A G E N D A

SPECIAL MEETING

SAN RAFAEL SANITATION DISTRICT
BOARD OF DIRECTORS
FRIDAY – MAY 26, 2023 - 9:00 A.M.
SAN RAFAEL CITY HALL
1400 FIFTH AVENUE – CONFERENCE ROOM CD3
SAN RAFAEL, CALIFORNIA 94901

Members of the Public may also participate in Open Session through the following:
Zoom link: https://cityofsanrafael-org.zoom.us/j/83851722631
Or by Phone: 1 669 444 9171 US
Meeting ID: 838 5172 2631

Public comments for this meeting can be submitted via email to the District Clerk at Kathryn.Nelson@cityofsanrafael.org. The public comment period opens when the agenda is posted online and will close two hours prior to the start of the meeting. Include your name and the item you would like to provide a written comment on.

To provide comments during the meeting, please use the "raise hand" feature in the Zoom Meeting and the host will notify and unmute you when it is your turn to speak.

Members of the public may speak on Agenda items.

1. ROLL CALL

2. OPEN PERIOD

Opportunity for the public to address the Board on items not on the agenda. (Presentations are generally limited to 2 minutes.)

3. CONSENT CALENDAR

a. Minutes of the Meeting – April 21, 2023.
b. Payments – April 2023.
c. Adopt resolution authorizing the District Manager/District Engineer to execute a Professional Services Agreement for design and construction related services for the 2023 Sewer Rehabilitation Project.
d. Adopt resolution authorizing the District Manager/District Engineer to execute a Professional Services Agreement for design and construction related services for the Bret Harte Easement Retaining Wall Improvement Project.

4. INFORMATIONAL ITEMS

a. Report on CMSA National Pollutant Discharge Elimination System Permit hearing at the May 10, 2023, San Francisco Bay Regional Water Quality Control Board Meeting.

5. DIRECTOR REPORTS/REQUESTS FOR FUTURE AGENDA ITEMS

6. ADJOURNMENT

The next scheduled meeting is June 16, 2023.

SAN RAFAEL SANITATION DISTRICT
Minutes of the Meeting
April 21, 2023

Regular Meeting In Person

The meeting was called to order at 9:06 A.M. by Director Bushey.

Attendance Board:	Kate Colin, Chair arrived at 9:17 AM Maribeth Bushey, Secretary/Director Katie Rice, Director
Attendance Staff:	Doris Toy, District Manager/District Engineer Kris Ozaki, Operations and Maintenance Manager Kathryn Nelson, Administrative Analyst Cynthia Fuller, Administrative Assistant Mike Ferreira, Sewer Maintenance Worker Allan Lee, Sewer Lead Maintenance Worker Chris Robarge, Sewer Maintenance Worker
Attendance Others:	Cindy Hernandez, Retired Honoree John Maher, Maher Accountancy, Dean DiGiovanni, CMSA Commissioner for SRSD

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1. **ROLL CALL** – A roll call was taken at 9:06 A.M., Director Bushey, Director Rice, were present.

6. **NEW BUSINESS**

   a. Adopt Resolution of Appreciation to Cindy Hernandez.
   The Board Adopts the Resolution of Appreciation to Cindy Hernandez after reading by Director Bushey and the Board signing the resolution.

   MOTION by Director Rice, seconded by Director Bushey,

   AYES: Director Rice, Director Bushey, Chair Kate
   NOES: None
   ABSENT: None ***Motion Carried***

Note: Chair Kate arrived at 9:17 AM.

2. **OPEN PERIOD** – No one was present to address the Board.

3. **MINUTES OF MARCH 17, 2023 -** Request approval as submitted

MOTION by Director Bushey seconded by Director Rice, to correct the March 17, 2023, Minutes to state In Person instead of Via Teleconference. Also, Motion carried to approve the body of the minutes of the March 17, 2023, meeting as presented.

AYES: Director Bushey, Director Rice, Chair Kate
NOES: None
ABSENT: None ***Motion Carried***

4. **PAYMENTS -** Request approval as submitted.

MOTION by Director Bushey, seconded by Director Rice, to approve the payments for March 2023, for maintenance and operation of the District and for capital improvements totaling $3,044,996.40.

AYES: Director Rice, Chair Kate, Director Bushey
NOES: None
ABSENT: None ***Motion Carried***

5. **OLD BUSINESS**

a. Report on Termination of Sewer Service at 255 Margarita Drive.

District Manager Doris Toy updated the Board on the status of 255 Margarita Drive which is now complete as the Marin LAFCo application was approved, the sewer lateral was properly installed per approved District plans and the sewer lateral through the neighbor's property was properly closed and filled.

6. **NEW BUSINESS**

b. Discussion on Capital Improvement Plan.
District Manager Doris Toy reviews the Capital Improvement Plan submitted in the Agenda Packet.

c. Discussion on District Reserve Policy (John Maher).
District Manager Doris Toy presented a brief overview of the Reserve Policy matter submitted in the Agenda Packet and John Maher explained the current District Reserve Policy and their survey results in more detail,

d. Approve the Administrative Assistant position.
The Board adopts the Administrative Assistant position.

MOTION by Director Rice, seconded by Director Bushey

AYES: Director Rice, Director Bushey, Chair Kate
NOES: None
ABSENT: None ***Motion Carried***

7. INFORMATIONAL ITEMS

a. Report on Spill Emergency Response Plan in compliance with the Reissuance of the State's Waste Discharge Requirements.
b. Report on Municipal Resource Group Recommended Workplan.

8. DIRECTOR REPORTS/REQUESTS FOR FUTURE AGENDA ITEMS

9. ADJOURNMENT

There being no further business to come before the Board, the meeting of April 21, 2023, was adjourned at 10:47 A.M. The next regular meeting of the San Rafael Sanitation District is scheduled for Friday, May 19, 2023.

Respectfully submitted,

Maribeth Bushey, Recording Secretary

ATTEST THIS 26th DAY OF MAY 2023

Kate Colin, Chair

SAN RAFAEL SANITATION DISTRICT
PAYMENT SUMMARY
April 1, 2023 - April 30, 2023

Vendor/Payee	Memo	Class	Account	Amount
ARAMARK UNIFORM SERVICES	Uniforms - weekly service ending 2/01/23	200	2021 · Uniforms	204.77
ARAMARK UNIFORM SERVICES	Uniforms - weekly service ending 3/29/23	200	2021 · Uniforms	202.03
ARAMARK UNIFORM SERVICES	Uniforms - weekly service ending 4/05/23	200	2021 · Uniforms	226.39
ARAMARK UNIFORM SERVICES	Uniforms - weekly service ending 4/12/23	200	2021 · Uniforms	281.27
AT&T *1523	Telephone Service - land lines for pump stations and dialers from 3/02/23-4/01/23	100	2534 · Telephone service	558.45
BWS DISTRIBUTORS	Safety - gloves	200	2365 · Safety equipment and supplies	339.04
CAL ASSOC. OF SANITATION AGENCIES	Memberships - annual membership dues for 2023	100	2131 · Memberships and subscriptions	9,450.00
CALAMP WIRELESS NETWORKS CORPORATION	Vehicle - vehicles GPS	200	2083 · Parts and repairs vehicles	232.35
CALCON SYSTEMS, INC.	Pump Stations - calibrate pressure transducers	200	2359 · Maint- pump sta's & force mains	1,165.00
CALCON SYSTEMS, INC.	Pump Stations - pump service call for San Pedro Pump Station	200	2359 · Maint- pump sta's & force mains	3,246.52
CENTRAL MARIN SANITATION AGENCY	Service Charges - fourth quarter service charges for 4/01/23-6/30/23	400	4112 · Sewage treatment	1,281,149.30
CITY OF SAN RAFAEL	Contract with San Rafael - fourth quarter FY 2022-23 reimbursement	100	2361 · Contract with San Rafael	855,457.19
CITY OF SAN RAFAEL	Vehicle - diesel and unleaded fuel charges for 1/01/23-3/31/23	200	2083 · Parts and repairs vehicles	8,843.02
CITY OF SAN RAFAEL	Vehicle - vehicle repairs from 1/05/23-3/08/23	200	2083 · Parts and repairs vehicles	4,145.56
ENVIRONMENTAL PRODUCTS & ACCESS., LLC	Pump Stations - vactor hose	200	2359 · Maint- pump sta's & force mains	2,790.97
EVOQUA WATER TECHNOLOGIES, LLC	Odor Control - service and inspections of chemical tanks at pump stations from 3/01/23-3/31/23	200	2106 · Odor control chemicals	1,899.86
EWERS ENGINEERING INC	Isolation Valve Replacement Project - engineering services from 2/01/23-3/31/23	300	4345 · Isolation Valve Replacement (10	2,185.00
EXPRESS SERVICES INC.	Consulting Services - temporary administrative assistant for the week ending on 3/12/23	100	2325 · Consulting services	1,396.15
EXPRESS SERVICES INC.	Consulting Services - temporary administrative assistant for the week ending on 3/19/23	100	2325 · Consulting services	1,495.88
EXPRESS SERVICES INC.	Consulting Services - temporary administrative assistant for the week ending on 3/26/23	100	2325 · Consulting services	1,196.70
EXPRESS SERVICES INC.	Consulting Services - temporary administrative assistant for the week ending on 4/02/23	100	2325 · Consulting services	1,196.70
EXPRESS SERVICES INC.	Consulting Services - temporary administrative assistant for the week ending on 4/09/23	100	2325 · Consulting services	1,495.88
JACKSON'S HARDWARE	Pump Stations - gaskets for ARVs	200	2359 · Maint- pump sta's & force mains	21.84
MAGGIORA & GHILOTTI INC	Third Street (Fourth Street to Mary) - Third Street Y replacement	300	4340 · Third St (Hayes to Ritter) (80)	4,620.40
MAHER ACCOUNTANCY	Accounting Services - April 2023	100	2717 · Accounting services	3,600.00
MARIN COUNTY TAX COLLECTOR	2020 Sewer Pipe Repair and Replacement Project - public notification letter	300	4342 · 2020-21 Sewer Improvement (80)	586.00
McMASTER-CARR	Collection System - rope for power rod trucks	200	2360 · O&M - collection systems	104.39
MUNICIPAL RESOURCE GROUP, LLC	Consulting Services - workplan implementation services through 2/28/23	100	2325 · Consulting services	3,712.50
NUTE ENGINEERING INC	Bayside Acres Beach Sewer Improvements Project - engineering services from 3/01/23-3/31/23	300	4338 · Rehab of Beach Swr Bayside (80)	29,256.00
PARK ENGINEERING, INC	Bayside Acres Beach Sewer Improvements Project - on-call capital improvement from Aug through Oct 2022	300	4338 · Rehab of Beach Swr Bayside (80)	10,378.30
PARK ENGINEERING, INC	Consulting Services - sewer permit inspections from August through October 2022	200	2325 · Consulting services	7,125.40
PG&E a/c 2480926202-5	Power - electric service for pump stations from 3/10/23-4/09/23	200	2535 · Electric utility costs	49,290.79
RAUCH COMMUNICATIONS CONSULTANTS INC	Bayside Acres Beach Sewer Improvements Project - public relations related services through 2/28/23	300	4338 · Rehab of Beach Swr Bayside (80)	337.50
SmartCover Systems, Inc.	Collection System - stock parts for servicing	200	2360 · O&M - collection systems	4,469.42
SmartCover Systems, Inc.	Collection System - warranty for 6 locations	200	2360 · O&M - collection systems	7,348.00
US BANK CORPORATE PAYMENT	Office Supplies - led monitor	100	2133 · Office & shop supplies	146.62
US BANK CORPORATE PAYMENT	Office Supplies - miscellaneous office supplies	100	2133 · Office & shop supplies	23.32
US BANK CORPORATE PAYMENT	Office Supplies - miscellaneous office supplies	100	2133 · Office & shop supplies	126.73
US BANK CORPORATE PAYMENT	Office Supplies - miscellaneous office supplies	100	2133 · Office & shop supplies	40.54
US BANK CORPORATE PAYMENT	Office Supplies - space heater	100	2133 · Office & shop supplies	28.39
US BANK CORPORATE PAYMENT	Pump Stations - drying tube assembly	200	2359 · Maint- pump sta's & force mains	299.25
US BANK CORPORATE PAYMENT	Subscriptions - Marin IJ subscription	100	2131 · Memberships and subscriptions	254.60

USPS	2020 Sewer Pipe Repair and Replacement Project - USPS Marketing Mail	300	4342 · 2020-21 Sewer Improvement (80)	***232.86***
VERIZON WIRELESS(372347623)	Telephone Service - wireless service for laptops from 2/21/23-3/20/23	100	2534 · Telephone service	***426.11***
W. R. FORDE ASSOCIATES (INC)	2020 Sewer Pipe Repair and Replacement Project - phase 2, progress payment #2	300	4342 · 2020-21 Sewer Improvement (80)	***258,362.00***
W. R. FORDE ASSOCIATES (INC)	2020 Sewer Pipe Repair and Replacement Project - phase 2, progress payment #3	300	4342 · 2020-21 Sewer Improvement (80)	***304,367.09***
W. R. FORDE ASSOCIATES (INC)	2020 Sewer Pipe Repair and Replacement Project - phase 2, progress payment #4	300	4342 · 2020-21 Sewer Improvement (80)	***180,680.32***
				$ 3,044,996.40

SAN RAFAEL SANITATION DISTRICT
Agenda Item No. 3.c.

DATE: May 26, 2023

TO: Board of Directors, San Rafael Sanitation District

FROM: Doris Toy, District Manager/District Engineer

SUBJECT: Adopt Resolution Authorizing the District Manager/District Engineer to Execute a Professional Services Agreement for Design and Construction Related Services for the 2023 Sewer Rehabilitation Project

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RECOMMENDATION:

Adopt resolution authorizing the District Manager/District Engineer to execute a Professional Services Agreement with Schaaf & Wheeler for design and construction related services for the 2023 Sewer Rehabilitation Project not to exceed $449,676.

BACKGROUND:

As part of the 80-Year Gravity Main Lifecyle Replacement Program, it is the District's goal to replace 1.6 miles of pipe per year. In order for the District to develop future projects, the District began to televise approximately 8.5 miles of sanitary sewers throughout central and southern San Rafael in 2019 and 11.2 miles of sewers in 2020. In addition to televising the pipe, both the manholes and pipes were also assessed by using an industry pipe condition rating system, NASSCO PACP (National Association of Sewer Service Companies, Pipeline Assessment Certification Program).

In 2020, the District entered a Professional Services Agreement with Schaaf & Wheeler for design related services for the 2020 Sewer Pipe Repair and Replacement Project. For this project, Schaaf & Wheeler reviewed and analyzed the pipe assessment data from the 8.5 miles of sewer and developed two bid documents, Phase A and Phase B. Phase A consisted of 276 LF of 8-inch pipe replacement and four spot repairs that were identified as urgently needed repairs, which was completed in the Fall of 2021. Phase B consisted of 2.3 miles of sewer pipe replacement, which began construction in December 2022 and is anticipated to be completed by October 2023.

The 2023 Sewer Rehabilitation Project will be similar to the 2020 Sewer Pipe Repair and Replacement Project, where the engineering consultant will review and analyze the pipe condition assessment data and develop and prioritize a list of pipes and manholes to be recommended for repairs in similar project size, approximately 2.3 miles of pipe replacement. Please note that the District will also be evaluating manhole inspection reports to determine any necessary manholes to be rehabilitated in the 2023 Sewer Rehabilitation Project.

ANALYSIS:

Since Schaff & Wheeler designed the District's 2020 Sewer Pipe Repair and Replacement Project, Phase A and B, which will be similar to the 2023 Sewer Rehabilitation Project, staff

requested Schaaf & Wheeler to submit a proposal. Staff have been very satisfied with Schaaf & Wheeler's engineering work, professionalism and responsiveness with District staff, contractors, and the public. They were also the engineering firm that designed and assisted staff during construction on the Woodland Avenue Sewer Improvement Project.

For the 2023 Sewer Rehabilitation Project, Schaaf & Wheeler is proposing to perform the following:

- Task 1: Project Management and Coordination. Schaaf & Wheeler will manage and perform quality control throughout the project. Schaaf & Wheeler will facilitate all design meetings and take minutes.
- Task 2: Analysis of District's video files for existing sewers. Schaaf & Wheeler will review, assess, and prioritize approximately 11.2 miles of sewer inspection video files and PACP reports and 231 manhole inspection reports; and submit a summary report with recommended repairs and cost estimates.
- Task 3: Design. Includes utility investigation, topographic surveying, geotechnical investigation, and applying for Caltrans Encroachment Permit. Schaaf & Wheeler will deliver 35%, 65%, and 95% design submittals for District staff to review; and develop final bid documents and cost estimate.
- Task 4: Bid Phase Support. Schaaf & Wheeler will facilitate pre-bid meeting, assist with posting bid packages and addenda, review construction bids received, check references and make a recommendation to the District for award.
- Task 5: Design support during construction. Schaaf & Wheeler will attend and prepare agenda for weekly meetings; assist in reviewing submittals and responding to Requests for Information from the contractor; site visits when necessary; and prepare record drawings.

Schaaf & Wheeler anticipates completing the design and have the final bid documents submitted by March 2024. Please see attached proposal for additional information.

Schaaf & Wheeler proposes to perform the design related services and design support during construction for the District on a time-and-materials basis for an amount not to exceed $449,676 for the 2023 Sewer Rehabilitation Project.

FISCAL IMPACT:

Schaaf & Wheeler's design and construction related services for the 2023 Sewer Rehabilitation Project will be funded by the 80-Year Life Cycle Sewer Replacement Program for Fiscal Year 2022-23 through Fiscal Year 2024-25.

ACTION REQUIRED:

Staff recommends that the Board adopt the resolution authorizing the District Manager/District Engineer to execute a Professional Services Agreement with Schaaf & Wheeler for design and construction related services for the 2023 Sewer Rehabilitation Project not to exceed $449,676.

Attachments: Resolution
Professional Services Agreement
Proposal from Consultant, Exhibit "A"

SAN RAFAEL SANITATION DISTRICT

RESOLUTION NO. 23-1266

A RESOLUTION AUTHORIZING THE DISTRICT MANAGER/DISTRICT ENGINEER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT FOR DESIGN AND CONSTRUCTION RELATED SERVICES FOR THE 2023 SEWER REHABILITATION PROJECT NOT TO EXCEED $449,676

THE BOARD OF DIRECTORS OF THE SAN RAFAEL SANITATION DISTRICT, COUNTY OF MARIN, hereby resolves as follows:

The District Manager/District Engineer is hereby authorized to execute, on behalf of the San Rafael Sanitation District, a Professional Services Agreement for design and construction related services for the 2023 Sewer Rehabilitation Project, a copy of which is hereby attached and by this reference made a part hereof.

PASSED AND ADOPTED at a special meeting of the San Rafael Sanitation District Board of Directors held on the 26th day of May 2023, by the following vote, to wit:

AYES:

NOES:

ABSENT/ABSTAIN:

SAN RAFAEL SANITATION DISTRICT

Kate Colin, Chair

ATTEST:

Maribeth Bushey, Secretary

PROFESSIONAL SERVICES AGREEMENT
FOR DESIGN AND CONSTRUCTION RELATED SERVICES FOR THE
2023 SEWER REHABILITATION PROJECT

This Agreement is made and entered into this 26th day of May, 2023 by and between the SAN RAFAEL SANITATION DISTRICT [hereinafter "DISTRICT"], and [SCHAAF & WHEELER] (hereinafter "CONSULTANT").

RECITALS

WHEREAS, the DISTRICT has selected [SCHAAF & WHEELER] to perform the required engineering services for the **"2023 Sewer Rehabilitation Project"** (hereinafter "PROJECT"); and

WHEREAS, the CONSULTANT has offered to render certain specialized professional services in connection with this Project.

AGREEMENT

NOW, THEREFORE, the parties hereby agree as follows:

1. DEFINITIONS.

DISTRICT and CONSULTANT have outlined the scope of services to be provided, and related expenses as described in Exhibit "A" attached and incorporated herein.

2. PROJECT COORDINATION

A. DISTRICT. The District Manager/District Engineer shall be the representative of the DISTRICT for all purposes under this Agreement and is hereby designated the PROJECT MANAGER for the DISTRICT, and said PROJECT MANAGER shall supervise all aspects of the progress and execution of this Agreement.

B. CONSULTANT. CONSULTANT shall assign a single PROJECT DIRECTOR to have overall responsibility for the progress and execution of this Agreement for CONSULTANT. Benjamin Shick, is hereby designated as the PROJECT DIRECTOR for CONSULTANT. Should circumstances or conditions subsequent to the execution of this Agreement require a substitute PROJECT DIRECTOR for any reason, the CONSULTANT shall notify the DISTRICT within ten (10) business days of the substitution.

3. DUTIES OF CONSULTANT

CONSULTANT shall perform the duties and/or provide services as follows: the CONSULTANT agrees to provide professional services as an Engineering Consultant to prepare work outlined in the Proposal from CONSULTANT dated May 12, 2023, marked Exhibit "A" attached hereto, and incorporated herein by this reference. CONSULTANT agrees to be available and perform the work specified in this Agreement in the time frame as specified and as shown in Exhibit "A".

4. DUTIES OF THE DISTRICT

DISTRICT shall perform the duties as described and incorporated herein.

5. COMPENSATION

For the full performance of the services described herein by CONSULTANT, DISTRICT shall pay CONSULTANT on a time and materials basis for services rendered in accordance with the rates shown on the current fee schedule as described in Exhibit "A" attached and incorporated herein. The total payment will not exceed $449,676, as shown on the Proposal Budget, set out in Exhibit "A".

Payment will be made monthly upon receipt by PROJECT MANAGER of itemized invoices submitted by CONSULTANT.

6. TERM OF AGREEMENT

The term of this Agreement shall be from the date of execution until the Project is complete.

7. TERMINATION

A. Discretionary. Either party may terminate this Agreement without cause upon thirty (30) days written notice mailed or personally delivered to the other party.

B. Cause. Either party may terminate this Agreement for cause upon ten (10) days written notice mailed or personally delivered to the other party, and the notified party's failure to cure or correct the cause of the termination notice, to the reasonable satisfaction of the party giving such notice, within thirty (30) days of the receipt of said notice.

C. Effect of Termination. Upon receipt of notice of termination, neither party shall incur additional obligations under any provision of this Agreement without the prior written consent of the other.

D. Return of Documents. Upon termination, any and all DISTRICT documents or materials provided to CONSULTANT and any and all of CONSULTANT's documents and materials prepared for or relating to the performance of its duties under this Agreement, shall be delivered to DISTRICT as soon as possible, but not later than thirty (30) days after termination.

8. OWNERSHIP OF DOCUMENTS

The written documents and materials prepared by the CONSULTANT in connection with the performance of its duties under this Agreement, shall be the sole property of DISTRICT. DISTRICT may use said property for any purpose, including projects not contemplated by this Agreement.

9. INSPECTION AND AUDIT

Upon reasonable notice, CONSULTANT shall make available to DISTRICT, or its agent, for inspection and audit, all documents and materials maintained by CONSULTANT in connection with

its performance of its duties under this Agreement. CONSULTANT shall fully cooperate with DISTRICT or its agent in any such audit or inspection.

10. ASSIGNABILITY

The parties agree that they shall not assign or transfer any interest in this Agreement nor the performance of any of their respective obligations hereunder, without the prior written consent of the other party, and any attempt to so assign this Agreement or any rights, duties or obligations arising hereunder shall be void and of no effect.

11. INSURANCE

A. During the term of this Agreement, CONSULTANT shall maintain, at no expense to DISTRICT, the following insurance policies:

1. A commercial general liability insurance policy in the minimum amount of one million ($1,000,000) dollars per occurrence and $2,000,000 aggregate for death, bodily injury, personal injury, or property damage;

2. An automobile liability (owned, non-owned, and hired vehicles) insurance policy in the minimum amount of one million ($1,000,000) dollars per occurrence;

3. If any licensed professional performs any of the services required to be performed under this Agreement, a professional liability insurance policy in the minimum amount of one million ($1,000,000) dollars to cover any claims arising out of the CONSULTANT's performance of services under this Agreement.

B. The insurance coverage required of the CONSULTANT by Section 11. A., shall also meet the following requirements:

1. The insurance shall be primary with respect to any insurance or coverage maintained by DISTRICT and shall not call upon DISTRICT's insurance or coverage for any contribution;

2. Except for professional liability insurance, the insurance policies shall be endorsed for contractual liability and personal injury;

3. Except for professional liability insurance, the insurance policies shall be specifically endorsed to include the DISTRICT, its officers, agents, and employees as additionally named insureds under the policies;

4. CONSULTANT shall provide to PROJECT MANAGER, (a) Certificates of Insurance evidencing the insurance coverage required herein, and (b) specific endorsements naming DISTRICT, its officers, agents and employees, as additional insureds under the policies;

5. The insurance policies shall provide that the insurance carrier shall not cancel, terminate or otherwise modify the terms and conditions of said insurance policies except upon thirty (30) days written notice to DISTRICT's PROJECT MANAGER;

6. If the insurance is written on a Claims Made Form, then, following termination of this Agreement, said insurance coverage shall survive for a period of not less than five years;

7. The insurance policies shall provide for a retroactive date of placement coinciding with the effective date of this Agreement;

8. The insurance shall be approved as to form and sufficiency by PROJECT MANAGER and the County Counsel.

C. If it employs any person, CONSULTANT shall maintain Worker's Compensation and Employer's Liability Insurance, as required by the State Labor Code and other applicable laws and regulations, and as necessary to protect both CONSULTANT and DISTRICT against all liability for injuries to CONSULTANT's officers and employees.

D. Any deductibles or self-insured retentions exceeding $20,000 in CONSULTANT's insurance policies must be declared to and approved by the PROJECT MANAGER and the County Counsel. At DISTRICT's option, the deductibles or self-insured retentions with respect to DISTRICT shall be reduced or eliminated to DISTRICT's satisfaction, or CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claims administration, attorney's fees and defense expenses.

12. INDEMNIFICATION

CONSULTANT shall indemnify, release, and hold harmless DISTRICT, its officers, and employees against any claim, demand, suit, judgment, loss, liability, or expense of any kind, including attorney's fees, arising out of or resulting in any way from any negligent acts or omissions or negligence of CONSULTANT or CONSULTANT's officers, agents, and employees in the performance of their duties and obligations under this Agreement.

13. NONDISCRIMINATION

CONSULTANT shall not discriminate, in any way, against any person on the basis of age, sex, race, color, religion, ancestry, national origin or disability in connection with or related to the performance of its duties and obligations under this Agreement.

14. COMPLIANCE WITH ALL LAWS

CONSULTANT shall use due professional care to observe and comply with all applicable Federal, State and local laws, ordinances, codes, and regulations in the performance of its duties and obligations under this Agreement. CONSULTANT shall perform all services under this Agreement in accordance with these laws, ordinances, codes, and regulations.

15. NO THIRD PARTY BENEFICIARIES

DISTRICT and CONSULTANT do not intend, by any provision of this Agreement, to create in any third party, any benefit or right owed by one party, under the terms and conditions of this Agreement, to the other party.

16. NOTICES

All notices and other communications required or permitted to be given under this Agreement, including any notice of change of address, shall be in writing and given by personal delivery, or deposited with the United States Postal Service, postage prepaid, addressed to the parties intended to be notified. Notice shall be deemed given as of the date of personal delivery, or if mailed, upon the date of deposit with the United States Postal Service. Notice shall be given as follows:

TO DISTRICT: Doris Toy (District Manager)
San Rafael Sanitation District
111 Morphew Street
San Rafael, CA 94915-1560

TO CONSULTANT: Mr. Benjamin Shick, P.E. (Vice President)
Schaaf & Wheeler
2200 Range Avenue, Ste. 201
Santa Rosa, CA 95403

17. INDEPENDENT CONSULTANT

For the purposes, and for the duration, of this Agreement, CONSULTANT, its officers, agents and employees shall act in the capacity of an Independent Consultant, and not as employees of the DISTRICT. CONSULTANT and DISTRICT expressly intend and agree that the status of CONSULTANT, its officers, agents and employees be that of an Independent Consultant and not that of an employee of DISTRICT.

18. ENTIRE AGREEMENT -- AMENDMENTS

A. The terms and conditions of this Agreement, all exhibits attached, and all documents expressly incorporated by reference, represent the entire Agreement of the parties with respect to the subject matter of this Agreement.

B. This written Agreement shall supersede any and all prior agreements, oral or written, regarding the subject matter between the CONSULTANT and the DISTRICT.

C. No other agreement, promise or statement, written or oral, relating to the subject matter of this Agreement, shall be valid or binding, except by way of a written amendment to this Agreement.

D. The terms and conditions of this Agreement shall not be altered or modified except by a written amendment to this Agreement signed by the CONSULTANT and the DISTRICT.

E. If any conflicts arise between the terms and conditions of this Agreement, and the terms and conditions of the attached exhibits or the documents expressly incorporated by reference, the terms and conditions of this Agreement shall control.

19. SET-OFF AGAINST DEBTS

CONSULTANT agrees that DISTRICT may deduct from any payment due to CONSULTANT under this Agreement, any monies which CONSULTANT owes DISTRICT under any ordinance, agreement, contract or resolution for any unpaid taxes, fees, licenses, assessments, unpaid checks or other amounts.

20. WAIVERS

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

21. CITY BUSINESS LICENSE/OTHER TAXES

CONSULTANT shall obtain and maintain during the duration of this Agreement, a CITY business license as required by the San Rafael Municipal Code. CONSULTANT shall pay any and all state and federal taxes and any other applicable taxes. CONSULTANT's taxpayer identification number is 77-0061375, and CONSULTANT certifies under penalty of perjury that said taxpayer identification number is correct.

22. APPLICABLE LAW

The laws of the State of California shall govern this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day, month and year first above written.

SAN RAFAEL SANITATION DISTRICT	CONSULTANT
	SCHAFF & WHEELER
Doris Toy, P.E. District Manager/District Engineer	
APPROVED AS TO FORM:	By:
	Title:
Kerry L. Gerchow Deputy County Counsel	

3c Exhibit A

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS

PROPOSAL FOR

San Rafael Sanitation District

2023 Sewer Rehabilitation Project

May 12, 2023

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS
2200 Range Avenue, Ste. 201
Santa Rosa, CA 95403
(707) 528-4848

May 12, 2023

Doris Toy
San Rafael Sanitation District
111 Morphew Street
San Rafael, CA 94915

Subject: Proposal for 2023 Sewer Rehabilitation Project

Dear Ms. Toy:

Schaaf & Wheeler proposes its professional engineering services for the 2023 Sewer Rehabilitation Project to the San Rafael Sanitation District (District). Our team is positioned to provide a design that meets the District's goals within schedule and budget.

Recently, we completed the 2020 Sewer Pipe Repair and Replacement Project for the District, which included reviewing approximately 8.5 miles of sewer inspection videos, developing a prioritizing of locations to be rehabilitated as part of capital improvement projects, developing design documents for two separate construction projects.

We have completed numerous wastewater projects within Marin County and throughout the Bay Area. We look forward to applying our experience and knowledge of the area's infrastructure to the proposed project.

I will be the project manager. I have more than 20 years of experience and have worked closely with the District on several similar projects. Glen M. Anderson, PE will be the principal-in-charge. Glen has 17 years of experience overseeing wastewater infrastructure projects throughout the Bay Area. We have included Miller Pacific Engineering Group (MPEG), Kier + Wright (K+W), and Subtronic Corporation (Subtronic) on our team to provide subconsultant services.

The enclosed proposal outlines our project approach, work plan, and team qualifications. We welcome the opportunity to meet with the District to discuss our proposal further. If you need any further information or have any questions, please contact me at (707) 528-4848 or bshick@swsv.com.

Sincerely,
Schaaf & Wheeler

Benjamin L. Shick, PE
Vice President

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Company Overview

About Schaaf & Wheeler

Firm Name:	Schaaf & Wheeler
Type of Organization:	Corporation – Incorporated in California since 1985, in business 38 years
Primary Contact:	**Benjamin L. Shick, PE** 2200 Range Avenue, Ste. 201, Santa Rosa, CA 95403 (707) 528-4848; bshick@swsv.com
Offices:	HQ: 4699 Old Ironsides Drive, Suite 350, Santa Clara, CA 95054 870 Market Street, Ste. 1278, San Francisco, CA 94102 2200 Range Avenue, Ste. 201, Santa Rosa, CA 95403 3 Quail Run Circle, Ste. 101, Salinas, CA 93907 10232 Donner Pass Road #4, Truckee, CA 96161
Professional Registrations and Affiliations:	Certified State of California Small Business Enterprise Certification No. 40527

Schaaf & Wheeler is a civil engineering firm focused in water resources. With over 30 years of commitment to solving flood control, stormwater, wastewater, potable water, and recycled water problems, Schaaf & Wheeler is recognized by public and private sector clients for its value-added engineering. We are certified as a small business enterprise by the State of California and operate from five locations: Santa Clara, San Francisco, Santa Rosa, Salinas, and Truckee.

Schaaf & Wheeler has 10 areas of focus within the water resources discipline.

- Hydrology and hydraulics analyses, including site evaluations and modeling;
- Flood control analyses, including floodplain studies and channel design, filing of letters of map revision, and FEMA coordination;
- Watershed assessments, erosion and sediment control, and bioengineered channel stabilization;
- Water quality, including design or review of best management practices (BMPs) for stormwater treatment and hydromodification flow control facilities;
- Stormwater management and drainage services, including master planning, engineering, and design of urban storm drain systems and pump stations;
- Wastewater system master planning, engineering, and design of conveyance systems, including lift stations;
- Potable water system master planning, modeling, engineering; and design of supply, storage, collection and distribution systems, including tanks and booster stations;
- Recycled water systems planning, engineering, and design; including reclamation feasibility studies and customer retrofits;
- Construction management, construction site observation, construction inspection services, value engineering, construction cost analysis, and constructability reviews; and
- Project management, including management of subconsultants, containment of schedule and cost, and communications with client and stakeholders.

About Our Subconsultants

Geotechnical Services

MPEG is an employee-owned California Corporation and registered as a California SBE. MPEG also has Caltrans certified field technicians for observation and testing. Their services span more than 30 years in the fields of geotechnical planning, geological hazards analysis, geotechnical exploration and testing, foundation engineering, construction monitoring, geo-civil engineering, and distressed property evaluation.

MPEG has an extensive experience working in Sonoma, Napa, and Marin Counties including a diverse range of projects including feasibility studies, geologic hazard analysis, levee improvements, storm water improvements including pump stations and detention basins, waterline and sewerline rehabilitation, pedestrian bridges, retaining wall and landslide repair projects, earthquake damage assessments and other project types.

MPEG currently provides on-call geologic and geotechnical services for Marin, Napa, and Sonoma Counties, City of Mill Valley, City of Corte Madera, City of Sausalito, Town of Fairfax, City of San Rafael and San Rafael Sanitation District, City of Larkspur, City of Napa, City of American Canyon, and several other public utility agencies.

K+W is a team of civil engineering and land surveying professionals that is trusted by many cities to bring their public improvements to life, including the City of Mountain View, City of Hayward, Town of Los Gatos, City of Dublin, City of Livermore, and many local municipalities such as Alameda County Public Works, Zone 7 Water Agency, Alameda County Water District, and many others.

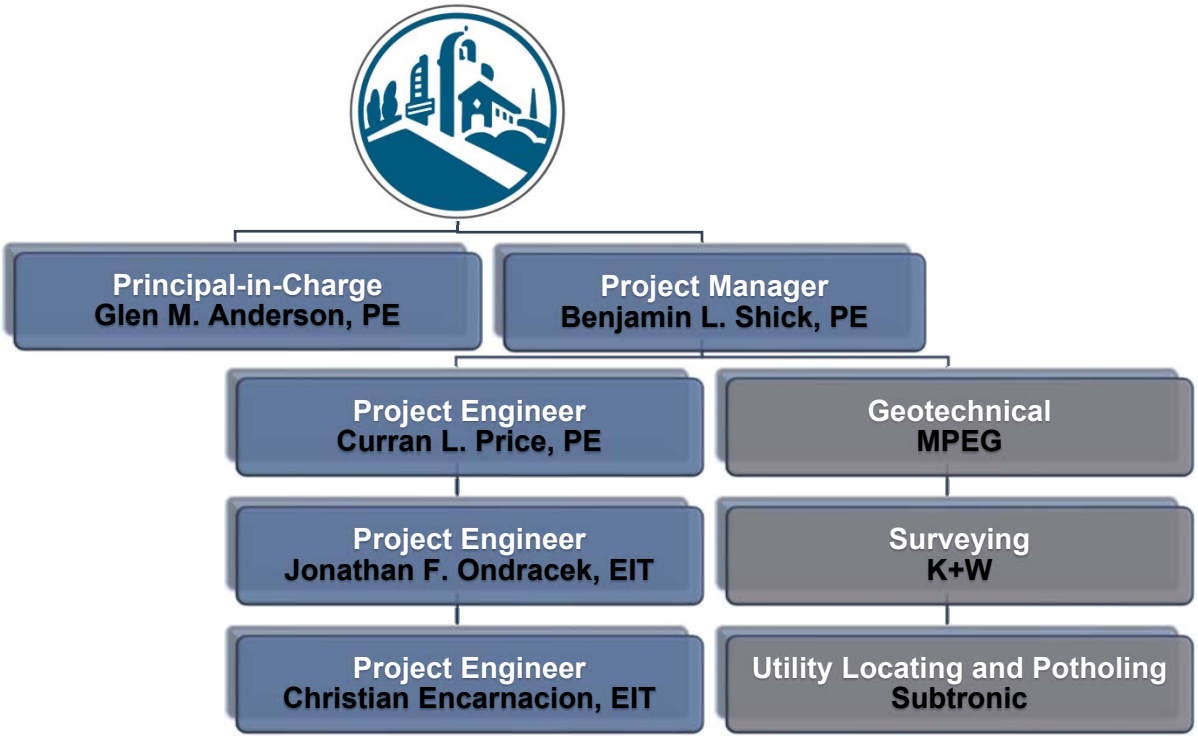
Founded in 1972, K+W operates from 8 offices and has 230 employees, including 29 licensed civil engineers and 13 licensed land surveyors. They have completed more than 60 LEED-certified projects.

Subtronic Corporation (Subtronic) has provided subsurface surveying since 1984, offering a full range of underground utility survey and geophysical services. In addition, they provide CCTV inspection and hydrojetting services for storm drains and sanitary sewer pipes, performed by NASSCO PACP-certified operators.

Their client list includes engineers, architects, and consultants contracted to large construction and civil engineering projects, public utility, and governmental agencies. All Subtronic staff are HAZWOPER trained and all locators are certified under Cal OSHA Title 8 Section 1509 and CGC 4216.3 and 29 CFR 1910.

Team Organization

Schaaf & Wheeler has assembled a dedicated team of in-house engineers and subconsultants to complete this project for the District, as outlined in our organization chart. Brief summaries of individual roles and qualifications are included below, with full resumes listed in the Appendix.



Benjamin L. Shick, PE: Project Manager
Ben is a vice president and an owner at Schaaf & Wheeler. He has more than 20 years of experience in infrastructure planning and design of wastewater, potable water systems, and stormwater. He has served as project manager and project engineer of water and sewer mains, sewage lift stations, stormwater pumping stations, gravity sewers, flood plain investigation, shoreline protection studies, drainage studies, channel design and modeling, water rights permitting, wetland analysis and design, and small bridge design for local public agencies.

As project manager, Ben will delegate project tasks to the team while maintaining the schedule and budget. He will meet regularly with the District as needed for project updates and to resolve any issues that arise during development.

Glen M. Anderson, PE: Principal-in-Charge
Glen is a vice president and owner at Schaaf & Wheeler. He brings more than 17 years of experience in infrastructure planning, assessment; and design of wastewater conveyance systems, water supply and distribution systems and stormwater systems. Glen has served as project manager and project engineer of gravity sewers, force mains, sewage lift stations, stormwater pumping stations, water booster stations, and storm drains for public agencies throughout Northern California. He has worked on more than 150 pump station assessment and design projects during his years in the civil engineering practice.

As principal-in-charge, Glen will provide technical supervision, peer review, and project oversight. He will also be responsible for contract negotiation and overall technical management for the duration of the project. He will work with Ben to maintain the project schedule and budget and assume ultimate responsibility for the quality of all work. He will work with District staff to make sure contractual issues are resolved.

Curran L. Price, PE
Curran has over 15 years of experience in infrastructure and capital improvement design including wastewater facilities, water pipelines, flood control, and slope stabilization projects. Curran has been involved with all phases from project conception to document preparation and construction support.

Curran is adept at preparing plans and specifications, performing calculations, cost estimates, and site inspections. He has provided engineering services for sewer mains and water pipelines in Caltrans and railroad right of ways. Curran has completed the design of over 100 constructed projects.

Jonathan F. Ondracek, EIT: Project Engineer
Jonathan is an assistant engineer with experience in modeling and design for stormwater and sanitary sewer infrastructure projects. He is proficient in running hydraulic models to solve drainage issues and conduct level surveys for small design projects.

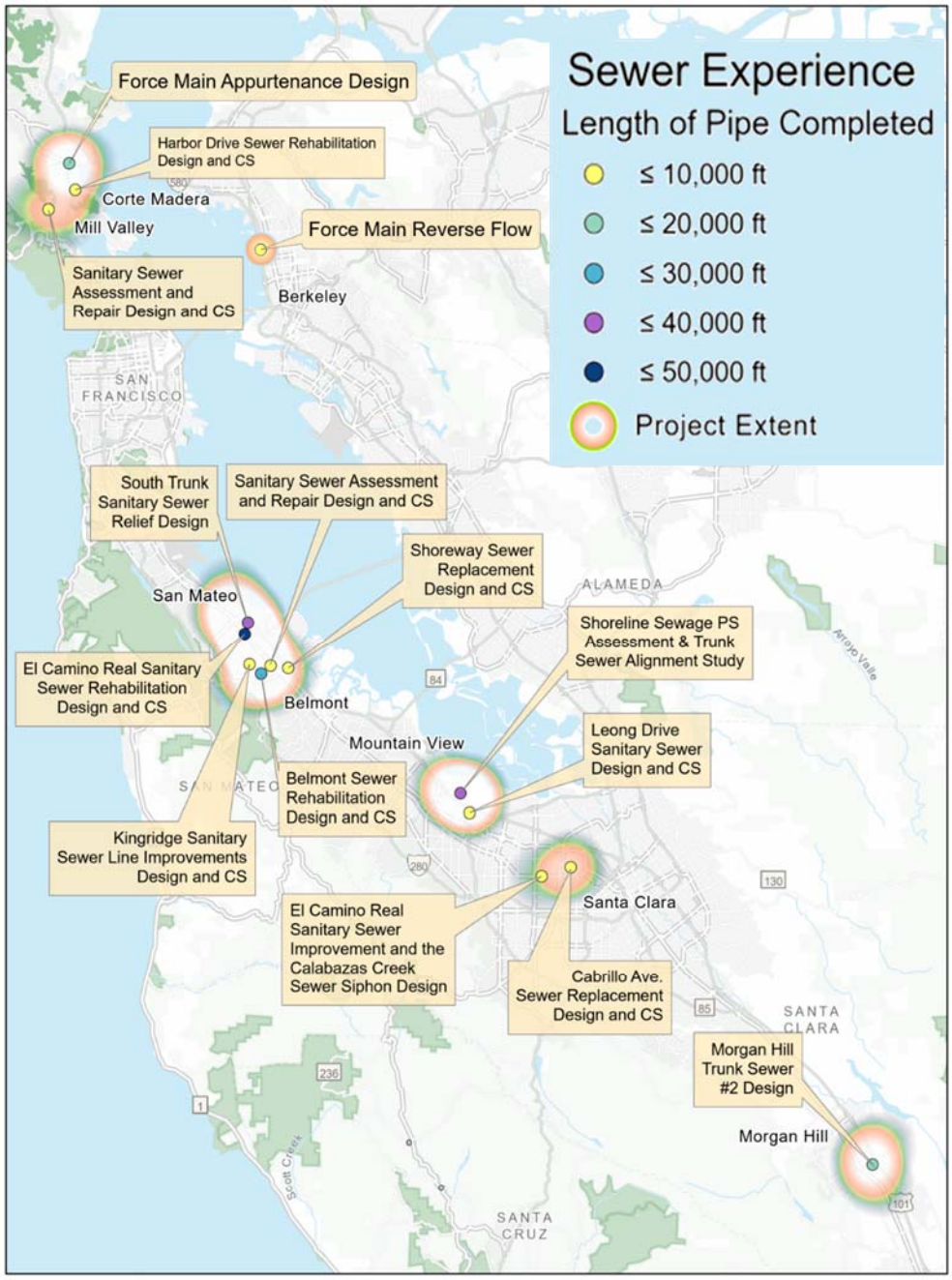
Jonathan has seven years of experience working on drainage issues and sanitary sewer projects with the City of Fort Wayne, Indiana. He also has six years of experience working throughout the Bay Area on a variety of projects, including sanitary sewer pump station rehabilitation projects, storm drain improvements, roadway improvements, and sanitary sewer rehabilitation projects.

Christian Encarnacion, EIT: Project Engineer
Christian is an assistant engineer with three years of experience providing engineering services, including wastewater systems rehabilitations. He has performed site inspections and designed plans for submission to public agencies and clients. Christian has helped clients resolve violations and permitting concerns. He also recently worked for the City of Milpitas Public Works Department, where he developed asset inventory for the water, sewer, and storm systems for the City's Emergency Master Plan.

Specific details for individuals within our subconsultant team are included in the Appendix.

Related Project Experience

Schaaf & Wheeler has completed numerous projects similar in size and scope to the District's proposed project. The following section highlights some of those projects, including the following map of sewer designs based on pipe length.



The following table breaks down our firm's experience in wastewater design based on services provided.

Project	Client	Detailed Assessment	Detailed Design	Project Prioritization	Trenchless Design	Construction Plans	Engineering Estimates	Bid Support	Construction Support
Sewer Pipe Repair and Replacement	San Rafael Sanitation District	✓	✓	✓	✓	✓	✓		✓
Sanitary Sewer Rehabilitation Design, Basin E	City of San Mateo	✓	✓	✓	✓	✓	✓	✓	✓
2023 Sewer Rehabilitation	City of Belmont	✓	✓		✓	✓	✓	✓	✓
Sanitary District No. 2, 2021 Sewer Rehabilitation	Town of Corte Madera	✓	✓	✓	✓	✓	✓	✓	✓
Sanitary Sewer Improvement Project	City of Morgan Hill	✓	✓	✓	✓	✓	✓	✓	✓
Sanitary Sewer Assessment and Repair Design and CS	City of Mill Valley	✓	✓	✓	✓	✓	✓	✓	✓
Woodland Sewer Improvement Project	San Rafael Sanitation District	✓	✓	✓		✓	✓	✓	✓
Harbor Drive Sewer Rehabilitation Design and CS, CIP Project #18-201	Sanitary District No. 2 of Marin County	✓	✓	✓		✓	✓	✓	✓
El Camino Real Sanitary Sewer Rehabilitation Design and CS	City of San Mateo	✓	✓	✓	✓	✓	✓	✓	✓
Leong Drive Sanitary Sewer Design and CS	City of Mountain View	✓	✓	✓		✓	✓	✓	✓
Pump Station Q Force Main Reverse Flow Project	East Bay Municipal Utility District		✓	✓		✓	✓	✓	✓
Force Main Appurtenance Projects	Ross Valley Sanitary District	✓	✓	✓		✓	✓	✓	✓
Sewer and Water Replacement Design and CS	City of Belmont and Mid-Peninsula	✓	✓	✓		✓	✓	✓	✓
Shoreway Sewer Replacement Design and CS	City of Belmont	✓	✓	✓		✓	✓	✓	✓
2018 Sanitary Sewer Rehabilitation Project – Various Locations	City of San Mateo	✓	✓	✓	✓	✓	✓	✓	✓
Force Main Appurtenance Design	Ross Valley Sanitary District	✓	✓			✓	✓	✓	✓

The following projects are similar in size and scope to the services requested by the District.

Client and Contact:
Laura Webb, City of San Mateo
330 West 20th Ave
San Mateo, CA 94403
(650) 522-7322
lwebb@cityofsanmateo.org

Contract Value: $1,323,790

Project Duration: Dec 2020 – Current

Team Members:
Benjamin L. Shick, PE
Curran Price, PE
Jonathan Ondracek, EIT
Christian Encarnacion, EIT

Subcontractor:
Presidio Systems, Inc.
Kier + Wright
Cornerstone Earth Group

Sanitary Sewer Rehabilitation Design, Basin E

Schaaf & Wheeler provided the City of San Mateo with CCTV inspection and cleaning, assessment, and design for the Basin E sewer system.

The project consisted of cleaning, inspecting, and assessing 286,417 LF of sewer mains and 1,387 manholes and designing the recommended improvements.

The design included over 33,000 LF of sanitary sewer rehabilitation, 187 spot repairs, and replacement, and rehabilitation of over 200 manholes. The project is located within easements, street right-of-way, and within Caltrans jurisdiction (El Camino Real and US-101). Schaaf & Wheeler completed 60%, 90%, and 100% design submittals, which included a presentation and review meeting with the City and application of comments.

The project is currently under construction.

Client and Contact:
Chris Good, Town of Corte Madera
300 Tamalpais Drive
Corte Madera, CA 94925
(415) 927-5794
CGood@tcmmail.org

Duration: Dec 2020 – Aug 2021

Contract Amount: $342,263
Construction Cost: $2.64M

Team Members:
Benjamin L. Shick, PE; Curran L. Price, PE; Jonathan F. Ondracek, EIT

Sanitary District No. 2, 2021 Sewer Rehabilitation

Schaaf & Wheeler contracted with the Town of Corte Madera (Sanitary District No. 2) to design sewer rehabilitations and replacement on El Camino Dr, Granada Dr, Estrada Ln, Paloma Dr, Sonora Way, Endeavor Dr, and Endeavor Cove.

Key Elements:
- 3,900+ LF of sanitary sewer main replacement
- 4,400+ LF of lateral replacement
- Manhole rehabilitation and replacement
- Utility investigations and potholing
- Surveying
- Geotechnical investigation in area underlain with Bay Mud
- CCTV sewer inspections

The project consists of sanitary sewer spot repairs, replacement of the sewer using open trench and pipe bursting, re-alignment of the sewer, replacement of all lower laterals, replacement of manholes, and rehabilitation of manholes.

The project occurred in an area that is relatively flat with high groundwater and poor soils (underlain with deep layer of Bay Mud).

Client and Contact:
Bozhena Palatnik, City of Belmont
One Twin Pines Lane, Suite 385
Belmont, CA 94002
(650) 595-7463
bpalatnik@belmont.gov

Duration: Aug 2022 – Feb 2023

Contract Amount: $130,690

Team Members:
Benjamin L. Shick, PE; Curran L. Price, PE; Jonathan F. Ondracek, EIT; Christian A. Encarnacion, EIT

On-Call Civil Engineering Master Agreement: 2023 Sewer Rehabilitation

As part of our on-call agreement with the City of Belmont, Schaaf & Wheeler was contracted to prepare bid documents, provide bid support services, and provide construction support services for the replacement, rehabilitation, and repair of 20 sewer pipe segments throughout the City.

Schaaf & Wheeler evaluated CCTV data and conducted field investigations to determine appropriate construction methods for each pipe segment. Rehabilitation methods include cured-in-place pipe rehabilitation, pipe bursting, open trench replacement, and spot repairs. The project is located within the street right-of-way and within easements with limited access.

Schaaf & Wheeler completed the design on schedule and the project is currently under construction.

Client and Contact:
Ahmed A. Aly, City of Mill Valley
26 Corte Madera Ave.
Mill Valley, CA 94941
(415) 384-4830
aaaly@cityofmillvalley.org

Contract Value: $87,295

Project Duration: Feb 2020 – Dec 2020

Team Members:
Robin J. Lee, PE; Curran L. Price, PE; Jonathan F. Ondracek, EIT

Citywide Sanitary Sewer Assessment and CIP

Schaaf & Wheeler reviewed existing available data provided by the City of Mill Valley to assess the condition of the City's existing sanitary sewer system and to develop an updated CIP. This included review of:

- Sewer Capital Improvement Plan, 2012 – 2016, and associated documents;
- Sewer Improvement Record Drawings from 2013 – 2019;
- Approximately 190 CCTV inspection videos performed after the 2012 CIP; and
- 2009 Clean/CCTV Program, NASSCO MACP Rehabilitation/Renewal Plan – Utilized for the basis of assessment for all listed pipes that had not been re-inspected since 2012.

Following the assessment, we developed a list of prioritized sewer improvements based on PACP, pipe size, location, risk of failure, and impacts. We also developed preliminary recommended construction methods for rehabilitation/replacements, along with preliminary rehabilitation cost estimates.

Schaaf & Wheeler developed a preliminary CIP for the next 5-year based on the prioritized assessment and the City's available funding and recommended funding necessary to expedite and address high priority deficiencies. Based on the City's review and comments of the preliminary CIP, we completed a final CIP report.

Project Understanding

The San Rafael Sanitation District 2023 Sewer Pipe Repair and Replacement Project includes reviewing approximately 11.2 miles of sewer inspection videos, reviewing 231 manhole inspection reports, developing a prioritizing of locations to be rehabilitated as part of capital improvement projects, developing project documents for one construction project to repair approximately 2.5 miles of sewer main, developing project documents to rehabilitate/replace manholes, and provide construction support. The goal of the project is to:

1. Reduce infiltration and potential overflows,

2. Improve pipe conditions to reduce maintenance needs.

The project includes condition assessment, topographic surveying, utility investigations, geotechnical investigation, developing bid documents, and assisting the District throughout the bid and construction phases of the project.

Proposed Approach and Scope

Project Approach

Schaaf & Wheeler's objective is to perform a detailed review and assessment of the CCTV data, manhole inspection reports, and field conditions, identify prioritized capital improvements meeting the District's goals and budget, and provide the District with cost-effective and constructible solutions that will mitigate existing condition related issues and reduce maintenance requirements. The proposed Schaaf & Wheeler team has successfully completed numerous sewer assessment and replacement projects throughout the Bay Area and is familiar with the District's standards and procedures.

Schaaf & Wheeler will facilitate a project kickoff meeting with the District and necessary stakeholders. The project goals, scope, budget, and schedule will be discussed to make sure everyone is on the same page. A data request list will be submitted to the District which will include all information that would be useful during the assessment and design.

Schaaf & Wheeler firmly believes that engaging all stakeholders including management, public relations, engineering, and operations & maintenance, early in the process is a great way to ensure all parties are on informed and everyone is working towards the same goal.

Schaaf & Wheeler's proposed approach for the design process is identified below and is further described within the scope of services in the following section.

1. Kickoff Meeting – Is used to get all stakeholders in the same room and work through key project elements including:

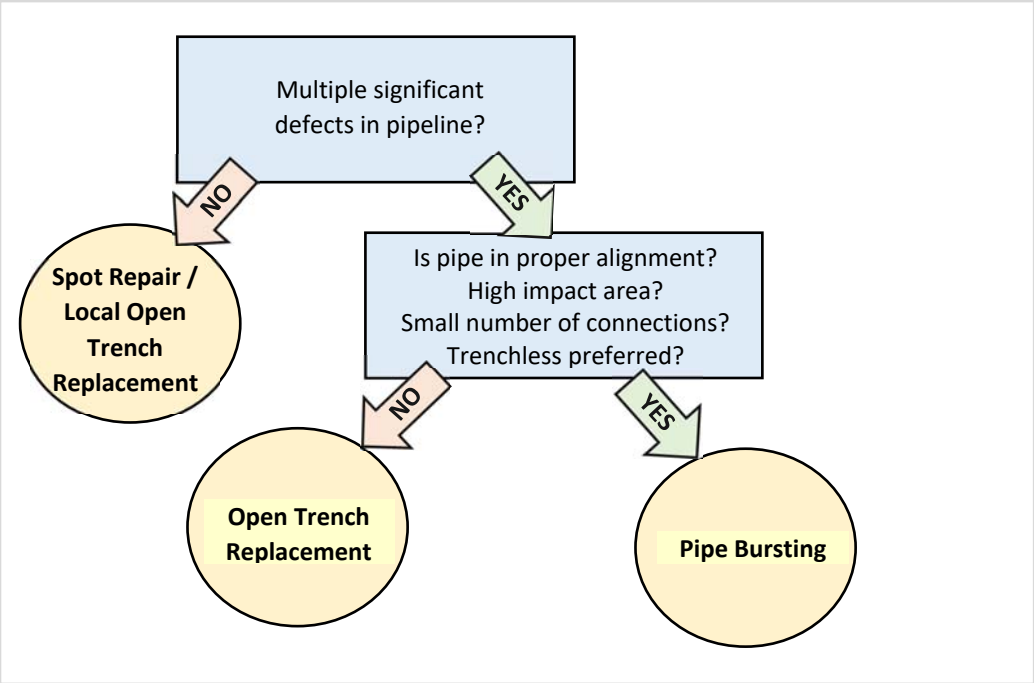
    a. Project Goals – Capacity, Engineering Requirements, O&M Requirements, District standards

    b. Project Constraints – Budget, schedule, physical site constraints, utility constraints and conflicts, traffic coordination

c. Project Expectations – Construction contract type, construction methods, deliverables, project management/staffing, schedule

2. Capital Improvement Project Identification – A list of capital improvements will be developed based on the CCTV inspection data and District's input. The capital improvements will identify the existing issues, priority of improvement, potential rehabilitation methods, and preliminary construction costs. The data review, assessment methods, and capital improvements will be summarized in a report which will be submitted to the District for review and approval prior to proceeding with design.

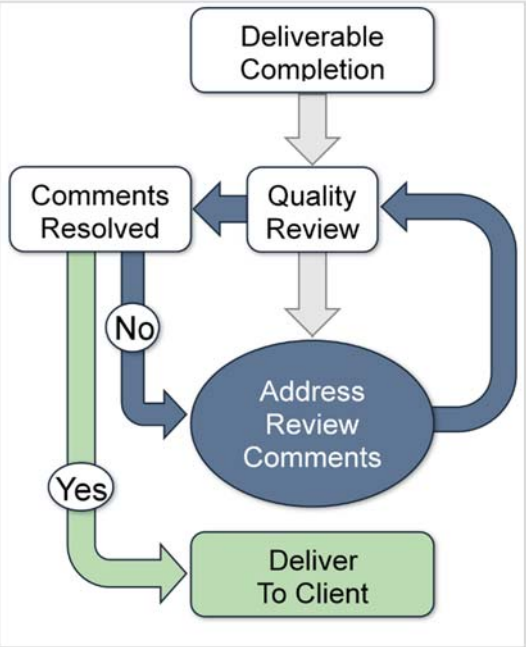
A flow diagram that identifies a typical evaluation of pipeline repair methods is illustrated in the figure below. The flow diagram is intended as a general representation of the repair method selection process and does not include all considerations.



3. Design (35%, 65%, 95%, and Final Bid Documents) – Each design submittal will be prepared and submitted as detailed in the scope of services below. Stakeholder input is critical at each submittal level to ensure that the project meets the District's expectations and goals. Schaaf & Wheeler will schedule and attend design review meetings with the District after each progress submittal.

4. QA/QC Process – Schaaf & Wheeler will perform an internal QA/AC review of each progress submittal prior to being submitted to the District. QA/QC staff will review all design documents, visit the site, and work with the project design team to identify and correct potential issues and conflicts.

5. Bid and Construction Support – Schaaf & Wheeler will stay actively involved with the project throughout the bid and construction phases as detailed in the scope of services below.



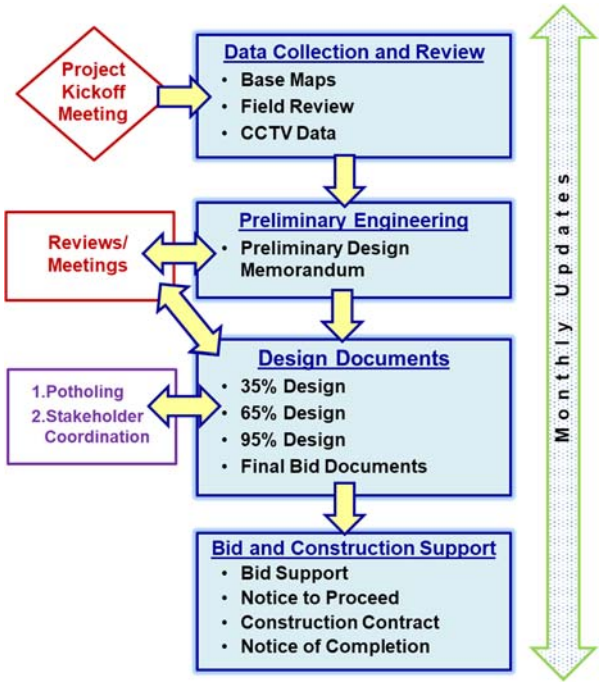
Schaaf & Wheeler's approach is further described in the Scope of Work.

Scope of Work

Schaaf & Wheeler's proposed scope of work is included herein. This scope of services assumes that one set of bid documents will be prepared to rehabilitate approximately 2.5 miles of sewer main.

Based on Schaaf & Wheeler's experience with similar sewer repair projects, the following quantities of pipe repair and replacement methods are estimated for the design phase:

- 13,000+/- linear feet of pipe bursting and open trench sanitary sewer replacement
- Various spot repairs
- Manhole rehabilitations



Task 1: Project Management and Coordination

1. Schaaf & Wheeler shall be responsible for providing all contract management and quality control services throughout the duration of the project.

2. Kickoff Meeting: Schaaf & Wheeler will facilitate a project kickoff meeting with the District and necessary stakeholders. The project goals, scope, budget, and schedule will be discussed to make sure everyone is on the same page.

3. Schaaf & Wheeler will facilitate design review meetings with the District for each draft submittal (4 meetings).

Deliverables:

- Project Schedule and updates
- Meeting agendas and minutes for all design and coordination meetings

Task 2: Analysis of District's CCTV files for existing sewers

1. Review, assessment, and prioritization of approximately 11.2 miles of CCTV sewer inspection video files and PACP reports. Review of pipe segment locations to determine preliminary pipe repair methodologies and associated construction costs.

2. Review, assessment, and prioritization of approximately 231 manhole inspection reports.

3. Develop a report summarizing the data, review process, assessment methodology, and recommended capital improvements. A preliminary estimate of probable construction cost will be prepared and included in the report.

4. Schaaf & Wheeler will facilitate a meeting with the District to review the preliminary report and capital improvements.

Deliverables:

- Report of recommended capital improvements based on results CCTV and manhole inspection data. Report will include prioritized improvements, recommended construction methods, and estimated construction costs. The capital improvements will

be separated into two separate capital improvement projects with the goal of grouping the improvements based on construction methods and project locations.

- A draft report will be submitted to the District for review and comment prior to finalizing. The final report will serve as a basis of design for the capital improvements to be included in the following design tasks.

Task 3: Design

1. Utility Investigation, Topographic Surveying & Basemapping:

   Schaaf & Wheeler's subconsultant, Kier & Wright will perform utility research, topographic surveying and base mapping for the project. Utility research will consist of contacting all franchise utility providers for their utility plans within the area of work where digging is required. Design-level topographic surveying will be performed in locations where detailed topographic information is needed, such as full pipe replacement with open trench methods in locations with extensive utilities. Some repair methods and locations may not require topographic surveying, or might only require surveying key elements. Typical topographic surveys will include spot elevations of the ground, curbs, sidewalks, fences, trees, and utilities that are within the street Right of Way.

   The surveying scope and limits of work will be defined following Task 1. This scope assumes the following:

   - Perform utility research for all areas requiring excavation.
   - Topographic surveying for approximately 3,600 linear feet of pipe repair/replacement.
   - Three days of supplemental field surveys in locations where additional survey data is needed.
   - Basemap preparation of all locations where topographic surveying is performed.

   We anticipate that this scope will be sufficient to prepare detailed design documents for the improvements; however, if additional topographic surveying is deemed necessary it can be provided for an additional scope. If desired, additional surveying can be added as an optional task.

   Schaaf & Wheeler will prepare project basemaps for all locations that are not surveyed. Basemaps will be prepared using existing available mapping data, utility maps, and field measurements.

Deliverables:

- Utility maps from service providers
- Topographic surveying basemaps
- Basemaps for all project locations

2. Geotechnical Investigations, Evaluation, and Report:

This scope of services was developed to evaluate the subsurface conditions and provide recommendations for utility trenching, support, and backfilling. Schaaf & Wheeler's subconsultant, Miller Pacific will perform the following tasks to assist the design process:

- Geologic and Geotechnical Feasibility Evaluation – Miller Pacific (MP) will review and compile available, published regional geologic mapping and relevant existing subsurface data from our extensive in-house library, as well as any provided by the project team. Miller Pacific will perform a detailed field reconnaissance of the work area (once defined) to refine existing geologic mapping on the basis of surface observations and subsurface data compilation. Based on our observations and mapping, MP will evaluate a variety of geologic hazards which may affect the project, such as seismic shaking, liquefaction, settlement, and others. MP will develop preliminary geotechnical recommendations and development guidelines for the project, which will be summarized in a brief report.

- Design-Level Geotechnical Investigation – MP will consult with the project team to identify "critical" geotechnical issues and gaps in existing subsurface data. MP will perform a follow-up reconnaissance in select work areas to select new boring locations and pre-mark the sites for utility location by USA North. Prior to exploration, MP will acquire an encroachment permit from the City of San Rafael, and (if needed) a Soil Boring Permit from the Marin County Department of Environmental Health Services.

  This scope includes subsurface exploration for the project include 2-days of field work using truck- or track-mounted drilling equipment. Based on assumed maximum depths of 10- to 15-feet, we anticipate completing between ten and fifteen borings for the project. Full-time traffic control will be provided for the duration of our exploration, and borings will be backfilled with cement grout and/or soil cuttings and rapid-set concrete for surface restoration.

  Geotechnical testing is anticipated to include determination of pertinent physical properties such as moisture, density, strength, gradation, plasticity, and/or others. MP will also combine "like" samples from nearby borings in similar geologic environments for "screening-level" environmental testing and evaluation of spoils disposal options, including CAM17 metals, TPH (gasoline, diesel, and motor oil), VOC, SVOC, PCB and pesticides, and corrosivity. A total of two "composite" samples will be subjected to such screening-level testing.

  Based on the results of our subsurface exploration and laboratory testing, MP will update our site geologic map and hazards evaluation. MP will develop design-level geotechnical recommendations and criteria for the project, to be summarized in a report.

Deliverables:

- Draft and final geotechnical report.

3. Utility Locating:

   Schaaf & Wheeler's subconsultant, Subtronic Corporation will perform utility locating where potential utility conflicts exist. Subtronic will USA all locations to be potholed. This scope includes potholing of approximately 12 to 16 utilities. Additional potholing can be performed for an additional fee if deemed necessary; however, we do not anticipate the need for a significant amount of potholing since most of the pipes will be

replaced at a similar line and grade to the existing pipes. This scope does not cover performing utility potholing within Caltrans Right-of-Way.

This scope also includes up to two days performing utility E-Locates to mark utility locations and approximate depths.

Deliverables:

- Potholing report

4. Caltrans Encroachment Permit Application

   It is assumed that a Caltrans Encroachment Permit will be required for the proposed rehabilitations. Schaaf & Wheeler will prepare and submit a Caltrans Encroachment Permit application for the proposed construction project so it can be procured prior to going to bid. It is assumed that a Caltrans Encroachment Permit will not be required for any of the design tasks.

Deliverables:

- Caltrans Encroachment Permit Application

5. Site Visits

   Schaaf & Wheeler will visit each site identified for improvements to document existing conditions, take field measurements, inspect manholes, and confirm basemapping.

6. 35% Design Submittal:

   Preliminary plan and profiles will be developed for the proposed improvements along with preliminary details for the 35% design submittal.

   Schaaf & Wheeler will meet with the District to present and review the 35% design submittal.

Deliverables:

- 35% plans and estimate for two separate sets of bid documents.
- Letter report summarizing previous review comments and resolution of the review comments.

7. 65% Design Submittal:

   Schaaf & Wheeler will initiate the detailed design effort which will include project layouts of sewer lines, plan & profiles, construction details, technical specifications, construction cost estimate, and a construction schedule. Potential utility conflicts will be identified and if deemed necessary utility potholing will be performed as identified in Task 2.3 above.

   Schaaf & Wheeler will facilitate a design review meeting with the District to present and review the 65% design documents.

Deliverables:

- 65% plans, specifications, and estimate for two separate sets of bid documents.

- Letter report summarizing previous review comments and resolution of the review comments.

8. 95% Design Submittal:

   After receiving and reviewing comments from the District, Schaaf & Wheeler will prepare the 95% construction documents. Construction documents will include detailed plans, technical specifications, and engineer's estimates. Schaaf & Wheeler will also review and edit the District's front end documents.

   Schaaf & Wheeler will facilitate a design review meeting with the District to present and review the 95% design documents.

Deliverables:

- 95% plans, specifications, and estimate for two separate sets of bid documents.
- Letter report summarizing previous review comments and resolution of the review comments.

9. Final Bid Documents:

   After receiving and reviewing comments from the District, Schaaf & Wheeler will prepare the final construction documents. Construction documents will include bid-ready plans, technical specifications, front end documents, and engineer's estimates. Final plans shall be formatted for 22"x34" paper and shall be complete with final signatures ready for reproduction.

   - The plans shall be drawn using AutoCAD
   - The schedule of items shall address all items of work as specifically as possible and shall indicate as precisely as possible the quantities.
   - Schaaf & Wheeler will provide a cost estimate with each design submittal in the format of the schedule of bid items.

Deliverables:

- Final PS&E submittal in both electronic (AutoCAD, Word, Excel, and pdf) format.
- A letter report summarizing review comments and the resolution of the review comments

Task 4: Final Bid Phase and Bid Phase Support

1. Schaaf & Wheeler will facilitate the pre-bid meeting, set the agenda and respond to questions concerning the plans, specifications, and estimates prior to bid opening and prepare contract addenda, if required.

2. Assist the District in coordinating and posting the bid packages and addenda in an online advertising service.

3. Schaaf & Wheeler will review construction bids received, check references and make a recommendations to the District for award of construction contracts.

Deliverables:

- Prepare contract addenda, if required, including answers to bidder's questions, for distribution by an online service.

- Prepare bid summary sheet and letter of recommendation to the District for the award of the construction contract.

Task 5: Design Support during Construction

1. Schaaf & Wheeler will attend the pre-construction conference to respond to questions concerning the plans, specifications and estimates. Schaaf & Wheeler will attend and prepare the agenda for the weekly progress meetings and other construction meetings required during the project. It is assumed that the weekly meetings will be virtual and that in-person attendance is not necessary. This scope includes up to 54 meetings.

2. For any other meetings required during the progress of the work, Schaaf & Wheeler will coordinate all parties, facilitate the meeting and provide records of discussion for distribution. This scope includes up to 6 additional meetings.

3. Schaaf & Wheeler will provide general project correspondence throughout construction of the project. This scope includes a total of 43 hours of project coordination (43 week construction contract duration @ 1 hour per week).

4. Schaaf & Wheeler will assist District staff in reviewing submittals from the contractor.

5. Schaaf & Wheeler will respond to Requests for Information (RFIs) from the contractor when called for by the District and prepare modifications or revisions that are related to the project's original scope and character. The District shall not be billed for nor shall they pay for any revisions to the plans and specifications that are required due to errors or omissions in the original contract documents.

6. Schaaf & Wheeler will assist District staff in reviewing progress payments from the contractor.

7. This scope of services includes attendance at up to 10 site visits throughout construction to review existing conditions.

8. The consultant shall participate in the final walk though of the constructed project and assist in the preparation of "punch list" items in need of work.

8. The consultant shall prepare record drawings following construction from mark ups by the contractor and the resident engineer. Submittal of record drawings will be provided in electronic format.

Deliverables:

- Response to RFIs and Submittals from the contractor

- Modification or revisions that are related to the project original scope and character

- Contract change orders if necessary

Assumptions:

This scope of work and the associated fee estimate is prepared with the following assumptions.

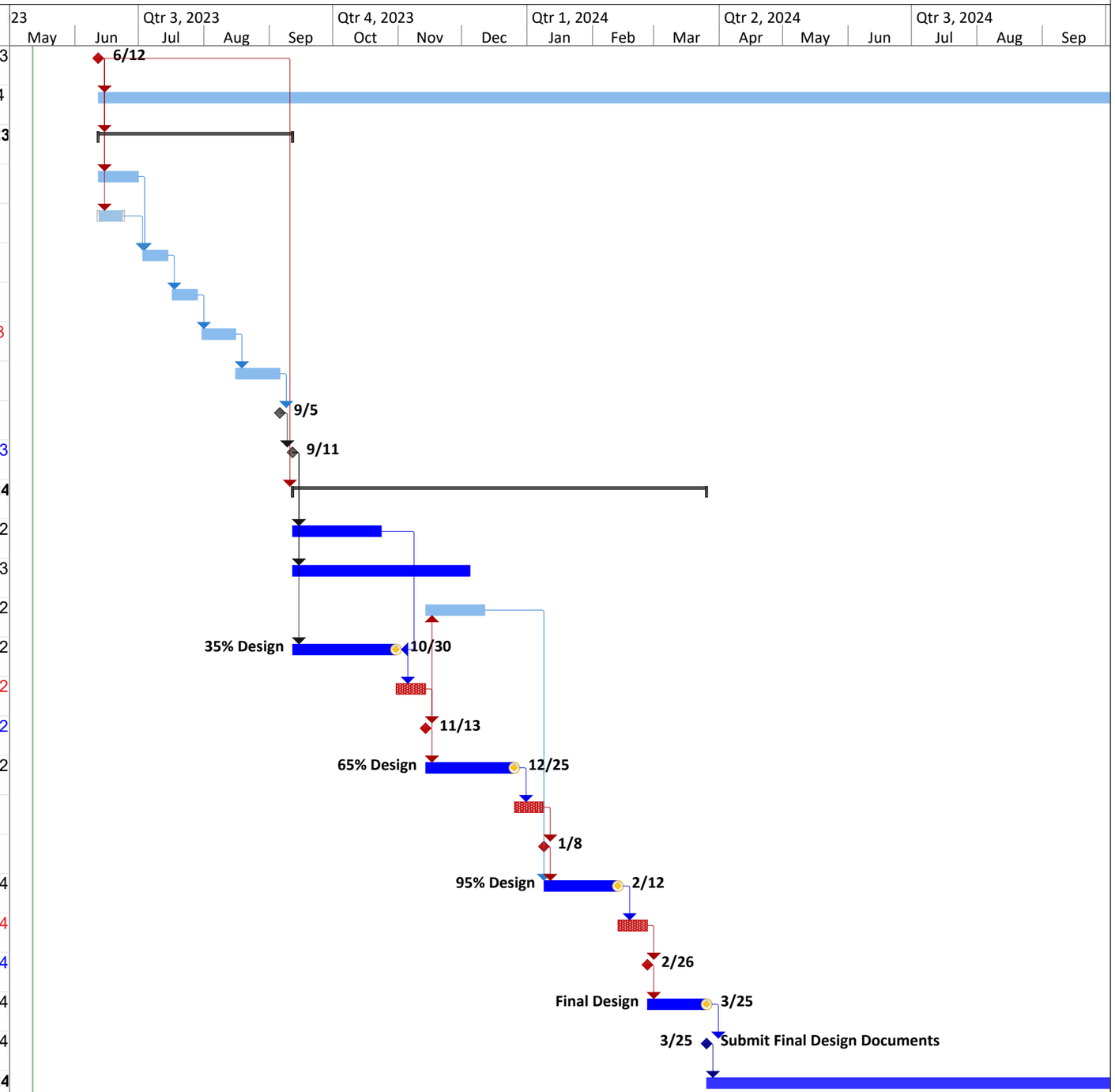
- CCTV data for all of the existing sewer lines within the project limits will be provided by the District.
- The design will include the approximate quantities identified herein.
- The design and coordination of extensive utility relocations will not be required.

Proposed Schedule

See the attached project schedule.

San Rafael Sanitation District
2023 Sewer Rehabilitation Project

ID	Task Name	Duration	Start	Finish
1	***Project Kickoff Meeting***	0 days	Mon 6/12/23	Mon 6/12/23
2	**Task 1. Project Management and Coordination**	350 days	Mon 6/12/23	Fri 10/11/24
3	**Task 2: Analysis of CCTV Files**	**66 days**	**Mon 6/12/23**	**Mon 9/11/23**
4	2.1: Review Inspection Videos	15 days	Mon 6/12/23	Fri 6/30/23
5	2.2: Review Manhole Inspection Reports	10 days	Mon 6/12/23	Fri 6/23/23
6	2.3: Develop Capital Improvement Project List	10 days	Mon 7/3/23	Fri 7/14/23
7	2.4: Draft and Final Report	10 days	Mon 7/17/23	Fri 7/28/23
8	District Review Draft Report	12 days	Mon 7/31/23	Tue 8/15/23
9	Prepare Final Report	15 days	Wed 8/16/23	Tue 9/5/23
10	Submit Final Report	0 days	Tue 9/5/23	Tue 9/5/23
11	District Review Meeting	0 days	Mon 9/11/23	Mon 9/11/23
12	**Task 3: Design**	**140 days**	**Tue 9/12/23**	**Mon 3/25/24**
13	3.1: Utility Investigation, Topographic Surveying, and Basemapping	30 days	Tue 9/12/23	Mon 10/23/2
14	3.2: Geotechnical Investigations and Design Memorandum	60 days	Tue 9/12/23	Mon 12/4/23
15	3.3: Utility Locating	20 days	Tue 11/14/23	Mon 12/11/2
16	3.4: 35% Design Submittal	35 days	Tue 9/12/23	Mon 10/30/2
17	District Review 35% Submittal	10 days	Tue 10/31/23	Mon 11/13/2
18	35% Design Review Meeting	0 days	Mon 11/13/23	Mon 11/13/2
19	3.5: 65% Design Submittal	30 days	Tue 11/14/23	Mon 12/25/2
20	District Review 65% Submittal	10 days	Tue 12/26/23	Mon 1/8/24
21	65% Design Review Meeting	0 days	Mon 1/8/24	Mon 1/8/24
22	3.6: 95% Design Submittal	25 days	Tue 1/9/24	Mon 2/12/24
23	District Review 95% Submittal	10 days	Tue 2/13/24	Mon 2/26/24
24	95% Design Review Meeting	0 days	Mon 2/26/24	Mon 2/26/24
25	3.7: Final Design Documents	20 days	Tue 2/27/24	Mon 3/25/24
26	Submit Final Design Documents	0 days	Mon 3/25/24	Mon 3/25/24
27	**Bid and Design Support During Construction**	**160 days**	**Tue 3/26/24**	**Mon 11/4/24**



Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS

Proposed Fee

Schaaf & Wheeler San Rafael Sanitation District 2023 Sewer Rehabilitation Project Fee Proposal - May 12, 2023		Senior Engineer & Principal Project Manager	Associate Engineer	Assistant Engineer	Schaaf & Wheeler Subtotal	Miller Pacific Engineering Group - Geotechnical	Kier & Wright - Surveying	Subtronic - Potholing	Subconsultant and Expenses Markup (10%)	Total
	Hourly Rate	**$235**	**$210**	**$195**						
Task 1	**Project Management & Coordination**	**50**	**20**	**0**	**$ 15,950**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 15,950**
1.1	Project Management & QA/QC Reviews	40			$ 9,400				$ -	$ 9,400
1.2	Kickoff Meeting	2	4		$ 1,310				$ -	$ 1,310
1.3	Design Review Meetings (4 Meetings)	8	16		$ 5,240				$ -	$ 5,240
Task 2	**Analysis of CCTV files for existing sewers**	**32**	**20**	**173**	**$ 45,455**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 45,455**
2.1	Review Inspection Videos	16		112	$ 25,600				$ -	$ 25,600
2.2	Review Manhole Inspection Reports	4		25	$ 5,815				$ -	$ 5,815
2.3	Develop Capital Improvement Project List	4	8	16	$ 5,740				$ -	$ 5,740
2.4	Draft and Final Report	8	12	20	$ 8,300				$ -	$ 8,300
Task 3	**Design**	**101**	**206**	**528**	**$ 169,955**	**$ 35,500**	**$ 61,983**	**$ 45,000**	**$ 14,248**	**$ 326,686**
3.1	Utility Investigation, Topographic Surveying & Basemapping	4	16	40	$ 12,100		$ 61,983		$ 6,198	$ 80,281
3.2	Geotechnical Investigations, Evaluations, and Report	2	6		$ 1,730	$ 35,500			$ 3,550	$ 40,780
3.3	Utility Locating	4		32	$ 7,180			$ 45,000	$ 4,500	$ 56,680
3.4	Caltrans EP Application	4		20	$ 4,840				$ -	$ 4,840
3.5	Site Visits	8	24	24	$ 11,600				$ -	$ 11,600
3.6	35% Design Submittal	15	40	120	$ 35,325				$ -	$ 35,325
3.7	65% Design Submittal	32	60	160	$ 51,320				$ -	$ 51,320
3.8	95% Design Submittal	24	40	100	$ 33,540				$ -	$ 33,540
3.9	Final Bid Documents	8	20	32	$ 12,320				$ -	$ 12,320
Task 4	**Final Bid Phase and Bid Phase Support**	**8**	**6**	**6**	**$ 4,310**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 4,310**
4.1	Bid Phase Support	4	2		$ 1,360				$ -	$ 1,360
4.2	Post Bid Package	2		6	$ 1,640				$ -	$ 1,640
4.3	Review Bids	2	4		$ 1,310				$ -	$ 1,310
	TOTAL DESIGN AND BID PHASE	**191**	**252**	**707**	**$ 235,670**	**$ 35,500**	**$ 61,983**	**$ 45,000**	**$ 14,248**	**$ 392,401**
Task 5.1	**Design Support during Construction**	**173**	**16**	**68**	**$ 57,275**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 57,275**
5.1	Pre-Construction and Weekly Construction Meetings (up to 54)	54			$ 12,690				$ -	$ 12,690
5.2	Miscellaneous Meetings (up to 6)	12			$ 2,820				$ -	$ 2,820
5.3	Project Coordination (43 weeks @ 1hr/week)	43			$ 10,105				$ -	$ 10,105
5.4	Submittals	6	16	24	$ 9,450				$ -	$ 9,450
5.5	Clarification Processing	8		12	$ 4,220				$ -	$ 4,220
5.6	Progress Payment	8			$ 1,880				$ -	$ 1,880
5.7	Site Visits (up to 10)	30			$ 7,050				$ -	$ 7,050
5.8	Final Punchlist	8		12	$ 4,220				$ -	$ 4,220
5.9	Record Drawings	4		20	$ 4,840				$ -	$ 4,840
	TOTAL DESIGN, BID AND CONSTRUCTION TASKS	**364**	**268**	**775**	**$ 292,945**	**$ 35,500**	**$ 61,983**	**$ 45,000**	**$ 14,248**	**$ 449,676**

Appendix: Resumes

Benjamin L. Shick, PE
Vice President

Benjamin L. Shick, PE has more than 20 years of experience in water resources infrastructure planning and design of wastewater conveyance systems, water supply and distribution systems, stormwater systems, and pump stations.

Ben has conducted floodplain investigation, shoreline protection studies, drainage studies, channel design and modeling, water rights permitting, wetland analysis and design, small bridge design, infrastructure design, surveying, construction management, and construction quality control testing. He has been involved with all project phases from project initiation to construction document preparation and construction support.

Education

BSCE, Montana State University-Bozeman

MSCE, Montana State University-Bozeman

Licenses

Registered Civil Engineer California C68813

Affiliations

American Society of Civil Engineers

Floodplain Management Association

Software

AutoCAD, WaterCAD, HEC-RAS, HEC-HMS, GeoRAS, MOUSE, ArcGIS 9.0

Selected Project Experience

Wastewater Systems

2023 Sanitary Sewer Rehabilitation Project
City of Belmont

Frontage Road Force Main Replacement
City of Mill Valley

Basin C Sewer Rehabilitation
City of San Mateo

Basin E Sewer Rehabilitation
City of San Mateo

West Valley Logistics Sanitary Sewer Pump Station
City of Fontana

El Camino Drive Sewer Rehabilitation
Town of Corte Madera

FY 2020/21 Sewer Assessment and Design
City of Mill Valley

2020 Sewer Repair and Replacement Project
San Rafael Sanitary District

Sanitary Sewer Improvement Project
City of Morgan Hill

Old County Road and El Camino Sewer and Storm Drain Improvements
City of Belmont

2020 Sewer Rehabilitation Project
Town of Corte Madera

Woodland Avenue Sewer Improvements
San Rafael Sanitary District

2019 Sewer Repair Project
City of Mill Valley

El Camino Sewer Rehabilitation
City of San Mateo

FY 2019/20 Force Main Appurtenance Project
Ross Valley Sanitary District

North Road Sanitary Sewer Pump Station and Force Main
City of Belmont

East San Mateo Sanitary Sewer Pump Station
City of San Mateo

Ocean Colony Pump Station and Force Main Design
City of Half Moon Bay

Sewer Main and Water Main Replacement
Mid-Peninsula Water District & City of Belmont

Sanitary Sewer Lift Station Rehabilitation Design
City of San Mateo

Wastewater Pump Stations Assessment
Delta Diablo

Sanitary Sewer Rehabilitation and Replacement Rehabilitation Projects
City of Belmont

Sanitary Sewer Rehabilitation Project
City of San Mateo

Force Main Appurtenance Projects
Ross Valley Sanitary District

On-Call Mechanical Engineering Services for Stormwater Pump Stations
City of Alameda

Sewer and Pump Station Maintenance Services
City of Half Moon Bay

Pump Station Improvements Project
City of Oakland

Northside & Rabello Sanitary Sewer Pump Station Bypass & Meter Relocation
City of Santa Clara

Sanitary Sewer Pump Station Evaluation and Design
Town of Hillsborough

Sanitary Sewer Pump Station Evaluation
Ross Valley Sanitary District

Pump Station Review and Recommendations
Sewer Authority Mid-Coastside

Cabrillo Avenue Sewer Main Abandonment and Replacement
City of Santa Clara

Citywide Sanitary Sewer Pump Station Rehabilitation
City of Fontana

Rehabilitation Design of 32 Sanitary Sewer Pump Station
City of Alameda

Mariner's Island #5 and #6 Pump Station Replacement
City of San Mateo

Sanitary Sewer Pump Station Evaluation
City of Santa Clara

Citywide Sanitary Sewer Pump Station Study
City of San Mateo

El Camino Real Sanitary Sewer Improvement Project
BRE Properties, Inc./City of Santa Clara

Kingridge Sanitary Sewer Improvement Project
City of San Mateo

Alameda Sanitary Sewer Pump Station Assessment
City of Alameda

E. Garrison Sanitary Sewer Pump Station and Sewer Main Replacement
Marina Coast Water District

Calabazas Creek Sewer Siphon Design
City of Santa Clara (2009)

Stormwater Planning and Design

Laurel Ave Storm Drain Improvement Project
City of Larkspur

2022 Storm Drain Improvements
Town of Corte Madera

Large Full Trash Capture Device Project
City of Hayward

Storm Drain Pump Station Assessment
City of Larkspur

MCSTOPP Full Trash Capture Device Project
City of San Rafael

Old County Road Storm Drain Improvements
City of Belmont

NEI Stormwater Pump Station Design
City of Tracy

Storm Drain Pump Station Improvements
City of Alameda

Los Gamos Storm Drain Alternatives
City of San Rafael

Storm Drain Rehabilitation Design
City of Belmont

Livermore Flood Damage Assistance
City of Livermore

Grass Valley Culvert Rehabilitation and Replacement
Colantuono, Highsmith & Whatley, PC

Mechanical Engineering Services
City of Alameda

Cove Stormwater Pump Station and Collection System Evaluation
Marin County

Woodside Storm Drain Rehabilitation, Phase I and II
Town of Woodside

16th Avneue Storm Drain Study
City of San Mateo

Sears Point Stormwater Pump Station Design
Ducks Unlimited

Ageno-Brisa Storm Drain Design
City of Livermore

Design for Replacement of Pump Station Hatches
City of Belmont

Ukiah Storm Drain Maintenance and Rehabilitation Study
City of Ukiah

Kingridge Storm Drain Rehabilitation
City of San Mateo

Storm Drain Rehabilitation Design
City of Belmont

Stormwater Master Plan
City of Los Altos

El Charro Specific Plan
City of Livermore

Storm Drain Improvement Design
City of Belmont

Glen M. Anderson, PE Vice President

Glen M. Anderson, PE has 16 years of experience in sanitary sewer system, potable water, and stormwater planning, assessment and design as well as the construction support and management associated with those projects. Glen has successfully completed work on several sanitary sewer main and trunk rehabilitation projects. He has worked on sanitary sewer pump station rehabilitation projects throughout the Bay Area.

Additionally, Glen has performed condition assessments for more than 150 sanitary sewer and stormwater pump stations. Glen's potable water experience projects include the assessment and rehabilitation of booster pump stations, design of a water tanks and planning and design for potable water wells and pipelines. In addition to design, Glen has provided construction support and management services for a variety of projects, including wells, pipelines, storage tanks, pump stations, and generator installations.

Education

BSCE, Civil and Environmental Engineering, University of California, Davis

Licenses

Registered Civil Engineer, California C76720

Certifications

NASSCO PACP, MACP, and LACP Certified, Cert. No. U-714-06021855

Affiliations

American Water Works Association

Selected Project Experience

Wastewater Systems

Sanitary Sewer System Assessment and Inventory
Port of Oakland

Sanitary Sewer System Compliance Improvement Design
Port of Oakland

Crestmoor and Lomita Pump Stations and Forcemain
City of San Bruno

City of San Mateo Basin 2/3 – Pump Station Rehabilitations
Stantec/City of San Mateo

Lift Stations J&K and D, F & W
City of Morgan Hill

PSQ Reserve Flow and URD Project
East Bay Municipal Utility District

Assessment and Engineering for Sanitary Sewer Main Rehabilitation
City of San Mateo

Force Main Appurtenance Projects ESDC
Ross Valley Sanitary District

Cabrillo Avenue Sewer Main Abandonment and Replacement
City of Santa Clara

South Trunk Sewer Relief Line
City of San Mateo

Madera Lift Stations (11 Lift Stations
County of Madera

Mariner's Island No. 5 and No. 6 Pump Station Rehabilitation
City of San Mateo

Sanitary Sewer Pump Station Repairs
City of Fontana

Pump Station Rehabilitations
City of Alameda

Sanitary Sewer Lift Station M
City of Morgan Hill

S. San Francisco Sanitary Sewer Pump Station No. 8 Rehabilitation
City of S. San Francisco

City of San Mateo Sanitary Sewer Pump Station Assessment
City of San Mateo

Morgan Hill Trunk Sewer No. 2
City of Morgan Hill

Stormwater Systems

Baylands Stormwater Pump Station No. 2
City of Sunnyvale

Rehabilitation of Failed 96" Stormwater Corrugated Metal Pipe
Town of Moraga

O'Connor Pump Station Improvement Feasibility Study and Design
City of East Palo Alto

Vista Bella Stormwater Pump Station Design, Half Moon Bay
Ruggeri-Jensen-Azar

Citrix Stormwater Pump Station Design, Santa Clara
Kier & Wright

Silviera Stormwater Pump Station Design, Gilroy
Ruggeri-Jensen-Azar

Sears Point Stormwater Pump Stations Design, 2 Stations
Ducks Unlimited, Inc.

Marsten Pump Station
City of Burlingame

San Francisquito Creek Stormwater Pump Station
City of Palo Alto

Blanco Drain Stormwater Pump Station
Monterey County Water Resources Agency

Hope Street Stormwater Pump Station
City of San Jose

Baylands Stormwater Pump Station No. 1
City of Sunnyvale

Water Delivery Systems

Curtner Road Booster Station Rehabilitation
Alameda County Water District

Oak and Jones Water System Planning
Summerhill Homes

Water System Planning and Design
Confidential Client

Country Club and Victoria Water Booster Pump Stations
City of Petaluma

Cherry Creek Water Pump Station
City of Hillsborough

Assessment of City Wells
City of Santa Clara

Water System Modeling and Design
Great Oaks Water Company

Watkins Gate Well and Pipeline Project
Marina Coast Water District

Well 34 Site Improvements
Marina Coast Water District

Shady Lane Water System Improvement
San Jose Water Company

Stonegate Water Supply Project
County of San Benito

San Jerardo Water System Improvements
County of Monterey

Segunda Pump Station Pump replacement
California American Water

El Torro Wells
California American Water

Valley Christian School Pump Station Rehabilitation
Valley Christian School

Curran L. Price, PE
Associate Engineer

Curran L. Price, PE has over 15 years of experience in infrastructure and capital improvement design including wastewater facilities, water pipelines, flood control, and slope stabilization projects.

Curran has been involved with all phases from project conception to document preparation and construction support. Curran is adept at preparing plans and specifications, performing calculations, cost estimates, and site inspections.

Curran has provided engineering services for sewer mains and water pipelines in Caltrans and railroad right of ways. Curran has completed the design of over 100 constructed projects.

Education

BSCE, California State Polytechnic University, Pomona

Licenses

Registered Professional Engineer, California C74913

Certificates

NAASCO PACP, LACP, MACP #U-815-07000537

Affiliations

Redwood Empire ASCE

Selected Project Experience

Wastewater Systems

East Blithedale Rehabilitation Project
City of Mill Valley

Frontage Road Force Main Replacement
City of Mill Valley

Redwood Highway Sewer Rehabilitation Project
Town of Corte Madera

2020 Sewer Rehabilitation Project
Town of Corte Madera

Woodland Avenue Sewer Improvement Project
San Rafael Sanitation District

Pump Station Rehabilitation
City of Alameda

Sanitary Sewer Rehabilitation Projects
City of Belmont

North Road Pump Station Rehabilitation
City of Belmont

Ocean Colony Sanitary Sewer and Force Main Rehabilitation Project
City of Half Moon Bay

Force Main Appurtenance Project
Ross Valley Sanitary District

Shoreway Road Sanitary Sewer Replacement
City of Belmont

Sanitary Sewer and Manhole Rehabilitation Project
City of San Mateo

Basin E Sanitary Sewer Rehabilitation
City of San Mateo

Sewer Pump Station Improvements Project
Town of Hillsborough

Sanitary Sewer Pump Station Rehabilitation Project
City of Oakland

Sanitary Sewer Main Emergency Repair
City of Half Moon Bay

Sanitary Sewer Pump Station Evaluation
City of Half Moon Bay

Trunk Main Replacement Phase 4
Sonoma

Agua Caliente Creek Replacement of Sewer Trunk Main with Double Barrel Siphon
Sonoma

Sanitation Local Hazard Mitigation Plan
Sonoma & Guerneville

Lateral Sewer Replacement Program
Occidental

Gloria Meekland Sewer and Water Replacement
Santa Rosa

Water Delivery Systems

Sanitary Sewer and Water Rehabilitation Project
City of Belmont & Mid-Peninsula Water District

McGill Road Recycled Water Pipeline
Sonoma

Fifth Street East Recycled Water Pipeline
Sonoma

Sesimic Hazards Mitigation for 48-inch Pipeline at Russian River Crossing
Forestville

Alternative Pipe Material for Corrosion Resistance, Collector 6 Chlorine Lines
Forestville

Storm Water, Hydrology and Hydraulics, and Floodplain Management

El Camino Real and Old County Road Rehabilitation Project
City of Belmont

Storm Drain Improvement Project
City of Belmont

Storm Drain Master Plan
City of Alameda

Storm Drain Master Plan
City of Carmel

Storm Drain Rehabilitations for Detriorated Culverts
Town of Woodside

Cove Stormwater Pump Station Evaluation
Marin County

Flood Study Green Valley Creek Crossing
Graton

Other Projects

Shoring Systems Design for Water Pipelines at 405 Freeway
Los Angeles

Soil Nail Wall Design for Hyrum Water Tanks
Provo, Utah

Excavation Design for Transbay Transit Center
San Francisco

Project Management of Soil Nail, MSE, and Soldier Pile Walls Rambla Vista Dr.
Malibu

Perimeter Wall Design for Protection from Liquifiable Soils
Kaiser Hospital, Redwood City

Jonathan F. Ondracek, EIT Assistant Engineer

Jonathan F. Ondracek, EIT has experience in modeling and design for stormwater and wastewater infrastructure projects. He is proficient in running hydraulic models to solve drainage issues and conduct level surveys for small design projects. Jonathan has 7 years of experience working on drainage issues, and sanitary sewer projects with the City of Fort Wayne, Indiana. He also has 6 years of experience working throughout the Bay area on a variety of projects such as: sanitary sewer pump station rehabilitation projects, storm drain improvements, roadway improvements, and sanitary sewer rehabilitation projects.

Education

BSCE, Purdue University, Indiana

Licenses

Registered EIT Indiana

Affiliations

Dale Carnegie Management Training

Software

AutoCAD Civil3d, AutoCAD LT, EPASWMM 5, Mike Urban, ArcGIS

Selected Project Experience

Wastewater System Planning and Design

On-Call Sanitary Sewer Design
City of San Mateo

Mill Valley Citywide Sanitary Sewer Assessment and CIP
City of Mill Valley

2019 Sewer Repair Project
City of Mill Valley

2021 Sewer Repair and Replacement Project
City of Mill Valley

2020 Sewer Pipe Repair and Replacement
City of San Rafael

Rich & Industrial Sewer Improvement Project
Town of Corte Madera

2021 Sewer Rehabilitation Project
Town of Corte Madera

2020 Sewer Rehabilitation Project
Town of Corte Madera

Citywide Sanitary Sewer Assessment and Capital Improvement Plan
City of Mill Valley

Port of Oakland Seaport CCTV Inspection
Port of Oakland

Tamarind Pump Station Improvement
City of Fontana

2020 Inflow and Infiltration Sewer Repair Project
City of Morgan Hill

FY 2019/20 Force Main Appurtenance Project
Ross Valley Sanitation District

Sewer Pump Station Improvements – Phase 2
Town of Hillsborough

North Road Pump Station and Force Main Rehabilitation Project
City of Belmont

Building M101 Sanitary Sewer Lateral Repair
Port of Oakland

Industry Pump Station Improvement
City of Fontana

Shoreway Sewer Replacement Project
City of Belmont

Sanitary Sewer Easement Rehabilitation Project
City of Belmont

El Camino Real Sanitary Sewer Rehabilitation Project
City of San Mateo

East San Mateo Sanitary Sewer Lift Station Rehabilitation Project
City of San Mateo

Laurie Meadows and Woodbridge Lift Station Project
City of San Mateo

Northside and Rabello Flow Meter and Force Main Appurtenance Project
City of Santa Clara

Pump Station Facilities Repair Project Antioch Pump Station Project
County of Contra Costa

West Valley Logistics Center Sanitary Sewer Pump Station Project
City of Fontana

Basin E Sanitary Sewer Rehabilitation Project
City of San Mateo

Stormwater Systems Planning and Design

Storm Drain Pump Station Electrical Upgrades
City of Alameda

Athlone Pump Station Investigation
City of Atherton

Belmont Storm Drain Improvement Project
City of Belmont

Little Wolf Creek Culvert Rehabilitation Pipe Replacement Project
City of Grass Valley

MCSTOPPP/ San Rafael Trash Capture Project
City of San Rafael

Laurel Avenue Storm Drain Improvements Project
City of Larkspur

Sandy Tatum Learning Center First Tee Harding Park Project
City of San Francisco

Pilarcitos Avenue/Kehoe Watercourse Outfall Repair Project
City of Half Moon Bay

Hydrology & Hydraulics

Los Gamos and Oleander Drainage Study
City of San Rafael

Christian Encarnacion
Assistant Engineer

Education

BS, Civil and Environmental Engineering
San Jose State University

Certifications

EIT 171857

Cal/OSHA 10-Hour Construction

Software

AutoCAD

Christian Encarnacion has three years of experience providing engineering services.

Recently, Christian has worked in wastewater systems rehabilitations and stormwater system rehabilitation projects.

In the past, he worked as a project engineer for Technology, Engineering & Construction Inc, where he performed site inspections and designed plans for submission to public agencies and clients. Christian has helped clients resolve violations and permitting concerns.

He also worked as an intern for the City of Milpitas Public Works Department, Christian developed asset inventory for the water, sewer, and storm systems for the City's Emergency Master Plan. He managed the City's water service lines by inspecting city-as builts, details, and standards and analyzed pipeline failures. He also drafted a design for backbone pipelines to assist with the installation of about 4,000 ft of water pipes.

Selected Project Experience

Wastewater Systems

Basin E Sewer Rehabilitation
City of San Mateo

Stormwater Planning and Design

San Clemente Creek Pump Station Outfall Pipe Repair and Rehabilitation
Town of Corte Madera

Miller Pacific Engineering Group

504 Redwood Blvd., Suite 220
Novato, CA 94947
415-382-3444

CURRICULUM VITAE
SCOTT STEPHENS

Registration

Geotechnical Engineer
No. 2398, CA, 1998

Civil Engineer
No. 50482, CA, 1993

Education

MSCE, Geotechnical Engineering
U.C. Berkeley
Berkeley, CA, 1991

BSCE, Civil Engineering
U.C. Berkeley
Berkeley, CA, 1988

Memberships

ASCE, American Society of Civil Engineers

GBA, Professional Firms Practicing in the Geosciences

ACEC of California, American Council of Engineering Companies.
(Past Chapter President)

Scott Stephens is President of Miller Pacific and is responsible for the overall business management of the firm. He also serves as Principal Engineer for many of the firm's projects. Scott has prepared geotechnical investigations, planning studies, geo-civil designs and peer reviews for a wide variety of projects. He has worked on hundreds of pipeline and underground construction projects throughout Marin County and the surrounding areas for various public clients. The geotechnical investigations for these projects typically include exploration of subsurface conditions, evaluation of geologic hazards, and preparing geotechnical recommendations and criteria for planning, design and construction. During construction, Scott provides geotechnical consultation, and manages the firm's observation and testing for geotechnical-related work items. A couple representative projects are described below.

Marin Municipal Water District, Inkwells Bridge
Scott provided the geologic and geotechnical investigation for the Inkwells Bridge in Lagunitas. Geotechnical recommendations and criteria were provided for shallow foundations that bear on hard bedrock areas with rock anchors to provide supplemental uplift resistances. The foundations provided both vertical and lateral support for twin 36-inch steel water transmission lines as well as a 170-foot-long pedestrian and equestrian bridge.

Novato Sanitary District, Treatment Plant Improvements
Scott conducted a geotechnical investigation and prepared the design report for NSD's treatment plant improvements. Site grading incorporated surcharging with wick drains to consolidate the underlying bay mud and mitigate potential settlement issues that could impact new structures and pipelines. The project also featured a new conveyance pipeline which was installed using horizontal directional drilling to cross beneath Highway 37 in south Novato. During construction Scott supervised the field and laboratory testing for geotechnical work items which included settlement monitoring of the surcharge fill, installation of new auger cast pile foundations for several new structures, site grading and pipeline construction.

North Marin Water District, Recycled Water Pipeline
Scott managed geotechnical services for NMWD's Recycled Water Pipeline in Novato. He directed the subsurface exploration, laboratory testing, geologic mapping, geologic hazards evaluation, and prepared geotechnical recommendations and criteria for the design and construction. The southern portion of the project includes recycled water distribution lines from the Las Gallinas Valley Recycled Water Treatment Facility to the Hamilton area of Novato. Sensitive environmental habitats needed to be avoided during investigation and construction. The northern portion of the project includes approximately 30,000 linear feet of new 8- and 12-inch distribution lines Construction utilized a combination of open-cut, directional drilling and bore-and-jack techniques. The pipeline crossed under Highway 37 and Novato Creek using trenchless methods. Construction services include submittal reviews, determination of hard rock excavation conditions, field and laboratory testing of trench backfill material and pavement restoration.

Miller Pacific Engineering Group

CURRICULUM VITAE
RUSTY AREND

504 Redwood Blvd., Suite 220
Novato, CA 94947
415-382-3444

409 Couer d' Alene Avenue, Suite 1
Couer d' Alene, ID 83814
208-819-6488

Registration

Geotechnical Engineer No. 3031, CA, 2013

Civil Engineer
No. 73970, CA, 2009
No. 49558, WA, 2012
No. 20527, ID, 2021

Education

MS, Civil Engineering (Geotechnical Focus) UC Berkeley, Berkeley, CA, 2010

BS, Civil Engineering, California Polytechnic, San Luis Obispo, CA, 2006

Memberships

ASCE, American Society of Civil Engineers

NASTT, North American Society for Trenchless Tech.

Deep Foundation Institute

Rusty Arend serves as Senior Geotechnical Engineer in the firm's Novato and Couer d' Alene offices. Rusty has worked in the geotechnical and underground construction industry for over 16 years. He has spent portions of his career throughout California and the Pacific Northwest with the majority of his experience focused in the northern Bay Area. Rusty has worked extensively with local public agencies and private entities in providing geotechnical services throughout planning, design, and construction on a wide variety of projects. His experience has broadly focused on conducting and overseeing feasibility evaluations, subsurface investigations, laboratory testing and geotechnical observation and testing throughout construction for site conditions ranging from deep, soft soil deposits to shallow, hard rock.

Rusty has supported various project teams in delivering geotechnical services for numerous underground construction projects. These have included tunnels and shafts for utility and transportation projects, pipeline replacement or rehabilitation, pump stations and other below-grade structures. He is experienced in planning and implementing subsurface exploration and laboratory testing programs, preparing design reports which summarize geotechnical recommendations and design criteria for a variety of ground conditions, designing temporary and permanent support for excavations, and evaluating geotechnical conditions and preparing recommendations for pipeline replacements using open-cut and trenchless construction methods. Several projects completed within the last few years include:

City of Alameda, Cyclic Sewer Rehabilitation
The City of Alameda replaces approximately two to three miles of sewer pipes at various locations each year to address aging and distressed infrastructure. Miller Pacific has completed geotechnical investigations for the pipeline replacements on an annual basis since 2016. Rusty has served as Project Manager responsible for leading the investigations and preparing the geotechnical report for each phase of work.

City of Healdsburg Magnolia, Force Main Relocation
The City of Healdsburg's Magnolia Force Main Relocation included evaluating the feasibility of installing two new 14-inch sanitary sewer force mains beneath Dry Creek using trenchless installation methods. As Project Engineer, Rusty prepared preliminary design recommendations and assisted in providing cost estimates for the various alternatives to aid the City in planning and preliminary design.

Ross Valley Sanitary District, Gravity Force Main Improvements
The Ross Valley Sanitary District's Gravity Sewer Improvement Project consists of replacing or rehabilitating approximately 17 miles of existing sanitary sewer pipeline with diameters ranging from six to 24 inches at various locations throughout central Marin County. Miller Pacific is providing geotechnical services including subsurface exploration, laboratory testing, geotechnical characterization of ground conditions and evaluation of trenchless construction alternatives at several locations in which open-trench methods are not feasible. Rusty assisted in preparing the geotechnical report which summarized Miller Pacific's recommendations for design and construction.

RYAN AMAYA, PLS
Principal Surveyor

Ryan Amaya's 20+ years of survey and mapping experience includes extensive management of construction surveying, boundary surveying, mapping, topographic surveys, benchmark level circuits, elevation monitoring surveys, tentative maps, parcel maps, final maps, condominium plans, plats and legal descriptions, lot line adjustments, lot combinations, reversion-to-acreage maps and ALTA/ACSM Land Title Surveys.

As K+W's contract manager, Ryan is principally responsible for all survey services provided for this project.

Licenses + Registrations
PLS, California, 8134

Years Experience
23

PROJECT EXPERIENCE

Boulder Creek Waterline Replacement,
Boulder Creek, CA
San Lorenzo Valley Water District

South Trunk Sanitary Sewer Relief Line, San Mateo, CA
City of San Mateo

42nd Avenue Sanitary Sewer Pump Station, San Mateo, CA
City of San Mateo

Pump Station + Force Main Rehabilitation,
San Mateo, CA
City of San Mateo

Arroyo Pump Station,
Santa Mateo, CA
City of San Mateo

Downtown Sewer Survey
Sunnyvale, CA
City of Sunnyvale

Leong Drive Water + Sewer Improvements,
Mountain View, CA
City of Mountain View

Bell Moon Sanitary Sewer Pump Station, Half Moon Bay, CA
City of Half Moon Bay

El Camino Sanitary Sewer Improvements, Santa Clara, CA
City of Santa Clara

City-Wide Trash Capture Feasibility Study,
Mountain View, CA
City of Mountain View

Shoreline Pump Station As-Builts
Mountain View, CA
Anderson Pacific Engineering Construction Inc.

Palo Alto Pump Stations,
Palo Alto, CA
City of Palo Alto

ROD STEWART II, PLS
Senior Surveyor

Rod has over 24 years of land surveying experienced, including several years in the field. He has been a cornerstone of K+W's on-call surveying experts for over a decade and has managed on-call survey task orders completed for a variety of California public agencies, including the Alameda County Zone 7 Water Agency, the Alameda County Public Works Agency, and the cities of San Leandro, Alameda, Walnut Creek, Dublin and Pleasanton.

For this contract, Rod will be available to serve on all survey task orders under the direction of Ryan.

Licenses + Registrations
PLS, California, 9225

Years Experience
24

PROJECT EXPERIENCE

Zone 7 Subsidence Level Runs,
Pleasanton, CA
Alameda County Zone 7 Water Agency

Patterson Pass Water Treatment Plant Expansion,
Alameda County, CA
Alameda County Zone 7 Water Agency

Alameda Creek Channel Survey,
Fremont, CA
Alameda County Public Works

Owens/Hopyard Road Widening,
Pleasanton, CA
City of Pleasanton

Sidney Ave, Kappa Ave + Rose Drive Rehabilitation Projects,
San Leandro, CA
City of San Leandro

Fremont Civic Center Ph. I,
Fremont, CA
City of Fremont

Leong Dr. Improvements,
Mountain View, CA
Schaaf & Wheeler

Newark Civic Center, Newark, CA
City of Newark

Howard Drive Topographic Survey, San Francisco, CA
City of San Francisco

Santa Clara Civic Center Improvements, Santa Clara, CA
City of Santa Clara

Brandenburg ROS, San Jose, CA
Peninsula Open Space Trust

Stanley Blvd. + Bernal Ave. Pedestrian Improvements,
San Jose, CA
City of Pleasanton

American River College Natomas Center Parking Expansion,
Sacramento, CA
Los Rios Community College District

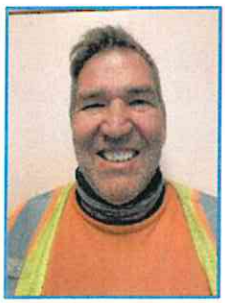
SUBTRONIC CORPORATION | POTHOLING

Peter Sparks | Utility Potholing Specialist | Department Manager

Peter is a valuable member of the Subtronic Corporation potholing team, having been with the company for 15 years. He is instrumental in doing the traffic control plans, procuring permits, marking areas for USA and getting the potholing projects off to a good start. Peter has a positive approach to all new assignments and is quick to identify and resolve any problem situations that may arise in the field. Mr. Sparks is a hands-on leader known for his strategic and focused approach. He has completed many successful projects that have resulted in business growth. Mr. Sparks is highly experienced in utility locating by way of vacuum pothole excavation. He always provides a clear channel of communication and coordination between operating personnel and functional counterparts.

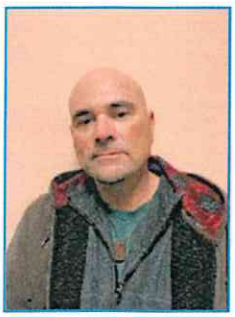
Don Showers | Utility Potholing Specialist

Don has been with Subtronic Corporation since January of 2016. He is a hard-working staff member always taking the lead on new projects while in the field.



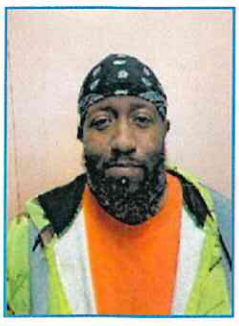
Sal Zesati | Utility Potholing Specialist

Sal has been with Subtronic Corporation since May of 2007. He is a reliable crew member – always eager and willing to help where needed.



Damien Lawrence | Utility Potholing Specialist

Damien has been with Subtronic Corporation since June of 2006. He is a reliable crew member – always eager and willing to help where needed.



SUBTRONIC CORPORATION | POTHOLING

Subtronic Corporation was founded in 1984 as a Subsurface Utility Engineering support company locating and mapping underground utilities.

We provide utility locating and mapping services for a wide variety of customers. Our customers range from private homeowners to colleges, hospitals, military bases, municipalities, and city agencies. Drawings are produced in AutoCAD with each utility represented on a separate layer.

In 1998, TV inspection of storm drains and sanitary sewers was introduced. As well as the hydrojetting of pipes in various diameters.

In the year 2000 vacuum excavation potholing was added to provide the third dimension to the utility location information.

All Subtronic staff are HAZWOPER trained and all locators are certified under Cal OSHA Title 8 Section 1509 and CGC 4216 .3 and 29 CFR 1910 .120

Subtronic Corporation holds a current General Engineering License No. 940232 and is a registered Public Works Contractor No. 100000418.

With certified utility locators, PACP certified tv crews and a licensed land surveyor, we feel the scope of work requested is well within our capabilities and experience level.

Subtronic typically utilizes a 2 or 3-person potholing crew, depending on the number of potholes to be dug and traffic conditions. If traffic conditions are heavy, we may use an additional one or two people to act as flagmen or to direct traffic safely around the work zone. In most situations, there is a crew leader and one or two helpers for the duration of the projects.

Hayward SC Utility Survey & Additional Design Project

Vacuum Excavation of 120 potholes. The utilities were exposed using vacuum excavation. The point of excavation was marked by others. Measurements were taken to the top of the utility. Excavated material was removed from site, the pothole backfilled with Class 2AB, compacted and the surface hot asphalted where applicable.

Dates Project Performed:
February 2022 - May 2022

Project Owner: Pacific Gas & Electric (PG&E)

P.O. Box 7760

San Francisco, CA 94120

Contact: CB2 Builders, Inc.

Eric Campagna, Project Manager
t. 415.796.7020

Cost:
Projected: $164,480
Completed: $157,880

City of Vallejo Water Main Replacement FY 22-23 Project

Vacuum Excavation of 50 potholes. The utilities were exposed using vacuum excavation. The point of excavation was marked by others. Measurements were taken to the top of the utility. Excavated material was removed from site, the pothole backfilled with Class 2AB, compacted and the surface hot asphalted where applicable.

Dates Project Performed:
February 2023 - March 2023

Project Owner: City of Vallejo

555 Santa Clara Street

Vallejo, CA 94590

Contact: Lee & Ro

Murthy Kadyala, Civil Engineer
t. 626.667.5391

Cost:
Projected: $78,813
Completed: $74,322

Rodonovan Reach Trench – Santa Clara

Vacuum Excavation of 50 potholes. The utilities were exposed using vacuum excavation. The point of excavation was marked by others. Measurements were taken to the top of the utility. Excavated material was removed from site, the pothole backfilled with Class 2AB, compacted and the surface hot asphalted where applicable.

Dates Project Performed: June 2022 - November 2022

Project Owner and Contact: Silicon Valley Power – 1500 Warburton Avenue, Santa Clara CA 95050

Ulises Ochoa –
Stantec Consulting,
Inc.
t. 858.649.0973

Cost
Projected: $252,366
Completed: $204,592

Design Services for Maritime Sanitary Sewer Collection System Rehabilitation, Oakland

Vacuum Excavation of 45 potholes. The utilities were exposed using vacuum excavation. The point of excavation was marked by others. Measurements were taken to the top of the utility. Excavated material was removed from site, the pothole backfilled with Class 2AB, compacted and the surface hot asphalted where applicable.

Dates Project Performed:
October 2022 – November 2022

Project Owner and Contact

Port of Oakland – 530 Water Street
Oakland, CA 94607

Michael Zacharia – West Yost & Associates
t. 916.215.1617

Cost
Projected: $164,478
Completed: $137,760

SAN RAFAEL SANITATION DISTRICT
Agenda Item No. 3.d.

DATE: May 26, 2023

TO: Board of Directors, San Rafael Sanitation District

FROM: Doris Toy, District Manager/District Engineer

SUBJECT: Adopt Resolution Authorizing the District Manager/District Engineer to Execute a Professional Services Agreement for Design and Construction Related Services for the Bret Harte Easement Retaining Wall Improvement Project

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RECOMMENDATION:

Adopt resolution authorizing the District Manager/District Engineer to execute a Professional Services Agreement with Miller Pacific Engineering Group for design and construction related services for the Bret Harte Easement Retaining Wall Improvement Project not to exceed $97,393.

BACKGROUND:

The District has a 6-inch sanitary sewer located within a 20-foot-wide hillside easement north of Bret Harte Road that provides sewerage service for residents from 60 Bret Harte Road to 140 Bret Harte Road. The easement, sewer facilities, and associated retaining walls are primarily located near or adjacent to the northern property line of the properties. The sewer easement and all associated facilities were originally constructed in 1966 and are accessed for maintenance via a partially improved roadway approximately 10 feet wide, beginning at the western end of Oakhurst Road. The pathway was originally formed by cutting the uphill slope and filling the hillside below and included the construction of a 4-foot-tall wooden retaining wall.

After a rain event in the winter of 2017, the District discovered that a landslide had occurred at 92 Bret Harte Road and approximately 60 feet of the existing wooden retaining wall was damaged or destroyed. The District stabilized the hillside with rock rip rap and replaced approximately 80 feet of the wall with a new 4-foot-tall soldier pile retaining wall.

A second landslide occurred during the winter of 2019 on an adjacent undeveloped property and was subsequently repaired via the installation of rock rip rap. During the stabilization of this landslide, the District also temporarily repaired in kind approximately 100 feet of the existing wood retaining wall located at 88 Bret Harte Road. This portion of the repaired wall is included within the project for permanent replacement.

Additionally, there is a washout located near 96 Bret Harte Road that requires repair and stabilization to re-establish access to the pathway west of the affected area. The sewer at this location has been undermined and approximately 12-feet of the sewer is exposed above an 8-foot-deep eroded gulley. A prefabricated bridge to restore access to pathway and support the above ground sewer facilities may be considered.

Overall, approximately 600 feet of the wooden retaining wall remains in need of repair or replacement and at various locations. Portions of the original wall may be partially or completely missing.

ANALYSIS:

The District sent a Request for Proposal (RFP) to five engineering firms. The work described in the RFP includes the analysis of the existing retaining walls along the entire length of the easement, recommendation of repairs to the walls and the eroded gulley, the design and preparation of construction contract documents for the wall replacements, and design support during construction.

Proposals were received from ENGEO (Oakland), Kimley-Horn and Associates, Inc. (Pleasanton), and Miller Pacific Engineering Group (Novato). Staff reviewed their proposals and evaluated them based on the following criteria: 1) Inclusion of all required items and completeness of the proposal; 2) Understanding of the work to be done; 3) Clear description of the tasks; 4) Commitment to adhering to the schedule of each task and overall project; 5) Qualified and experience personnel on the project team; 6) Previous experience of similar projects completed on time and within budget. Please see attached summary of the staff's evaluation.

After a thoughtful and considerate review of the submitted information, staff recommends that Miller Pacific Engineering Group (MPEG) be selected as the firm to provide the engineering services. MPEG is a local geotechnical engineer firm that has knowledge and experience in Marin County for over 25 years and has worked for the County of Marin as a consultant on over 60 landslides which damaged County roads, parks, and open space areas. Many of the projects involved emergency consultation, geotechnical investigation, and preparation of complete design repair plans. They have also assisted the City of San Rafael in a similar capacity, as well.

Since this work is for professional services, the standard for award of such contracts must be based upon the demonstrated competence and qualifications of the firm for services to be provided, and the price of the services must be fair and reasonable to the District. However, the District is allowed to negotiate the contract with the top selected firm. If we are unsuccessful, then the District goes to the next selected firm. Staff have determined that MPEG is the most suitable for this project; and coincidently, their proposal was the lowest cost. In fact, they were about $90,000 less than the next firm with the lowest proposal. After comparing costs with both firms, MPEG is a small local firm, whereas the other firm is a global firm with a different approach to staffing and higher cost rates. MPEG is performing most of the work in-house with a surveyor and a drilling company as a subcontractor; and MPEG is familiar with the project site. Staff have also discussed costs with MPEG and they feel confident with their proposed time and costs. They have also included a 15% contingency to cover the unknowns.

Miller Pacific Engineering Group proposes to perform the design and construction related services for the District on a time-and-materials basis for an amount not to exceed $97,393 for the Bret Harte Easement Retaining Wall Improvement Project.

FISCAL IMPACT:

Miller Pacific Engineering Group's design and construction related services for the Bret Harte Easement Retaining Wall Improvement Project will be funded by the 80-Year Life Cycle Sewer Replacement Program for Fiscal Year 2022-23 and 2023-24.

ACTION REQUIRED:

Staff recommends that the Board adopt the resolution authorizing the District Manager/District Engineer to execute a Professional Services Agreement with Miller Pacific Engineering Group for design and construction related services for the Bret Harte Easement Retaining Wall Project not to exceed $97,393.

Attachments: Resolution
Professional Services Agreement
Proposal from Consultant, Exhibit "A"
Evaluation Summary Sheet

SAN RAFAEL SANITATION DISTRICT

RESOLUTION NO. 23-1267

A RESOLUTION AUTHORIZING THE DISTRICT MANAGER/DISTRICT ENGINEER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT FOR DESIGN AND CONSTRUCTION RELATED SERVICES FOR THE BRET HARTE EASEMENT RETAINING WALL IMPROVEMENT PROJECT NOT TO EXCEED $97,393

THE BOARD OF DIRECTORS OF THE SAN RAFAEL SANITATION DISTRICT, COUNTY OF MARIN, hereby resolves as follows:

The District Manager/District Engineer is hereby authorized to execute, on behalf of the San Rafael Sanitation District, a Professional Services Agreement for design and construction related services for the Bret Harte Easement Retaining Wall Improvement Project, a copy of which is hereby attached and by this reference made a part hereof.

PASSED AND ADOPTED at a special meeting of the San Rafael Sanitation District Board of Directors held on the 26th day of May 2023, by the following vote, to wit:

AYES:

NOES:

ABSENT/ABSTAIN:

SAN RAFAEL SANITATION DISTRICT

Kate Colin, Chair

ATTEST:

Maribeth Bushey, Secretary

PROFESSIONAL SERVICES AGREEMENT
FOR DESIGN AND CONSTRUCTION RELATED SERVICES FOR THE
BRET HARTE EASEMENT RETAINING WALL IMPROVEMENT PROJECT

This Agreement is made and entered into this 26th day of May, 2023 by and between the SAN RAFAEL SANITATION DISTRICT [hereinafter "DISTRICT"], and [MILLER & PACIFIC] (hereinafter "CONSULTANT").

RECITALS

WHEREAS, the DISTRICT has selected [MILLER & PACIFIC] to perform the required engineering services for the **"Bret Harte Easement Retaining Wall Improvement Project"** (hereinafter "PROJECT"); and

WHEREAS, the CONSULTANT has offered to render certain specialized professional services in connection with this Project.

AGREEMENT

NOW, THEREFORE, the parties hereby agree as follows:

1. DEFINITIONS.

DISTRICT and CONSULTANT have outlined the scope of services to be provided, and related expenses as described in Exhibit "A" attached and incorporated herein.

2. PROJECT COORDINATION

A. DISTRICT. The District Manager/District Engineer shall be the representative of the DISTRICT for all purposes under this Agreement and is hereby designated the PROJECT MANAGER for the DISTRICT, and said PROJECT MANAGER shall supervise all aspects of the progress and execution of this Agreement.

B. CONSULTANT. CONSULTANT shall assign a single PROJECT DIRECTOR to have overall responsibility for the progress and execution of this Agreement for CONSULTANT. Scott Stephens, is hereby designated as the PROJECT DIRECTOR for CONSULTANT. Should circumstances or conditions subsequent to the execution of this Agreement require a substitute PROJECT DIRECTOR for any reason, the CONSULTANT shall notify the DISTRICT within ten (10) business days of the substitution.

3. DUTIES OF CONSULTANT

CONSULTANT shall perform the duties and/or provide services as follows: the CONSULTANT agrees to provide professional services as an Engineering Consultant to prepare work outlined in the Proposal from CONSULTANT dated May 12, 2023, marked Exhibit "A" attached hereto,

and incorporated herein by this reference. CONSULTANT agrees to be available and perform the work specified in this Agreement in the time frame as specified and as shown in Exhibit "A".

4. DUTIES OF THE DISTRICT

DISTRICT shall perform the duties as described and incorporated herein.

5. COMPENSATION

For the full performance of the services described herein by CONSULTANT, DISTRICT shall pay CONSULTANT on a time and materials basis for services rendered in accordance with the rates shown on the current fee schedule as described in Exhibit "A" attached and incorporated herein. The total payment will not exceed $97,393, as shown on the Proposal Budget, set out in Exhibit "A".

Payment will be made monthly upon receipt by PROJECT MANAGER of itemized invoices submitted by CONSULTANT.

6. TERM OF AGREEMENT

The term of this Agreement shall be from the date of execution until the Project is complete.

7. TERMINATION

A. Discretionary. Either party may terminate this Agreement without cause upon thirty (30) days written notice mailed or personally delivered to the other party.

B. Cause. Either party may terminate this Agreement for cause upon ten (10) days written notice mailed or personally delivered to the other party, and the notified party's failure to cure or correct the cause of the termination notice, to the reasonable satisfaction of the party giving such notice, within thirty (30) days of the receipt of said notice.

C. Effect of Termination. Upon receipt of notice of termination, neither party shall incur additional obligations under any provision of this Agreement without the prior written consent of the other.

D. Return of Documents. Upon termination, any and all DISTRICT documents or materials provided to CONSULTANT and any and all of CONSULTANT's documents and materials prepared for or relating to the performance of its duties under this Agreement, shall be delivered to DISTRICT as soon as possible, but not later than thirty (30) days after termination.

8. OWNERSHIP OF DOCUMENTS

The written documents and materials prepared by the CONSULTANT in connection with the performance of its duties under this Agreement, shall be the sole property of DISTRICT. DISTRICT may use said property for any purpose, including projects not contemplated by this Agreement.

9. INSPECTION AND AUDIT

Upon reasonable notice, CONSULTANT shall make available to DISTRICT, or its agent, for inspection and audit, all documents and materials maintained by CONSULTANT in connection with its performance of its duties under this Agreement. CONSULTANT shall fully cooperate with DISTRICT or its agent in any such audit or inspection.

10. ASSIGNABILITY

The parties agree that they shall not assign or transfer any interest in this Agreement nor the performance of any of their respective obligations hereunder, without the prior written consent of the other party, and any attempt to so assign this Agreement or any rights, duties or obligations arising hereunder shall be void and of no effect.

11. INSURANCE

A. During the term of this Agreement, CONSULTANT shall maintain, at no expense to DISTRICT, the following insurance policies:

1. A commercial general liability insurance policy in the minimum amount of one million ($1,000,000) dollars per occurrence and $2,000,000 aggregate for death, bodily injury, personal injury, or property damage;

2. An automobile liability (owned, non-owned, and hired vehicles) insurance policy in the minimum amount of one million ($1,000,000) dollars per occurrence;

3. If any licensed professional performs any of the services required to be performed under this Agreement, a professional liability insurance policy in the minimum amount of one million ($1,000,000) dollars to cover any claims arising out of the CONSULTANT's performance of services under this Agreement.

B. The insurance coverage required of the CONSULTANT by Section 11. A., shall also meet the following requirements:

1. The insurance shall be primary with respect to any insurance or coverage maintained by DISTRICT and shall not call upon DISTRICT's insurance or coverage for any contribution;

2. Except for professional liability insurance, the insurance policies shall be endorsed for contractual liability and personal injury;

3. Except for professional liability insurance, the insurance policies shall be specifically endorsed to include the DISTRICT, its officers, agents, and employees as additionally named insureds under the policies;

4. CONSULTANT shall provide to PROJECT MANAGER, (a) Certificates of Insurance evidencing the insurance coverage required herein, and (b) specific endorsements naming DISTRICT, its officers, agents and employees, as additional insureds under the policies;

5. The insurance policies shall provide that the insurance carrier shall not cancel, terminate or otherwise modify the terms and conditions of said insurance policies except upon thirty (30) days written notice to DISTRICT's PROJECT MANAGER;

6. If the insurance is written on a Claims Made Form, then, following termination of this Agreement, said insurance coverage shall survive for a period of not less than five years;

7. The insurance policies shall provide for a retroactive date of placement coinciding with the effective date of this Agreement;

8. The insurance shall be approved as to form and sufficiency by PROJECT MANAGER and the County Counsel.

C. If it employs any person, CONSULTANT shall maintain Worker's Compensation and Employer's Liability Insurance, as required by the State Labor Code and other applicable laws and regulations, and as necessary to protect both CONSULTANT and DISTRICT against all liability for injuries to CONSULTANT's officers and employees.

D. Any deductibles or self-insured retentions exceeding $20,000 in CONSULTANT's insurance policies must be declared to and approved by the PROJECT MANAGER and the County Counsel. At DISTRICT's option, the deductibles or self-insured retentions with respect to DISTRICT shall be reduced or eliminated to DISTRICT's satisfaction, or CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claims administration, attorney's fees and defense expenses.

12. INDEMNIFICATION

CONSULTANT shall indemnify, release, and hold harmless DISTRICT, its officers, and employees against any claim, demand, suit, judgment, loss, liability, or expense of any kind, including attorney's fees, arising out of or resulting in any way from any negligent acts or omissions or negligence of CONSULTANT or CONSULTANT's officers, agents, and employees in the performance of their duties and obligations under this Agreement.

13. NONDISCRIMINATION

CONSULTANT shall not discriminate, in any way, against any person on the basis of age, sex, race, color, religion, ancestry, national origin or disability in connection with or related to the performance of its duties and obligations under this Agreement.

14. COMPLIANCE WITH ALL LAWS

CONSULTANT shall use due professional care to observe and comply with all applicable Federal, State and local laws, ordinances, codes, and regulations in the performance of its duties and obligations under this Agreement. CONSULTANT shall perform all services under this Agreement in accordance with these laws, ordinances, codes, and regulations.

15. NO THIRD PARTY BENEFICIARIES

DISTRICT and CONSULTANT do not intend, by any provision of this Agreement, to create in any third party, any benefit or right owed by one party, under the terms and conditions of this Agreement, to the other party.

16. NOTICES

All notices and other communications required or permitted to be given under this Agreement, including any notice of change of address, shall be in writing and given by personal delivery, or deposited with the United States Postal Service, postage prepaid, addressed to the parties intended to be notified. Notice shall be deemed given as of the date of personal delivery, or if mailed, upon the date of deposit with the United States Postal Service. Notice shall be given as follows:

TO DISTRICT: Doris Toy (District Manager)
San Rafael Sanitation District
111 Morphew Street
San Rafael, CA 94915-1560

TO CONSULTANT: Scott Stephens, President
(President)Miller Pacific Engineering
Group504 Redwood Blvd., Suite
220Novato, CA 94947

17. INDEPENDENT CONSULTANT

For the purposes, and for the duration, of this Agreement, CONSULTANT, its officers, agents and employees shall act in the capacity of an Independent Consultant, and not as employees of the DISTRICT. CONSULTANT and DISTRICT expressly intend and agree that the status of CONSULTANT, its officers, agents and employees be that of an Independent Consultant and not that of an employee of DISTRICT.

18. ENTIRE AGREEMENT -- AMENDMENTS

A. The terms and conditions of this Agreement, all exhibits attached, and all documents expressly incorporated by reference, represent the entire Agreement of the parties with respect to the subject matter of this Agreement.

B. This written Agreement shall supersede any and all prior agreements, oral or written, regarding the subject matter between the CONSULTANT and the DISTRICT.

C. No other agreement, promise or statement, written or oral, relating to the subject matter of this Agreement, shall be valid or binding, except by way of a written amendment to this Agreement.

D. The terms and conditions of this Agreement shall not be altered or modified except by a written amendment to this Agreement signed by the CONSULTANT and the DISTRICT.

E. If any conflicts arise between the terms and conditions of this Agreement, and the terms and conditions of the attached exhibits or the documents expressly incorporated by reference, the terms and conditions of this Agreement shall control.

19. SET-OFF AGAINST DEBTS

CONSULTANT agrees that DISTRICT may deduct from any payment due to CONSULTANT under this Agreement, any monies which CONSULTANT owes DISTRICT under any ordinance, agreement, contract or resolution for any unpaid taxes, fees, licenses, assessments, unpaid checks or other amounts.

20. WAIVERS

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

21. CITY BUSINESS LICENSE/OTHER TAXES

CONSULTANT shall obtain and maintain during the duration of this Agreement, a CITY business license as required by the San Rafael Municipal Code. CONSULTANT shall pay any and all state and federal taxes and any other applicable taxes. CONSULTANT's taxpayer identification number is 77-0061375, and CONSULTANT certifies under penalty of perjury that said taxpayer identification number is correct.

22. APPLICABLE LAW

The laws of the State of California shall govern this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day, month and year first above written.

SAN RAFAEL SANITATION DISTRICT

_____

Doris Toy, P.E.
District Manager/District Engineer

APPROVED AS TO FORM:

_____

Kerry L. Gerchow
Deputy County Counsel

CONSULTANT

MILLER PACIFIC ENGINEERING GROUP

By:_____

Title:_____

3d Exhibit A

MILLER PACIFIC ENGINEERING GROUP

PROPOSAL FOR

Geotechnical Engineering Design Services
Bret Harte Easement Retaining Wall Improvement Project
San Rafael, California

San Rafael Sanitation District
111 Morphew Street
San Rafael, California 94901

May 5, 2023

MILLER PACIFIC ENGINEERING GROUP

May 11, 2023

San Rafael Sanitation District
111 Morphew Street
San Rafael, California 94901

Attn: Doris Toy, District Manager/District Engineer

Re: Executive Summary
Proposal for Geotechnical Design Services
Bret Harte Easement Retaining Wall Improvement Project
San Rafael, California

We are pleased to have the opportunity to submit our proposal to provide geologic, geotechnical, and civil engineering services for replacement or stabilization of retaining structures along the Bret Harte Sewer Easement that have deteriorated and repair of erosion / slough areas that developed during previous strong winter storms. As a local Marin County firm, the successful completion of this project is important to maintain our reputation in the community and professional relationships with the San Rafael Sanitation District (SRSD). Having completed hundreds of projects in the San Rafael area, we are familiar with the geologic and geotechnical site conditions and with the nuances of working within Marin County. We have previously worked with San Rafael Sanitation District on various projects, several of which involved slope stabilization.

Miller Pacific Engineering Group would perform the work from our Novato office. The attached proposal will demonstrate our qualifications to perform the work, summarize our proposed scope of services, and provide our fee estimate. We welcome discussions with the SRSD to refine the scope and fee estimate as needed to meet the project's goals and budgets.

The following individual will be the primary contact and has the authority to negotiate and contractually bind Miller Pacific Engineering Group. We appreciate the opportunity to work with you on this exciting and important project.

Sincerely,

Scott Stephens, President
Geotechnical Engineer No. 2398
(Expires 6/30/23)

sstephens@millerpac.com

1.0 INTRODUCTION

We are pleased to respond to San Rafael Sanitation District's (SRSD) request for proposal for the Bret Harte Easement Retaining Wall Improvement Project. We understand approximately 600 feet of wooden retaining walls need repair or replacement, and repair or crossing of a washout area below 96 Bret Harte.

We have reviewed the materials in the Request for Proposal (RFP) and understand the project objective is to provide geotechnical investigation, topographic survey data, engineering evaluation to prepare plans, specifications, and estimates (PS&E) for the project. The following is a brief summary of some key issues pertaining to this project:

- Difficult site access for geotechnical exploration requiring drilling equipment suitable for the site conditions. Repair plans need to consider access conditions.
- Evaluation of commonly considered geologic and geotechnical hazards that may impact the project along with recommended mitigation measures.
- Development of alternative repair concepts to discuss with SRSD early in the project to select preferred plan for analyses, design, and PS&E.

2.0 PROJECT APPROACH AND SCOPE OF SERVICES

This section outlines our technical approach for key elements of the project and is organized by tasks needed to complete the investigations and design as identified in the RFP.

2.1 Project Management and Coordination:

Miller Pacific will attend project meetings or conferences as requested by SRSD for project updates and at select decision points. We will coordinate the work of subconsultants as needed. These meetings will provide an opportunity to discuss ongoing work, present findings, and solicit feedback.

2.2 Review Available Documents, Site Inspections and Exploration Plan:

We will review available previous studies, topographic plans, our in-house materials, and other data relevant to the investigation and evaluation. Existing data will be compiled and organized, and we will perform a site inspection to observe existing conditions. The site inspection shall include visual confirmation of existing structures and utilities, evaluation of access for exploration equipment, and marking potential exploration locations for Underground Service Alert (USA) notification and utility clearance. The exploration locations will be adjusted to the extent possible to reduce site impacts.

2.3 Geotechnical Exploration and Testing:

Following the review and evaluation of existing data, Miller Pacific Engineering Group will perform geotechnical exploration and laboratory testing that will include the following:

2.3.1 Exploration Permits and USA

Miller Pacific will obtain and pay for permits (Marin County Environmental Health) necessary to perform the geotechnical explorations. We expect SRSD will obtain any required environmental permits, right of entry, cultural permits/clearances, or access permits. Miller Pacific will be responsible for contacting Underground Service Alert (USA) to locate utilities and coordinating with utilities companies as needed to perform subsurface exploration for the project.

2.3.2 Geotechnical Exploration

Miller Pacific will coordinate and oversee the subsurface exploration in accordance with the standard of practice. All soil classification, sampling, and logging shall be performed in accordance with ASTM 2488 methods by geologists or engineers under supervision of MPEG's Certified Engineering Geologist and California Geotechnical Engineer.

We estimate two days of subsurface exploration to evaluate and log subsurface conditions and obtain samples for laboratory testing. Track or portable drill equipment will be used. Samples will be collected with the Modified California split spoon sampler and Standard Penetration test sampler, as appropriate for the soil types being samples. The depth of exploration is estimated to range from about 10 feet to 20 feet below existing grade. Soil cuttings will be used to backfill boreholes or cuttings will be spread on-site if bore holes require grouting.

2.3.4 Laboratory Testing

Geotechnical laboratory testing will be performed on select soil samples collected during the subsurface exploration program in order to aid in soil classification and development of engineering parameters for levee evaluation and design. The laboratory testing will include in situ moisture and density, grain-size distribution, Atterberg limits, corrosion, and unconfined compression strength tests.

Deliverable: The subsurface exploration and laboratory testing will be summarized in subsurface exploration appendices to be attached to the geotechnical reports. These appendices will include soil and rock classification charts, boring logs, and laboratory test results.

2.4 Geotechnical / Engineering Analyses and Report:

MPEG will analyze the data collected during the field exploration and laboratory testing program and perform analysis appropriate for the proposed project. We will evaluate geologic and geotechnical hazards that could potentially impact the project. Typical hazards commonly considered include strong seismic ground shaking, expansive soil conditions, slope instability, erosion potential and others.

Miller Pacific will prepare a Geotechnical Report that provides interpretation of subsurface conditions based on information collected during exploration. We will summarize geologic hazards, geotechnical analyses procedures/ results, and provide geotechnical recommendations for the project. The report will include geotechnical tables, recommendations, design criteria, and figures summarizing engineering recommendations. Preliminary engineering analyses will be performed to develop a couple repair or replacement options and conceptual cost estimates for the project along with pros and cons of various options. We will meet with SRSD to discuss these options.

Deliverable: Draft and final geotechnical reports for each project site. MPEG will submit a draft report for City review. Final reports will be submitted once all comments have been adequately addressed and will be signed by a Geotechnical Engineer (GE) with a current license in the State of California.

2.5 Plans, Specifications and Cost Estimates:

Following selection of the preferred repair option for each site, Miller Pacific will perform engineering analyses and prepare plans for review and construction.

2.5.1 Preliminary (35%) Plans, Specifications, and Cost Estimate

We will prepare the preliminary plans of the preferred repair option in AutoCAD with a 22”x34” format with a rough cost estimate. This phase will also include preliminary engineering of the repair. The 35% package will be submitted to SRSD for review, comments, and discussion of any design issues.

2.5.2 Detailed (65%) Plans, Specifications, and Cost Estimate

We will refine the design based on the preliminary 35% plan review comments and update the plans details and cost estimate. Furthermore, we will prepare draft technical specifications and calculation package and submit the 65% design for review and comment. We will coordinate any requested meetings to discuss and present the repair plan.

2.5.3 Detailed (95%) Plans, Specifications, and Cost Estimate

We will refine the design based on the 65% plan review comments and update the plans details and cost estimate. Furthermore, we will prepare technical specifications and updated calculation package and submit the 95% design for review and comment. We will attend any requested meetings to discuss and present the repair plan.

2.5.4 Final 100% Plans, Specifications, and Cost Estimate

We will refine the design based on the 95% plan review comments; update the plan details and cost estimate; prepare technical specifications and update the calculation package. We will incorporate SRSD’s front end specification to create contract documents for bidding and construction. Three sets of the 100% contract documents will be submitted for use in bidding.

Deliverable: Three wet-stamped paper copies of the construction plans and specifications. Plans will also be provided in electronic pdf and AutoCAD format. Specifications will be in Word format. Estimates will be in excel format. A stamped calculation package will be provided in electronic pdf format.

2.6 Bidding:

Following issuance of our construction document, we will be available to consult with you regarding recommended Contractors with experience and capabilities necessary to perform the work. We will facilitate a pre-bid meeting. We will respond to requests for information and answer questions that occur during the bidding process.

We will review and summarize the bids received and provide recommendations to SRSD for award of the contract.

Deliverable: Written response to bid RFIs, questions and Addenda to contract documents to be sent to interested bidders. Summarize the bid results in excel format and provide a written letter of recommendation for award.

2.7 Construction Support:

We will prepare conformed set of plans and specifications after notice of award. As Engineer of Record for the project, we will respond to requests for information and review submittals for the project. We will attend a pre-construction meeting and make intermittent site visits to confirm site conditions are as anticipated or make recommended field modification if needed.

We will attend weekly construction meetings and record minutes. We will review change orders during construction and assist the District in the negotiation of change orders with the Contractor. We will participate in a final walk through of the project and prepare a punch list of any final items needed to close out the project.

Deliverable: Letter summarizing the results of our construction inspection and testing services and providing our opinion regarding the Contractor's compliance with the project plans and specifications. Prepare wet-stamped as-built plans and specification.

2.8 Additional Services:

We can perform inspection and testing during construction that may include; site excavation, subsurface drainage, structure fill compaction, pier drilling/foundation excavations, concrete placement compressive strength testing, tieback load testing, etc. The scope and budget for this work would need to be developed once plans have been prepared and the construction schedule determined. We will assist with retaining other consultants and contractors for services we are not able to perform in-house.

3.0 SCHEDULE

The anticipated project schedule following notice to proceed is summarized below. If the scope of the project is altered, we can revise and update the schedule to meet project milestones.

Task 1:	Site Inspection	Two weeks
Task 2:	USA marking and permits	Two weeks
Task 3:	Subsurface Exploration	Two weeks
Task 4:	Laboratory Testing	Two weeks
Task 5:	Engineering Analyses	One week
Task 6:	Draft Geotechnical Reports	Two weeks
Task 7:	Final Geotechnical Reports	One week
Task 8:	35% Plans and Estimate	Three week
Task 9:	65% Plans, Specifications & Estimate	One week
Task 10:	95% Plans, Specifications & Estimate	One week
Task 11:	Final Plans, Specifications & Estimate	One week

Most of the tasks need to occur sequentially, although some tasks may overlap a bit. Total estimated time to prepare and issue final plans is 17 to 18 weeks, not including review time by the District.

4.0 QUALIFICATIONS

As a firm with over 25 years of experience in Marin County, Miller Pacific Engineering Group (MPEG) believes we offer a unique background and knowledge that can be applied to this project to meet the SRSD's objectives. MPEG has worked on numerous retaining wall and slope stabilization projects within Marin County and has applied innovation, creativity, and solutions oriented results to our clients' needs. The following is a summary of our qualifications for this project.

- We have completed hundreds geotechnical projects within the San Rafael area of Marin County. We are very familiar with the local geologic and geotechnical site conditions.
- Cost effective investigation and design. We are a local, small - medium sized firm that can easily adapt to changes in the design and thinking "outside the box".
- We have provided complete Geo-Civil design services including design, analyses, calculations, plans, specifications, contractor documents, and construction management, inspection and testing on numerous retaining wall and slope stabilization projects.

4.1 Consultant Team

Miller Pacific will provide a majority of the requested services in-house. We will utilize subconsultants for exploratory drilling and possibly specialized laboratory testing. Roles, responsibilities, and descriptions are summarized below.

Consultant	***Roles/Responsibilities***
Miller Pacific Engineering Group	Project Management, Technical Coordination Evaluation of Subsurface Conditions Laboratory Testing Engineering Analyses Geologic and Geotechnical Report Plans, Specifications, Estimates and Contract Documents Bid Support Construction Support
Capstone Surveying	Topographic Basemap and Survey Support

Miller Pacific Engineering Group

Miller Pacific Engineering Group (MPEG) provides clients with special services in the Geosciences by drawing on forty years of professional expertise in Geology, Civil and Geotechnical Engineering. The majority of our projects are in the Northern San Francisco Bay Area. With a home office in Novato and additional offices in Napa and Petaluma (including soil laboratory), the firm serves numerous public agencies and private clients. Our services span the range of Geotechnical Planning, Geological Hazards Analysis, Geotechnical Exploration and Testing, Foundation Engineering, Construction Monitoring, Geo-Civil Engineering and Distressed Property Evaluation. The firm's resource library provides a wealth of background information on local geologic and soil conditions, and their project records document the constructability of their various geotechnical designs. MPEG is an employee-owned California Corporation and registered as a California Small Business (SBE) and Micro-Business. MPEG provides a variety of geotechnical and geologic services including:

***Geotechnical Engineering*:** Feasibility Studies, Geotechnical Investigations, Earthquake Engineering, Site Grading Criteria, Stability and Settlement Analyses, Foundation Design, Distressed Property Evaluation, Forensic Studies, and Expert Witness.

Engineering Geology: Geologic Hazard Investigation, Fault and Seismicity Studies, Environmental Impact Assessment, Ground Water Studies, Geologic Resource Evaluation, Quarry Closure Reports.

***Geo/Civil Engineering*:** Landslide Mitigation Design, Embankment Design, Foundation Rehabilitation, Retaining Structures, Bridges, Shoreline Protection, Earth Dam Design, Plans and Specifications.

***Construction Monitoring and Testing*:** QA/QC geotechnical inspection and testing including site grading, foundations construction, subsurface drainage, pavement sections and concrete.

Our firm organizational structure is attached. More information is available at www.millerpac.com.

Drilling and Lab Subconsultants

Miller Pacific will utilize various drilling subconsultants based on site specific conditions and access. A combination of truck or track mounted, as well as portable drilling equipment will be required for subsurface exploration. We would likely utilize DeNovo Drilling for the track and portable equipment. If required, specialized outside laboratory testing would likely be performed by Cooper Testing Lab. Capstone would provide surveying services and prepare a topographic basemap

4.2 Key Personnel

The following provides an abbreviated summary of the key personnel for this project. The summary identifies the qualifications of the individual and the role they will have on the project. Full resumes are available upon request.

Scott Stephens, Principal, Civil and Geotechnical Engineer (MPEG) – Scott is a California registered Civil and Geotechnical Engineer and will be the project manager for the geotechnical investigation. He has more than 25 years of experience including over 600 Geotechnical and Geo-Civil projects in Marin City that have addressed site grading, consolidation settlement and slope stability. Geotechnical services have included inspection, exploration, monitoring, stability analyses, expert testimony, repair plans and construction inspection, testing and project management. He serves as a Peer Reviewer for several local governmental agencies. He has conducted forensic investigations and has provided expert testimony on geotechnical issues including slope instability, retaining wall failure, foundation distress and groundwater seepage. Scott has provided geologic and geotechnical services including investigation, reports, repair plans and construction inspection for numerous slope stabilization projects.

Project Role: Will be the overall project manager and primary contact for the City. Will direct work of the consultant team, supervise all geotechnical technical work, and perform QA/QC final review to ensure the accuracy of final work products and that the City's needs are met.

Mike Jewett, Certified Engineering Geologist, Professional Geologist (MPEG) – Mike Jewett serves as Project Geologist on a variety of Geotechnical and Geo-Civil Projects. His experience is concentrated in the San Francisco Bay Area, primarily within Marin, Napa, Contra Costa, and San Francisco Counties. Mike has conducted dozens of geologic site evaluations for a variety of projects, including distressed properties, slope failures and pre-development feasibility studies. He has implemented and managed subsurface exploration and laboratory testing programs for numerous geologic and geotechnical investigations utilizing a wide array of specialized techniques and equipment, including auger, rotary-wash, and continuous core drilling, cone penetrometer test (CPT) explorations, slope inclinometer and monitoring well construction, installation of in-situ instrumentation, downhole geophysical logging, and in-situ hydraulic conductivity testing. He has performed geologic field mapping and complex geologic hazard evaluations for projects with acute seismic, liquefaction, settlement, coastal bluff erosion, slope-stability, and groundwater concerns.

Project Role: Will be the project geologist and responsible for the project subsurface exploration, geologic hazards evaluation and geologic mapping of the landslide extents.

Ben Pappas, Senior Engineer, Civil and Geotechnical Engineer (MPEG) – Ben Pappas serves as a Senior Engineer on a variety of Geotechnical and Geo-Civil Projects and is a registered Civil and Geotechnical Engineer in the State of California. His experience is concentrated in the North and East Bay area, particularly Marin, Sonoma, and Alameda Counties. Ben has extensive experience working with local City and School Districts and Colleges to improve their facilities. The projects Ben has been involved with required geotechnical services to comply with the current CBC and Division of State Architects (DSA) requirements. For his projects, he has provided detailed seismic hazard analysis, liquefaction analysis, calculations for seismically induced settlement, slope stability (for both static and seismic conditions) and settlement analyses.

Project Role: Ben will perform/review technical analyses to evaluate slope stability and develop geotechnical design criteria for the repair options.

4.3 Reference Projects

The following provides an abbreviated summary of a few key projects with features similar to the proposed project.

Marin County Public Works Landslide Investigation, Monitoring & Repair
Marin County, California

Over the past 20-years Miller Pacific has worked for the County of Marin as a sub-consultant on over 60 landslides which damaged County roads, parks, and open space areas. Many of the projects involved emergency consultation, geotechnical investigation, and preparation of complete design repair plans. We have prepared plans for soldier pile and lagging retaining walls, shotcrete, and soil nail walls, tied back CIDH retaining walls, Geobrugg catchment walls, reinforced earth buttresses, and other types of repairs. For most of these projects we also performed construction observation and material testing services, working with County Resident Engineers or Construction Managers. A few of the projects are described below.

The Crown Road at Idlewood Road was the large landslide that damaged County roads due to FEMA disaster events. We investigated the site with test borings and inclinometers that were used to determine the depth and rate of landslide movement (up to 45 feet below road grade) and to model geologic condition and perform slope stability analyses. The repair consisted of a 200-foot-long row of 3-foot diameter drilled piers, spaced 7-feet on center, along the edge of the road and a 125-foot-long row of 3-foot diameter drilled piers, spaced 7 feet on center, about 25 to 50 feet uphill from the lower row of piers. Both structures are laterally supported by up to 240 kip tiebacks consisting of double-corrosion protected bundled strands that are up to 110 feet in length. Miller Pacific Engineering Group provided geotechnical consultation, inspection, and testing during construction.

We are monitoring landslides with slope inclinometers for Marin County where slow, gradual movement has damaged roadways that have been maintained by asphalt concrete overlays. The landslides have all been investigated with test borings converted to inclinometers that extend well into bedrock below the depth of landslide movement. Monitoring is useful in determining the depth, magnitude, and rate of slope movement. The monitoring is typically performed twice a year and is combined with site reconnaissance work to check for visual evidence of landslide activity. The County uses this information to determine which landslides are likely candidates for permanent repair and to prioritize the work. The exploration and monitoring data is also utilized for repair concepts, engineering analyses and development of repair plans and specifications.

MMWD Phoenix Lake Area Landslides
Mount Tamalpais Watershed, CA

Following heavy winter rains, Marin Municipal Water District engaged Miller Pacific to evaluate 4 landslides that damaged fire roads located within the District's Mt Tamalpais watershed in the vicinity of Phoenix Lake. Our scope of services included geologic reconnaissance, geotechnical investigation with test borings, development of various stabilization options and **preparation** of complete repair plans. The sites were stabilized with drilled soldier pile and timber lagging retaining walls with one of the sites utilized tiebacks for increased lateral support. During construction, we observed excavation of landslide debris, soldier pile installation, tieback drilling, installation, and load testing.

Since 2009, we have monitored a large landslide located immediately downslope from the South Marin Line Fire Road, adjacent to the Bon Tempe Water Treatment Plant. In the late 1960s, the roughly 250-foot wide by 500-foot long landslide undermined part of a wastewater recovery pond. In the late 1970s, horizontal drains were installed within the landslide and the pond was underpinned with drilled piers to improved slope stability. However, minor slope movement has continued. Miller Pacific performed a geotechnical evaluation of the landslide which included; review of historic aerial photographs, site reconnaissance of the landslide, and drilling a deep test boring located within the upper middle portion of the landslide. The boring was converted to a slope inclinometer which we continue to monitor to confirm the depth and rate of landslide movement.

Woodside Terrace Landslide
Fremont, California

A large landslide developed on open space directly below and in the back yards of several homes. The subject of major litigation, Mr. Stephens performed a geotechnical forensic investigation and provided expert testimony. Primary causation factors were determined to be weak geologic bedrock layers and groundwater seepage. Following litigation, Mr. Stephens performed analyses to develop a landslide repair plan and provided construction management, inspection, and testing. The repair included installation of drilled piers with tie-backs to support the landslide scarp and homes during excavation. The landslide was excavated below the failure plane and an extensive subsurface drainage system was installed to collect and convey groundwater. The landslide area was rebuilt with a reinforced earth buttress to restore conditions.

Fair-Anselm Plaza Creek Bank Stabilization
San Anselmo, California

Fair-Anselm Plaza commercial development was originally constructed to overhang Corte Madera Creek. During high velocity storm water flows, the creek banks were eroding and sloughing which exposed the drilled pier foundation system and was causing the creek bank to encroach on the shallow foundations that support the structures. Miller Pacific conducted a subsurface exploration program, designed a bank stabilization system, and provided construction management and inspection services. Saturated and loose silt, sand and gravel deposits within the creek bed and banks made traditional drilled excavations unstable. We designed a reinforced shotcrete wall that was vertically and laterally supported with helical anchors. The helical anchors were screwed into the ground, eliminating the need for unsupported excavation, and significantly reducing soil cuttings. The shotcrete wall was colored and textured to match the natural soils in the surrounding creek banks. Existing on-site rock slope protection was worked around and relocated to the base of the wall for scour protection.

Phoenix Lake Dam Geotechnical Sensitivity Analysis
Ross, California

As part of the Flood Zone 9 Watershed Flood Damage Reduction and Creek Management Study, Miller Pacific has prepared a Preliminary Geotechnical Evaluation Report and a Geotechnical Sensitivity Analysis Report. The purpose of the preliminary studies was to evaluate geologic and geotechnical conditions for potential use of the dam and reservoir as a flood control detention basin. Our preliminary analyses were used to consider possible required remedial measures and conceptual cost estimates for inclusion in a grant application for funding. We reviewed background geotechnical and geologic information including geologic maps, geotechnical reports, exploratory boring logs, laboratory data, topographic mapping, and historic aerial photography. Miller Pacific performed site reconnaissance for preliminary evaluation of site geologic conditions. Slope-stability analyses were performed using different assumed strength profiles for the dam. These analyses included static and pseudo-static (seismic) evaluation using ground accelerations consistent with DSOD criteria and for sudden drawdown conditions. Using the slope stability model, we evaluated different conceptual mitigation measures to improve stability and reduce seismic deformations. Potential dam improvements included; reconstruction of the down-stream buttress fill, adding internal drainage, foundation grouting and other ground improvement measures.

4.3 Firm References

Miller Pacific Engineering Group has previously worked for SRSD and the City of San Rafael on several different projects. In addition to working with SRSD personnel, other firm references are listed below.

Ms. Rachel Calvert, Senior Engineer
Marin County Department of Public Works
3501 Civic Center Drive, Suite 404
San Rafael, CA 94903
Email: rcalvert@marincounty.org
Phone: 415-473-6530

Mr. Tony Williams, Assistant General Manager
North Marin Water District
999 Rush Creek Place
Novato, CA 94948
Email: twilliams@nmwd.com
Phone: 415-897-4133

Ms. April Miller, Director of Public Works
City of San Rafael Department of Public Works
111 Morphew Street
San Rafael, CA 94901
Email: April.Miller@cityofsanrafael.org
Phone: 415-485-3355

5.0 DECLARATION, AGREEMENT, AND INSURANCE COVERAGE

Under penalty of perjury, Miller Pacific Engineering Group certifies that we are not affiliated with, nor has any financial interest in, any manufacturer, distributor, supplier, or other company connected with the recommendations and/or installation of any products or services as required by the District for the Bret Harte Easement Wall Improvement project.

Miller Pacific Engineering Group has successfully negotiated agreements with the District for previous geotechnical projects. We reviewed the agreement included in the RFP and do not take exception to using this agreement form for this project. We have the insurance coverage required by the proposal.

6.0 COST PROPOSAL

The anticipated project budget is shown below. If requested, can discuss the scope of services needed to meet schedule or budget requirements.

TABLE 1: SRSD Bret Harte Wall Improvement Cost Estimate

Labor Hours by Sub-Task

Task	Work Item	Firm	Miller Pacific Engineering Group						
		Personnel Classification	Sr. Geotechnical Engineer (*Scott Stephens, GE*)	Project Engineer (*Ben Pappas, GE*)	Project Geologist (*Mike Jewett, CEG*)	Staff Geologist/Engineer	Outside Charges	TOTAL HOURS	TOTAL CHARGES
		Hourly Rate	$260	$230	$230	$130			
		Project Meetings and Coordination							
	1.10	Project Meetings	24			4		28	$6,760
	1.20	Subconsultant Coordination				4		4	$520
							Subtotal	4	$7,280
		Review Documents, Site Inspections and Exploration Plan							
	2.10	Compile Existing Data	2			6		8	$1,300
	2.20	Site Inspection and field measurements	2		6	2		10	$2,160
	2.30	USA Markings				3		3	$390
	2.40	Exploration Plan	1			2		3	$520
							Subtotal	24	$4,370
		Geotechical Exploration & Labortory Testing							
	3.10	MCEH Permits	1			6	$1,500	7	$2,540
	3.20	Secure and Schedule Exploration Equipment				2		2	$260
	3.30	Subsurface Exploration	2			16	$5,309	18	$7,909
	3.40	Laboratory Testing	2			12	$670	14	$2,750
	3.50	Prepare Figures/Logs/Graphics	1			8		9	$1,300
	3.60	Prepare Exploration and Lab Appendix	1			2		3	$520
							Subtotal	53	$15,279
		Engineering/Geotechnical Analyses and Report							
	4.10	Geologic Hazards Evaluation	2		4	1		7	$1,570
	4.20	Wall Options - Preliminary Analyses	2	4		4		10	$1,960
	4.30	Prepare Figures/Graphics	2			8		10	$1,560
	4.40	DRAFT Geotechnical Report	2	2	2	8		14	$2,480
	4.50	Project Conference / Response to Comments	2					2	$520
	4.60	FINAL Geotechnical Report	2	1	1	2		6	$1,240
							Subtotal	49	$9,330
		Geo-Civil Plans, Specifications and Estimates							
	5.10	Survey - Topo Basemap	1			3	$6,000	4	$6,650
	5.20	35% Plans and Estimate	6	10		16		32	$5,940
	5.30	65% Plans and Estimate	4	6		10		20	$3,720
	5.40	95% Plans, Specs and Estimate	2	4		6		12	$2,220
	5.50	Final Plans, Contract Documents and Estimate	2	2		6	$100	10	$1,860
							Subtotal	78	$20,390
		Bid Support							
	5.10	Assist with Bid Solicitation	1			2		3	$520
	5.20	Pre-Bid Meeting	4			4		8	$1,560
	5.30	Respond to RFIs Questions	2			4		6	$1,040
	5.40	Addendum	2			4		6	$1,040
	5.50	Summarize Bid result and Recoomend Letter	2			4		6	$1,040
							Subtotal	29	$5,200
		Construction Support							
	6.10	Conformed Plans	2			4		6	$1,040
	6.20	Pre-Construction Meeting	4			4		8	$1,560
	6.30	RFIs and Submittal Reviews	3	4		6		13	$2,480
	6.40	Change Order Assistance	4	6		8		18	$3,460
	6.50	Weekly Meetings	24			24		48	$9,360
	6.60	Site Inspections - Punch List	8			12		20	$3,640
	6.70	As-built Plans	2			6		8	$1,300
							Subtotal	121	$22,840
		LABOR TOTALS (HOURS BY PERSONNEL)	121	39	13	213	Outside	Subtotal	227	$84,689
		LABOR TOTALS (CHARGES BY PERSONNEL)	$31,460	$8,970	$2,990	$27,690	$13,579			
								Contingency	15%	$12,703
								Project Total		$97,393

Miller Pacific Engineering Group

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CURRICULUM VITAE
SCOTT STEPHENS

Registration

Geotechnical Engineer
No. 2398, CA, 1998

Civil Engineer
No. 50482, CA, 1993

Education

MSCE, Geotechnical Engineering
U.C. Berkeley
Berkeley, CA, 1991

BSCE, Civil Engineering
U.C. Berkeley
Berkeley, CA, 1988

Memberships

ASCE, American Society of Civil Engineers

GBA, Professional Firms Practicing in the Geosciences

ACEC of California, American Council of Engineering Companies.
(Past Chapter President)

Experience Summary

Scott Stephens is President of Miller Pacific Engineering Group and is responsible for the overall business management of the firm. He is also the Senior Project Manager and Reviewer for numerous Geotechnical and Geo-Civil projects. He has prepared numerous geotechnical investigations, geotechnical planning reports, geo-civil designs, environmental impact studies, and serves as a *Peer Reviewer* for several local governmental agencies. He has conducted many forensic geotechnical investigations and has provided expert testimony on geotechnical issues including slope instability, retaining wall failure, foundation distress and groundwater seepage.

Scott has worked on hundreds of site grading and slope instability projects throughout Marin and Sonoma County for various private and public clients. The geologic and geotechnical investigations typically include exploration of subsurface conditions, evaluation of geologic hazards, and geotechnical design criteria for the recommended foundation system. During construction, Scott provides geotechnical consultation, and directs geotechnical observation and testing for site grading, foundation and keyway excavations, subsurface drainage, soil nails / tiebacks, pavement construction and other geotechnical construction items. He has provided complete Geo-Civil services including plans, details, specifications and contract document for retaining walls, landslide repairs and pedestrian bridges. A couple representative projects are described below.

Fitzgerald Marine Reserve Bridge, Half Moon Bay CA

Mr. Stephens conducted a geotechnical investigation and prepared plans, details and technical specifications for a 10 ft. wide by 60 ft. long pedestrian/equestrian bridge that spans Vicente Creek. He designed the reinforced concrete abutments for the bridge. Due to soft and potentially liquefiable soils, small diameter pipe piles were utilized to provide support from the underlying bedrock. Considering the marine environment and span distance, a prefabricated fiberglass bridge was selected. Mr. Stephens reviewed submittals and supervised the field and laboratory QA/QC soil and concrete testing for the piles, abutments, subsurface drainage, and compacted structural fills.

Phoenix Lake Dam and Reservoir, Ross, CA

As part of the Marin County Watershed Flood Damage Reduction and Creek Management Study, Mr. Stephens evaluated the geotechnical and geologic feasibility of several potential detention basin sites. Based on initial analyses, increasing the short-term storage capacity of the existing Phoenix Lake Reservoir was determined to be a critical component for flood management. He performed sensitivity analyses using various strength profiles for static, rapid-drawdown and pseudo-static (seismic) slope stability analyses to evaluate the effect of a raised reservoir level on factors of safety and seismic displacements. He assisted with the grant application for project funding.

Anselm Plaza, San Anselmo, CA

Fair-Anselm Plaza commercial development was originally constructed to overhang Corte Madera Creek. During high velocity storm water flows, the creek banks were eroding and sloughing which exposed the drilled pier foundation system and caused the creek bank to encroach on the shallow foundations that support the structures. Mr. Stephens conducted a subsurface exploration program, designed a bank stabilization system and provided construction management and inspection services. Saturated and loose silt, sand and gravel deposits within the creek bed and banks made traditional drilled excavations unstable. Scott designed a reinforced shotcrete wall that was vertically and laterally supported with helical anchors.

The helical anchors were screwed into the ground, eliminating the need for unsupported excavation and significantly reducing soil cuttings. The shotcrete wall was colored and textured to match the natural soils in the surrounding creek banks. Existing on-site rock slope protection was relocated around foundations and along the base of the wall for scour protection.

Zone 7 Cope Lake, Livermore CA

Wave erosion along the shoreline, groundwater seepage from an upslope seasonal creek and non-engineered fill on the east slope of Cope Lake led to significant toe erosion and landslides that created over-steepened, unstable slopes and loss of the only vehicular access road around the lake. Scott conducted a geotechnical investigation to determine the slope instability causation factors and develop a geologic cross-section for use in stability analyses of various slope stability and repair options with rough cost estimates. The preferred stabilization option was a reinforced earth slope with subsurface drainage and erosion resistant facing in the lower slope elevations. Existing concrete and rock debris were utilized to stabilize the soft keyway soils and create the rip-rap facing layer. Mr. Stephens worked with Zone 7 on the preferred mitigation by providing stability analyses, development of technical specifications, technical review of the contract document, and geotechnical consultation, inspection and testing during construction.

Loch Lomond Breakwater, San Rafael CA

Long term settlement and wave erosion resulted in over-topping of the old breakwater during high tides and storms. The overtopping was causing accelerated degradation of the breakwater. In order to effectively function in the future, it needed to be repaired and raised. Mr. Stephens performed a geotechnical investigation which included interpretation of the underlying geologic conditions, settlement analyses and slope stability analyses. The repair plan needed to consider expected future settlement from the original construction as well as new settlement from weight of import materials needed to raise the levee crest elevation. In addition, the weight of the import material had to be minimized to reduce the potential to induce instability by failure of the weak underlying soft, compressible clays (bay mud). The final solution was a bi-level levee crest with expansion of the San Francisco Bay side. A pedestrian path was built on the marina side that followed the existing breakwater contours. A rip-rap berm was constructed a few feet higher than the pedestrian path, and new rip-rap slope protection added to the bay side to protect the breakwater.

Woodside Terrace Landslide, Fremont CA

A large landslide developed on open space directly and in the back yards of several homes. The subject of major litigation, Mr. Stephens performed a geotechnical forensic investigation and provided expert testimony. Primary causation factors were determined to be weak geologic bedrock layers and groundwater seepage. Following litigation, Mr. Stephens performed analyses to develop a landslide repair plan and provided construction management, inspection and testing. The repair included installation of drilled piers with tie-backs to support the landslide scarp and homes during excavation. The landslide was excavated below the failure slide plans and an extensive subsurface drainage system was installed to collect and convey groundwater. The landslide area was rebuilt with a reinforced earth buttress to restore conditions.

MMWD Inkwells **Bridge, Lagunitas CA**

Mr. Stephens provided the geologic and geotechnical investigation for the Inkwells Bridge. The environmentally sensitive location required small footprint foundations to avoid environmentally sensitive areas and "holes" in the creek bed. Geotechnical recommendations and criteria were provided for shallow foundations that bear on hard bedrock areas with rock anchors to provide supplemental uplift resistances against over-turning moments. The foundations provided both vertical and lateral support for twin 36-inch water transmission lines as well as a 170-foot long pedestrian/equestrian bridge. Geotechnical observation and testing services were provided during construction.

Novato Sanitary District (NSD) Treatment Plant Improvements, Novato CA

Mr. Stephens conducted a geotechnical investigation, prepared the geotechnical report and provided geo-civil design for treatment plant improvements that included heavy structures supported on auger cast piles, site grading, wick drainage and surcharge fill to consolidate underlying bay mud, conveyance pipeline that connect two treatment plants by directional drilling under Novato Creek and Highway 37, and a soil nail and shotcrete retaining wall to stabilize and old cut slope. Mr. Stephens reviewed plans and submittals and provided consultation. During construction he supervised the field and laboratory QA/QC soil and concrete testing for the retaining wall soil nails and shotcrete, settlement monitoring of surcharge fill, auger cast piles and tradition shallow foundations, subsurface drainage, and compacted structural fills.

North Marin Water District (NMWD) Palmer Tank, Novato CA

A new 3,500,000-gallon water tank, pipeline and access road was construction in undeveloped hillside terrain. Mr. Stephens performed geologic and geotechnical studies with a focus to limit grading and minimize environmental impacts. He designed a cost-effective, reinforced shotcrete retaining wall with soil nails that supports a vertical cut behind the tank and creates the tank pad and surrounding service road. His Geo-Civil design of the shotcrete wall included plans and technical specifications that were incorporated into the contract documents.

During the construction, he provided consultation, inspection and testing that included submittal reviews, proof and performance load testing on the soil nails, shotcrete and concrete compression tests, inspection of subsurface drainage, foundation subgrade conditions, field density testing of compacted fill for new fill slopes, and trench backfill and pavement sections. We summarized our inspection and testing in a letter report with as-built plans.

North Marin Water District (NMWD) Ammo Hill Water Tank, Novato CA

This buried new three-million-gallon reservoir provides water service to southern Novato, Hamilton, and Bel Marin Keys. The site was the historic Ammo Hill in the former Hamilton Air Force Base. The design concept was to utilize an existing partially excavated hilltop and enlarge it to accommodate the new reservoir. The structure itself is a reinforced concrete box about 100 by 200 feet and 30 feet high. After construction of the reservoir, compacted fill was placed around the perimeter and on top to completely hide the reservoir from view.

Our geotechnical investigations included a compilation of geologic and seismic reference data, air photo analysis, geologic mapping, and subsurface exploration. We used seismic refraction surveys and test borings that included both soil augering and rock coring. Significant geologic issues included mitigation of existing landslides, strong seismic shaking and hard bedrock. The seismic refraction surveys were utilized to evaluate excavation difficulty. Blasting was required for removal of several localized areas of hard rock. During construction, Miller Pacific monitored the general excavation, foundation preparation, and site grading for fill slopes and access roads.

College of Marin, Kentfield and Novato CA

Mr. Stephens conducted a geotechnical investigation for upgrades at both campuses and building modernization. Project included new Fine Arts building, new Math & Science building and vehicular bridge at the Kentfield campus. At the Novato Indian Valley campus project included new Main building and Transportation Technology building. These projects include site specific seismic response analyses, mitigation of liquefiable soil conditions, and foundation design over variable soil types. During construction Mr. Stephens reviewed submittals and supervised the field and laboratory QA/QC soil and concrete testing for the piles, abutments, subsurface drainage, and structural fills.

San Rafael City Schools, San Rafael CA

Mr. Stephens was Principal Geotechnical Engineer for San Rafael City Schools Modernization Project. A bond measure for $100 million funded a significant portion of the $170 million anticipated project costs. Provided complete Geotechnical & Seismic Designs for the various sites and provided Construction Observation and Testing Services for a wide variety of Campus Improvements including the reconstruction of the Coleman Elementary School and Bahia Vista Elementary School Campus. New structures were also constructed at Davidson Middle School, Gallinas Elementary School, San Pedro Elementary School, San Rafael High School, Terra Linda High School and Sun Valley Elementary School. A few of the new structures are over compressible bay mud. A compensated “mat” foundation was used to reduce settlements and eliminate the need for costly driven piles through deep bay mud. Several new synthetic fields were constructed at several of the school sites. Miller Pacific provided consultation, inspection and testing during construction.

North Marin Water District (NMWD) Recycled Water Pipeline, Novato, CA

One of Mr. Stephens projects is the Recycled Water Pipeline in Novato, California. He directed the subsurface exploration, laboratory testing, geologic mapping, hazards evaluation, and prepared geotechnical recommendations and criteria for the design and construction of the project. The southern portion of the project includes recycled water distribution lines from the Las Gallinas Valley Recycled Water Treatment Facility to the Hamilton area of Novato. Sensitive environmental habitats needed to be avoided during investigation and construction. The northern portion of the project includes approximately 30,000 linear feet of new 8- and 12-inch water distribution lines Construction has utilized a combination of open-cut, directional drilling and bore-and-jack techniques. The pipeline crossed under Highway 37 and Novato Creek. Construction services include submittal reviews, determination and approval of hard rock areas, field and laboratory testing of trench backfill material and pavement restoration.

Crest Water Tank, 2010, North Marin Water District, Drew McIntyre: 415-897-4133

A new 500,000-gallon steel water tank was need serve surrounding developments. Overturning of the tall tank during a seismic event was a significant issue. Mr. Stephens directed the subsurface exploration and laboratory testing program. Performed site specific seismic site response and designed the tank foundation system with embedded rock anchors to resist seismic overturning uplift forces. Observed site grading, foundation excavation, rock anchor load testing, and provided concrete/ grout sampling for compressive strength testing.

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CURRICULUM VITAE
BEN PAPPAS

Registration

Geotechnical Engineer
No.2786, CA, 2008

Civil Engineer
No.63940, CA, 2002

Education

MSCE, Civil Engineering
U.C. Berkeley
Berkeley, CA, 2003

BSCE, Civil Engineering
California Polytechnic,
San Luis Obispo, CA
1999

Memberships

ASCE, American Society of Civil Engineers

Experience Summary

Ben Pappas began his career with Miller Pacific Engineering Group after graduating with a Bachelor of Science degree in Civil Engineering from Cal Poly San Luis Obispo in 1999. Mr. Pappas took a leave of absence from the firm in 2002 to obtain his Master of Science in Civil Engineer from the University of California Berkeley and returned after graduation in 2003. Ben is a California State registered Civil and Geotechnical Engineer and currently serves as an Associate Engineer and has been involved in a variety of Geotechnical and Geo-Civil projects throughout the greater Bay Area.

Ben has extensive experience working with local School Districts and Colleges to improve their campus facilities. Some of the districts Ben has worked with include Novato Unified, San Rafael City Schools, Petaluma Unified, Healdsburg Unified, Rincon Valley Union, San Bruno Park Elementary, Santa Rosa Junior College, Peralta Community College District, and Dominican University. Ben's extensive experience with multiple educational facility projects has provided him the expertise to perform Geotechnical Investigations that comply with the Division of the State Architect (DSA) and the California Geologic Survey (CGS) requirements. The educational facility projects Ben has been involved with required gearing our geotechnical services to comply with the current Division of State Architects (DSA) requirements. For these projects Ben has provided detailed geohazard site specific seismic hazard analysis, including up-to-date liquefaction analysis and calculations for seismically induced settlement.

Ben has also been responsible for numerous Geo-Civil projects including slide repairs and retaining wall designs. He managed geotechnical investigations for various school sites in Marin, Sonoma, Napa, Alameda, and Contra Costa Counties. He also analyzed global slope stability, for both static and seismic conditions, utilizing sophisticated slope stability programs.

One of Ben's unique projects was the retrofit of an existing structure at the College of Alameda. The subsurface soils consisted of soft, compressible Bay Mud and loose, liquefiable sands. Due to the sensitive soil profile and the size of the structure Ben performed a site-specific seismic response analysis to determine the lateral loads exerted on the structure during a seismic event. Additionally, Ben provided various deep foundation recommendations. Based on his recommendations the design team opted to support the structure on mini-piles and Ben provided additional vertical and lateral capacity analyses.

Ben has planned and supervised the subsurface exploration of hillside sites, marshland soil and expansive soil areas. In these projects he has used a variety of exploration techniques in addition to conventional drilling and undisturbed sampling. These include specialized Shelby Tube and Piston sampling. Ben is also experienced with advanced in-situ techniques such as cone penetration testing and Slope Inclinometer monitoring.

Santa Rosa Junior College

Mr. Pappas has managed various geotechnical investigations throughout the Santa Rosa Junior College campus. The projects included various modernization projects including new multistory classroom structures, temporary student housing, additions to existing structures and solar panel arrays. The campus is underlain by intermittent liquefiable soil layers that required unique mitigation solutions including deep soil improvement, helical anchors and rigid shallow foundation systems. Ben has also managed the construction phase of these projects including RFI and Submittal response, helical anchor load testing, site grading, etc.

San Rafael City Schools – Measures A & B

Mr. Pappas has managed geotechnical investigations for various schools within the San Rafael City School District including San Rafael High School, Davidson Middle School, Venetia Valley Middle School, and Laurel Dell Elementary School. The projects included a new elementary school campus, new classroom structures, a multistory science building, and a synthetic turf football field and stadium. Some structures overlaid variable soil conditions consisting of soft compressible Bay Mud and relatively shallow weathered bedrock. Due to large building loads deep foundation systems were designed to support the structures through the Bay Mud and embedded into weathered bedrock.

San Marin High School

Ben has provided geotechnical design criteria, construction details, quality control and managed the construction observation and testing of many synthetic turf fields throughout the Bay Area. Some of his synthetic turf projects include Terra Linda High School in San Rafael, San Marin and Novato High Schools, Merrill F. West High School, Hercules High/Middle School and Dominican University of California.

Miller Pacific Engineering Group

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CURRICULUM VITAE
MIKE JEWETT

Registration

Professional Geologist No. 9020, CA, 2013

Certified Engineering Geologist No. 2610, CA, 2014

Education

BA, Geology,
Sonoma State University,
Rohnert Park, CA, 2008

Memberships

AEG, Association of Environmental and Engineering Geologists

SSA, Seismological Society of America

Experience Summary

Mike Jewett serves as Senior Geologist on a variety of Geotechnical and Geo-Civil Projects and is a registered Certified Engineering Geologist in the State of California. His experience is concentrated in the San Francisco Bay Area, primarily within Marin, Sonoma, Napa, Contra Costa, San Mateo, and San Francisco Counties.

Having been with the firm since 2008, Mike has conducted dozens of geologic site evaluations for a variety of projects, including distressed properties, fault rupture investigations, slope failures, and pre-development feasibility studies. He has implemented and managed several slope-stability and groundwater monitoring studies utilizing a wide array of specialized techniques and equipment, including auger, rotary-wash, and continuous core drilling, cone penetrometer test (CPT) explorations, slope inclinometer and monitoring well construction, installation of in-situ instrumentation, downhole geophysical logging, and in-situ hydraulic conductivity testing.

Mike has also been responsible for numerous geotechnical investigations for projects ranging from municipal infrastructure capital improvements and rehabilitations to private multi-unit residential and commercial developments. He has planned and implemented subsurface exploration and laboratory testing programs, performed complex slope-stability and settlement analyses, and performed geologic hazard evaluations for projects with acute seismic, liquefaction, settlement, coastal bluff erosion, slope-instability and naturally-occurring asbestos concerns. He has performed detailed geologic field mapping at a variety of sites where project demands required larger-scale mapping than has been performed for existing, published maps. He has also performed geologic inspection and testing during construction for projects including landslide remediation, deep foundation construction, soil nails, rock anchors and tiebacks, and levee construction.

Most recently, Mike has performed several surface fault rupture investigations in the southern Napa Valley for assessment of school campus safety, as well as provided senior Engineering Geology review on dozens of DSA-compliant reports for public school facilities throughout the northern and eastern Bay Area. He has also provided on-call services to several public agencies including geologic/geotechnical peer-review for development applications and emergency geologic inspection/consultation on active landslides and to support state- and federally-funded repairs to a variety of sites damaged during heavy rains in the winter of 2017. .

Miller Pacific Engineering Group

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CURRICULUM VITAE
ZOE STEPHENS

Registration

Professional Geologist
No. 9860, CA, 2021

Education

BS, Earth Science and Geology
California Polytechnic State University,
San Luis Obispo, CA, 2015

Certifications

ISNetWorld

ACI Grade 1 Concrete Technician

Nuclear Gauge Operator

Experience Summary

Zoe Stephens serves as Project Geologist and project manager on a variety of Geologic, Geotechnical and Geo-Civil Projects and is a registered Professional Geologist in the State of California. Her experience is concentrated in the San Francisco Bay Area, primarily within Marin, Sonoma, Napa, Contra Costa, San Mateo, and San Francisco Counties. Zoe has conducted dozens of geologic site evaluations for a variety of projects, including distressed properties, fault rupture investigations, slope failures, and pre-development feasibility studies since joining Miller Pacific in 2015.

Zoe plans and coordinates subsurface exploration programs utilizing a wide array of specialized techniques and equipment, including auger, rotary-wash, continuous core drilling, cone penetrometer tests (CPT), exploratory trenching, and seismic refraction studies. She evaluates landslide activity using in-situ slope inclinometers to monitor lateral movement and piezometers to measure groundwater pressure.

Zoe is an accomplished field geologist and has performed detailed, site-specific geologic mapping for projects where existing, published maps have insufficient or outdated information. Zoe participated in several fault rupture investigations including detailed trench logging, interpretation of subsurface features, and drafting site plans and cross sections.

Zoe manages geotechnical investigations for a variety of projects ranging from municipal infrastructure capital improvements and rehabilitations to private multi-unit residential and commercial developments. She provides geologic hazard evaluations for projects with acute seismic, liquefaction, settlement, coastal bluff erosion, slope instability and naturally-occurring asbestos concerns. She is adept at developing site-specific geotechnical recommendations and providing “big picture” ideas and guidance for a variety of projects.

She is an accomplished construction field inspector and is bilingual in English and Spanish. She observes site geologic conditions to confirm conformance with project plans and design criteria. She also performs construction inspection and testing by providing nuclear gauge testing for compaction, sampling concrete and shotcrete to confirm strength, observing deep foundation construction, load testing soil nails, rock anchors and tiebacks, and installation of helical piles.

CONSULTANT/FIRM NAME: Miller Pacific Engineering Group

CRITERIA	MAX. POINTS	AVG RATING	NOTES SUMMARY
Inclusion of all required items and completeness of the proposal	15	14	Consultant provide materials cited in RFP, but not are as professional since they are a small firm. Office is in Novato.
Understanding of the work to be done	20	20	Consultant has presented a clear understanding of the work to be done. Identified key issues. Evaluation of geologic/geotech hazards that may impact project with recommended mitigation measures.
Clear description of the tasks	20	17.3	Clear description but not as detailed as others
Commitment to adhering to the schedule of each task and overall project	15	15	18 weeks for final plans, not including District time
Qualified and experience personnel n the project team	15	14.7	District has worked with MPEG proposed staff at various times. Each staff is experienced in their assigned roles. Subconsultant - Capstone Surveying DeNovo Drilling for drilling; Cooper Testing Lab for specialized outside lab testing
Previous experience of similar projects completed on time and within budget	15	15	Similar projects listed. Since they're local, they are familiar with area and public, would be more responsive if they are required to be onsite. MMWD Phoenix Lake Area landslides; Fair-Anselm Plaza Creek Bank Stabilization; and Marin County consultant over 60 similar projects.
POINT TOTAL:	**100**	**96.0**	

CONSULTANT/FIRM NAME: ENGEO

CRITERIA	MAX. POINTS	AVG RATING	NOTES SUMMARY
Inclusion of all required items and completeness of the proposal	15	14.7	Consultant provide materials cited in RFP, but did not have additional insights. Proposal is well organized and clearly written. Office is in Oakland.
Understanding of the work to be done	20	19	Consultant has presented a clear and comprehensive understanding of the work to be done. Presentation and language directly conveys considerable experience in relevant scope of work. Global firm
Clear description of the tasks	20	20	Proposal included a project approach that detailed each task required and a scope of work necessary to complete the project.
Commitment to adhering to the schedule of each task and overall project	15	15	Proposed schedule is 13 weeks for final plans, not including District's time.
Qualified and experience personnel on the project team	15	13	Team assisgned to work on project are qualified. CSW for surveyor; Stapleton Engineering for Geotech driller
Previous experience of similar projects completed on time and within budget	15	13.3	Experience Listed large projects, i.e. Treasure Island Development Project, Yerba Buena Island; Crow Canyon Road Widening; On-call for Oakland
POINT TOTAL:	**100**	**95.0**	

CONSULTANT/FIRM NAME: Kimley-Horn and Associates, Inc.

CRITERIA	MAX. POINTS	AVG RATING	NOTES SUMMARY
Inclusion of all required items and completeness of the proposal	15	11	Consultant provide materials cited in RFP, but the proposal suggests replacement of the sewer. Intent was focused on infrastructure protecting the sewer. Key issues were not provided. Office is in Pleasanton.
Understanding of the work to be done	20	13.3	Proposal includes the sewer replacement, which was not intended. Understands the difficulty in access for construction, also wants to look at the drainage and consider culvert
Clear description of the tasks	20	17.3	Clear description. Noted Alternative to ped bridge, determine culvert and slope stability, which include project arborist to provide recommendations for existing tree protection since roots aid in slope stability
Commitment to adhering to the schedule of each task and overall project	15	15	Schedule proposed for 11 weeks to complete final bid package. Shortest schedule.
Qualified and experience personnel n the project team	15	4.7	Staff experience does not include much retaining wall experience. Subconsultants: F3 Inc-surveyor; PARIKH for geotech investigation; Urban Forestry Assoc
Previous experience of similar projects completed on time and within budget	15	1.7	Listed utility and sewer projects, a ped bridge repair, but no retaining wall
POINT TOTAL:	**100**	**63.0**	

4 a

Rebuttal to Staff's Response to Comments (RTC) Submitted by CMSA Collection System Agencies

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Tel. 415-259-2949 | www.rvsd.org

San Rafael
Sanitation
District
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San Rafael, CA 94901
Telephone 415 454-4001

THE TOWN OF
CORTE MADERA
SANITARY DISTRICT No. 2

"The Districts' referral to the federal regulations at 40 C.F.R. section 122.41(m)(2) for "Bypass not exceeding limitations" does not apply to CMSA's blending. Section 122.41(m)(2) states, "**The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation**." CMSA's blending during wet weather due to high flows is not for "essential maintenance."

RTC at p. 14 (emphasis added).

The definitions of "maintenance" include the process of preserving something; the work of keeping something in proper condition, including taking steps to avoid something breaking down; and routine activities to prevent damage and prolong the life expectancy.

Maintenance does not only mean taking offline for repairs.

Staff does not explain why blending does not qualify as "essential maintenance."

“CMSA must route the excess flow around its biological treatment process to prevent washing out the microorganisms necessary to operate these treatment units… because these units rely on microorganisms to metabolize pollutants in wastewater, they need a minimum concentration of microorganisms to be effective. Rapid flow dilutes microorganism concentrations, making biological treatment less effective.”

RTC at p. 4

These statements demonstrate that blending is necessary “for essential maintenance to assure efficient operation” and authorized if effluent limits are met under 40 CFR §122.41(m)(2).

CMSA met all technology-based and water quality-based effluent limitations during blending events in the last 5 years, demonstrating there is no water quality reason to be concerned with blending.

"As noted in a case the Districts cited, however, the decision to bypass or to turn off treatment is not a choice of treatment technology. (See *National Resources Defense Council v. U.S. EPA* (D.C. Cir. 1987) 822 F.2d 104, 123 ….

RTC at p. 15.

This case also says:

"If the permit conditions reflect such variations by allowing a facility to shut down treatment processes, then the resulting diversion is not considered a bypass."

"Industry contends that an event such as hydraulic flooding resulting from heavy rainfall may threaten to damage the system or render it inoperative [ ] Then, however, even a bypass which exceeds effluent limitations would be permitted if it was 'unavoidable to prevent ... severe property damage.' 40 C.F.R. Sec. 122.41(m)(4)."

"We disagree that inflow and infiltration must cause water quality impacts if the Districts are to be named as co-permittees in the permit. Nevertheless, during blending events, the wastewater does not receive full treatment, which increases pollutant loading and the potential for water quality impacts."

RTC at p. 13.

This Staff comment presumes water quality impacts and increased pollutant loading due to blending with no supporting evidence. In properly managed blending events, dilution by storm water reduces loading and blending provides an overall water quality benefit of partially treating storm water. Further, Regional Boards regulate water quality, not flow. Effluent limits are set to protect water quality, and a permittee may meet those limits anyway they want. (Water Code §13360(a)(cannot prescribe manner of compliance.) We provided other case law and citations to support this.

"Although the Districts do not own the treatment plant or the discharging outfall, they are responsible for their pollutants that are discharged through CMSA's outfall. (See *In re Charles River Pollution Control District*, 16 E.A.D. 623, at p. 636 …"

RTC at p. 10.

Using this logic, then all residences, and commercial and industrial businesses should also be included as co-permittees because they are the source of the pollutants. The collection systems do not add pollutants, just convey them from the sources.

Interestingly, Staff heavily relied upon this non-binding out of state opinion, but failed to consider a persuasive 8th Circuit Court of Appeal decision **overturning** EPA's interpretation that blending constitutes a "bypass."

"As noted in Fact Sheet section 2.1.3 of the tentative order, the California Department of Corrections and the San Quentin Village Sewer Maintenance District collection systems (County of Marin) account for less than six percent of the total average dry weather flow to the treatment plant. Since these two collection systems are much smaller and contribute a minimal portion of the flow to the plant, we did not name them as co-permittees in the tentative order. They are also not likely to be significant contributors of the inflow and infiltration that lead to wet weather blending at the treatment plant."

RTC at p. 7.

Staff failed to adequately justify why the Department of Corrections and San Quentin Village Sewer Maintenance District collection systems are excluded from coverage just because they might be "less than six percent of the dry weather flow." Staff cites no data regarding wet weather contributions, which is the main issue, and ignores that Sanitary District No. 2 is only 7-8% of dry weather flows so arbitrary to include them and exclude others when only dry weather is considered in that analysis.

"[Standard Provisions] Attachment D section 1.8 applies only when upsets cause effluent limitation violations. No effluent limitations apply to sanitary sewer overflows or sewage spills."

RTC at p. 22.

The definition of "effluent limitation" is broader than interpreted by Staff. Effluent limits include "any restriction" on quantities and discharge rates. (33 U.S.C. §1362(11); 40 CFR §122.2.)

Cases have found that sewer spills can qualify as upset events. (See *Sierra Club v. Cty. of Colo. Springs*, No. 05–CV–01994–WDM–BNB, 2009 WL 2588696 (D. Colo. Aug. 20, 2009); *Sierra Club of Miss., Inc. v. Cty. of Jackson, Miss.*, 136 F. Supp. 2d 620 (S.D. Miss. 2001).)

“Discharge Prohibition 3.5 appropriately applies to the collection system agencies because it prohibits sanitary sewer overflows…. If the Regional Water Board enforced the prohibition, it would not treat a single overflow incident as distinct violations arising under the Clean Water Act, the statewide WDRs, the tentative order, and the Basin Plan.”

RTC at p. 10.

Discharge Prohibition 3.5 and the Standard Provisions are the biggest issue since not necessary. SSOs are already prohibited under the Clean Water Act and the SSS WDR. Since the permit allows reliance on SSS WDR to demonstrate compliance with this permit (RTC at 13), the permit is clearly duplicative and unnecessary.

In addition, Regional Boards and third parties can and do raise the violations in ACLs to increase harm factors, and under the Act and the Permit, thereby doubling the penalties (currently approximately $60,000 per day per violation), so instead of $60,000, the collection systems could be subject to $120,000 for one spill event per day. This represents a significant increase in liability despite response to Districts’ Comment #12.