applying next material or substance.
- B. Seal cracks or openings of surfaces prior to applying next material or substance.
- C. Apply manufacturer required or recommended surface primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

END OF SECTION 01 40 00

DIVISION 1: GENERAL REQUIREMENTS

01 50 00 TEMPORARY FACILITIES AND CONTROLS**ARTICLE 1 – GENERAL****1.01 DESCRIPTION**

- A. This section covers the work necessary to move in personnel and equipment, set up offices, and related facilities necessary to prepare the work area for construction.
- B. Use all means necessary to maintain temporary facilities and controls in proper and safe condition throughout progress of the Work.

ARTICLE 2 – PRODUCTS**2.01 STAGING AREAS**

- A. Contractor shall obtain permits from San Mateo County prior to using areas located in public right-of-way.
- B. Materials shall be so stored as to insure the preservation of their quality and fitness for the work.
- C. Contractor shall conform to San Mateo County construction best management practices (BMPs) to prevent runoff and illegal discharge of sediments associated with material stockpiling.
- D. As shown on the contract drawings a gated staging area near the MWSD offices is made available for the contractor on this project. This area is to be restored to its original or better condition upon completion of the project.

2.02 FENCES AND BARRICADES

- A. Provide temporary barricades and fencing as necessary to:
 - 1. Limit the area of ground to be disturbed. The area should be delineated before grading begins.
 - 2. Prevent unauthorized entry to construction areas.
 - 3. Protect neighboring properties from construction-related damage. Coordinate installation and removal of these facilities with individual residents who are affected by construction activities.
- B. All temporary fencing and barricades shall be removed or relocated after completion of project work at individual sites, or as directed by the Engineer.

DIVISION 1: GENERAL REQUIREMENTS

2.03 TEMPORARY PROJECT SIGNAGE

- A. Prior to initiating any work on site, provide two identical project identification signs not less than 36 by 48 inches in size. Maintain signs throughout construction. Upon completion of the project, remove signs from the site.
- B. Signs shall be waterproofed, caulked for weather protection, and have a transparent cover.
- C. Signs shall be located in conspicuous places.
- D. Signs shall state:
 - 1. The project name, the District's name, the Engineer's name, the Contractor's name, the projected date of completion
 - 2. The allowed days and hours for construction
 - 3. The name and telephone number of a disturbance coordinator

ARTICLE 3 – EXECUTION**3.01 GENERAL**

- A. Maintain all temporary facilities and controls as long as needed for the safe and proper progress and completion of the Work. Remove all such temporary facilities and controls as progress of the Work permits.

3.02 MOBILIZATION/DEMobilIZATION

- A. Mobilization/demobilization consists of preparatory and final work and operations, including but not limited to: those necessary for the movement of personnel, equipment, supplies, and incidentals to and from the project site; the establishment of temporary facilities necessary for work on the project; premiums on bond and insurance for the project; other work and operations that the Contractor must perform; and costs incurred before beginning work on the project and after completion of the project, until final acceptance by the District.
- B. Before final acceptance of the Work on the project, all temporary connections and piping installed by the Contractor shall be entirely removed, and all affected improvements shall be restored to their original condition, or better, to the satisfaction of the District.

3.03 SAFETY REQUIREMENTS

DIVISION 1: GENERAL REQUIREMENTS

- A. The Contractor shall prepare and provide to the Engineer a site-specific Health and Safety Plan to minimize the exposure of workers and the public to hazards during all phases of project construction. The Contractor shall be solely responsible for safety on site at all times during construction. Should the Contractor appear to be neglectful or negligent in furnishing warning and protective measures, the Engineer may direct attention to the existence of a hazard, and may order the Contractor to improve his facilities or methods, and the Contractor shall promptly comply with such orders, and the necessary warning and protective measures shall be furnished and installed by the Contractor at his own expense without cost to the District. Even then, the Contractor shall not be relieved from responsibility for securing the necessary degree of safety, nor shall his obligation to furnish and pay for appropriate plant, equipment and methods be abrogated.
- B. A copy of the Health and Safety Plan shall be available on site at all times during all phases of project construction.
- C. All site workers will be required to attend a mandatory safety meeting to overview the Health and Safety Plan before commencing work.
- D. All excavations and corresponding safety shall be in accordance Section 1541.1 (Requirements for Protective Systems) of the California Code of Regulations (CCR). Trench excavations over five feet require the Contractor to designate a competent person responsible for trench safety. Prior to excavation, the Contractor shall submit to the District the name of the competent person for trench safety. This person shall be responsible for workers entering or working within these trenches, and shall provide upon request, the shoring manufacturer's instructions for use including required spacing and supports, or if not available, California State tables which indicate the minimum spacing and support required per trench depth. The Contractor shall meet these spacing and support requirements, or the Engineer may shut down the job at the Contractor's sole expense.
- E. The measures incorporated into the Health and Safety Plan and implemented during construction shall include the following:
1. Construction vehicles shall be equipped with appropriate fire combatant equipment at all times.
 2. Smoking shall not be allowed outside of designated areas at any time.
 3. No equipment shall be fueled, maintained, or left to idle within 50 feet of dry grass or potentially flammable vegetated areas at any time.
 4. During operation of sparking equipment, all appropriate precautions shall be instituted to ensure that sparks do not reach nearby vegetation. Separate

DIVISION 1: GENERAL REQUIREMENTS

- personnel equipped with fire combatant equipment shall oversee spark-producing operations at all times.
- F. The Contractor shall at his or her own expense furnish, install and maintain suitable signs, lights, barricades, fences, and other protective devices as may be necessary or as may be directed by the Engineer to ensure the safety of the public and those connected with the work.
- G. The Contractor shall be solely responsible for maintaining the reasonable safety precautions and facilities, and failure of the Engineer to so notify the Contractor shall not relieve the Contractor from this responsibility.
- H. Whenever the Contractor's operations create a potentially hazardous condition, the Contractor shall furnish flaggers equipped with proper clothing and flagging devices.
- I. All signs, barricades, lights, flags, and other warning and safety devices shall meet the requirements of the "Traffic Controls for Construction and Maintenance Work Zones" latest edition, issued by Caltrans.
- J. Access for police and fire shall be maintained at all times. Notify the fire department, and police department before closing any street or portion thereof. No closing shall be made without the Engineer's approval. Notify said departments when the streets are again passable for emergency vehicles. Do not block emergency vehicle access to any area in excess of 300 feet unless the Contractor obtains special written permission from the chief of the fire department. Such permission shall be in writing and shall be delivered to the District prior to blocking access.

3.04 TEMPORARY SURVEY CONTROL

- A. The Contractor or designated subcontractor shall provide all construction surveying, staking or marks required to layout the project site. The individual in charge shall be licensed and registered by the State of California.
- B. Contractor shall be solely responsible for setting control points for establishing horizontal and vertical survey control on the project and laying out the work from the control points.
- C. The Contractor shall preserve construction controls for the duration of construction. If stakeout control is lost or disturbed, and in the judgment of the Engineer needs to be replaced, such replacement shall be at the expense of the Contractor. Contractor will not be allowed extension of time or damages caused by loss of temporary construction staking.

DIVISION 1: GENERAL REQUIREMENTS

- D. The Contractor shall furnish all materials necessary for accurately transferring lines and grades to the bottom of trenches or excavations for the construction of pipelines and structures.
- E. The Contractor's Surveyor shall have completed survey cut-sheets available at all times, and shall provide copies of cut sheets to the Engineer immediately after they are requested.

3.05 CONTRACTOR'S TEMPORARY USE OF FACILITIES

- A. Wherever necessary or required for the convenience of the public or individual residents at street or highway crossings, private driveways, or elsewhere, the Contractor shall provide suitable temporary bridges or steel plates over unfilled excavations. All such bridges or steel plates shall be maintained in service until access is provided across the backfilled excavation. Temporary bridges or steel plates for street and highway crossing shall conform to the requirements of the authority having jurisdiction in each case, and the Contractor shall adopt designs furnished by said authority for such bridges or steel plates, or shall submit designs to said authority for approval, as may be required.
- B. In general, nothing herein shall be construed to entitle the Contractor to the exclusive use of any public or private street, alleyway, or parking area during the performance of the Work. The Contractor shall conduct operations so as not to interfere unnecessarily with the authorized work of utility companies or other agencies in such street, alleyways, or paved areas. No Street shall be closed to the public without first obtaining permission of the District and San Mateo County DPW.
- C. Where excavation is being performed temporary provisions shall be made by the Contractor to ensure the proper functioning of all gutters, sewer, and storm drain inlets, and other drainage facilities.

3.06 TRAFFIC CONTROL

- A. For the protection of traffic in public or private streets and ways, the Contractor shall provide, place, and maintain all necessary barricades, traffic cones, warning signs, lights, and other safety devices in accordance with the requirements of the "Traffic Controls for Construction and Maintenance Work Zones" latest edition by Caltrans. The Contractor shall take all necessary precautions for the protection of the Work and the safety of the public. All barricades and obstructions shall be illuminated at night, and all lights shall be kept burning from sunset until sunrise. The Contractor shall station such guards or flaggers as required and shall conform to such special safety regulations relating to traffic control as may be required by the public authorities within their respective jurisdictions. The Contractor shall

DIVISION 1: GENERAL REQUIREMENTS

patrol the traffic-control area and repair, reset, or replace all disturbed signs and traffic-control devices immediately; and shall remove or cover all signs that are not applicable to the existing conditions. All signs, signals, and barricades shall conform to the requirements of Cal-OSHA and Subpart G, Part 192, of the OSHA Safety and Health Standards for Construction.

B. Traffic Control Plan

The Contractor shall submit a traffic control plan complying with these Specifications to the Engineer for review and approval a minimum of two weeks before the implementation of any temporary traffic control required by the Contractor's construction activities. The traffic control plan shall specifically describe all components of the temporary control measures for each and every location including any temporary lane closures and other changes in roadway conditions; shall provide for the safe passage of vehicles, bicyclists, and pedestrians through the construction area; and must be approved by the Engineer.

1. Maintain at least one-lane of travel throughout the construction period.
2. Street Closure: If closure of any street is required during construction, a formal application for a street closure shall be made to the authority having jurisdiction at least 30 days prior to the required street closure in order to determine necessary sign and detour requirements. The formal application shall include a traffic control plan specifically describing the Contractor's proposed facilities, devices, and alternate path for routing traffic around the construction location. The authority having jurisdiction must approve the traffic control plan before the street closure is allowed.
3. Contractor shall individually notify each potentially affected residence and business of possible access disruptions at least 72 hours (i.e. three working days) prior to construction activities that would affect such access. Coordinate all construction activities with the affected residents and property Districts.
4. Emergency vehicles will be given priority at traffic control stations, and delays for school busses will be minimized to the extent feasible.

3.07 ROADWAY LIMITATIONS

- A. The Contractor shall investigate the condition of available public and private roads and of clearances, restrictions, bridge load limits, and other limitations affecting transportation and ingress and egress to the site of the Work. The Contractor shall construct and maintain any temporary haul roads required for construction operations.

3.08 VEHICULAR ACCESS

DIVISION 1: GENERAL REQUIREMENTS

- A. Construct temporary all-weather access roads from public thoroughfares to serve the construction area, of width and load bearing capacity to accommodate unimpeded traffic for construction purposes.
- B. Construct temporary bridges and culverts to span low areas and to allow unimpeded drainage. Temporary filling of drainage courses will not be allowed.
- C. Extend and relocate traffic control measures as Work progress requires. Provide detours as necessary for unimpeded traffic flow through or around the work site. Notify affected residents as described above.
- D. Provide means of removing mud from vehicle wheels before entering streets.
- E. Contractor is responsible for repair of damages resulting from construction traffic use and shall restore streets, driveways, and on-site roads to pre-construction condition, or better.
- F. At the end of each day, the Contractor shall leave work site in such condition that it can be traveled without damage to the Work and without danger to the public.

3.09 PARKING

- A. Arrange for temporary gravel or pavement surface parking areas to accommodate construction personnel's vehicles. This parking shall not negatively impact or impede public vehicular passage through the public right-of-way.

3.10 TRAFFIC REGULATION

- A. All temporary traffic control devices shall conform to the "Traffic Controls for Construction and Maintenance Work Zones" by Caltrans and shall be approved by authority having jurisdiction
- B. Flag Persons: Provide trained and equipped flag persons to regulate traffic when construction operations or traffic encroach on public traffic lanes. In particular, flag persons shall direct traffic onto Alta Vista Road at the Drake Street intersection and along Alta Vista Road to ensure that construction vehicles do not inhibit the movement of residents, residential service vehicles, or emergency access vehicles.
- C. Flares and Lights: Use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.
- D. Haul Routes: Consult with authority having jurisdiction, establish public thoroughfares to be used for haul routes and site access. Only those routes

DIVISION 1: GENERAL REQUIREMENTS

identified in the Traffic Control Plan and approved by the Engineer shall be used for truck haul routes.

1. Traffic Signs and Signals: provide signs at approaches to site and on site, at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.
 2. Provide, operate, and maintain traffic control signals to direct and maintain orderly flow of traffic in areas under Contractor's control, and areas affected by Contractor's operations.
 3. Relocate temporary traffic control devices as Work progresses, to maintain effective traffic control at subsequent work sites.
- E. Remove equipment and devices when no longer required. Repair damage caused by installation.

3.11 TEMPORARY STORM WATER POLLUTION CONTROL

- A. The Contractor shall complete and implement an Erosion and Sediment Control Plan (ESCP), which shall be used to help protect existing storm drain system and natural water streams.
- B. The Contractor shall provide, maintain, and operate temporary facilities to control erosion and sediment releases, and to protect Work and existing facilities from flooding throughout the construction period.
- C. Prior to performing any excavation, the Contractor shall submit its proposed dewatering plan to the Engineer for review. The submittal shall include method of installation and details of the proposed dewatering system.
- D. Contractor shall submit an ESCP to the Engineer for approval two weeks prior to beginning construction. The ESCP shall include storm water and erosion control measures to prevent sediment, and other potentially toxic materials from entering the storm drain system or any natural water stream. Potential pollutants include: petroleum products, solvents, asphalt and concrete materials, construction waste materials, petrochemical contaminated soil and groundwater, and sediment-laden storm water.
- E. Erosion control measures shall be based on recommendations contained in the "Erosion and Sediment Control Field Manual" published by the San Francisco Bay Regional Water Quality Control Board.

DIVISION 1: GENERAL REQUIREMENTS

- F. Store stockpiled soils and wastes inside the silt fencing and out of the influence of storm drains or drainage inlets, in secured areas.
- G. Stockpile of suspected petroleum- or regulated materials-impacted soil (if any) shall be contained within a bermed and plastic lined envelope, prior to being characterized and transferred off site. Dewatering fluids from areas of petroleum- or regulated materials-impacted soils shall be contained within appropriate storage tanks prior to being characterized and transferred off site. Inspections will be made to ensure that all wastes are being appropriately contained and labeled. The process described herein will be considered a changed condition, subject to a negotiated contract change order.
- H. The necessary machinery, appliances, and equipment shall be provided and operated to keep excavations free from water during construction, and to dispose of the water so as not to cause injury to public or private property or to cause a nuisance or a menace to the public. Sufficient pumping equipment and machinery in good working condition shall be provided for all emergencies including power outage, and sufficient workers shall be available at all times for the operation of the pumping equipment.
- I. The control of groundwater shall be such that softening of the bottom of excavations, or formation of "quick" conditions or "boils" during excavation, shall be prevented. Dewatering systems shall be designed and operated so as to prevent removal of the natural soils. Natural or compacted soils softened by saturation with groundwater or standing surface water shall be removed and replaced as instructed by the Engineer at no additional expense to the District.
- J. During construction of structures, installation of pipelines, placing of structure and trench backfill, and the placing and setting of concrete, excavations shall be kept free of water except as specified. Surface runoff shall be controlled so as to prevent entry or collection of water in excavations. The static water level shall be drawn a minimum of one foot below the bottom of the excavation, except two feet below the bottom of excavations for structures, so as to maintain the undisturbed state of the foundation soils and allow the placement of fill or backfill to the required density. The dewatering system shall be installed and operated so that the groundwater level outside the excavation is not reduced to the extent that would damage or endanger adjacent structures or property.
- K. The Contractor shall take all necessary precautions to preclude the discharge of silt or cement fines from newly poured concrete into natural waterways.

DIVISION 1: GENERAL REQUIREMENTS

- L. Open and cased sumps shall not be used as primary dewatering for excavations deeper than three feet below the static water table. Location of open or cased sumps shall be outside of trench excavation or limits of structural excavation.
- M. The release of groundwater to its static level shall be performed in such a manner as to maintain the undisturbed state of the natural foundation soils, prevent disturbance of compacted backfill and prevent flotation or movement of structures and pipelines.
- N. Underdrain systems and hydrostatic relief valves shall be operational prior to release of groundwater.
- O. The Contractor shall not obstruct the gutter of streets and roads but shall use proper measures to provide for the free passage of surface water.
- P. Provision shall be made to take care of surplus water, mud, silt, or other runoff pumped from excavations and trenches or resulting from sluicing or other operations.
- Q. Siltation of completed or partially completed structures and pipelines by surface water or by disposal of water from dewatering operations shall be cleaned up at the Contractor's expense.

3.12 DUST CONTROL

- A. Cover all trucks hauling loose materials (soil, sand, etc.) or maintain at least two feet of freeboard in trucks.
- B. Water all active construction and disturbed areas at least twice daily during dry periods.
- C. Apply water three times daily or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.

3.13 PROGRESS CLEANING

- A. The Contractor shall not allow the site of Work to become littered with trash and waste material, but shall maintain it in a neat and orderly condition throughout the construction period.
- B. The Contractor shall clean paved public and private access streets from visible soil material daily. Dust, sediment, and debris shall not be washed into the storm drain system.

DIVISION 1: GENERAL REQUIREMENTS

3.14 CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

- A. Unless otherwise specified in these Specifications, the Contractor shall make his own arrangements for disposing of materials in conformance with San Mateo County requirements and shall pay all costs involved therewith.

END OF SECTION 01 50 00

DIVISION 1: GENERAL REQUIREMENTS

01 70 00 EXECUTION AND CLOSEOUT REQUIREMENTS**ARTICLE 1 – GENERAL****1.01 FINAL CLEANING**

- A. Execute final cleaning prior to final project assessment.
- B. Clean surfaces exposed to view; remove temporary labels, stains, and foreign substances.
- C. Clean equipment and fixtures to sanitary condition with cleaning materials appropriate to surface and material being cleaned.
- D. Clean site; sweep paved areas; rake clean landscaped surfaces.
- E. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.02 CLOSEOUT PROCEDURES

- A. The Contractor shall submit a written certification that he has reviewed the Contract Documents, has inspected the Work, and that Work is complete in accordance with Contract Documents and ready for Engineer's review.
- B. Together with such written certification, the Contractor shall submit final submittal on a permanent reproducible medium to the Engineer for review at least ten days before the final closeout review.
- C. Final submittal shall include:
 - 1. Project record documents (redlines)
 - 2. Operations and maintenance data
 - 3. Manual for materials and finishes
 - 4. All manufacturer guarantees and product warranties for all products and equipment installed on the project
- D. Final closeout review

Final closeout review shall be scheduled a minimum of one week in advance.

When the Engineer determines that all work has been satisfactorily completed in all aspects in accordance with the Contract Documents, he will recommend formal acceptance by the MWSD Board of Directors and release of retainage.

DIVISION 1: GENERAL REQUIREMENTS

1.03 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
1. Drawings
 2. Specifications
 3. Addenda
 4. Change Orders and other modifications to the Contract
 5. Reviewed Shop Drawings, Product Data, and Samples
 6. Manufacturer's instruction for assembly, installation, and adjusting
- B. Ensure entries are complete and accurate, enabling future reference by District.
- C. Record information concurrent with construction progress, not less than weekly.
- D. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
1. Manufacturer's name and product model and number
 2. Product substitutions or alternates used
 3. Changes made by addenda and modifications
- E. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
1. Measured depths of foundations in relation to finish elevation datum
 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements
 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work
 4. Field changes of dimension and detail
 5. Details not on original Contract Drawings

DIVISION 1: GENERAL REQUIREMENTS

- F. Final project record documents shall be noted as "Record Drawings" and signed by an authorized representative of the Contractor certifying that facilities as shown are actually as constructed.

ARTICLE 2 – PRODUCTS – NOT USED

ARTICLE 3 – EXECUTION – NOT USED

END OF SECTION 01 70 00

WATER MAIN REPLACEMENT PROJECT

DIVISION 1: GENERAL REQUIREMENTS

01 78 36 WARRANTIES

ARTICLE 1 – GENERAL

1.01 PERIOD OF WARRANTY

- A. Unless more stringent requirements are otherwise specified, the Work shall be guaranteed for a period of one (1) year from the date of final payment by the District.

1.02 REPAIRS UNDER WARRANTY

- A. The Contractor shall promptly make all needed repairs arising out of defective materials, workmanship and equipment.
- B. The District shall approve method and materials for repairs prior to the start of any repair work.
- C. The District is authorized to make such repairs if within ten (10) days after the mailing of the notice in writing to the Contractor, or his agent, the Contractor shall neglect to make or undertake with due diligence the aforesaid repairs; provided, however, that in case of an emergency where, in the opinion of the District, delay would cause serious loss or damage, repairs may be made without notice being sent to the Contractor, and the Contractor shall pay the costs thereof.

ARTICLE 2 – PRODUCTS – NOT USED

ARTICLE 3 – EXECUTION – NOT USED

END OF SECTION 01 78 36

DIVISION 2: EXISTING CONDITIONS

DIVISION 2 EXISTING CONDITIONS

DIVISION 2: EXISTING CONDITIONS

02 41 00 DEMOLITION**ARTICLE 1 – GENERAL****1.01 DESCRIPTION**

- A. Furnish all labor, materials, equipment and incidentals required and demolish, modify, remove and dispose of work shown on the Drawings and as specified herein.
- B. Included, but not limited to, are demolition, modifications and removal of existing materials, equipment or work necessary to install the new work as shown on the Drawings and as specified herein and to connect with existing work in approved manner.
- C. Demolition, modifications and removals which may be specified under other Sections shall conform to requirements of this Section.
- D. Demolition and modifications include:
 - a. Fencing
 - b. Wellhead piping and appurtenances
 - c. 4-inch water main
 - d. Wood shed
- E. Disconnected pipes shall be capped in place prior to connection to new system.
- F. Wellhead appurtenances, such as valves, pressure gauges, and flow meters shall be salvaged and returned to District.

1.02 SUBMITTAL

- A. Submit proposed demolition and removal procedures for approval before work is started. Include a disconnection schedule of utility services, a detailed description of methods and equipment to be used for each operation and of the sequence of operations. Demolition schedule shall comply with constraints listed in Section 01 11 00.

1.03 GENERAL REQUIREMENTS

- A. The Contractor shall not begin demolition until the Engineer approves demolition procedures and schedule and the District gives its authorization.
- B. The Contractor shall take all necessary precautions with regard to safety in carrying out the demolition work.

DIVISION 2: EXISTING CONDITIONS

- C. The Contractor shall take necessary precautions to avoid damage to existing items and utilities to remain in place. Repair or replace damaged items as approved by the Engineer.
- D. Ensure that structural elements are not overloaded. Increase structural supports or add new supports as may be required as a result of any cutting, removal, deconstruction, or demolition work performed under this contract. Provide new supports and reinforcement for existing construction weakened by demolition.

ARTICLE 2 – PRODUCTS – NOT USED**ARTICLE 3 – EXECUTION****3.01 GENERAL**

- A. All materials and equipment removed from existing work shall become the property of the Contractor, except for those which the Owner has identified and marked for his/her use. All materials and equipment marked by the Owner to remain shall be carefully removed, so as not to be damaged, cleaned and stored on or adjacent to the site in a protected place specified by the Engineer or loaded onto trucks provided by the Owner.
- B. Dispose of all demolition materials, equipment, debris and all other items not marked by the Owner to remain, off the site and in conformance with all existing applicable laws and regulations.
- C. Pollution Controls
 - 1. Use water sprinkling, temporary enclosures and other suitable methods to limit the amount of dust and dirt rising and scattering in the air to the lowest practical level. Comply with governing regulations pertaining to environmental protection.
 - A. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding and pollution.
 - B. Clean adjacent structures, facilities, and improvements of dust, dirt and debris caused by demolition operations. Return adjacent areas to conditions existing prior to the start of the work.

3.02 MECHANICAL REMOVALS

- A. Mechanical removals shall consist of dismantling and removing of existing wellhead piping and appurtenances as specified, shown, or required for the completion of the work. It shall include cutting, capping, and plugging as required.
- B. Existing piping not required for the new work shall be removed where shown or where it will interfere with new work. Piping not indicated to be removed or which does not interfere with new work shall be removed to the nearest solid support, capped and left in place.

DIVISION 2: EXISTING CONDITIONS

- C. When underground piping is to be altered or removed, the remaining piping shall be properly capped. Abandoned underground piping may be left in place unless it interferes with new work or is shown or specified to be removed.

3.03 ELECTRICAL REMOVALS (PERFORMED BY OTHERS)

- A. Electrical removals shall consist of the removal of existing electrical panel and miscellaneous electrical equipment all as shown on the Drawings, specified herein, or required to perform the work.
- B. All existing electrical equipment and fixtures to be removed shall be removed with such care as may be required to prevent unnecessary damage, to keep existing systems in operation and to maintain the integrity of the grounding systems.
- C. Conduits and wires shall be abandoned or removed where shown. All wires in abandoned conduits shall be removed, salvaged and stored. Abandoned conduits concealed in slabs shall be cut flush with the slab at the point of entrance. The conduits shall be suitable plugged and the area repaired in a flush, smooth and approved manner. Exposed conduits and their supports shall be disassembled and removed from the site. Repair all areas of work to prevent rust spots on exposed surfaces.

3.04 CLEAN-UP

- A. Remove from the site all debris resulting from the demolition operations as it accumulates. Upon completion of the work, all materials, equipment, waste and debris of every sort shall be removed and premises shall be left, clean, neat and orderly.

END OF SECTION 02 41 00

DIVISION 2: EXISTING CONDITIONS

02 85 00 WELL REHABILITATION**ARTICLE 1 – GENERAL****1.01 DESCRIPTION**

- A. Montara Water and Sanitary District operates several ground water wells. The Wagner Well has been re-drilled in the same general area (inside the fence line) several times. The above ground piping has been extended and modified each time the well is moved. The District seeks to remove and replace the aboveground pipe, simply the well appurtenances, and replace the buried discharge pipeline.

1.02 LOCATION AND SITE CONDITIONS

- A. Wagner Well is located in a valley east of the City of Montara, along the southwest side of Montara Mountain. The well is situated at the base of a north facing slope of the main valley where a smaller valley intersects from the east. The well site is bordered by farm fields to the north, east and west. The adjacent north facing slope is covered in dense brush and trees. The ground within the well site is covered in gravel. There are two small control buildings on the south end of the Wagner site.
- B. A regional geologic map of this area (Pampayen, 1994) indicates that the middle of the valley is filled with recent (Holocene) coarse-grained alluvium and with colluvium, slope wash or ravine fill toward the edges of the valley. The alluvial and colluvial materials interfinger at the bases of slopes. Below the Holocene deposits, Cretaceous aged granitic rock forms the base of the valley. The granite is frequently weathered to depths of 100 feet.
- C. The ground surface near the Wagner WELLHEAD has settled several feet over time and the District has added concrete collars around the top of the well casing to protect it.

1.03 HYDROGEOLOGIC CONDITIONS

- A. The well was drilled to 155 feet below ground surface, and the completed well was 145 feet deep. The well log indicates that the subsurface materials consist of 6 feet of “top soil” over 18 feet of “peat moss and clay”. Granite extended from the bottom of the “peat moss and clay” to 155 feet below grade. Between depths of 24 and 145 feet, the granite was described as decomposed with intermittent ledges of harder granite. The decomposed granite was logged as yellow in color. The last 10 feet of the well log indicates that the granite was hard and blue in color. The well casing is a 10-inch diameter steel pipe. A concrete sanitary seal was provided from the ground surface to a depth of 50 feet extending 26 feet into the decomposed granite.

1.04 QUALIFICATIONS OF THE CONTRACTOR

DIVISION 2: EXISTING CONDITIONS

- A. Bidders shall hold a valid Class C-57 California Contractor's License, and any other licenses or certifications, State, local, or otherwise, necessary to complete the work as specified.
- B. The Contractor shall establish and maintain a site-specific health and safety program, and is responsible for site safety throughout field operations. The Contractor shall submit a copy of their health and safety plan demonstrating compliance with CalOSHA prior to the start of work for approval. Contractor personnel are expected to be in compliance with CalOSHA laws and regulations at all times during the project.

1.05 OVERVIEW OF WORK

- A. Work includes the furnishing of all materials, labor, equipment, fuel, tools, transportation, and services for drilling, construction, development, testing, and completion of a water supply well as described in these specifications. The general work required shall include the following tasks:
 - 1. Attend a pre-construction meeting
 - 2. Mobilize equipment to and from the site.
 - 3. Perform pre-treatment video of well casing, documenting the condition of casing, mineralization and biofouling.
 - 4. Chemically treat the well casing and formation with Bio-Clean (made by Cody Chemical) or a similar product. Brush, swab, surge, bail and agitate as needed. Remove chemical from well.
 - 5. Perform post-treatment video of well casing, documenting the condition of casing and success if treatment, to be approved by MWSD.
 - 6. Dispose of chemically treated water off site and clean up and restore site to pre-construction conditions.

ARTICLE 2- PRODUCTS – NOT USED

ARTICLE 3 – EXECUTION

3.01 FLUIDS AND SEDIMENT

- A. All fluids and sediment removed from the well must be contained in an on-site tank and properly disposed of off-site. The Contractor shall provide temporary tank(s) for the containment of all fluids and sediment removed from the well. It will be the Contractor's responsibility to transport the fluids and sediment to the disposal location off site.

3.02 ACCEPTANCE

- A. Acceptance by MWSD of the well rehabilitation shall be conditioned on the following

DIVISION 2: EXISTING CONDITIONS

criteria:

1. A comparison of pre-treatment and post-treatment video survey verifying casing condition and screen. Copies of the video survey shall be provided to MWSD on CD.
2. Ability to reinstall the pump to its pre-treatment location without restriction.

END OF SECTION 02 85 00

DIVISION 9 FINISHES

DIVISION 9: FINISHES

09 97 13 PAINTING AND COATINGS**ARTICLE 1 – GENERAL****1.01 DESCRIPTION**

- A. This section includes materials and field application of painting and coating systems for iron and steel surfaces.
- B. All new above ground steel, iron, and ferrous metal shall be coated unless otherwise specified.
- C. Other surfaces shall be coated only where indicated in the Specifications or Drawings.

1.02 REFERENCE STANDARDS

- A. To the extent referenced in this specification section, the standards and documents listed below are included, and made a part of this specification.
- B. In the event of a conflict, the requirements of this specification section prevail.

| | |
|-----------|---|
| AWWA C210 | Liquid-Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipelines |
| AWWA C218 | Coating the Exterior of Aboveground Steel Water Pipelines and Fittings |
| SSPC | Steel Structure Painting Council |

1.03 RESTRICTION ON CONTACT WITH POTABLE WATER

- A. Under no circumstances shall paint materials specified in this Section be used where they may come in contact with the public water supply or for buried installations. These products are intended for exposed exterior use only.

1.04 AIR QUALITY STANDARDS

- A. All work, materials, procedures and practices under this section shall conform to the requirements of the Bay Area Air Quality Management District.

1.05 SUBMITTALS

- A. Submit:

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1. Manufacturer's standard Paint System Data Sheet (PSDS) and material safety data sheet for each primer and finish coating.
2. Manufacturer's literature and written instructions for surface

1.06 QUALITY CONTROL

- A. Notify the Engineer 48 hours in advance of field operations involving surface preparation and coating application.
- B. The Engineer will inspect shop- and field-prepared surfaces. The Contractor shall not proceed with paint application until the Engineer has approved the surface preparation.
- C. The Engineer will inspect application of all prime, intermediate, finish, and touch-up coatings to verify the integrity of the coating and compliance with the specifications. Each coating application will be checked and deficiencies marked. Items exhibiting an improper finish or color, or insufficient surface preparation or dry film thickness shall be prepared as necessary and corrected, utilizing the specified paint materials to obtain compliance.

1.07 SURFACES NOT TO BE FIELD PAINTED

- A. Generally, the following items or materials are not to be field painted unless specifically required elsewhere in the specifications:
 1. Buried pipe and fittings
 2. Stainless steel
 3. Interior surfaces of valves, fittings and pipe
 4. Nameplates
 5. Brass, copper, bronze, and galvanized items

1.08 COLOR AND PAINT SYSTEM SCHEDULE

- A. Above ground piping and fittings shall be painted using epoxy and urethane paint system.
- B. The paint finish shall be flat.
- C. Color shall be approved by the Engineer during the submittal review process.

ARTICLE 2 – PRODUCTS

DIVISION 9: FINISHES

2.01 GENERAL

- A. The same manufacturer shall provide all materials of a specified paint system(s), including prime, intermediate, finish, and touch-up coats.
- B. Thinners, cleaners, driers and other additives shall be as recommended by the coating manufacturer for the specified paint system(s) and shall be approved by the Engineer.
- C. All coating products shall be delivered to the job site in original and unopened containers.

2.02 EPOXY AND URETHANE PAINT SYSTEM

- A. Prime and Intermediate Coats: Field-applied, VOC-compliant, surface tolerant, two-component, chemically cured epoxy. Coat shall be Tnemec Series 69 or approved equal.
- B. Finish and Touch-Up Coats: Field-applied, VOC compliant, urethane paint compatible with primer. Coat shall be Tnemec Series 1075 or approved equal.
- C. Coating shall be weather resistant, rain resistant, and ultra-violet resistant.

ARTICLE 3 – EXECUTION**3.01 LIMITATIONS TO THE APPLICATION OF COATINGS**

- A. Apply coatings in accordance with the manufacturer's recommendations. Do not apply coatings under adverse weather conditions. If any of the following minimum conditions are present, the application of coatings shall be delayed or postponed until conditions are favorable.
 - 1. During rain, fog, or mist, or when the relative humidity exceeds 80 percent.
 - 2. When the surface to be coated is wet, moist, or contaminated with any foreign matter.
 - 3. When the surrounding air temperature or the temperature of the surface to be coated is below 55° F.
 - 4. When the temperature of the surface to be coated is more than 2.8° C (5° F) below the air temperature.
 - 5. When the temperature of the surface to be coated is 49 C (120° F) or above.

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6. When the surface temperature is less than 2.8° C (5° F) above the dew point or is expected to be so within twelve hours after application of coating.

B. If a change in weather conditions results in damage to a newly applied coating, restore the affected coatings to their specified condition as directed by the Engineer.

3.02 PROTECTION OF SURFACES NOT TO BE PAINTED

A. Remove, mask, or otherwise protect hardware, aluminum surfaces, and all other surfaces not intended to be painted. Protect working parts of mechanical and electrical equipment from damage during surface preparation and the painting process. Provide drop cloths or masking to prevent paint materials from dripping or accumulating on adjacent surfaces.

3.03 FIELD TOUCH-UP OF SHOP-APPLIED PRIME COATS

A. Prior to field touch-up, prepare the surface in accordance with the manufacturer's recommendations.

B. Reapply primer as required to cover all scratched, abraded, or deficient areas.

3.04 SURFACE PREPARATION

A. Conform to SSPC and manufacturers' recommendations.

B. Do not prepare more surface area than can be coated in the same workday.

C. Unless otherwise directed by the District, do not blast-clean items that have previously been factory primed or painted.

3.05 PROCEDURES FOR APPLICATION

A. Conform to the requirements of SSPC-PA 1, Shop, Field, and Maintenance Painting. Follow the recommendations of the coating manufacturer, if more restrictive, including the selection of spray equipment, brushes, rollers, mixing, drying time, temperature and humidity limitations during application, and safety precautions. The Engineer will review procedures for the application of coatings. The Engineer's decision will be final as to interpretation and/or conflict between these Specifications and the recommendations of the coating manufacturer.

B. Stir, strain, and keep coating materials at a uniform consistency during application. Where the Engineer permits thinning, do not reduce the coating material more than is necessary to obtain the proper application characteristics and to obtain the

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specified dry film thickness. Do not exceed the maximum thinning rate allowed by the manufacturer. Stir coating materials at all times when adding thinner.

- C. Apply each layer of coating evenly, free from brush marks, sags, runs, bridges, shiners, laps or other imperfections or other evidence of poor workmanship. Visible areas of chipped, peeled, or abraded paint shall be hand or power-sanded, feathering the edges. The areas shall then be primed and finish coated in accordance with the specifications. Finished surfaces shall be free from defects and blemishes prior to final acceptance.

3.06 EPOXY/URETHANE PAINT SYSTEM APPLICATION

- A. Surface preparation for the Epoxy/Urethane Paint System shall be in accordance with SSPC-SP-6, Commercial Blast Cleaning. If Commercial Blast Cleaning is not feasible, prepare surfaces in accordance with SSPC-SP-11, Power Tool Cleaning to Bare Metal.
- B. The Epoxy/Urethane Paint System shall consist of:
1. One epoxy prime coat – Dry Film Thickness: 4.0 to 6.0 mils;
 2. One epoxy intermediate coat – Dry Film Thickness: 4.0 to 6.0 mils; and
 3. One compatible urethane finish coat – Dry Film Thickness: 4.0 to 6.0 mils.
 4. Total Dry Film Thickness: 9 mils to 15 mils.
- C. Apply the coatings in accordance with the manufacturer's recommended film thickness, adding finish coats as necessary to meet the minimum total dry film thickness specified above.
- D. Observe minimum and maximum re-coat times specified by the manufacturer. If these times are exceeded, the surface shall be re-prepared as recommended by the manufacturer and as directed by the Engineer prior to receiving additional coats.

3.07 CLEANUP

- A. All cloths and waste that might constitute a fire hazard shall be placed in closed metal containers or destroyed at the end of each day. Upon completion of the work, all staging, scaffolding, and containers shall be removed from the site or destroyed in a legal manner. Paint spots, oil, or stains upon adjacent surfaces and floors shall be completely removed, and the entire job left clean and acceptable to the Engineer.

END OF SECTION 09 97 13

DIVISION 31 EARTH WORK

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31 20 00 EARTH MOVING**ARTICLE 1 – GENERAL****1.01 SUMMARY**

- A. This Section includes the following:
1. Excavating and backfilling trenches.
 2. Preparing subgrades.

1.02 REFERENCE STANDARDS

- A. To the extent referenced in this specification section, the standards and documents listed below are included, and made a part of this specification.
- B. In the event of a conflict, the requirements of this specification section prevail.

| | |
|------------|--|
| ASTM D698 | Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft ³ (600 kN-m/m ³)) |
| ASTM D1556 | Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method |
| ASTM D1557 | Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft ³ (2,700 kN-m/m ³)) |
| ASTM D1586 | Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils |
| ASTM D2167 | Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method |
| ASTM D2216 | Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass |
| ASTM D2937 | Standard Test Method for Density of Soil in Place by the Drive-Cylinder Method |
| ASTM D3740 | Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction |

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| | |
|------------|---|
| ASTM D6938 | Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth) |
| ASTM E329 | Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection |

1.03 DEFINITIONS

- A. Backfill: Soil material used to fill an excavation.
1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
 2. Final Backfill: Backfill placed over initial backfill to fill a trench.
- B. Bedding Course: Course placed over the excavated subgrade in a trench before laying pipe.
- C. Borrow Soil: Satisfactory imported soil from off-site for use as backfill.
- D. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Engineer.
 2. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Engineer. Unauthorized excavation, as well as remedial work directed by Engineer, shall be without additional compensation.
- E. Fill: Soil materials used to raise existing grades.
- F. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material three quarters of a cubic yard or more in volume that exceed a standard penetration resistance of 100 blows/2 inches when tested by an independent geotechnical testing agency, according to ASTM D1586.
- G. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.

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- H. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.

1.04 WORK QUALITY GUARANTY

- A. The Contractor shall guarantee all earthwork, including excavation, embankment, backfill, reconstruction, and resurfacing work against failure for one year after the work has been formally accepted as specified in the Conditions of the Contract. During this time, the Contractor shall repair, at his or her own expense and to the satisfaction of the Engineer, all failed earthwork. For the purpose of this contract, failure shall be deemed to have occurred if any of the following conditions exists:
 - 1. In paved roadway, a depression of 1/4-inch below the average of the sides of the uncut portion;
 - 2. A depression causing the ponding of water between the sides of the uncut portion;
 - 3. Any other settlement that causes drainage problems or concentrations of water to run along the excavation line.
- B. If any of these conditions exist, the Contractor shall correct the failure within a timeframe acceptable to the District and San Mateo County DPW.

ARTICLE 2 – PRODUCTS – NOT USED

ARTICLE 3 – EXECUTION

3.01 PREPARATION

- A. Protect structures, utilities, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.

3.02 EXCAVATION

- A. Excavate to subgrade elevations. Material to be excavated will be classified as earth and rock. Do not excavate rock until it has been classified and cross-sectioned by the Engineer. The Contract Price shall be adjusted prior to execution. Changes in the Contract Times may be authorized for rock excavation.
 - 1. Earth excavation includes excavating obstructions visible on surface; underground structures, utilities, and other items indicated to be removed;

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together with soil, boulders, and other materials not classified as rock or unauthorized excavation. Intermittent drilling; ram hammering; or ripping of material not classified as rock excavation is earth excavation.

2. Rock excavation includes removal and disposal of rock. Remove rock to lines and subgrade elevations indicated to permit installation of permanent construction.

B. Excavation for trenches

1. Excavate trenches to indicated gradients, lines, depths, and elevations.
2. Excavate trench walls vertically from trench bottom to twelve (12) inches higher than top of pipe or conduit, unless otherwise indicated.
3. Shape trench bottoms to provide uniform bearing and support of pipes and conduit. Remove projecting stones and sharp objects along trench subgrade.

3.03 SUBGRADE PREPARATION AND INSPECTION

- A. Notify Engineer when excavations have reached required subgrade.
- B. Reconstruct subgrades damaged by rain, accumulated water, or construction activities, as directed by Engineer, without additional compensation.
- C. The Contractor shall prepare the subgrade of all structures to provide a flat, relatively dry, and firm working surface.

3.04 SUBBASE

- A. Place a subbase material consisting of compacted Caltrans Class II Aggregate on prepared subgrades free of mud, frost, snow, or ice.
- B. Aggregate shall be compacted to at least 95 percent relative compaction as determined per ASTM D1557.
- C. The surface elevation of the leveling base shall be fine graded to a tolerance of plus zero (0) inches to minus ½ inch over the entire foundation areas.

3.05 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
 1. Construction below finish grade;

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2. Surveying locations of underground utilities for Record Documents;
3. Testing and inspecting structure footings or underground utilities;
4. Removing concrete formwork;
5. Removing trash and debris;
6. Removing temporary shoring, bracing, and sheeting; and
7. Installing permanent or temporary horizontal bracing on horizontally supported walls.

B. Place backfill on subgrades free of mud, frost, snow, or ice.

3.06 TRENCH BACKFILL

- A. All pipe bedding should be placed to achieve uniform contact with the pipe.
- B. Place backfill on subgrades free of mud.
- C. Backfill voids with satisfactory gravel while installing and removing shoring and bracing.
- D. Place and compact final backfill of satisfactory soil to final subgrade elevation.

3.07 COMPACTION OF SOIL BACKFILLS

- A. Structural backfill shall be placed in layers not greater than eight (8) inches in un-compacted, conditioned with water or allowed to dry to achieve a water content two percent above optimum, and then compacted to at least 90 percent relative compaction per ASTM D1557.
- B. Bedding material shall be compacted to a minimum relative compaction of 90 percent per
- C. ASTM D1557.
- D. All compaction should be performed using mechanical compaction means; flooding or jetting should not be used as a means to achieve compaction.
- E. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- F. The Contractor shall hire a third-party laboratory to perform the compaction tests. The Engineer shall approve the laboratory and the testing methods and

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procedures. All tests shall be at Contractor's expense. Results shall be communicated to the Engineer in a timely manner. If deemed necessary, the Engineer may require additional tests at no additional cost to MWSD.

3.08 FIELD QUALITY CONTROL

- A. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; re-compact and retest until specified compaction is obtained.

3.09 PROTECTION

- A. Protect newly graded areas from traffic and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to the specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
- C. Where settling occurs, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.10 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it.

END OF SECTION 31 20 00

DIVISION 32 EXTERIOR IMPROVEMENTS

32 31 13 CHAIN LINK FENCES AND GATES**ARTICLE 1- GENERAL****1.01 DESCRIPTION**

- A. The work under this section consists of furnishing labor, materials, appliances, tools and equipment to demolish and install new chain link fences, metal fences, and gates as indicated on the Plans and as specified herein.

1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM)
- B. American Welding Society (AWS)
- C. American Hot-Dip Galvanizers Association: Standard Specification
- D. State of California Department of Transportation Standard Specifications (State Specifications), 2010 edition.

1.03 SUBMITTALS

- A. Manufacturer's Catalog Data
- B. Chain-Link fencing components
- C. Accessories
- D. Drawings
- E. Gates
- F. Fences

1.04 QUALITY ASSURANCE

- A. Pipe for fencing and gates shall meet the requirements of Federal Specification RR-F-191/3D for Class 1 Steel Pipe, Grade A Round, Standard Schedule 40 pipe as manufactured by Allied Tube and Conduit Corporation or approved equal.

1.05 DELIVERY – STORAGE – HANDLING

- A. Materials shall be delivered to the site in an undamaged condition. Storage should be off the ground to prevent oxidation caused by ground contact.

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ARTICLE 2 – PRODUCTS

2.01 MATERIAL

- A. Fencing shall be constructed of hot-dip galvanized steel conforming to Section 80-3.01C – Barbed Wire and Section 80-4 – Chain Link Fence of the State Specifications.
- B. Concrete fence post foundation shall be Class A (564 pounds of Portland cement per cubic yard, Type II) as specified in State Specification Section 90 – Portland Cement Concrete.

2.02 COMPONENTS

- A. Chain-Link Fabric: No. 9 gauge wire woven in two-inch diamond mesh. Top and bottom selvages shall have a barbed finish. Chain- link fabric shall withstand six one-minute immersions under Preece Test.
- B. Line Posts: Hot-dip galvanized 2.375 inches O.D. standard pipe, weighing 3.65 lbs. per lineal foot.
- C. Terminal Posts: End, corner and pull posts shall be hot-dip galvanized 2.875 inches O.D. pipe weighing 5.79 lbs. per lineal foot.
- D. Top and Bottom Tension Wire: No. 7 gauge, hot-dip galvanized coil spring wire.
- E. Braces: Hot-dip galvanized pipe, 1.625 inches O.D., weighing 2.27 lbs. per lineal foot.
- F. Gate posts and frame: Hot-dipped galvanized pipe size per the following:

| Use | Nominal Pipe Size O.D. (Inches) | Actual O.D. (Inches) | Weight Per Lbs./ft. (Galv. Steel) |
|---|---------------------------------|----------------------|-----------------------------------|
| a. Swing and sliding gate post for 3 feet, and 6 feet single or 12 feet double gates, 6 feet or higher | 3 | 2.875 | 5.79 |
| b. Swinging and sliding gate posts for single gates from 6' to 13', supported rolling gates up to 30', and double gates over 12', but not over 26'. | 4 | 4 | 9.11 |

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| | | | |
|---|-------|-------|-------|
| c. Swinging gate posts for single gates 13 to 18 feet and double gates 26 to 36 feet. | 6-5/8 | 6.625 | 18.97 |
| d. Gate leaf 6 feet in width, frames and bracing. | 1-5/8 | 1.66 | 2.27 |
| e. Gates leaf greater than 6 feet in width | | | |
| Frame | 2 | 1.90 | 2.72 |
| Bracing | 1-5/8 | 1.66 | 2.27 |

- G. Fabric: Same as fence.
- H. X-bracing: 3/8" adjustable truss rods.
- I. Fork Latch with padlock not requiring the use of a chain. All padlocks shall be furnished by the District.
- J. Bottom Hinge: Ball and socket type designed to carry the weight of the gate on the post footing.
- K. Top Hinge: Wrap around adjustable type.
- L. Vendor gate shall be rolling or sliding with full lateral support in the open position.

2.03 ACCESSORIES

- A. Tension Bands: 1/8 inch x 1 inch
- B. Tension Bars: 1/4 inch x 3/4 inch
- C. Brace Bands: 1/8 inch x 1 inch
- D. Brace Ties: #9 galv. Steel
- E. Post Ties: #9 galv. Steel
- F. Hog Rings: #9 galv. Steel
- G. Adjustable Truss Rods: 3/8-inch diameter, threaded with nuts, galvanized.

2.04 FABRICATION

- A. Fabrication shall be as shown on the Plans.
- B. Galvanizing: After complete fabrication, entire item shall be hot- dipped zinc coated (galvanized) to not less than two ounces per square foot. Galvanized shall conform to ASTM A. 123 for fabricated products and to ASTM A 153 for hardware.

ARTICLE 3- EXECUTION

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3.01 PREPARATION

- A. Fence Post Foundations: Concrete fence post foundations shall be spaced and constructed in accordance with Section 80-4 - Chain Link Fence of the State Specifications. Post foundations shall be properly domed to shed water.

3.02 INSTALLATION

- A. Install fencing and gates in strict accordance with manufacturer's latest specifications and recommendations, and with posts on the inside of the fence, as directed by the engineer.
- B. Post Spacing: Equally space line posts at ten feet on center maximum.
- C. Bracing: All corners and ends of fence shall be braced to adjacent line posts.
- D. Top Tension Wires: Install top tension wires before installing chain-link fabric, and pull wires taut. Top tension wires shall be placed within 6 inches of respective fabric line.

3.03 ACCESSORIES INSTALLATION

- A. Supporting Arms: Install supporting arms facing outward at 45 degrees angle or straight up as shown on the plans and as recommended by manufacturer. In addition to manufacturer's standard connection, permanently secure supporting arms to post by peening or welding. Studs driven by low-velocity powder-actuated tools may be used with steel, wrought iron, ductile iron, or malleable iron. Do not use studs driven by power-actuated tools with gray iron or other material that will fracture.
- B. Gates: Swing gates shall be installed to swing 90 degrees from closed to open.

3.04 CLEANING

- A. Remove all debris after installation is complete.

END OF SECTION 32 31 13

DIVISION 33 UTILITIES

DIVISION 33: UTILITIES

33 11 00 WATER UTILITY DISTRIBUTION PIPING AND FITTINGS

ARTICLE 1 – GENERAL

1.01 DESCRIPTION

A. Unless otherwise noted on the drawings, water pipes and fittings shall be made out of:

1. Class 51 Restrained/Flanged Ductile Iron (DI)
2. Polyvinyl Chloride (PVC) C-900
3. ASTM A53 Steel Pipe

1.02 REFERENCES

A. To the extent referenced in this specification section, the standards and documents listed below are included, and made a part of this specification.

B. In the event of a conflict, the requirement of this specification section prevails.

1. DI Pipe

| Reference | Title |
|-----------|---|
| AWWA C104 | Cement Mortar Lining for Ductile Pipe and Fittings for Water Mains |
| AWWA C110 | Ductile Iron Fittings |
| AWWA C111 | Rubber-Gasket Joints for Ductile Iron Pipe and Fittings |
| AWWA C115 | Flanged Ductile Iron Pipe with Threaded Flanges |
| AWWA C116 | Protective Fusion-Bonded Epoxy Coatings for Ductile Iron and Cast Iron Fittings |
| AWWA C150 | Thickness Design of Ductile Iron Pipe |
| AWWA C602 | Cement-Mortar Lining of Water Pipelines |
| NSF-61 | Drinking Water System Components – Health Effects |

2. PVC Pipe – C-900

| Reference | Title |
|------------|---|
| ASTM D1784 | Standard Specification for Rigid PVC AND CPVC Compounds |

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| | |
|------------|---|
| ASTM D1785 | Standard Specification for PVC Pipe, Schedules 40, 80 and 120 |
| ASTM D2241 | Polyvinyl Chloride (PVC) Pressure-Rated Pipe (SDR PR Series) |
| ASTM D2466 | Standard Specification for PVC Plastic Pipe fittings, Schedule 40 |
| ASTM F1668 | Standard Guide for Construction Procedures for Buried Plastic Pipe |
| AWWA C900 | Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 in. through 12 in. (100 mm through 300 mm) for Water Distribution |
| AWWA C907 | Polyvinyl Chloride (PVC) Pressure fittings for Water – 4in. through 8 in. |
| NSF-61 | Drinking Water System Components – Health Effects |

3. Steel Piping

| Reference | Title |
|-----------------------|--|
| ANSI B16.3 | Malleable Iron Threaded Fittings, Class 150 and 300 |
| ANSI B16.9 | Factory-Made Wrought Steel Buttwelding Fittings |
| ANSI B16.11 | Forged Steel Fittings, Socket-Welding and Threaded |
| ASTM A36/ A36M | Structural Steel |
| ASTM A47 | Ferritic Malleable Iron Castings |
| ASTM A53 | Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless |
| ASTM A105/A105M | Forgings, Carbon Steel, for Piping Components |
| ASTM A106 REV A | Seamless Carbon Steel Pipe for High-Temperature Service |
| ASTM A197 | Cupola Malleable Iron |
| ASTM A234/A234M | Pipe Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and Elevated Temperatures |
| ASTM A283/A283M REV A | Low and Intermediate Tensile Strength Carbon Steel Plates, Shapes and Bars |
| ASTM A536 | Ductile Iron Castings |

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| | |
|--------------------------|--|
| ASTM A570/A570M | Hot-Rolled Carbon Steel Sheet and-Strip, Structural Quality |
| ASTM A572/A572M REV B | High Strength Low Alloy Columbium-Vanadium Steels of Structural Quality |
| AWWA C200 | Steel Water Pipe 6 Inches and Larger |
| AWWA C205 | Cement-Mortar Protective Lining and Coating for Steel Water Pipe--4 In. and Larger-- Shop Applied |
| AWWA C206 | Field Welding of Steel Water Pipe |
| AWWA C207 | Steel Pipe Flanges for Waterworks Services--Sizes 4 In. Through 144 In. |
| AWWA C208 | Dimensions for Fabricated Steel Water Pipe Fittings |
| AWWA C209 | Cold-Applied Tape Coating for Special Sections, Connections, and Fittings for Steel Water Pipelines |
| AWWA C210 | Liquid Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipe |
| AWWA C213 | Fusion-bonded Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipe |
| AWWA C214 | Tape Coating Systems for the Exterior of Steel Water Pipelines |
| AWWA C218 | Liquid Coating Systems for the Exterior of Above- Ground Steel Water Pipelines and Fittings |
| AWWA C604 | Installation of Steel Water Pipe – 4-Inch and Larger |
| AWWA M11 | Steel Pipe--A Guide for Design and Installation |
| NSF-61 | Drinking Water System Components – Health Effects |
| SSPC-SP10 | Near-White Blast Cleaning |

1.03 SUBMITTALS

- A. Product datasheet, lining and coating systems, special details
- B. Affirmation that product shipped meets or exceeds the standards set forth in this specification. This shall be in the form of a written document from the manufacturer attesting to the manufacturing process meeting the standards.
- C. Affidavits of Compliance with AWWA C200, ASTM A53, ASTM A106, and ASTM C900 as applicable.
- D. Contractor's layout drawings.

DIVISION 33: UTILITIES

1.04 DELIVERY – STORAGE – HANDLING

- A. Do not use chains, wire rope, forklifts or other methods or equipment that may gouge or damage the pipe or endanger persons or property. Field storage is to be in compliance with AWWA Manual of Practice M55 Chapter 7.
- B. If any gouges, scrapes, or other damage to the pipe results in loss of 10% of the pipe wall thickness, cut out that section or do not use.

ARTICLE 2 – PRODUCTS**2.01 DUCTILE IRON PIPE AND FITTINGS**

- A. Ductile iron pipe and fittings shall be manufactured per AWWA C110, C111, C115, C150, C151, and C153.
- B. Ductile iron pipe and fittings shall be pressure rated for 250 psi or more.
- C. Joints for ductile-iron pipe and fittings that are above ground shall be flanged. Ductile-iron flanges shall be in accordance with AWWA C115, rated at a working pressure of 250 psi. Flanges shall be integrally cast per AWWA C110 or shop-threaded per AWWA C115. Flanges shall be solid. Hollow-back flanges are not permitted. Joints for ductile-iron pipe and fittings that are buried shall be mechanical joint. Threading of flanges in the field is not permitted.
- D. Joints for ductile-iron fittings shall have a pressure rating equal to or greater than the adjacent piping.
- E. Plain ends shall conform to the requirement of AWWA C151 and to the dimensions included within AWWA C110 to accept a flanged coupling adaptor, or flexible coupling.
- F. The exterior surfaces of all pipe and fittings shall be factory coated with a minimum one (1) mil thick petroleum asphaltic material per AWWA C110 and C151.
- G. All pipe and fittings shall be cement-mortar lined in accordance with AWWA C104. Cement-mortar shall be in accordance with ASTM C150, Type II or Type V.

2.02 DUCTILE IRON PIPE ACCESSORIES

- A. Flange gaskets shall be 1/8" thick acrylic or aramid fibers bound with nitrile for all sizes of pipe. Gaskets shall be full-face type with pre-punched holes.
- B. Bolts and nuts shall be Type 304 stainless steel, unless otherwise noted on the drawings.

DIVISION 33: UTILITIES

- C. Grooved end fittings (Victaulic or approved equal) are acceptable alternatives to flanged connections.

2.03 PVC PIPE AND FITTINGS

- A. Pipes and fittings shall be manufactured from virgin rigid PVC vinyl compounds with a cell class of 12454 as identified in ASTM D1784.
- B. PVC Schedule 40 pipe shall be Iron Pipe Size (IPS) conforming to ASTM D1785.
- C. Pipe and fittings shall meet the requirements of AWWA C900 and C907.
- D. Pipe shall be C900 DR 18 (235 psi) Eagle Loc 900 pressure-rated PVC pipe with internal restrained joints as manufactured by JM Eagle or approved equal.
- E. Fittings shall be pressure class 200.
- F. Pipe and fittings shall be NSF-61 certified.
- G. Tracer wire shall be 10 AWG solid copper wire with Underwriting Laboratories (UL) approval for direct burial.
- H. Pipe and fittings shall be manufactured by JM Eagle, Cresline Plastic Company, North American Pipeline, or approved equal.

2.04 STEEL PIPE AND FITTINGS**A. Pipe Materials**

- 1. Steel pipe and fittings shall be provided in accordance with ASTM A53, ASTM A106, or AWWA C200.
- 2. Steel for pipe fabricated to meet requirements of AWWA C200 shall conform to the requirements of ASTM A36, ASTM A572, Grade 42, ASTM A570, Grades 33 and 36, or ASTM A283, Grade D. Steel for ASTM A53 and ASTM A106 pipe shall be Grade B.

B. Pipe Manufacture

- 1. Unless otherwise specified, ASTM A53 pipe shall be Type E, electric resistance welded or Type S, seamless pipe. The minimum wall thickness for ASTM A53 or ASTM A106 pipe shall be Schedule 40 for pipe 10-inch diameter and less.
- 2. AWWA C200 pipe shall be straight or spiral seam. The minimum wall thickness shall be 7 gauge.

C. Fittings and Appurtenances

DIVISION 33: UTILITIES

1. Malleable iron threaded fittings and appurtenances shall conform to the requirements of ASTM A47 or ASTM A197, ANSI B163.
2. Unless otherwise specified, steel fittings and appurtenances shall conform to the requirements of ASTM A234, ASTM A105, or ANSI B16.11; and fabricated steel fittings and appurtenances shall conform to AWWA C208.
3. Fittings for grooved end piping systems shall be full flow cast fittings, steel fittings, or segmentally welded fittings with grooves or shoulders designed to accept grooved end couplings.
4. Cast fittings shall be cast of ductile iron conforming to ASTM AS36 or malleable iron conforming to ASTM A47. Standard steel fittings, including large size elbows, shall be forged steel conforming to ASTM A106. Standard segmentally welded fittings shall be fabricated of Schedule 40 carbon steel pipe.
5. Unless otherwise specified, all fittings shall be rated for pressure and loadings equal to the pipe, with Class D (150 to 175 PSI) minimum.

D. Pipe Lining**1. EPOXY:**

A. Pipe and fittings shall be lined with a liquid epoxy as specified in AWWA C210, or fusion-bonded epoxy per AWWA C213, with the following exceptions:

- 1) No coal tar products shall be incorporated in the liquid epoxy.
- 2) The curing agent may be an amidoamine as well as the other curing agents listed in AWWA C210.
- 3) The lining shall be applied to a minimum thickness of 16 mils in not less than two coats.

E. Pipe Coating**1. EPOXY:**

A. Pipe and fittings shall be coated with a liquid epoxy as specified in AWWA C210, or fusion-bonded epoxy per AWWA C213, with the following exceptions:

- 1) No coal tar products shall be incorporated in the liquid epoxy.
- 2) The curing agent may be an amidoamine as well as the other curing agents listed in AWWA C210.
- 3) The coating shall be applied to a minimum thickness of 16 mils in not less

DIVISION 33: UTILITIES

than two coats.

F. Testing

A. Factory testing shall conform to the requirements of ASTM A53, ASTM A106, or AWWA C200 as applicable.

ARTICLE 3 – EXECUTION**3.01 GENERAL**

- A. Contractor is required to verify location of existing pipes and water services in project area prior to beginning of construction. Any discrepancies between the construction drawings and field conditions shall be brought to the attention of the Engineer prior to construction in that area.
- B. All sub-surface piping shall be installed with a minimum of thirty-six (36) inches of cover unless otherwise shown on the drawings.
- C. Pipe and fittings, or other items shall be inspected prior to installation and any items showing a fracture or other defect shall be rejected.
- D. Pipeline joint deflections shall be less than the manufacturer's maximum allowable deflection.
- E. Thrust block as means of thrust restraint shall installed in addition to restrained pipe joints on buried pipe at all tees, plugs, caps, bends and valves, and at all other locations where unbalanced forces exist if directed by the Engineer.

3.02 INSTALLATION

- A. For excavation, embedment, backfill, and bedding requirements, refer to Division 31.
- B. Ductile-iron pipe and fittings shall be installed in conformance to AWWA C600.
- C. Steel Pipe shall be installed in accordance with AWWA M11, Chapter 16.
- D. Welded joints shall be in accordance with AWWA C206.
- E. Sleeve-type mechanical pipe couplings shall be provided in accordance with AWWA M11.

3.03 TESTING

DIVISION 33: UTILITIES

- A. Hydrostatic leakage testing for ductile-iron pipe and steel pipe shall comply with AWWA C600. If test section fails this test, the Contractor shall repair or replace all defective materials and/or workmanship at no additional cost to the District.

All wellhead piping, appurtenances, and 6-inch water main, shall be tested at 200 psi for 1 hour.

3.04 CLEANING AND DISINFECTING

- A. Cleaning and disinfecting of potable water systems shall be in accordance with AWWA C652, AWWA M55 Chapter 10.
- B. Refer to Section 33 13 00.
- C. Upon completion, the system should be thoroughly flushed with fresh water, and retested to verify the disinfectant chlorine level has been reduced to potable drinking water concentrations in all service water tubing and branch lateral pipes.

3.05 ANCHORAGE

- A. Anchorage shall be provided as specified. Calculations and drawings for proposed alternative anchorage shall be submitted and approved prior to use.

END OF SECTION 33 11 00

DIVISION 33: UTILITIES

33 12 00 WATER UTILITY DISTRIBUTION EQUIPMENT**ARTICLE 1– GENERAL****1.01 REFERENCES**

- A. To the extent referenced in this specification section, the standards and documents listed below are included, and made a part of this specification.
- B. In the event of a conflict, the requirements of this specification section prevail.

| | |
|-----------------|--|
| ANSI B16.5 | Pipe Flanges and Flange Fittings |
| ASTM A536 | Standard Specification for Ductile Iron Castings |
| AWWA C110 | Ductile-Iron and Gray-Iron Fittings |
| AWWA C111 | Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings |
| AWWA C153 | Ductile-Iron Compact Fittings |
| AWWA C207 | Steel Pipe Flanges for Waterworks Service – Sizes 4-Inch Through 144-Inch |
| AWWA C213 | Fusion-Bonded Epoxy Coating for the Interior and Exterior of Steel Water Pipelines |
| AWWA C216 | Heat Shrinkable Cross-Linked Polyolefin Coatings for the Exterior of Special Sections, Connections, and Fittings for Steel Water Pipelines |
| AWWA C219 | Bolted, Sleeve-Type Couplings for Plain-End Pipe |
| AWWA C503 | Wet-Barrel Fire Hydrants |
| AWWA C504 | Standard for Rubber-Seated Butterfly Valves |
| AWWA C515 | Standard for Reduced-Wall, Resilient-Seated Gate Valves for Water Supply Service |
| AWWA C550 | Protective Interior Coatings for Valves and Hydrants |
| NSF Standard 61 | Standard for Disinfecting Water Mains |

1.02 SUBMITTALS

- A. Submit complete product data, shop drawings and manufacturer's installation and testing instructions for each item provided under this Section.

1.03 QUALITY CONTROL

- A. All products of a like kind shall be identical and furnished by one manufacturer.

DIVISION 33: UTILITIES

- B. All products shall be produced by firms with a minimum of ten years of experience in manufacturing these items.

ARTICLE 2 ARTICLE 2 – PRODUCTS**2.01 GENERAL**

- A. All products that come into contact with potable water shall be NSF-61 approved.
- B. All valves aboveground or in vault shall be:
1. Threaded ends for diameter of 3-inch and smaller.
 2. Flanged ends for diameter of 4-inch and larger unless otherwise noted on the Drawings or specified herein. Flange surface shall be faced and drilled in accordance with ANSI Class 125 B16.1.
- C. Valves located outdoors shall be weatherproof. Valves located in buried vaults shall be specifically designed for submerged service.
- D. Valves shall be manually actuated and clockwise to close unless noted otherwise on the drawings. Operating devices shall have cast on it the word “OPEN” and an arrow indicating the direction of operation.

2.02 GATE VALVES

- A. Valves shall be resilient wedge gate valves and shall meet the requirements of AWWA C515 and be NSF 61 listed. Valves shall have a protective interior and exterior epoxy coating per AWWA C550. Valves shall be Outside Screw and Yoke (O.S.&Y.) valves.
- B. Valves shall be rated for a minimum of 150-psi working pressure.
- C. Washers, nuts, and bolts shall be type 304 stainless steel.
- D. O.S.&Y. flanged valves shall be Mueller R2361 or approved equal.

2.03 SERVICE SADDLES

- A. Service saddles on ductile iron pipes shall have a brass body, rated at 200 psig maximum working pressure. The saddle shall have an outlet for the service connection that will allow a 3/4-inch NPT thread to be tapped into it.
- B. The gasket shall be made of Nitrile (Buna N) and compounded to resist water, oil acids, alkalis, most (aliphatic) hydrocarbon fluids and many other chemicals. The

DIVISION 33: UTILITIES

gasket shall be fully entrapped in the saddle body fluids and many other chemicals. The gasket shall be fully entrapped in the saddle body to hold it in place.

- C. Service saddles shall meet AWWA C800 standard and NSF 61.
- D. Service saddles shall be Mueller BR2B Series, or approved equal.

2.04 RESTRAINED COUPLING

- A. Restrained coupling shall be self-restrained and meet AWWA C219 and NSF-61 requirements.
- B. The restraint mechanism shall incorporate a plurality of individually actuating gripping surfaces to maximize restraint capability, and have torque-limiting twist off nuts to insure proper actuating of the restraint devices.
- C. The sleeve shall be constructed of fabricated steel ASTM A283 Grade C. The sleeve finish shall a fusion bonded Flexi-Coat epoxy coating.
- D. Restrained coupling shall be Smith Blair, Inc., Model 471, or approved equal.

2.05 BUTTERFLY VALVE

- A. Valves shall be high performance type, resilient seated, one-piece disc and stem, wafer style, except for dead end service, where fully lugged valves shall be used. Body class shall be 150 psi max differential pressure. Body shall be stainless steel. Disc shall be CF8M stainless steel. Stem shall be 17-4 PH stainless steel. Seat shall be Buna-N. Stem packing shall be Teflon. Retaining ring and gland assembly shall be Type 316 stainless steel, gland nuts shall be silicon bronze. Bearings shall be Type 316 stainless steel backed Teflon.
- B. Valve shall be equipped with manual hand wheel type actuators ore electric actuators as shown on the drawings.
- C. Butterfly valve actuator shall conform to requirements of AWWA C504, insofar as applicable and as specified herein. Gearing for actuators where required shall be totally enclosed in a gear case in accordance with AWWA C504. Actuators shall have permanent indicators with raised or engraved marks to show position of valve disc.
- D. Valve shall be Bray Series 20, or approved equal.
- E. Solenoid Electric actuators shall be Bray Series 70 or approved equal
- F. Manual valve actuator shall be Bray Series 01, or approved equal.

2.06 CHECK VALVE

DIVISION 33: UTILITIES

- A. Check valves shall be swing type and shall meet the requirements of AWWA C508. Valves shall be iron body, bronze mounted, single disc, minimum 175 psi working pressure, non-shock and hydrostatically tested at 300 psi. When there is no flow through line, disc shall hang lightly against its seat in practically a vertical position. When open, disc shall swing clear of waterway. Valves shall be so constructed that disc and body seat may easily be removed and replaced without removing valve from line.

Check valves shall have bronze seat and body rings, bronze clapper arm and bronze nuts on the bolts of bolted covers. Shaft assembly and key shall be ASTM A 582 Type 416 stainless steel. Hinge shaft shall extend from body of valve, sealed with stuffing box, packing and gland. Shaft side plug bearing, stuffing box and gland shall be bronze, packing shall be reinforced Teflon, both side plug and stuffing box shall be provided with grease fittings.

- B. Check valves shall be manufactured by Mueller, or approved equal.

2.07 AIR RELEASE VALVES

- A. Pipeline air and vacuum valves shall be supplied with shutoff gate or ball valves with operator handle or lever removed. Valves shall be properly vented and piped to drain.
- B. Valve pressure rating shall be at least equal to attached pipe's rating.
- C. Small orifice assembly air release valves shall automatically release air accumulations from pipe while under positive pressure. When valve body fills with air, float mechanism shall fall to open small orifice and exhaust air to atmosphere. When air has been exhausted, float mechanism shall be buoyed up and shall tightly close small orifice. Small orifice assembly shall be furnished with Type 304 stainless steel body and cover, and shall use Type 316 stainless steel hardware. Float mechanism shall be constructed of Type 316 stainless steel. Wetted components shall be Type 316 stainless steel. A resilient, Buna-N seat shall provide drop-tight closure.
- D. Separate air release valves shall be Vent-O-Mat Model RBXb, equal as manufactured by APCO; Val-Matic; GA; Crispin, or approved equal.

2.08 PRESSURE GAUGE

- A. Type:
1. Bourdon tube actuated dial face pressure gauge.
- B. Function/Performance:
1. Accuracy: Plus or minus 1.0 percent of span or better.

DIVISION 33: UTILITIES

C. Physical:

1. Case: Type 316 stainless steel for surface/stem mounting with a pressure relieving back. The case shall be vented for temperature/atmospheric compensation. Gauge shall be callable of being liquid filled in the field or at the factory.
2. Window: Clear acrylic or shatter proof glass.
3. Bourdon tube: Stainless steel.
4. Connection: 1/2 in. NPT.
5. Gauge size: Minimum 4-in. viewable.
6. Pointer travel: Not less than 200 degrees not more than 270-degree arc.
7. Range: 0-200 psi.

D. Accessories/Options Required:

1. Shutoff valve: Each gauge shall have a process shutoff valve that can also be used as an adjustable pressure snubber.
2. Gauges shall be liquid filled at the factory.

E. Manufacturers:

1. Wika or approved equal.

2.01 PLUGS AND CAPS

- A. Provide standard plug or cap as required for testing; plugs, caps suitable for permanent service.
- B. Plug or cap or otherwise cover all piping work in progress.

2.02 FLEXIBLE CONNECTORS

A. Flanged Adaptors

1. Flanged adaptor connections for plain-end pipe at fittings, valves, and equipment shall be by Tyler Union; Dresser Style 127, or 128 or equal.

2.03 PROPELLER/TURBINE FLOW METER

A. Flow Element:

1. Type:

DIVISION 33: UTILITIES

A. Magnetically coupled propeller/turbine flowmeter.

2. Function/Performance:

A. Accuracy: Plus or minus 2 percent of rate

B. Operating Temperature: -20 to 180 degree F.

C. Repeatable to +/- 0.25 % of range.

3. Physical:

A. Propeller or rotor shall be compatible with process fluid in which it is measuring.

B. Propeller shafts shall drive the vertical shaft through a magnetic coupling.

C. Meters shall be flange mounted with ANSI 150 lb. flanged ends that shall be compatible and similar to process pipe.

D. Finish: All external surfaces shall have a chemical and corrosion resistant finish.

B. Propeller Flow Meter Totalizer/Transmitter:

1. Type:

A. Micro-processor based, intelligent transmitter compatible with meter provided.

B. Mounted directly on the meter.

2. Functional/Performance:

A. Accuracy (including flow tube): Plus/minus 0.25 percent of flow rate.

B. Operating Temperature: -4 to 158 degrees F.

C. Output: The indicator/totalizer shall provide a 4-20 mA output proportional to flow and a scaled pulsed output for remote totalization. Current output adjustable over the full range of the instrument.

D. Diagnostics: Self diagnostics with on screen display of faults.

E. Display: Digital indicator displaying flow in engineering units indicated in the Instrument Device Schedule.

F. Totalizer: A fully configurable totalizer integral to the transmitter. Totalized flow shall be displayed.

DIVISION 33: UTILITIES

3. Physical:

A. Integral mount suitable for surface or pipe stand mounting.

B. Enclosure shall be NEMA 4X (IP67).

4. Power Requirements:

A. The transmitter shall be a loop powered 24 VDC instrument.

C. Turbine Flow Meter Totalizer/Transmitter:

1. The turbine flow meter shall have direct reading flow dial and non-resettable totalizer directly mounted on the unit. Meters shall be capable of being serviced and calibrated without removal from the line.

D. Manufacturers:

1. McCrometer, Inc/Water Specialties Flomcom Model FC101-02-M-OC06 or equal

2.04 DIELECTRIC CONNECTORS

- A. Dielectric pipe fittings/insulators and unions shall be used to prevent galvanic action wherever valves or piping of dissimilar metals connect. This shall be particularly the case for copper, brass and bronze piping connecting to cast iron or steel piping systems.
- B. Dielectric unions shall be used for 2 in and smaller connections. Steel union nuts shall meet ASTM A575 requirements. The steel or ductile iron connection end shall have a steel body and shall have accurately machined taper tapped pipe threads in accordance with ASME B2.1. The copper connection end shall be a copper solder joint that meets requirements of ASTM B88. Dielectric unions shall be rated for at least 250 psi at 210 degrees F.
- C. Dielectric flange unions shall be used for connections 2 1/2 in and larger. Cast iron flanges shall meet ASTM A126; the copper solder end shall meet ASTM B62 and the pipe thread shall meet ASME B2.1. Dielectric flange unions shall be rated for at least 175 psi at 210 degrees F.
- D. Insulating sleeve and insulating bolts shall be used where dissimilar metals contact between flanges.

2.05 BALL VALVE

- A. Valves shall be stainless steel, resilient seated, full port, flanged two-piece bolted body type valves. Manual valves shall have locking levers. Body and cap shall be of stainless steel, ball and stem of Type 316 stainless steel and seats and seals of glass filled TFE. Balls shall be full floating, non-lubricated. Valve seats shall be

DIVISION 33: UTILITIES

easily accessible and replaceable. Valves shall be equipped with manual gear operator (Bray Series 04 or approved equal)

- B. Valves shall be F15 as manufactured by Flow-Tek; or approved equal.

2.06 SINGLE AND MULTIPLE PIPE SUPPORTS

- A. Single pipes located in a horizontal plane close to the floor shall be supported by methods as shown on the Drawings and as specified herein.
- B. Pipes shall be supported by flanged adjustable pipe support similar to Standon Model S89, or approved equal. Stanchions shall be flange mounted to floor.

ARTICLE 3– EXECUTION**3.01 GENERAL**

- A. The Contractor shall exercise care in loading, unloading, and handling, and storage of the valves and actuators. The Contractor shall be solely responsible for any damage to the valves and actuators, and shall repair any valve or actuator damaged in handling or storage to the satisfaction of the Engineer at no additional cost to the District.
- B. Install all brackets, extension rods, guides, the various types of operators and appurtenances as shown on the Drawings, or otherwise required.
- C. The pipelines in which the valves and appurtenances are to be installed are specified to be field-tested. During these tests any defective valve or appurtenance shall be adjusted, removed and replaced, or otherwise made acceptable to the Engineer.
- D. All items (including valve interiors) shall be cleaned prior to installation, testing and final acceptance.

END OF SECTION 33 12 00

DIVISION 33: UTILITIES

33 13 00 DISINFECTING WATER MAINS**ARTICLE 1 – GENERAL****1.01 REFERENCES**

- A. To the extent referenced in this specification section, the standards and documents listed below are included, and made a part of this specification.
- B. In the event of a conflict, the requirements of this specification section prevail.

| | |
|-----------|--------------------------|
| AWWA C651 | Disinfecting Water Mains |
| AWWA B300 | Hypochlorites |
| AWWA B301 | Liquid Chlorine |
| AWWA B302 | Ammonium Sulfate |
| AWWA B303 | Sodium Chlorite |

1.02 SUBMITTALS

- A. Submit proposed chemical datasheet, treatment levels, and disinfection procedures for Engineer's review.
- B. Submit water quality test reports indicating results comparative to specified requirements.

1.03 DOCUMENTATION AND QUALITY CONTROL RECORDS

- A. Establish and submit a Disinfection Report, including the following:
 - 1. Type and form of disinfectant used;
 - 2. Time of disinfectant injection start and time of completion;
 - 3. Test locations;
 - 4. Name of person collecting samples;
 - 5. Initial and 24-hour disinfectant residuals in treated water in ppm for each outlet tested;
 - 6. Date and time of flushing start and completion; and
 - 7. Disinfectant residual after flushing in ppm for each outlet tested.
- B. Establish and submit a Bacteriological Report, including the following:

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1. Date issued, project name, and testing laboratory name, address, and telephone number;
2. Time and date of water sample collection;
3. Name of person collecting samples; and
4. Test locations;
5. Initial and 24-hour disinfectant residuals in ppm for each outlet tested; and
6. Coliform bacteria test results for each outlet tested.

ARTICLE 2 – PRODUCT

2.01 DISINFECTION CHEMICALS

- A. Chemicals used shall meet the following requirements:
 1. Hypochlorite: AWWA B300;
 2. Liquid Chlorine: AWWA B301;
 3. Ammonium Sulfate: AWWA B302; and
 4. Sodium Chlorite: AWWA B303.

ARTICLE 3 – EXECUTION

3.01 EXAMINATION

- A. Verify piping system has been cleaned, inspected, and pressure tested.

3.02 INSTALLATION

- A. Provide and attach required equipment (injection taps, sampling taps) to perform disinfection of piping, valves, fittings, and all surfaces potentially in contact with potable water.
- B. Perform disinfection in conformance with AWWA 651 requirements.
- C. Introduce treatment into piping system.
- D. Maintain disinfectant in system for 24 hours minimum.
- E. Flush, circulate, and clean until required cleanliness is achieved; use municipal domestic water. The new system must be thoroughly flushed until no trace of dirt or foreign matter

DIVISION 33: UTILITIES

is visible. The sterilizing agent used must produce a solution of water and chlorine of not less than 50 parts per million available chlorine throughout the entire new piping system.

- F. Prior to flushing, the chlorine residual shall be measured. If it is less than 25 ppm, the system shall be re-disinfected using 50 ppm available chlorine in accordance with AWWA standards. After the chlorine solution has remained in the new piping system for at least 24 hours, the lines shall be thoroughly flushed until the normal residual chlorine in the system is measured.
- G. De-chlorinate and legally dispose of chlorinated water.
- H. Replace permanent system devices removed for disinfection.

3.03 INSPECTION

- A. Notify Engineer, District and testing agency 72 hours in advance of test and have witness test.
- B. After final flushing and before pipeline is connected to existing system or placed in service, employ an approved State certified independent testing laboratory to sample, test, and certify water quality complies with State requirements. A minimum of two sampling sites shall be sampled. A minimum of two samples shall be collected from each sampling site for total coliform analysis. These samples must be collected at least 24 hours apart and must show the water line to be absent of total coliform bacteria.
- C. The chlorine residual shall also be measured and reported.
- D. Results of the bacterial examination shall be forwarded to the California Department of Public Health. Upon receipt of acceptable results, a representative from CDPH will conduct a final inspection of the project at which time the representative will obtain additional samples for bacterial examination. System shall not be placed into operation before CDPH approval.

END OF SECTION 33 13 00



MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: **February 7, 2019**

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager 

**SUBJECT: Review and Possible Action Concerning
Confirmation of Officer's Appointment to CSDA.**

Ric Lohman has been appointed to represent the District in all local CSDA events, sign and vote on behalf of the District. The local CSDA chapter is required to have a quorum of eligible voters for any action required. This has been a problem in the past and Director Lohman asked for written Board certification of the appointment.

The next CSDA chapter meeting will be on February 12, 2019.

RECOMMENDATION:

Adopt Resolution No._____, Resolution of the Montara Water and Sanitary District Conforming Appointments to the California Special District's Association for Calendar Year 2019.

RESOLUTION NO. _____

RESOLUTION OF THE MONTARA WATER AND SANITARY DISTRICT CONFIRMING APPOINTMENTS TO CALIFORNIA SPECIAL DISTRICT'S ASSOCIATION FOR CALENDAR YEAR 2019

WHEREAS, the Board of the Montara Water and Sanitary District, a public agency in the County of San Mateo, California ("District"), is involved in various committees, boards and/or organizations that serve the District and provide for representation of the District's interests; and

WHEREAS, the Board considers appointments to various committees, boards and/or organizations on an annual basis to ensure adequate representation of the Board's elected officials throughout the County; and

WHEREAS, the Board made its 2019 appointments to various committees, boards and/or organizations at a regular meeting held on January 17, 2019, including appointment of Board Director Ric Lohman to the California Special District's Association (CSDA), San Mateo County Chapter, and Board Directors Scott Boyd, Jim Harvey, Eric Marshall and Kathryn Slater-Carter as alternates, a copy of which is on file in the District's Administrative Offices to which reference is hereby made for the full particulars thereof; and

NOW THEREFORE, be it resolved by the Board of the Montara Water and Sanitary District, a public agency in the County of San Mateo, California, that the Board's appointments to CSDA, San Mateo County Chapter, for calendar year 2019 are Board Director Ric Lohman, and Board Directors Scott Boyd, Jim Harvey, Eric Marshall and Kathryn Slater-Carter as alternates; and that said District representatives to CSDA, San Mateo County Chapter, for the 2019 calendar year are so designated and authorized.

President, Montara Water and Sanitary District

COUNTERSIGNED:

Secretary, Montara Water and Sanitary District

RESOLUTION NO. _____

RESOLUTION OF THE MONTARA WATER AND SANITARY DISTRICT CONFIRMING APPOINTMENTS TO CALIFORNIA SPECIAL DISTRICT'S ASSOCIATION FOR CALENDAR YEAR 2019

* * * *

I HEREBY CERTIFY that the foregoing Resolution No. _____ was duly and regularly passed and adopted by the Board of the Montara Water and Sanitary District, County of San Mateo, California, at a Regular Meeting thereof held on the 7th day of February, 2019, by the following vote:

AYES, Directors:

NOES, Directors:

ABSENT, Directors:

Secretary, Montara Water and Sanitary District



MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: February 7th, 2019

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

SUBJECT: Review of New Intake Structure for A.V.T.P.

One of the District's main sources of water is Montara Creek with approximately 1/3 of the total system production. The Diversion Box or Intake Box located up in Montara Mountain is a critical component for not only capturing the creek water, but also for initial treatment and the ability to accurately measure the creek flow.

The old intake structure had been in service for over 30 years and had been steadily deteriorating. It was built with a combination of redwood lumber and a pond liner. Weir boards were utilized to help deal with the turbidities, however the Alta Vista Treatment Plant would often still have to be shut down during rain events as the weir boards functionality was limited.

District Staff redesigned a new intake structure with three main goals in mind.

1. To construct with materials that would not deteriorate or leach byproduct into the water supply.
2. Minimize the need for frequent maintenance (clearing accumulated organic matter)
3. Improve pre-treatment method to allow plant to run during rain events.

After researching several options, the decision was made to build the box out of $\frac{3}{4}$ " sheets of NSF grade HDPE, stainless steel fasteners and Aluminum channel. For pre-treatment, a stainless steel Coanda Intake Screen was ordered. It was customized for Montara Creek's range of flow. Other than providing superior filtration of silts and other organic matter, the Coanda Intake Screen is "self-cleaning" requiring less maintenance.

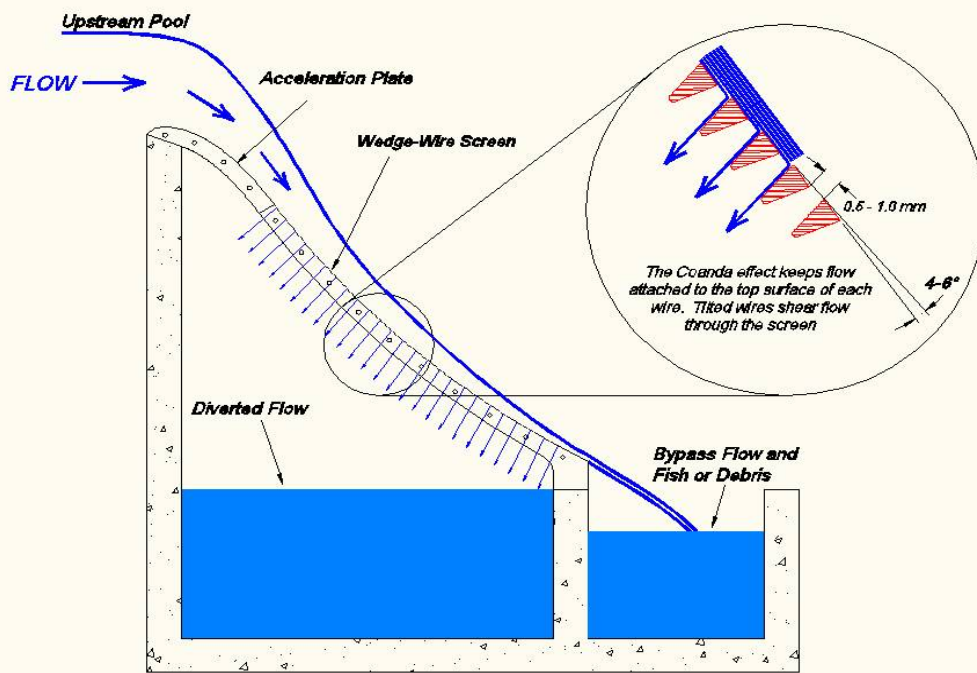
It should be mentioned, that all aspects of the design, build, and installation were done in-house by District Staff.

Since its installation approximately three months ago, the new Intake has been performing as expected without issue. It has also been able to handle rain events without causing spikes in turbidity at the Treatment Plant.

RECOMMENDATION:

This item is for Board information only.

Attachments



Features and Typical Arrangement of a Coanda-Effect Screen

Old Intake Structure



New Intake Structure







MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: **February 7, 2019**

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

SUBJECT: Review of MWSD's Receipt of Association of California Water Agencies Joint Powers Authority President's Special Recognition Award.

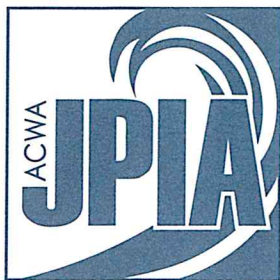
The District received its third Special Recognition Award from ACWA JPIA. On January 1, 2013 the District changed Workers Compensation Insurance Providers to the Association of California Water Agencies Joint Power Insurance Authority (ACWA/JPIA). At the time the District's Workers Comp Rate was due to claims made in prior years. Since then District staff has worked closely with ACWA/JPIA staff to prevent further losses. The result was that the Experience Modification Factor dropped from 2.12 to currently 0.85. In 2012 the District spent \$62,400 on Workers Compensation Insurance. The current 2019 payments will amount to \$15,419.

At the ACWA Fall Conference the JPIA recognized the District's efforts and presented the District with the "President's Special Recognition Award".

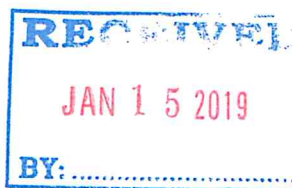
RECOMMENDATION:

This is for Board information only.

Attachments



YOUR BEST PROTECTION



January 10, 2019

ACWA JPIA

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Roseville, CA 95661-9082

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President
E.G. "Jerry" Gladbach

Vice President
Tom Cuquet

Chief Executive Officer
Walter "Andy" Sells

Executive Committee
Tom Cuquet
David Drake
E.G. "Jerry" Gladbach
David T. Hodgkin
W.D. "Bill" Knutson
Steven LaMar
Melody A. McDonald
J. Bruce Rupp
Kathleen Tiegs

Montara Water and Sanitary District (M027)
Clemens Heldmaier
P.O. Box 370131
Montara, CA 94037-4037

Dear Clemens:

Each year at Fall Conference, the JPIA recognizes members that have a Loss Ratio of 20% or less in either of the Liability, Property, or Workers' Compensation programs (loss ratio = total losses / total premiums).

The members with this distinction receive the "**President's Special Recognition Award**" certificate for each Program that they qualify in.

The JPIA is extremely pleased to present Montara Water and Sanitary District (M027) with this special recognition and commends the District on the hard work in reducing claims.

Congratulations to you, your staff, Board, and District. Keep up the good work!

The JPIA wishes you the best in 2019.

Sincerely,

E.G. "Jerry" Gladbach
President

Enclosure: President's Special Recognition Award(s)

President's Special Recognition Award

The President of the
ACWA JPIA
hereby gives Special Recognition to

Montara Water and Sanitary District

for achieving a low ratio of "Paid Claims and Case Reserves" to "Deposit Premiums"
in the Workers' Compensation Program for the period 07/01/2014 - 06/30/2017
announced at the Board of Directors' Meeting in San Diego.



E. G. "Jerry" Gladbach, President



November 26, 2018



MONTARA WATER AND SANITARY DISTRICT AGENDA

For Meeting Of: **February 7, 2019**

TO: BOARD OF DIRECTORS

FROM: Clemens Heldmaier, General Manager

**SUBJECT: Review and Possible Action Concerning
Cancellation of Next Regular Scheduled Meeting
February 18**

At this time staff does not anticipate an urgent need for the second meeting in February.

RECOMMENDATION:

Cancel the Next Regular Scheduled meeting February 18, 2019.