

**NOTICE OF REGULAR MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

ENGINEERING COMMITTEE
TELECONFERENCE MEETING**

**TELECONFERENCE PHONE NUMBER: (213) 279-1455
TELECONFERENCE ID: 623 564 296**

January 14, 2021

8:30 a.m.

NOTICE IS HEREBY GIVEN that a Regular Meeting of the South Orange County Wastewater Authority (SOCWA) Engineering Committee was called to be held by Teleconference on **January 14, 2021** at **8:30 a.m.** SOCWA staff will be present and conducting the call at the SOCWA Administrative Office located at 34156 Del Obispo Street, Dana Point, California. This meeting is being conducted via Teleconference pursuant to the California Governor Executive Order N-29-20.

MEMBERS OF THE PUBLIC ARE INVITED TO PARTICIPATE IN THIS TELECONFERENCE MEETING AND MAY JOIN THE MEETING VIA THE TELECONFERENCE PHONE NUMBER AND ENTER THE ID CODE. THIS IS A PHONE CALL MEETING AND NOT A WEB-CAST MEETING SO PLEASE REFER TO AGENDA MATERIALS AS POSTED WITH THE AGENDA THE WEB-SITE WWW.SOCWA.COM. ON YOUR REQUEST, EVERY EFFORT WILL BE MADE TO ACCOMMODATE PARTICIPATION. IF YOU REQUIRE ANY SPECIAL DISABILITY RELATED ACCOMMODATIONS, PLEASE CONTACT THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY SECRETARY'S OFFICE AT (949) 234-5452 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE SCHEDULED MEETING TO REQUEST DISABILITY RELATED ACCOMMODATIONS. THIS AGENDA CAN BE OBTAINED IN ALTERNATE FORMAT UPON REQUEST TO THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY'S SECRETARY AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE SCHEDULED MEETING.

AGENDA EXHIBITS AND OTHER WRITINGS THAT ARE DISCLOSABLE PUBLIC RECORDS DISTRIBUTED TO ALL, OR A MAJORITY OF, THE MEMBERS OF THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY ENGINEERING COMMITTEE IN CONNECTION WITH A MATTER SUBJECT FOR DISCUSSION OR CONSIDERATION AT AN OPEN MEETING OF THE ENGINEERING COMMITTEE ARE AVAILABLE BY PHONE REQUEST MADE TO THE AUTHORITY ADMINISTRATIVE OFFICE AT 949-234-5452. THE AUTHORITY ADMINISTRATIVE OFFICES ARE LOCATED AT 34156 DEL OBISPO STREET, DANA POINT, CA ("AUTHORITY OFFICE"). IF SUCH WRITINGS ARE DISTRIBUTED TO MEMBERS OF THE ENGINEERING COMMITTEE LESS THAN SEVENTY-TWO (72) HOURS PRIOR TO THE MEETING, THEY WILL BE SENT TO PARTICIPANTS REQUESTING VIA EMAIL DELIVERY. IF SUCH WRITINGS ARE DISTRIBUTED IMMEDIATELY PRIOR TO, OR DURING, THE MEETING, THEY WILL BE AVAILABLE IMMEDIATELY ON VERBAL REQUEST TO BE DELIVERED VIA EMAIL TO REQUESTING PARTIES.

AGENDA

- 1. Call Meeting to Order**
- 2. Public Comments**

THOSE WISHING TO ADDRESS THE ENGINEERING COMMITTEE ON ANY ITEM LISTED ON THE AGENDA WILL BE REQUESTED TO IDENTIFY AT THE OPENING OF THE MEETING AND PRIOR TO THE CLOSE OF THE MEETING. THE AUTHORITY REQUESTS THAT YOU STATE YOUR NAME

WHEN MAKING THE REQUEST IN ORDER THAT YOUR NAME MAY BE CALLED TO SPEAK ON THE ITEM OF INTEREST. THE CHAIR OF THE MEETING WILL RECOGNIZE SPEAKERS FOR COMMENT AND GENERAL MEETING DECORUM SHOULD BE OBSERVED IN ORDER THAT SPEAKERS ARE NOT TALKING OVER EACH OTHER DURING THE CALL.

3. Approval of Minutes

- a. Engineering Committee Meeting of November 12, 2020
- b. Engineering Committee Meeting of December 10, 2020

Recommended Action:

Staff recommends the Engineering Committee to approve Minutes as submitted.

4. Operations Report

Recommended Action:

Information Item

5. Capital Improvement Construction Projects Report

Recommended Action: Staff recommends that the Engineering Committee recommend the following:

- a. PC-2 Board to approve Change Order 16 totaling \$42,780;
- b. PC-15 Board to approve Change Order 14 for a credit of \$8,803; and
- c. PC-17 Board to approve Change 15 thru 20 totaling \$111,838.

**6. Coastal Treatment Plant Facility Improvements Construction Update
[Project Committee 15]**

Recommended Action: Information Item

7. Coastal Treatment Plant (CTP) Sludge Force Main Replacement Project Construction Management Proposal Review [Project Committee 15]

Recommended Action: Staff recommends that the Engineering Committee recommend to the PC-15 Board to award the time and materials contract to Butier Engineers in the amount of \$226,100 for the construction management services during construction for the CTP Sludge Force Main Project.

Adjournment

I hereby certify that the foregoing Notice was personally emailed or mailed to each member of the SOCWA Engineering Committee at least 72 hours prior to the scheduled time of the Regular Meeting referred to above.

I hereby certify that the foregoing Notice was posted at least 72 hours prior to the time of the above-referenced Engineering Committee meeting at the usual agenda posting location of the South Orange County Wastewater Authority and at www.socwa.com.

Dated this 8th day of January 2021.



Betty Burnett, General Manager/Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

**MINUTES OF REGULAR MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
Engineering Committee**

DRAFT

November 12, 2020

The Regular Meeting of the South Orange County Wastewater Authority (SOCWA) Engineering Committee Meeting was held on November 12, 2020, at 8:30 a.m. via teleconferencing from the Administrative Offices located at 34156 Del Obispo Street, Dana Point, California. The following members of the Engineering Committee were present via Teams Meeting:

DAVID SHISSLER	City of Laguna Beach [arrived @ 8:37 a.m.]
DAVE REBENDS DORF	City of San Clemente
MIKE MARQUIS	City of San Juan Capistrano [arrived @ 8:39 a.m.]
BOBBY YOUNG	El Toro Water District
MIKE DUNBAR	Emerald Bay Service District
ROD WOODS	Moulton Niguel Water District
DON BUNTS	Santa Margarita Water District [arrived @ 8:34 a.m.; exited @ 8:56 a.m.]
MARC SERNA	South Coast Water District [arrived @ 8:47 a.m.; exited at 9:59 a.m..]
LORRIE LAUSTEN	Trabuco Canyon Water District

Absent:

KEVIN BURTON	Irvine Ranch Water District
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Staff Present:

JASON MANNING	Director of Engineering
DAVID BARANOWSKI	Senior Engineer
RONI YOUNG	Associate Engineer
JIM BURROR	Director of Operations
AMBER BAYLOR	Director of Environmental Compliance
DANIEL VASQUEZ	Chief Mechanic
DANITA HIRSH	Executive Assistant

Also Present:

DAVE JONES	Hazen
BRYCE DANKER	Hazen
DR. PAUL PITT	Hazen
JOE ROHRBACHER	Hazen
HERSY ENRIQUEZ	Hazen
HANNAH JOHNSON	City of Laguna Beach
DENNIS ERDMAN	South Coast Water District
TARYN KJOSLING	South Coast Water District
MATT COLLINGS	Moulton Niguel Water District
JESUS GARIBAY	Moulton Niguel Water District

1. Call Meeting to Order

Mr. Manning, Director of Engineering called the meeting to order at 8:32 a.m.

2. Public Comments

None

3. Operations Status Report

Mr. Burror submitted the following report via messaging after joining the meeting at 9:07 a.m.: 1) Operations staff is getting the sites ready in preparation of winter storms; 2) staff is doing a lot of work to support the three (3) active construction projects; 3) staff is continuing to implement COVID-19 protocols (i.e., masks, and social distancing); and 4) CTP has the new shower trailer and will now be addressing the blocked sewer for the Personnel Building.

This was an information item; no action was taken.

4. San Diego Regional Water Quality Control Board's Biological Quality Objectives [Project Committee 12]

Ms. Baylor gave a presentation on the San Diego Biological Quality Objectives. She noted several key points that would be relevant to the SOCWA PC-12 Members. An open discussion ensued.

This was an information item; no action was taken.

5. Capital Improvement Construction Projects Report

Mr. Manning reported there are six (6) new change orders for the JBL Package B Project, and one (1) new change order for the CTP Facility Improvement Project.

Ms. Young went through the details of change orders 10 through 15 for the JBL Package B Project. An open discussion ensued.

ACTION TAKEN

The Engineering Committee conceded to recommending the PC-2 Board to approve Change Orders 10 through 15 totaling \$187,929.

Motion Carried:	Aye 4, Nay 0, Abstained 0, Absent 0
	Michael Marquis (CSJC) Aye
	Rod Woods (MNWD) Aye
	Marc Serna (SCWD) Aye
	Don Bunts (SMWD) Aye

The Engineering Committee conceded to recommending the PC-15 Board to approve Change Order 11 totaling \$5,153.

6. Coastal Treatment Plant (CTP) Sludge Force Main Replacement Project Update [Project Committee 15]

Mr. Manning reported the project went out for bid on October 29 with bids due to be in on December 3rd. He stated that Dudek has been supporting the project over the last 20 years including providing the design and permitting for the project. He presented a proposal from Dudek that covered the Engineering Services During Construction, Biological Monitoring, and Cultural Monitoring Services. He noted the only permit that is pending is through OC Parks. An open discussion ensued.

ACTION TAKEN

The Engineering Committee requested that alternate proposals for the cultural monitoring be presented. No action was taken on the presented proposal from Dudek.

7. Coastal Treatment Plant AWT Upgrade Project Update [Project Committee 15]

Mr. Baranowski gave an oral update on the Coastal Treatment Plant AWT Project Upgrade that was completed. He noted the upgrade was to the pilot valves as noted in photos of the staff report on pages 32 and 33 of the agenda packet. An open discussion ensued.

This was an information item; no action was taken.

8. Coastal Treatment Plant (CTP) Reconfiguration Feasibility Study Update

Mr. Bryce Danker of Hazen gave a presentation on the CTP Feasibility Project Update. He noted he would be addressing comments and questions that were provided at the previous Engineering Committee meeting. The presentation could be found on pages 34 through 45 of the agenda packet. There was an open discussion on the comparisons and contrasts of CAS, MBR and potentially AGS.

ACTION TAKEN

The PC-15 Engineering Committee conceded to expanding Hazen's scope of work to isolate the top three comparison/contrast between CAS, MBR, and AGS; while performing a deeper background evaluation into AGS before picking the top 2 options.

Motion Carried:	Aye 3, Nay 0, Abstained 1, Absent 0
	Dave Shissler (CLB) Aye
	Mike Dunbar (EBSD) Aye
	Rod Woods (MNWD) Abstain
	Dennis Erdman (SCWD) Aye

Mr. Erdman recommended including PC-2 members in the CTP discussions as going forward with future evaluations, PC-2 will face similar challenges.

9. Knowledge Sharing – Comparison of Polymer Types for the Regional Treatment Plant Dissolved Air Floatation Tanks [Project Committee 17]

Due to time restraints, this item was carried over to the next Engineering Committee Meeting.

Adjournment

There being no further business, Mr. Manning adjourned the meeting at 10:18 a.m.

I HEREBY CERTIFY that the foregoing Minutes are a true and accurate copy of the Minutes of the Regular Meeting of the South Orange County Wastewater Authority Engineering Committee of November 12, 2020, and approved by the Engineering Committee and received and filed by the Board of Directors of the South Orange County Wastewater Authority.



Betty Burnett, General Manager/Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

**MINUTES OF REGULAR MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
Engineering Committee**

DRAFT

December 10, 2020

The Regular Meeting of the South Orange County Wastewater Authority (SOCWA) Engineering Committee Meeting was held on December 10, 2020, at 8:30 a.m. via teleconferencing from the Administrative Offices located at 34156 Del Obispo Street, Dana Point, California. The following members of the Engineering Committee were present via Teams Meeting:

DAVID SHISSLER	City of Laguna Beach
MIKE MARQUIS	City of San Juan Capistrano
BOBBY YOUNG	El Toro Water District
MIKE DUNBAR	Emerald Bay Service District
KEVIN BURTON	Irvine Ranch Water District [exited @ 9:40 a.m.]
ROD WOODS	Moulton Niguel Water District
DON BUNTS	Santa Margarita Water District
MARC SERNA	South Coast Water District [exited @ 9:55 a.m.]
LORRIE LAUSTEN	Trabuco Canyon Water District

Absent:

DAVE REBENDSOLF	City of San Clemente
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Staff Present:

JASON MANNING	Director of Engineering
DAVID BARANOWSKI	Senior Engineer
RONI YOUNG	Associate Engineer
JIM BURROR	Director of Operations
AMBER BAYLOR	Director of Environmental Compliance
DANIEL VASQUEZ	Chief Mechanic
JEANETTE COTINOLA	Procurement/Contracts Administrator
DANITA HIRSH	Executive Assistant

Also Present:

DAVE JONES	Hazen
BRYCE DANKER	Hazen
DR. PAUL PITT	Hazen
JOE ROHRBACHER	Hazen
HERSY ENRIQUEZ	Hazen
HANNAH JOHNSON	City of Laguna Beach
DENNIS ERDMAN	South Coast Water District
MATT COLLINGS	Moulton Niguel Water District
JESUS GARIBAY	Moulton Niguel Water District

1. Call Meeting to Order

Mr. Manning, Director of Engineering called the meeting to order at 8:33 a.m.

2. Public Comments

None

3. Approval of Minutes

a. Engineering Committee Meeting of September 17, 2020

ACTION TAKEN

Motion was made by Mr. Bunts seconded by Mr. Woods to approve the Engineering Committee Minutes of September 17, 2020 as corrected.

Motion Carried:	Aye 6, Nay 0, Abstained 2, Absent 2
	David Shissler (CLB) Aye
	Dave Rebensdorf (CSC) Absent
	Mike Marquis (CSJC) Abstain
	Mike Dunbar (EBSD) Absent
	Bobby Young (ETWD) Aye
	Kevin Burton (IRWD) Abstain
	Rod Woods (MNWD) Aye
	Marc Serna (SCWD) Aye
	Don Bunts (SMWD) Aye
	Lorrie Lausten (TCWD) Aye

b. Engineering Committee Meeting of October 8, 2020

ACTION TAKEN

Motion was made by Mr. Bunts and seconded by Mr. Woods to approve the Engineering Committee Minutes of October 8, 2020 as corrected.

Motion Carried:	Aye 7, Nay 0, Abstained 1, Absent 2
	David Shissler (CLB) Abstain
	Dave Rebensdorf (CSC) Absent
	Mike Marquis (CSJC) Aye
	Mike Dunbar (EBSD) Absent
	Bobby Young (ETWD) Aye
	Kevin Burton (IRWD) Aye
	Rod Woods (MNWD) Aye
	Marc Serna (SCWD) Aye
	Don Bunts (SMWD) Aye
	Lorrie Lausten (TCWD) Aye

4. Operations Status Report

Mr. Burror reported on two projects that had been completed at JBL; 1) is the installation of a "Man Down" alarm through SCADA that would eliminate the need for an employee to call their supervisor when they arrive or leave in the evening hours to confirm there were no injuries, and 2) an ongoing project of fixed gas detectors was completed at JBL; giving all locations that have the potential of atmospheric hazards now have the regulatory required alarm equipment is tied into to SCADA. An open discussion ensued.

This was an information item; no action was taken.

5. State Water Resources Control Board Investigative Order No. WQ-2020-0015 Fourth Quarter 2020 PFAS Results for SOCWA Member Agencies

Ms. Baylor gave a presentation on the PFAS Update. She noted that she would be discussing the results for the Ten (10) facilities that she participated in the investigative order. Ms. Baylor also reminded the Committee that SOCWA is the responsible agency due to holding two (2) NPDES Permits as well as the Recycle Water Permit which includes Trabuco Canyon. An open discussion ensued.

This was an information item; no action was taken.

6. Capital Improvement Construction Projects Report

Mr. Manning and engineering staff provided project status updates on the JBL Package B, CTP Facility Improvements, and RTP Miscellaneous Improvements projects. Mr. Manning noted that the November and December change orders would be going the Board on December 17 for approval.

ACTION TAKEN

The Engineering Committee conceded to recommending the PC-15 Board to approve Change Orders 12 and 13 totaling \$23,357.

7. San Juan Creek Ocean Outfall Junction Structure Rehabilitation Project Update [Project Committee 5]

Mr. Manning updated the Committee on the status of the project. He stated that Dudek has been supporting the project including providing the permitting for the project. He presented a proposal from Dudek that covered the Biological Monitoring Services During Construction.

ACTION TAKEN

The PC-5 Engineering Committee conceded to recommending the PC-5 Board to award the contract for Biological Monitoring During Construction to Dudek in the amount of \$89,668.

Motion Carried:	Aye 5, Nay 0, Abstained 0, Absent 1
	Dave Rebensdorf (CSC) Absent
	Mike Marquis Aye
	Rod Woods (MNWD) Aye
	Marc Serna (SCWD) Aye
	Don Bunts (SMWD) Aye

8. Coastal Treatment Plant (CTP) Sludge Force Main Project Construction Bids [Project Committee 15]

Mr. Manning reported the project went out for bid on October 29 and bids were received on December 3rd. Bids were received from three construction firms with Filanc being the apparent low bidder.

ACTION TAKEN

The PC-15 Engineering Committee conceded to recommending the PC-15 Board to award the construction contract to JR Filanc in the amount of \$3,107,346 with a contingency of \$248,588 for the construction of the CTP Sludge Force Main Project.

Motion Carried: Aye 2, Nay 0, Abstained 1, Absent 1
David Shissler (CLB) Aye
Mike Dunbar (EBSD) Absent
Rod Woods (MNWD) Abstain
Marc Serna (SCWD) Aye

9. Coastal Treatment Plant (CTP) Sludge Force Main Replacement Project Engineering and Biological Services During Construction [Project Committee 15]

Mr. Manning stated that Dudek has been supporting the project over the last 20 years including providing the design and permitting for the project. He presented a proposal from Dudek that covered the Engineering Services During Construction and Biological Monitoring Services During Construction. An open discussion ensued.

ACTION TAKEN

The PC-15 Engineering Committee conceded to award the time and materials contract to Dudek in the amount of \$387,750 for the engineering and biological services during construction for the CTP Sludge Force Main Project.

Motion Carried: Aye 2, Nay 0, Abstained 1, Absent 1
Dave Shissler (CLB) Aye
Mike Dunbar (EBSD) Absent
Rod Woods (MNWD) Abstain
Dennis Erdman (SCWD) Aye

10. Coastal Treatment Plant Sludge Force Main Replacement Project Cultural Monitoring Services During Construction [Project Committee 15]

Mr. Manning reported the results of the request for proposals for the CTP Sludge Force Main Replacement Project Cultural Monitoring Service During Construction. An open discussion ensued.

ACTION TAKEN

The PC-15 Engineering Committee conceded to the time and materials contract to PSOMAS in the amount of \$277,368 for the Archeological, Paleontological, and Native American monitoring services during construction for the CTP Sludge Force Main Project.

Motion Carried: Aye 2, Nay 0, Abstained 1, Absent 1
Dave Shissler (CLB) Aye
Mike Dunbar (EBSD) Absent
Rod Woods (MNWD) Abstain
Dennis Erdman (SCWD) Aye

11. Knowledge Sharing – Comparison of Polymer Types for the Regional Treatment Plant Dissolved Daft [Project Committee 17]

Mr. Baranowski gave a knowledge sharing presentation on polymers that are being used at the Regional Treatment Plant for the DAFT system.

This was an information item; no action was taken.

Adjournment

Mr. Manning thanked everyone for their continued support throughout the year and wished everyone happy holidays and noted the next Engineering Committee Meeting is set for January 14, 2021.

There being no further business, Mr. Manning adjourned the meeting at 10:21 a.m.

I HEREBY CERTIFY that the foregoing Minutes are a true and accurate copy of the Minutes of the Regular Meeting of the South Orange County Wastewater Authority Engineering Committee of December 10, 2020, and approved by the Engineering Committee and received and filed by the Board of Directors of the South Orange County Wastewater Authority.



Betty Burnett, General Manager/Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

Agenda Item

5

Engineering Committee Meeting

Meeting Date: January 14, 2021

TO: Engineering Committee

FROM: Jason Manning, Director of Engineering

SUBJECT: Capital Improvement Construction Projects Report
[Project Committees 2, 15, and 17]

Overview

Active Construction Project Updates:

Attached are the updated CIP reports. Please note that there is one new change order for the JBL Package B Project, one change order for the CTP Facility Improvement Project, and six change orders for the RTP Miscellaneous Improvements 2018 Project.

As a reminder, change orders within the General Manager's purchasing authority (less than \$50,000) and within the project contingency will be presented in this report and then to the Board of Directors. This is in accordance with the current purchasing policy, the change order procedure update provided to Engineering Committee in November 2019 and the contingencies approved by the Board in December 2019.

Recommended Action: Staff recommends that the Engineering Committee recommend the following:

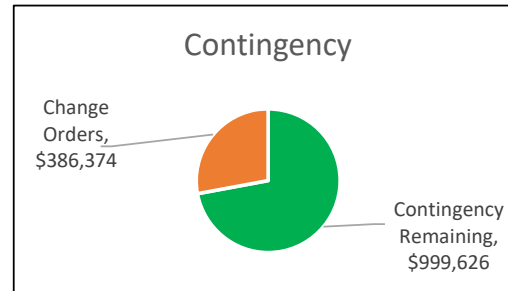
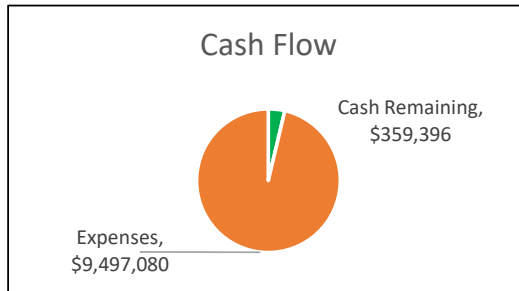
- a. PC-2 Board to approve Change Order 16 totaling \$42,780;
- b. PC-15 Board to approve Change Order 14 for a credit of \$8,803; and
- c. PC-17 Board to approve Change Orders 15 to 20 totaling \$111,838.

Project Financial Status

Project Committee	2
Project Name	Package B
Project Description	Plant 1 basin repairs, DAF rehabilitation, Energy Building seismic retrofit and minor rehabilitation, Digester 4 rehabilitation

Data Last Updated

January 4, 2021

**Cash Flow**

Collected	\$9,856,476
Expenses	\$9,497,080

Project**Completion**

Schedule	63%
Budget	43%

Contracts

Company	PO No.	Original	Change Orders	Total	Paid
Olsson	13497	\$ 17,325,000	\$ 386,374	\$ 17,711,374	\$ 6,976,859
Butier	13647	\$ 1,055,325	\$ -	\$ 1,055,325	\$ 745,968
Carollo	13616	\$ 846,528	\$ -	\$ 846,528	\$ 686,755
TetraTech	13605	\$ 94,000	\$ -	\$ 94,000	\$ 81,837
		\$ 19,320,853	\$ 386,374	\$ 19,707,227	\$8,491,419

Contingency

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	3220-000	\$ 616,800	\$ 73,170	\$ 543,630	11.9%
Common	3231-000	\$ 96,800	\$ -	\$ 96,800	0.0%
Solids	3287-000	\$ 672,400	\$ 313,204	\$ 359,196	46.6%
		\$ 1,386,000	\$ 386,374	\$ 999,626	27.9%

Change Orders

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
1	Olsson	3287-000	Addition of Loop Piping to the Existing Hot Water Lines Adjacent to Digester 3	Approved by Board of Directors	12/12/2019		\$ 4,725
2	Olsson	3287-000	Asbestos Gaskets in Boiler hazardous disposal	Approved by Board of Directors	6/4/2020		\$ 6,343
3	Olsson	3287-000	Add Analog Infrastructure and Cabling	Approved by Board of Directors	6/4/2020		\$ 37,970
4	Olsson	3287-000	Digester 4 Coating Additional Sealant	Approved by Board of Directors	6/4/2020		\$ 24,002
5	Olsson	3220-000	Valve Handwheel Ergonomic extension	Approved by Board of Directors	8/6/2020		\$ 16,370
6	Olsson	3287-000	Change to DeZurik Plug Valves to match existing	Approved by Board of Directors	8/6/2020		\$ 41,994
7	Olsson	3287-000	Digester 4 Additional Concrete Repair	Approved by Board of Directors	8/6/2020		\$ 7,413
8	Olsson	3287-000	Repair Existing Damaged Electrical Box	Approved by Board of Directors	8/6/2020		\$ (1,829)
9	Olsson	3220-000	Change the Telescoping Valve Boxes and Piping from Carbon Steel to Stainless Steel	Approved by Board of Directors	8/6/2020		\$ 18,678

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
10	Olsson	3287-000	Duct bank J Interferences	Approved by Board of Directors	12/17/2020		\$ 73,639
11	Olsson	3220-000	Blasting of Existing Influent Pipe Spools	Approved by Board of Directors	12/17/2020		\$ 20,869
12	Olsson	3220-000	Duct bank K Interferences	Approved by Board of Directors	12/17/2020		\$ 15,567
13	Olsson	3287-000	Digester 3/4 PLC Relocation	Approved by Board of Directors	12/17/2020		\$ 41,368
14	Olsson	3287-000	Digester 4 Additional Tank Repair	Approved by Board of Directors	12/17/2020		\$ 34,800
15	Olsson	3220-000	Duct bank O Interferences	Approved by Board of Directors	12/17/2020		\$ 1,687
16	Olsson	3287-000	Digester 3/4 Control Building Roof Replacement	Within contingency, to be reviewed by Engineering Committee	1/14/2021		\$ 42,780
PCO 002	Olsson	3287-000	Digester 4 Rail Coating. The coating is not needed and resulting in a credit but some rehabilitation work will be needed.	Potential Change	(blank)	-\$1,000	
PCO 004	Olsson	3287-000	Digester 4 Control Narrative needed	Potential Change	(blank)	\$5,000	
PCO 005	Olsson	3287-000	TWAS Slab Modifications	Potential Change	(blank)	\$50,000	
PCO 007	Olsson	3287-000	Relocation of MCC-F1	Potential Change	(blank)	\$40,000	

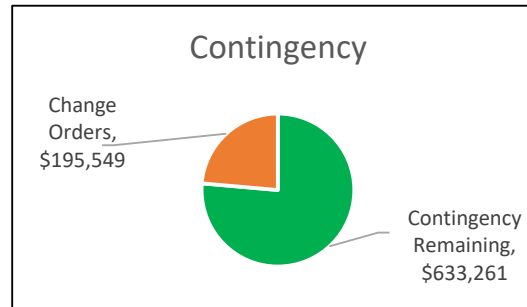
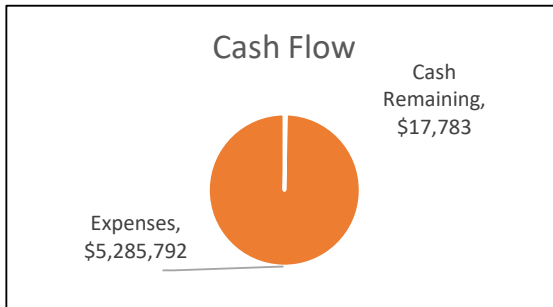
Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
PCO 008	Olsson	3287-000	Conduit Routing Conflict from MCC-F1	Potential Change	(blank)	\$15,000	
PCO 009	Olsson	3287-000	PLC East Headworks Integration	Potential Change	(blank)	\$5,000	
PCO 012	Olsson	3287-000	PCL-CG Integration	Potential Change	(blank)	\$5,000	
PCO 014	Olsson	3287-000	Digester 4 Compressor Supply Line	Potential Change	(blank)	\$18,146	
PCO 018	Olsson	3287-000	Duct bank L Interferences	Potential Change	(blank)	\$5,000	
PCO 026	Olsson	3287-000	Gas Hatch Lids Mating Connection	Potential Change	(blank)	\$7,771	
PCO 028	Olsson	3287-000	4" Gas Line Routing Modifications	Potential Change	(blank)	\$18,147	
PCO 032	Olsson	3287-000	Gas Mixer Conduit Conflict	Potential Change	(blank)	\$12,384	
PCO 037	Olsson	3231-000	ing Monorail and O	Potential Change	12/10/2020	\$10,000	
PCO 039	Olsson	3220-000	Gate Actuator Power	Potential Change	8/13/2020	\$5,000	
PCO 049	Olsson	3287-000	ations due to Chan	Potential Change	12/2/2020	\$20,000	
PCO 050	Olsson	3220-000	scoping Valves Re	Potential Change	12/23/2020	\$30,000	
Grand Total						\$245,448	\$ 386,374

Project Financial Status

Project Committee	15
Project Name	Facility Improvements
Project Description	New ferric chloride system, new collection equipment in East Sedimentation basins, concrete repair, structural improvements, new switchgear and numerous electrical upgrades

Data Last Updated

January 4, 2021

**Cash Flow**

Collected	\$5,303,575
Expenses	\$5,285,792

Project Completion

Schedule	71%
Budget	47%

Contracts

Company	PO No.	Original	Change Orders	Total	Paid
PCL	13751	\$ 9,209,000	\$ 195,549	\$ 9,404,549	\$ 4,321,035
Butier	13647	\$ 812,288	\$ -	\$ 812,288	\$ 551,958
Hazen & Sawyer	13648	\$ 490,484	\$ -	\$ 490,484	\$ 204,834
		\$ 10,511,772	\$ 195,549	\$ 10,707,321	\$5,077,826

Contingency

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	3539-000	\$ 828,810	\$ 195,549	\$ 633,261	23.6%
		\$ 828,810	\$ 195,549	\$ 633,261	23.6%

Change Orders

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
1	PCL	3539-000	Additional Potholing	Approved by Board of Directors	8/6/2020		\$ 22,936
2	PCL	3539-000	Gas Line Replacement	Approved by Board of Directors	8/6/2020		\$ 41,006
3	PCL	3539-000	Main Switchgear Building Underground Conflicts	Approved by Board of Directors	8/6/2020		\$ 8,683
4	PCL	3539-000	Mud Valve Bolt Removal	Approved by Board of Directors	8/6/2020		\$ 6,577
5	PCL	3539-000	Additional Anchor Bolt Removal	Approved by Board of Directors	8/6/2020		\$ 15,271
6	PCL	3539-000	Slide Gate Concrete Repair	Approved by Board of Directors	8/6/2020		\$ 3,396
7	PCL	3539-000	Sludge Collector Wear Strips	Approved by Board of Directors	8/6/2020		\$ 5,304
8	PCL	3539-000	SCE Transformer Slab Box	Approved by Board of Directors	9/3/2020		\$ 4,378
9	PCL	3539-000	Duct Bank 5 Buried Utility Conflicts	Approved by Board of Directors	10/1/2020		\$ 32,224
10	PCL	3539-000	Telescoping Valve Modifications	Approved by Board of Directors	10/1/2020		\$ 36,067
11	PCL	3539-000	Secondary Effluent Channel Improvements	Approved by Board of Directors	12/17/2020		\$ 5,153

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
12	PCL	3539-000	Portable Generator Tap Enclosures in Buildings 2 & 15	Approved by Board of Directors	12/10/2020		\$ 18,356
13	PCL	3539-000	Conduit, wiring, and mounting of LL1 fixtures	Approved by Board of Directors	12/10/2020		\$ 5,001
14	PCL	3539-000	MCC Feeder Credit	Within contingency, to be reviewed by Engineering Committee	1/14/2021		\$ (8,803)
PCO 006	PCL	3539-000	Additional Pothole Paving	Potential Change	(blank)	\$5,000	
PCO 013	PCL	3539-000	Ferric Containment Foundation	Potential Change	(blank)	\$15,000	
PCO 015	PCL	3539-000	RAS Channel Modification Descope	Potential Change	(blank)	-\$2,000	
PCO 016	PCL	3539-000	Spray Water Piping Replacement	Potential Change	(blank)	\$1,500	
PCO 019	PCL	3539-000	Switchgear Building Concrete Repair	Potential Change	(blank)	\$30,000	
PCO 024	PCL	3539-000	Drainage Pump Station Descope	Potential Change	(blank)	-\$400,000	
PCO 025	PCL	3539-000	Sludge Collector Mounting Plate Replacement	Potential Change	(blank)	\$13,815	

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
PCO 026	PCL	3539-000	Additional Spall Repair - East Secondary Basins	Potential Change	(blank)	\$10,000	
PCO 028	PCL	3539-000	Ops Building Gas Line Relocation	Potential Change	(blank)	\$5,000	
PCO 029	PCL	3539-000	Building 15 Concrete Restoration	Potential Change	(blank)	\$20,000	
PCO 030	PCL	3539-000	Basin Leaking Crack Repair	Potential Change	(blank)	\$5,000	
PCO 031	PCL	3539-000	Roll Up Door Fascia	Potential Change	(blank)	\$3,000	
PCO 035	PCL	3539-000	Grit Chamber Conflicts	Potential Change	(blank)	\$20,000	
PCO 037	PCL	3539-000	Additional Spall Repair - Grit Channels	Potential Change	(blank)	\$25,000	
PCO 038	PCL	3539-000	Aeration Channel Conflicts	Potential Change	(blank)	\$8,000	
PCO 040	PCL	3539-000	Helical Skimmer Wiring	Potential Change	(blank)	\$2,000	
PCO 042	PCL	3539-000	Mixed Liquor Channel Remobilization	Potential Change	(blank)	\$15,000	
PCO 043	PCL	3539-000	Building 10 Roof Repairs	Potential Change	(blank)	\$10,000	
PCO 044	PCL	3539-000	Building 10 Wall Repair	Potential Change	(blank)	\$2,000	
PCO 046	PCL	3539-000	1/2" Ferric Line Conflicts	Potential Change	(blank)	\$5,000	
PCO 047	PCL	3539-000	West Telescoping Valve Improvements	Potential Change	(blank)	\$25,000	

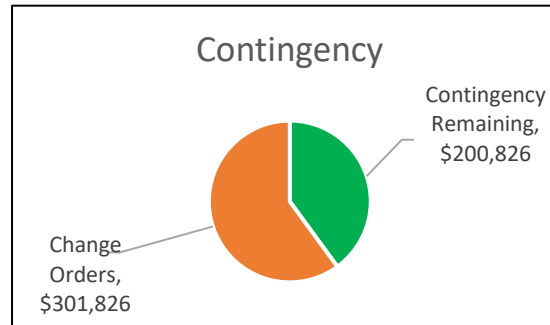
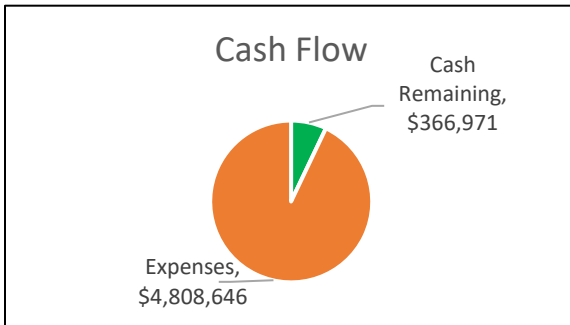
Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
PCO 048	PCL	3539-000	West Secondary Effluent Channel Concrete Repair	Potential Change	(blank)	\$20,000	
PCO 049	PCL	3539-000	Removal of Scope - West Basin Sludge/Scum Collection Equipment	Potential Change	(blank)	-\$300,000	
PCO 050	PCL	3539-000	RAS Box Leaks	Potential Change	(blank)	\$0	
PCO 051	PCL	3539-000	Grit Grating Modifications	Potential Change	(blank)	\$0	
Grand Total						-\$461,685	\$195,549

Project Financial Status

Project Committee	17
Project Name	Miscellaneous Improvements 2018
Project Description	Secondary electrical upgrades and Primary Gallery rehabilitation, installation of access walkway and Energy Building roof

Data Last Updated

January 4, 2021

**Cash Flow**

Collected	\$5,175,617
Expenses	\$4,808,646

Project Completion

Schedule	95%
Budget	90%

Contracts

Company	PO No.	Original	Change Orders	Total	Paid
Filanc	13678	\$ 4,181,205	\$ 241,166	\$ 4,422,371	\$ 4,032,349
Dudek	14164	\$ 137,625	\$ 60,660	\$ 198,285	\$ 139,607
Lee & Ro	14006	\$ 123,310	\$ -	\$ 123,310	\$ 119,175
		\$ 4,442,140	\$ 301,826	\$ 4,743,966	\$4,291,130

Contingency

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	3701-000	\$ 343,593	\$ 274,058	\$ 69,535	79.8%
Common	3769-000	\$ 4,545	\$ -	\$ 4,545	0.0%
Solids	3751-000	\$ 154,514	\$ 27,768	\$ 126,746	18.0%
		\$ 502,652	\$ 301,826	\$ 200,826	60.0%

Change Orders

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
1	Filanc	3701-000	Additional Conduit Support around Admin Building	Approved by Board of Directors	8/6/2020		\$32,929.28
2	Filanc	3701-000	Primary Deck Conduit Supports	Approved by Board of Directors	8/6/2020		\$ 9,611.12
3	Filanc	3701-000	Electrical Manhole 2 collar concrete/pavement repair	Approved by Board of Directors	8/6/2020		\$ 2,986.60
4	Filanc	3701-000	Primary Gallery Concrete Deck Repair	Approved by Board of Directors	8/6/2020		\$ 6,363.00
5	Filanc	3701-000	VFD Cabinet change from 316 to 304 Stainless Steel	Approved by Board of Directors	8/6/2020		\$ (2,100.00)
6	Filanc	3701-000	Duct bank Vault size change to accommodate existing utilities and sump	Approved by Board of Directors	8/6/2020		\$ 37,690
7	Filanc	3751-000	Energy Building Roof Steel Beam Anchor Embedment	Approved by Board of Directors	8/6/2020		\$10,280.90
8	Filanc	3701-000	Polymer VFD Improvements	Approved by Board of Directors	10/1/2020		\$ 15,549
9	Filanc	3751-000	Repair/improve floor grating in equipment to meet safety standards	Approved by Board of Directors	10/1/2020		\$ 1,843

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
10	Filanc	3751-000	Additional roofing materials required to level surface	Approved by Board of Directors	10/1/2020		\$ 4,465
11	Filanc	3701-000	Additional backfill material for MH-1	Approved by Board of Directors	10/1/2020		\$ 2,939
12	Filanc	3701-000	Admin Bldg. roof drain rerouting	Approved by Board of Directors	10/1/2020		\$ 966
13	Filanc	3751-000	Additional angle steel needed to support new roof	Approved by Board of Directors	10/1/2020		\$ 1,069
14	Filanc	3701-000	Rebate work on Primary Gallery Deck to resolve potential safety issue	Approved by Board of Directors	10/1/2020		\$ 4,736
15	Filanc	3701-000	Replace installation of fan with louver	Within contingency, to be reviewed by Engineering Committee	1/14/2021		\$ (647)
16	Filanc	3701-000	New wire pulled for Sed Basins 5 & 6 flow meters	Within contingency, to be reviewed by Engineering Committee	1/14/2021		\$ 1,056
17	Filanc	3701-000	New lighting, outlet, and circuit for scum and sample pumps	Within contingency, to be reviewed by Engineering Committee	1/14/2021		\$ 24,000

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
18	Filanc	3701-000	Update instrumentation including 13 new pressure indicators, remove unneeded stantions, various epoxy and concrete repair.	Within contingency, to be reviewed by Engineering Committee	1/14/2021		\$ 41,094
19	Filanc	3701-000	Modify hardware, PLC logic, and HMI for a polymer alternate water use.	Within contingency, to be reviewed by Engineering Committee	1/14/2021		\$ 15,858
20	Filanc	3701-000	Add new DAF flow meters including additional piping and conduit	Within contingency, to be reviewed by Engineering Committee	1/14/2021		\$ 30,477
Grand Total							\$ 241,166



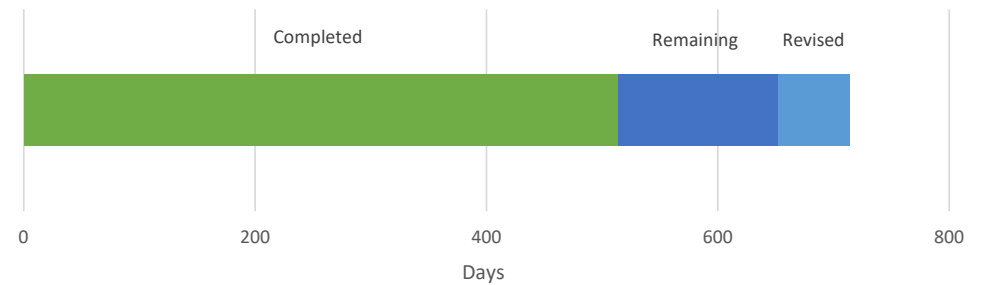
CTP Facility Improvements

Construction Update

January 14, 2021

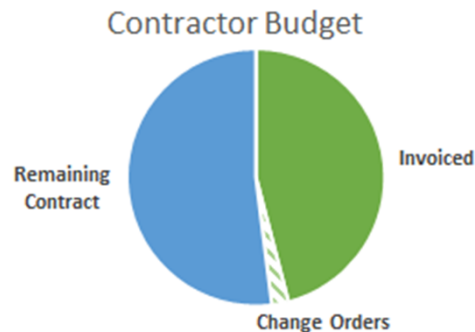
Construction Schedule Update

Schedule Completion		72%
Started	August 2019	
Baseline Schedule Completion	June 2021	
Revised Completion	August 2021	

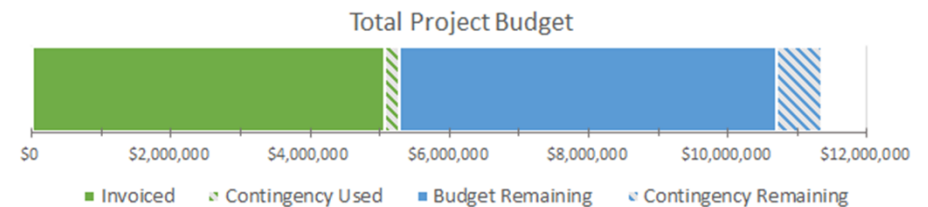


Schedule and Budget Update

Contractor Budget Completion	47%
Original Contract Value	\$9,209,000
Change Orders	\$195,549
Revised Contract Value	\$9,404,549
Invoiced	\$4,321,035



Total Project Budget Completion	48%
Original Contracts	\$10,511,772
Contingency	\$828,810
Invoiced	\$5,077,826
Contingency Used	\$195,549
Contract Remaining	\$5,433,946
Contingency Remaining	\$633,261



*Schedule as of November update
Budget as of Invoice 13 and Change Order 14*

Construction Status Update

	Status	Est. % Complete
Switchgear Replacement & Electrical Improvements	Ongoing	75%
Secondary Clarifier Rehabilitations	Ongoing	60%
Grit Channel Rehabilitation	Ongoing	50%
Ferric Chloride Station Reconstruction	Not Started	-
Aeration Channel Construction	Not Started	-
Headworks Valve Replacements	Not Started	-
Drainage Pump Station Construction	Removed	n/a

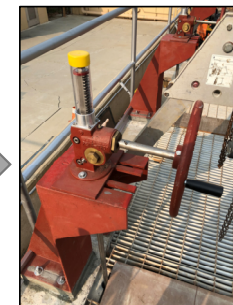
Main Switchgear Replacement (75% Complete)

- New electrical service from SCE
- Replaced main switchgear
- Repurposed building 10
- New duct banks and wires



Secondary Clarifier Rehabilitation (60% Complete)

- Replaced sludge collection equipment and launders
- Replaced inlet, drain, and telescoping valves
- Replaced handrail
- Repaired concrete cracks
- Completed 4 east clarifiers, moving onto 3 west clarifiers



Grit Channel Rehabilitation (50% Complete)

- Replaced concrete coating in east grit channel (west channel in progress)
- Replaced aluminum grating and rebates



Major Project Changes

- Removed scope for new Drainage Pump Station construction
- Removed scope for new sludge collection equipment in west secondary clarifiers
- Changed foundation design for ferric chloride station
- Unforeseen concrete deterioration in grit channel

Removed Scoped

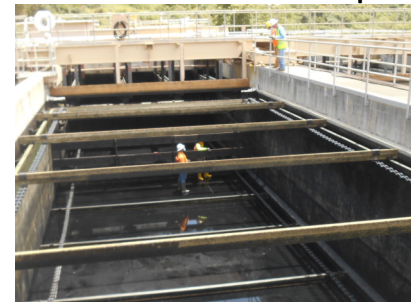
- Drainage Pump Station

- Field conditions no longer matched design conditions
- New PS won't fully abandon existing station
- We will readdress in future project



- West Secondary Sludge Collection Equipment

- Significant equipment delivery delay would have delayed entire project
- West equipment in better condition than east clarifiers
- We will readdress in future project



Scope Changes

- Ferric Chloride Foundation

- Buried utilities conflict with designed foundation
- Changed design to piles to avoid buried utilities



- Unforeseen Grit Channel Concrete Condition

- Concrete condition under existing coating was worse than expected
- Resurfaced entire channel to prep for new coating



Project Outlook

- Contractor moving onto west secondary clarifiers and west grit chambers this month.
- Project timeline is back on schedule.
- Awaiting credits for removed scope.

Agenda Item

7

Engineering Committee Meeting

Meeting Date: January 14, 2021

TO: Engineering Committee

FROM: Jason Manning, Director of Engineering

SUBJECT: Coastal Treatment Plant (CTP) Sludge Force Main Replacement Project
Construction Management Services [Project Committee 15]

Overview

The final design was put out for bid for the Sludge Force Main Replacement Project on October 29, 2020 and bids were received on December 3, 2020. Proposals for Construction Management services were due on January 8, 2021.

Proposals

SOCWA requested proposals from the following firms:

ARCADIS
Butier Engineers
Carollo Engineers
MWH Constructors

ARCADIS, Butier, and MWH attended the pre-proposal meeting held by teleconference on December 22, 2020. Butier was the only firm to respond provided a proposal (attached to this staff report) and is summarized below in Table 1.

Table 1 – Summary of Proposals

Firm	Butier
Project Director	Mark Butier
Resident Engineer	Louis Francuz
Field Engineer	Bryan Wilson
Technical Support	Casey Harris / Bill Baker
Field Inspectors	Gary Shulz / Martin Brunenicks
Subconsultants	None
Total Labor Hours	1,506
Total Cost	\$226,100

///

Cost Allocation

Table 2 – Cost allocation by member agency for the Butier Construction Management proposal

Agency	Construction Management
	3534-000
CLB	\$ 85,715.52
EBSD	\$ 6,749.25
MNWD	\$ 66,142.69
SCWD	\$ 67,492.54
Total	\$226,100.00

Table 3 – Available budget

3534-000	3541-000	Total
\$699,679	\$4,045,345	\$4,745,024

Project 3534-000 is already funded and approximately \$1.4 million (33% of budget) has already been collected for 3541-000.

Table 4 – Expected Project Costs

Project Element	Cost	Contingency (8%)	Total
Construction	\$3,107,346	\$ 248,588	\$3,355,934
EDSC	\$ 150,800		\$ 150,800
Biological Monitoring	\$ 236,950		\$ 236,950
Cultural Monitoring	\$ 277,368		\$ 277,368
Construction Management	\$ 226,100		\$ 226,100
Total	\$4,021,052	\$ 248,588	\$4,247,152

The above costs have been identified and presented to the Engineering Committee. The costs are within the current budget with an expected surplus of \$497,872.

Recommended Action: Staff recommends that the Engineering Committee recommend to the PC 15 Board to award the time and materials contract to Butier Engineers in the amount of \$226,100 for the construction management services during construction for the CTP Sludge Force Main Project.

1. EXECUTIVE SUMMARY/COVER LETTER

January 7, 2021

South Orange County Wastewater Authority
Administration Building
34156 Del Obispo Street
Dana Point, CA 92629
Attn: Ms. Jeanette Cotinola, Procurement/Contracts Administrator

Subject: Proposal to Provide Construction Management Services for the Coastal Treatment Plant Sludge Force Main Replacement Project

Dear Ms. Cotinola:

Butier Engineering, Inc. (Butier) is pleased to submit an electronic PDF copy of its proposal and table of effort for the above stated subject. Our proposal includes the required personnel and man-hours requested by South Orange County Wastewater Authority (SOCWA).

Staffing Flexibility/Efficiencies

Our local presence and current SOCWA assignments will provide the Force Main project with unmatched staffing flexibility. We are uniquely positioned to meet project inspection demands with current local resources.

Successful Coordination with CTP Operations is Key

The Sludge Force Main Replacement Project involves installation and connection challenges that will require seamless coordination with Plant Operations. **Butier's proposed key personnel have established successful, site-specific working relationships with SOCWA staff** while providing CM and inspection services for the Coastal Treatment Plant Facility Improvements Project. Our site-specific experience affords SOCWA a field construction management team that will be acutely aware of the logistics, project stakeholders, and site limitations.

Strong Working History with the Designer and Contractor

Butier has developed a strong professional history with Dudek and Filanc, collaborating on Southern California water and wastewater treatment facility projects over the past 30 years. Our strong ties will ensure the timely processing of required submittals and eliminate any overlap of the design engineer's construction scope of services.

Comprehensive, Web-Based Document Control System

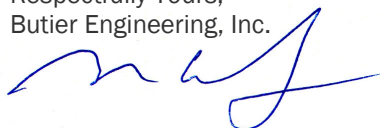
Butier recommends utilizing **Procore** to manage project information for the Sludge Force Main Replacement Project. Our key personnel are currently using **Procore** for SOCWA's Coastal Treatment Plant Facility Improvements and J.B. Latham Package 'B' Improvements Projects. It is our understanding that Filanc also utilizes Procore. This will facilitate a seamless project set up and zero learning curve for both parties.

SOCWA Contract Documents & Standard Consulting Contract

Butier will require one digital copy and four hard copies of available construction documents. We have reviewed a copy of the standard consulting contract and take no exceptions. Butier will maintain the required insurance levels.

We appreciate the opportunity to meet SOCWA's project challenges and are confident that we have assembled a team that will serve the best interests of all project participants. Please feel free to contact me directly for clarification at (714) 832-7222 or jrbutier@butier.com.

Respectfully Yours,
Butier Engineering, Inc.



Mark M. Butier, Jr.
President/CFO

17822 E. 17th Street
Suite 404
Tustin, CA 92780
Tel (714) 832-7222
Fax (714) 832-7211

2. SCOPE OF WORK

Project Approach/Scope of Work

The Butier Team has reviewed the RFP and additional project documentation and has a clear understanding of each project task. **Louis Francuz, P.E. will act as the Resident Engineer** bearing overall responsibility for CM services and will be available to report directly to SOCWA's Project Manager. Butier will assist SOCWA staff to oversee the construction activities and be responsible for all CM services outlined in this section and will also coordinate with Dudek for construction activities requesting their input. In addition, the CM team will coordinate the installation, start-up, and acceptance of the process controls, including the control network, controllers, instrumentation, programming, and any other appurtenances necessary to provide a complete working process control system.

The proposed approach/scope of work includes Butier's understanding of the construction management and field work needs of SOCWA as related to this contract. It is understood that the Construction Manager will provide the following support services to SOCWA during construction:

I. Document Review

Butier's Technical Review Team will review the project plans and technical specifications for the Coastal Treatment Plant Sludge Force Main Replacement. The primary purpose of the review will be to identify potential risks to SOCWA and recommend risk mitigation measures. It is not intended to be a full "constructability review." There will be a review of Filanc's initial schedule and the schedule of values. The Butier team will also review the conformed documents and identify items for key vulnerabilities for contractor requests for contract adjustment, and critical path items.

II. Pre-Construction Meeting

Prior to the start of construction, the Butier Team will assist SOCWA with preparing the minutes and conducting a Pre-Construction meeting with Dudek, Filanc, agencies, and stakeholders. The project team will outline the following to Filanc: overall project objectives, schedules, schedule of values, contractual roles, contract administration guidelines, reinforcement of specific requirements for safety, traffic access, environmental constraints, submittal of necessary materials, and coordination issues for the work. The meeting will emphasize the project's philosophy of teamwork and cooperation as goals to achieve a safely constructed project.

III. Progress Meetings

The RE will schedule and chair bi-monthly meetings for the project with SOCWA staff, Dudek, Filanc, subcontractors, utility companies, or other agencies as required. Each meeting will cover site safety, progress, job problems, and any actions requiring clarification of design intent,

ambiguities in contract documents, and other key issues. Action monitoring in the form of a Decision Log and an Action Log will be implemented to ensure compliance and timely response by all parties.

IV. Monthly Progress Reports

The RE will prepare an **abbreviated monthly progress** report and submit to SOCWA for review. The report will include a summary of the prior month's main accomplishments and current construction activities; Filanc's overall conformance to contract schedule and quality requirements; identification of key problems, action items, and issues along with recommendation for solutions; summary of progress payments, change orders disputes, submittals, RFIs, and notices of noncompliance; and photographs of representative project activities.

V. Document Control System

We understand that Filanc will be implementing **Procore** as their web-based document control system for the CTP Sludge Force Main Replacement Project. Procore is Butier's cloud-based system of choice for all projects, including SOCWA's J.B. Latham Treatment Plant Package 'B' Improvements and Coastal Treatment Plant Facility Improvements Projects. The advantages of Procore include 24/7 visibility into project status and a centralized, comprehensive platform to manage vital project data. All parties have access to the system, and each user accesses the program via a web browser on their computer or mobile device using secure log-in information.

VI. Quality Control & Quality Assurance

The Butier Team will provide a limited QC/QA Plan for the Coastal Treatment Plant Sludge Force Main Replacement Project. The QC/QA Plan will reflect a set of objectives defined by SOCWA staff and assigned CM and field inspection personnel.

Quality Control is the actual checking and validation of the inputs and outputs of the work. Activities to be verified for the work include the following:

- Review by quality control team
- Identification and compliance with applicable codes, ordinances, permits, environmental requirements, etc.
- Review input data and check calculations
- Review drawings, specifications, technical reports, memos, meeting minutes
- Perform constructability, operability, maintainability, and usability reviews
- Review design for compliance with safety standards

VII. Inspection

Butier will provide as-needed inspection services. The qualified inspector(s) will confirm that Filanc constructs the

facilities and equipment according to the plans and specifications. All inspectors have appropriate technical certifications in the designated field of expertise.

The inspector(s) will prepare and submit to SOCWA daily inspection reports, documenting construction activities including the date, day of week, and weather conditions; hours of work; personnel on site; time periods of equipment being used; idle or inoperable equipment; details of each activity; difficulties encountered; controversial matters/disputes; deficiencies and violations; instructions issued to Filanc; safety concerns; description of accidents; major material and equipment deliveries to the site; names of visitors to the site; and delays and extra work. Inspection reports will be submitted to SOCWA on a weekly basis.

In addition, the inspector(s) will provide and log construction digital photographs. A digital photographic library will be maintained of significant construction activities, differing site conditions, change order and claim items, and any special or unique conditions as they arise.

VIII. Schedule Review

The RE will utilize either **Microsoft Project** or **Primavera Project Planner (6)** to review, analyze, and comment on Filanc's initial construction schedule. He will evaluate and monitor the schedule and progress for the overall project on a weekly basis and will update the schedule to reflect actual progress and changes. The RE will ensure that a two-week look-ahead schedule is developed in coordination with Filanc and provided bi-weekly at progress meetings. Slippage of any contract activities on the critical path, as well as time sequence problems, will be identified early so that the construction management team may take corrective action if possible. Any deviations will be incorporated into Filanc's subsequent monthly update. The RE will notify SOCWA and Filanc if actual progress is behind.

IX. Cost Control System

The RE will establish a cost control system for monitoring and updating the status of the project costs and budget throughout the project. The CM will utilize the approved schedule of values as the basis for monitoring project costs and progress payments.

X. Safety Monitoring

The RE and Inspectors will monitor Filanc's Safety Program required for compliance with Cal/OSHA. Filanc will be required to submit a copy of its current Health and Safety plan modified to reflect site-specific health and safety conditions related to the project. All issues with respect to traffic, haul routes, work areas, safety clothing, COVID-19 Plan, etc. will be discussed. **All CAL/OSHA safety regulations are to be strictly enforced by Filanc's Safety Engineer.**

XI. Payment Request Reviews

The RE will receive, check, and verify Filanc's monthly progress payment requests and other project-related invoices based upon the cost-loaded schedule. The progress payment worksheet will be based on an approved schedule of values. Progress pay requests will be checked against the approved schedule of assigned values and actual in-place quantities verified at the end of the pay period. The pay request format will be established by the project team to expedite checking, processing, and subsequent updating of project budgets and cost projections and forwarded to SOCWA for approval and payment to Filanc.

XII. Change Order Reviews

SOCWA or Filanc may initiate a change, or request for changes or modifications may arise due to differing site conditions. The RE will track, document, and negotiate all changes for added costs or credits with Filanc and evaluate all schedule impacts of changes in addition to advising SOCWA of equitable cost and time adjustments for proposed or authorized changes including credits, if any, that are due. The RE will work with Filanc to establish labor, equipment rates, and applicable mark-ups that will be used in future negotiation of change orders. These shall be established in accordance with the Contract Documents.

The RE and Field Staff will minimize the potential impact of claims through prompt and equitable resolution with minimal disruption to the on-going construction effort. The primary means of claims management is the prompt processing of change orders. Change orders must be fairly reviewed against the contract documents for validity. When deemed valid, reasonable, and equitable adjustments in time and money are to be provided. Effective change order practices will in turn foster a spirit of teamwork and partnering and will benefit the entire project.

XIII. Testing Coordination

The RE will be responsible for coordinating special testing, including soils, concrete, and welding. The RE will review testing results and transmit the testing or inspection reports, findings, or other related information to the various project stakeholders. Testing services will be provided under a separate contract to SOCWA.

XIV. Operations Coordination

The Butier Team will perform ongoing coordination with SOCWA's Operations staff. All temporary shutdowns will be coordinated by Butier's RE. The RE and Field Inspectors will work with Filanc and Operations staff to resolve potential conflicts.

XV. Record Drawings

The RE will coordinate with Filanc on a weekly basis to ensure that an accurate set of record drawings are kept on site and up to date. The CM Team will maintain a set of marked-up record drawings and monitor the “as-built” drawings prepared by Filanc for technical accuracy and acceptance standards. The record drawings will be submitted to Dudek at 25, 50, 75, and 100 percent completion. Electronic files on flash drive or DVD will also be submitted upon completion of the project. The CM Team will make proper record drawings a condition of progress payment review. The RE will coordinate the progress payment with SOCWA.

XVI. Project Close-Out

a. Detailed Project Punch Lists

The Butier Team will prepare detailed project punch lists at substantial completion of the project and will oversee and coordinate construction testing and start-up for final recommendation for final acceptance. The RE will coordinate the correction of deficiencies and schedule, coordinate, and conduct a final walk-through prior to acceptance of work with Dudek, SOCWA’s Operation and Maintenance team, and other staff as directed by SOCWA’s Project Manager. Upon correction of deficiencies, the RE will provide certification of Filanc’s compliance on work items specifically requested by SOCWA.

b. Final Payment Requests

The RE will prepare recommendations and documents for SOCWA approval of Certificates of Substantial Completion and Notices of Completion, and verify that work, testing, cleanup, and demobilization are complete. Following filing of Notice of Completion, the RE will check and submit Filanc’s final payment requests.

c. Verify Contractor’s Project Record Drawings

The RE and Construction Inspector will review Filanc’s project record drawings for accuracy and completeness.

d. Operation and Maintenance

Once SOCWA accepts the project as complete, it will be formalized by documentation that describes the construction and date accepted and informs SOCWA that the warranty period has started as of that date. SOCWA is responsible for proper operation and maintenance from the completion date to assure compliance with warranty terms set forth in the contract documents.

e. Turn Over All Documents and Files

The Butier Team will furnish all original project documents and final project reports to SOCWA within 60 calendar days following filing of the Notice of Completion. Project documents will be delivered in form and fashion acceptable to SOCWA. The electronic files will be provided on flash drive or DVDs and will be labeled with the project name.

KEY ISSUES / STRATEGIES

The Butier Team has a thorough understanding of the scope and complexity of the Coastal Treatment Plant Sludge Force Main Replacement Project. Our key personnel have reviewed the construction documents and are intimately familiar with the challenges and constraints of the project site. Please find the key issues and strategies identified by our team located on the following pages.

TABLE OF EFFORT

Butier Team has provided a Table of Effort under Section 5 that includes the hours by classification and the total hours for the Coastal Treatment Plant Sludge Force Main Replacement.

Key Issues / Strategies

CONCERN	CM APPROACH/ STRATEGIES	
Site Constraints <i>Project coordination and staging will be challenging due to environmental and site access.</i>	<ul style="list-style-type: none"> The site requires unique access evaluation and outreach. Multiple stakeholders. Anticipate permit constraints on construction traffic, specific delivery routes, sound mitigation and monitoring. Selected Contractor, CM team and Operations conduct scheduling workshop prior to the submission of baseline schedule. Project staging to ensure limited disruption to CTP Operations and OC Parks. Ensure two week “Look Ahead” schedules are factual, tied to baseline activity and distributed to key stakeholders. Schedule considerations for work sequence for weather and contingency planning. 	
Construction Traffic / Access	<ul style="list-style-type: none"> Monitor and enforce the approved traffic control plan. Provide OC Parks with key elements of the traffic circulation and equipment staging requirements. CM to have contract enforcement tools. Public safety at a premium. Eliminate project personnel who are uncooperative or multiple offenders. Including subs and materials delivery. 	
CONCERN	CM APPROACH/STRATEGIES	BENEFITS TO SOCWA
Schedule Control <i>Objective: Project phasing to meet identified constraints.</i>	<ul style="list-style-type: none"> Stakeholders workshop during pre-construction phase. Conduct individual meetings regarding project constraints with specific stakeholders. Schedule contingency planning. Schedule emergency planning. 	<ul style="list-style-type: none"> Identification of key schedule constraints pre-construction to mitigate potential delays and impacts to stakeholders and Resort operations. Minimize cost overruns due to unforeseen construction or phasing issues.
Quality Control <i>Objective: Follow QC guidelines to minimize rework that could result in schedule delays.</i>	<ul style="list-style-type: none"> Document work activities and distribute to CM team members daily. Ensure contractor personnel are fluent with specific project restrictions. 	<ul style="list-style-type: none"> Concise 2-week look-ahead. Minimize inspection costs and environmental compliance issues.
Cost Control <i>Objective: Utilize and follow cost control management strategies to keep project within budget.</i>	<ul style="list-style-type: none"> Provide CM/Field Engineering budget linked to resource-loaded construction baseline schedule. Quantify and negotiate PCOs to ensure contingent costs are reported to management. 	<ul style="list-style-type: none"> Maintain a “no surprises” result when planning progress payments or approval of PCOs. Provide a monthly report detailing progress & delineate project risk.
Stakeholder Coordination <i>Objective: Be responsive to project stakeholder coordination requirements to achieve a high confidence level for project success.</i>	<ul style="list-style-type: none"> Utilize document control tools for team 24/7 team access. Hold issue-specific team meetings / workshops if necessary. 	<ul style="list-style-type: none"> Streamlined communications and accountability for project success. Established plan for maintaining stakeholder involvement.

CONCERN	CM APPROACH/STRATEGIES	BENEFITS TO SOCWA
Team Cohesiveness <i>Objective: Maintain a streamlined team that works well together during CM and inspection activities.</i>	<ul style="list-style-type: none"> ☐ Build from recent CM and inspection activities for other similar projects. ☐ Provide local team that is familiar with local issues. 	<ul style="list-style-type: none"> ☐ Proven integration of our combined Team's CM, Designer, and inspection expertise.
Safety	<ul style="list-style-type: none"> ☐ Pre-Construction Video. Drone technology will be utilized. ☐ Attend Contractor's weekly safety meeting. Communicate stakeholder needs. Follow and respect Contractor's safety program. ☐ Define "Alert Protocol" to address field issues that change construction activities. ☐ Stakeholder participation in weekly meetings. ☐ Area-specific site hazard analysis. ☐ Detailed traffic circulation. 	<ul style="list-style-type: none"> ☐ Illness and injury free construction site. ☐ Maintain a safe working environment in confined space. ☐ Provide for a hazard free environment. ☐ Provide a safe environment for SOCWA Operations staff.
Impacts/Compliance	<ul style="list-style-type: none"> ☐ Strictly enforce hours of work, noise levels, and clean work areas. ☐ Coordinate with stakeholders on area-specific compliance requirements. 	<ul style="list-style-type: none"> ☐ Minimize community/stakeholder complaints and possible complications from interruption of construction operations personnel.

3. PROJECT EXPERIENCE

CONSTRUCTION VALUE

\$17.6 million

PROJECT COMPLETION

August 2021

OWNER / REFERENCE(S)

South Orange County
Wastewater Authority

Jason Manning

(949) 234-5411

jmanning@socwa.com

Roni Young Grant

(949) 234-5400

ryoung@socwa.com

CONTRACTOR / DESIGNERS

Olsson Construction

Carollo Engineers

PROPOSED PERSONNEL

Louis Francuz, P.E.

Bill Baker, CWI, NACE

Bryan Wilson

Casey Harris

SOCWA J.B. Latham Package 'B' Improvements



Butier Engineering is providing construction management and inspection services for the J.B. Latham Treatment Plant Improvements project. The scope of work includes the following: rehabilitation of piping and valves at the Effluent Pump Station; process rehabilitation of Plant 2 Secondary Sedimentation Basins and the Digester 3 and Digester 4 heating systems; structural and process rehabilitation of the Plant 1 Secondary Sedimentation Basins, Primary Effluent Channel (Plant 1 portion), Plant 1 Primary Influent Channel and Sedimentation Basins, Plant 2 Primary Influent Channel Basins, and Dissolved Air Flotation Thickener Nos. 1 and 2; construction of a new Thickened Waste Activated Sludge Pump Station; cleaning and process rehabilitation of the Digester 1 and 2 mixing and heating systems; structural rehabilitation of the Digesters 1 and 2 Control Building roof and the Dewatering Building and Energy Recovery Building roof; replacement of the Digesters 3 and 4 Control Building roof stairs; construction of a new boiler inside of the Energy Recovery Building and removal of the existing boiler within the Digesters 1 and 2 Control Building; construction of a new monorail system inside of the equipment repair room; and demolition of the existing laboratory building.

CONSTRUCTION VALUE

\$9.4 million

PROJECT COMPLETION

June 2021

OWNER / REFERENCE(S)

South Orange County
Wastewater Authority

Jason Manning

(949) 234-5411

jmanning@socwa.com

Roni Young Grant

(949) 234-5400

ryoung@socwa.com

CONTRACTOR / DESIGNERS

PCL Construction

Hazen & Sawyer

PROPOSED PERSONNEL

Louis Francuz, P.E.

Bill Baker, CWI, NACE

Martin Bruneniks, CWI, NACE

Bryan Wilson

Casey Harris

SOCWA Coastal Treatment Plant Facility Improvements



Butier Engineering is providing construction management and inspection services for the Coastal Treatment Plant Facility Improvements project. The scope of work includes the following: reconstruction of the ferric chloride system and secondary sedimentation basin equipment; construction of a replacement drainage pump station; fall protection safety improvements; miscellaneous structural and architectural improvements; replacement of the Motor Control Center (MCC) E8M in the Operations Building and installation of new MCC-15M and MCC-E15M in the DAF Utility Building; DAF electrical room improvements; replacement of switchgear including installation of new switchgear and repurposing the existing chlorine building; standby general improvements; electrical distribution system upgrade; installation of temporary power during construction; and replacement of three grit knife gate valves and access platforms for the upper valves.

CONSTRUCTION VALUE
\$14.6 million

PROJECT COMPLETION
March 2017

OWNER / REFERENCE(S)
South Orange County
Wastewater Authority

Jason Manning
(949) 234-5411
jmanning@socwa.com

CONTRACTOR / DESIGNERS
Gateway Pacific Contractors

HDR, Carollo, and Lee & Ro

PROPOSED PERSONNEL
Mark Butier
Casey Harris
Martin Bruneniek, CWI, NACE

J.B. Latham Treatment Plant Facility Improvements Packages A and C; Dana Point, CA



Improvements to the JBLTP included the following: reconstruction of the aeration system; replacement of the aged Plant 2 switchgear, motor control centers and 480 volt power distribution system; replacement of the engine driven blower system with a cogeneration system; refurbishment of mechanical and structural elements of Plant 1 secondary sedimentation basins; and repair to structural deficiencies throughout the plant basins. The Butier team was responsible for the following: bidding assistance; progress meetings; document control; reviewing, logging and tracking RFIs and submittals; schedule review; coordinating consultant services; change order management; monitoring record drawings; managing project close-out, start-up, testing and final acceptance; stakeholder coordination; preparing progress reports and payments; and performing civil/mechanical, structural, and electrical inspection. Butier coordinated closely with SDG&E's representative during the installation of the new service entrance section (SES) and switchgear. When the installation was complete, Butier personnel inspected the work and assisted SOCWA staff with preparing a letter to SDG&E authorizing energization.

CONSTRUCTION VALUE
\$9 million

PROJECT COMPLETION
July 2017

OWNER / REFERENCE(S)
South Orange County
Wastewater Authority

Jason Manning
(949) 234-5411
jmanning@socwa.com

CONTRACTOR / DESIGNERS
Gateway Pacific Contractors

HDR, Carollo, and Lee & Ro

PROPOSED PERSONNEL
Mark Butier
Casey Harris
Martin Bruneniek, CWI, NACE

Regional Treatment Plant Cogeneration and Switchgear Upgrades Projects; Dana Point, CA



Upgrades to the RFP included the following: construction of a new masonry building to house the new switchgear; removal of one of the existing 400 kW engine generator units; removal of power and control wiring from the remaining two 400 kW engine generator sets; installation of a new 800 kW engine generator system, new boiler system, and new co-generation control system; replacement of plant switchgear; relocation of temporary hot water pipeline; and replacement of the coating systems within Digester No. 2. The original location for the electrical building was changed due to underground utility conflicts. Several modifications were necessary to accommodate the routing and installation of new electrical service from SCE. Butier's electrical engineer examined the electrical installation and assisted SOCWA staff with submitting a letter to SCE requesting energization.

The Butier team was responsible for the following: bidding assistance; progress meetings; document controls; reviewing, logging, and tracking RFIs and submittals; schedule review; providing civil/mechanical, structural and electrical inspection; coordinating special testing; change order management; monitoring record drawings; managing project close-out, start-up, testing and final acceptance; stakeholder coordination; monthly progress reports and payments; and performing digester coatings inspection.

CONSTRUCTION VALUE

\$2,945,000

PROJECT COMPLETION

July 2019

OWNER / REFERENCE

South Coast Water District
31592 West Street
Laguna Beach, CA 92651

Taryn Kjolsing

Principal Engineer

Tel: (949) 499-4555

tkjolsing@scwd.org

DESIGN ENGINEER

Atkins North America, Inc.

DESIGN ENGINEER

Steve Bubalo Construction Co.

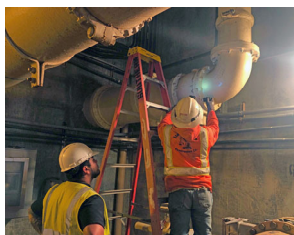
PROPOSED PERSONNEL

Mark Butier

Casey Harris

Bryan Wilson

Lift Station 2 Force Main Rehabilitation Project



Butier provided construction management and inspection services for the Lift Station No. 2 Force Main Project (LS-2 FM), which consisted of the rehabilitation of the existing 6,400 foot, 20-inch diameter, polyurethane lined, polyethylene wrapped, Class 250 ductile iron pipe. The LS-2 FM is located within a 20-foot easement running northerly and adjacent to Aliso Creek and traverses through portions of The Ranch at Laguna Beach, a luxury resort and 9-hole golf course.

The scope of work included the following: sliplining using a 16-inch diameter HDPE; excavating 13 access pits; installation and operation of a full-length bypass system; replacing sections of pipe; installation of air vacuum release valves and surge tank; removal and disposal of existing valves; landscape restoration; 545 (LF) of 10" force main; sewer manholes and appurtenances; and abandonment of Segerstrom Lift Station. The Butier team coordinated closely with SOCWA; City of Laguna Beach; The Ranch at Laguna Beach; City of Laguna Beach Fire Department; local, state, and federal agencies; and local businesses and residents.

4. PROJECT TEAM

The Butier Team's commitment to the Project is demonstrated through the establishment of a core team, with in-house support staff as may be required to augment office and field efforts. We will work as an extension of your project team just as our key personnel has demonstrated on the **CTP Facility Improvement, JBLTP Facility Improvements Package B, JBLTP Facility Improvements Packages A and C, and Regional Treatment Plant Cogeneration and Switchgear Upgrades Projects**. Please find our Project Team Organizational Chart and key personnel resumes located at the end of this section.

Mark M. Butier, Jr. — Project Director

Mr. Butier will serve as the Project Director responsible for ensuring that all necessary resources are available to meet the requirements of the project and expectations of SOCWA. He has acted in this capacity for the **Coastal Treatment Plant Facility Improvement, JBLTP Facility Improvements Package B, JBLTP Facility Improvements Packages A and C, and Regional Treatment Plant Cogeneration and Switchgear Upgrades Projects**. He will meet with the Authority's representatives at key project milestones, as appropriate. Mr. Butier has over 30 years of project management, CM, and claims mitigation experience on major membrane filtration plant, reservoir, pump station, and pipeline projects.

Louis "Lou" Francuz, P.E. — Resident Engineer

Mr. Francuz will be responsible for the overall execution of Butier's scope, including project coordination, pre-construction, mobilization, and operation and maintenance manual services. He is currently the RE for the **Coastal Treatment Plant Facility Improvement and JBLTP Facility Improvements Package B Projects**. Lou has over 30 years of wide-ranging experience as a construction manager, resident engineer, contract manager, estimator, and superintendent. As the manager of construction projects and as the on-site owner's representative for a major water agency, Lou has successfully managed the construction of large multi-million-dollar construction projects. He was also a project superintendent and lead estimator for a large engineering contractor.

Gary Schulz, CWI — Field Inspector

Mr. Gary Schulz provides on-site quality assurance and quality control services for public works construction activities, field welding, shop fabrication, and civil site improvements projects. He acted as **QA Inspector for the City of Vista's award-winning Vista Village Drive Trunk Sewer Improvement Project**. Gary will be responsible for coordinating all as-needed field inspection and specialty inspection services for the CTP Sludge Force Main Replacement Project. In addition, he will provide daily progress reports to SOCWA's Project Manager on a weekly basis and attend project progress meetings, as necessary.

Martin Bruneniks, NACE, CWI — Field Inspector

Mr. Bruneniks has over 35 years of experience performing general construction and specialty inspection services in a multitude of construction settings, including water / wastewater treatment facilities, pipelines, airports, refineries, commercial/retail and residential structures, refineries, offshore platforms, and public facilities. He is ICC-certified (structural steel and welding, spray-applied fireproofing, and concrete) and is also a NACE-Certified Coating Inspector. Martin is currently the Field Inspector for the **Coastal Treatment Plant Facility Improvements Project** and served as the Field Inspector for the **JBLTP Facility Improvements Packages A and C and Regional Treatment Plant Cogeneration and Switchgear Upgrades Projects**.

Casey Harris — Senior Scheduler

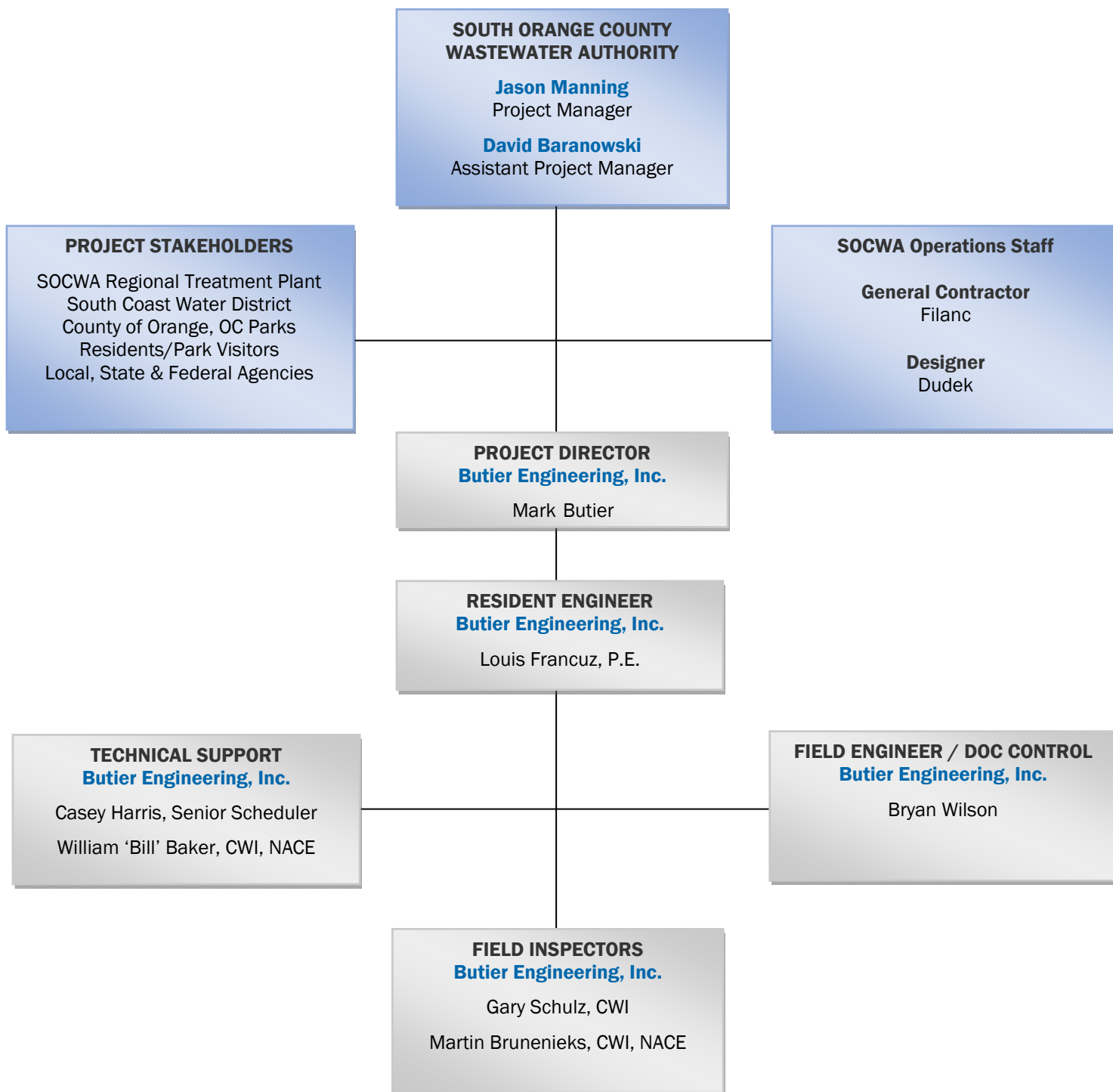
Mr. Harris has 40 years of varied experience as a project manager, construction manager, resident engineer, and senior scheduler. He has successfully managed the construction of multi-million-dollar water and wastewater treatment, pipeline, airport, solid waste landfill, and port facilities. Collectively, this project experience represents over \$700 million in construction costs. He has provided schedule review services for SOCWA's **Coastal Treatment Plant Facility Improvement, JBLTP Facility Improvements Package B, JBLTP Facility Improvements Packages A and C, and Regional Treatment Plant Cogeneration and Switchgear Upgrades Projects**.

William Baker, NACE, CWI — Technical Support

Mr. Baker's wide range of experience includes QA/QC and construction inspection for water/wastewater treatment facilities, reservoirs, and pipelines. He is ICC-certified (concrete, masonry, structural steel, welding, spray-applied fireproofing) and a NACE-Certified Coating Inspector (Levels 1, 2, and 3). Bill is currently providing civil/mechanical inspection services for the **Coastal Treatment Plant Facility Improvement and JBLTP Facility Improvements Package B Projects**. He was also a QA Inspector for Poseidon Water's 50 MGD Seawater RO Desalination Plant and a Field Inspector for San Bernardino Valley Water District's SARER Phase 1A Sedimentation Basin Project.

Bryan Wilson — Field Engineer/Document Support

Mr. Wilson has over 20 years of field engineering, estimating, cost review, inspection, and engineering management experience. He brings his extensive knowledge of web-based document control systems to the Butier Team. As a Field Engineer, Bryan is responsible for the flow and storage of all project documentation between key stakeholders. He provides the processes, procedures, and training to effectively assist project teams with organizing and managing documentation. Bryan is currently providing services for the **Coastal Treatment Plant Facility Improvement and JBLTP Facility Improvements Package B Projects**.



EDUCATION

MBA, Finance, University of California, Irvine, Graduate School of Management, 1998

Graduate Studies, Civil Engineering, California State University at Long Beach

B.A., Economics, University of Southern California, 1987

B.A., Social Sciences, University of Southern California, 1987

LICENSES / CERTIFICATIONS

General Engineering Contractor, State of California, Class A 716863

Registered Construction Inspector, ACIA: Division I Engineering 5572

Professional Summary

Mr. Butier serves as President and Chief Financial Officer for Butier Engineering. His primary duties include functioning as the primary point of contact between Butier and its clients; contract management; sub-consultant contract management; maintenance of Butier's project information system; development of the firm's field procedural manuals; and staff resource management. Mr. Butier works closely with the field construction management staff to ensure all contract scope requirements are being fully implemented. Mr. Butier also serves as the firm's contact between the field construction management staff/client and the project public outreach effort, when necessary. He has been responsible for generating, distributing, and presenting to numerous public boards and community associations dealing with the impact of construction activity on the local community.

Project Experience

Project Director, Coastal Treatment Plant Facility Improvements; Laguna Niguel, CA; South Orange County Wastewater Authority (Completion: 06/01/21; Value: \$9.4 million)—Butier is providing construction management and inspection services for the Coastal Treatment Plant Facility Improvements. The scope of work includes the following: reconstruction of the ferric chloride system and secondary sedimentation basin equipment; construction of a replacement drainage pump station; fall protection safety improvements; miscellaneous structural and architectural improvements; replacement of the Motor Control Center (MCC) E8M in the Operations Building and installation of new MCC-15M and MCC-E15M in the DAF Utility Building; DAF electrical room improvements; replacement of switchgear including installation of new switchgear and repurposing the existing chlorine building; standby general improvements; electrical distribution system upgrade; installation of temporary power during construction; and replacement of three grit knife gate valves and access platforms for the upper valves.

Project Director, J.B. Latham Treatment Plant Package 'B' Improvements; Dana Point, CA; South Orange County Wastewater Authority (Duration: 07/2019 — 08/2021; Value: \$17.6 million)—Butier is currently providing construction management and inspection services for the J.B. Latham Treatment Plant Package 'B' Improvements project. The scope of work includes the following: rehabilitation of piping and valves at the Effluent Pump Station; process rehabilitation of Plant 2 Secondary Sedimentation Basins and the Digester 3 and Digester 4 heating systems; structural and process rehabilitation of the Plant 1 Secondary Sedimentation Basins, Primary Effluent Channel (Plant 1 portion), Plant 1 Primary Influent Channel and Sedimentation Basins, Plant 2 Primary Influent Channel Basins, and Dissolved Air Flotation Thickener Nos. 1 and 2; construction of a new Thickened Waste Activated Sludge Pump Station; cleaning and process rehabilitation of the Digester 1 and 2 mixing and heating systems; structural rehabilitation of the Digesters 1 and 2 Control Building roof and the Dewatering Building and Energy Recovery Building roof; replacement of the Digesters 3 and 4 Control Building roof stairs; construction of a new boiler inside of the Energy Recovery Building and removal of the existing boiler within the Digesters 1 and 2 Control Building; construction of a new monorail system inside of the equipment repair room; and demolition of the existing laboratory building.

Project Director, J.B. Latham Treatment Plant Facility Improvements Packages A and C; Dana Point, CA; South Orange County Wastewater Authority (Completion: March 2017; Value: \$14 million)—Butier provided construction management and inspection services for the reconstruction of the aeration system; replacement of the aged switchgear, motor control center, and power distribution system; replacement of the

engine driven blower system; refurbishment of mechanical and structural elements of the Plant 1 secondary sedimentation basins; and repair to the structural deficiencies throughout the plant basins.

Project Director, Regional Treatment Plant Cogeneration and Switchgear Upgrades Project; Laguna Niguel, CA; South Orange County Wastewater Authority (Completion: July 2017; Value: \$9 million)—Butier provided construction management and inspection services for the upgrade to the cogeneration and switchgear systems for the RTP. The scope of work included the following: construction of a new masonry building to the west of the Energy Building to house the new switchgear; removal of one of the existing 400 kW engine generator units; removal of power and control wiring from the remaining two 400 kW engine generator sets; installation of a new 800 kW engine generator system, new boiler system, and new co-generation control system; replacement of plant switchgear; relocation of temporary hot water pipeline; and replacement of the coating systems within Digester No. 2.

Project Director, Lift Station 2 Force Main (LS-2 FM) Rehabilitation Project; Laguna Beach, CA; South Coast Water District (Completion: 07/2019; Value: \$2,945,000)—Butier Engineering, Inc. provided construction management and inspection services for the Lift Station 2 Force Main (LS-2 FM) Rehabilitation Project. The LS-2 FM Project consisted of the rehabilitation of the existing 6,400 foot, 20-inch diameter, polyurethane lined, polyethylene wrapped, Class 250 ductile iron pipe. It is located at 31104 Coast Highway in the City of Laguna Beach and ends at a point of connection inside the SOCWA Coastal Treatment Plant (CTP). The scope of work included the following: sliplining using a 16-inch diameter HDPE; excavating 13 access pits; installation and operation of a full-length bypass system; replacing sections of pipe; installation of air vacuum release valves and surge tank; removal and disposal of existing valves; landscape restoration; 545 (LF) of 10" force main; sewer manholes and appurtenances; and abandonment of Segerstrom Lift Station. The Butier team coordinated closely with SOCWA; City of Laguna Beach; The Ranch at Laguna Beach; City of Laguna Beach Fire Department; local, state, and federal agencies; and local businesses and residents.

Project Director, Groundwater Replenishment System Final Expansion Project; Fountain Valley, CA; Orange County Water District (Duration: 2019 —2023; Value: \$188,181,000)—The GWRSFE is a water supply project designed to provide an additional 31,000 AFY of advanced treated wastewater (recycled water) to the groundwater basin in north and central Orange County. The GWRSFE scope of work includes upgrading the existing 100 MGD Advanced Water Purification Facility (AWPF) by adding 30 MGD of additional capacity; constructing Plant No. 2 Secondary Effluent Conveyance Facilities; and rehabilitating an existing pipeline between Plant No. 2 and Plant No. 1 to bring secondary effluent to the GWRS.

Project Director, Tesoro Water Facilities Zone II DW and Zone B RW Transmission Mains and Coto de Caza Trunk Sewer Relocation; Santa Margarita Water District (Completion: September 2016; Value: \$4,846,098)—Butier provided construction management and inspection services for the transmission mains and trunk sewer relocation project. The project is located approximately 0.75 miles north of the Chiquita Water Reclamation Plant (CWRP) next to the community of Coto de Caza and the Thomas F. Riley Regional Park. Major pipeline project elements include the following: relocation of 721 LF of PVC sewer pipeline; temporary sewer bypass system; coordination with District Operations and other contractors; 7,716 LF of 24-inch CML&C WSP DW pipeline; 7,746 LF of 20-inch CML&C WSP RW pipeline; steel casings for pipelines at Los Patrones Crossing; and access road paving and road safety features.

EDUCATION

Juris Doctor, California
Southern Law School,
Riverside, CA, 2002

Civil Engineering, Loyola
Marymount University, Los
Angeles, CA

Welding and Metallurgy,
Riverside Community College,
Riverside, CA

LICENSE/CERTIFICATION

Registered Professional
Engineer (Civil), State of
California, No. 48271,
Issued: 12/20/91
Expires: 06/30/2022

Professional Summary

Mr. Francuz has over 30 years of wide-ranging experience as a construction manager, resident engineer, contract manager, estimator, and superintendent. As the manager of construction projects and as the on-site owner's representative for a major water agency, Mr. Francuz successfully managed the construction of large multi-million-dollar construction projects. He was also a project superintendent and lead estimator for a large engineering contractor.

Lou's expertise for the projects listed below include, but are not limited to, management, supervision, and administration of multiple concurrent construction projects. Supervision of engineering, inspection, surveying, and consultant personnel in the construction and start-up of enhanced water treatment processes (ozone, fluoride, chemicals), treatment plant power system and solar upgrades, security systems, large and small diameter pipelines, service connections, valve structures, tunnels, canals, highways, and bridges.

In addition, Lou's contractor experience includes supervision of contractor's construction and estimating staffs, heavy civil work, blasting, structures, demolition, process piping and equipment, tunneling, and rigging. His projects include water and sewage treatment plants, pipelines, tunnels, reservoirs, dams, highway and railroad work, bridges, food processing plants, oil production and refining facilities, boilers and steam plants, food, cement, and sludge storage silos, hydroelectric plants, and architectural precast concrete. Lou has extensive experience planning and sequencing shutdown work to successfully complete on time, if not early.

Mr. Francuz has extensive experience in contract management from project inception to final completion. His experience includes estimating preliminary construction costs and schedules for bids, design constructability and value engineering reviews, review of contractors' submittals and RFIs, review and negotiation of extra work, claims, and credits, preparing construction reports and payments, coordination with third parties and other agencies, and project turnover after completion.

Project Experience / Work History

Resident Engineer, Coastal Treatment Plant Facility Improvements; Laguna Niguel, CA; South Orange County Wastewater Authority (Completion: 06/2021; Value: \$9.4 million)—Lou is currently performing as the RE for the CTP Facility Improvements project. The scope of work includes the following: reconstruction of the ferric chloride system and secondary sedimentation basin equipment; construction of a replacement drainage pump station; fall protection safety improvements; miscellaneous structural and architectural improvements; replacement of the Motor Control Center (MCC) E8M in the Operations Building and installation of new MCC-15M and MCC-E15M in the DAF Utility Building; DAF electrical room improvements; replacement of switchgear including installation of new switchgear and repurposing the existing chlorine building; standby general improvements; electrical distribution system upgrade; installation of temporary power during construction; and replacement of three grit knife gate valves and access platforms for the upper valves.

Resident Engineer, J.B. Latham Treatment Plant Package 'B' Improvements; Dana Point, CA; South Orange County Wastewater Authority (Duration: 07/2019 – 08/2021; Value: \$17.6 million)—Lou is currently performing as the RE for the J.B. Latham Treatment Plant Package 'B' Improvements project. The scope of work includes the following: rehabilitation of piping and valves at the Effluent Pump Station; process rehabilitation of Plant 2 Secondary Sedimentation Basins and the Digester 3 and Digester 4 heating systems; structural and process rehabilitation of the Plant 1 Secondary Sedimentation Basins, Primary Effluent Channel (Plant 1 portion), Plant 1 Primary Influent Channel and Sedimentation Basins, Plant 2 Primary Influent Channel Basins, and

Dissolved Air Flotation Thickener Nos. 1 and 2; construction of a new Thickened Waste Activated Sludge Pump Station; cleaning and process rehabilitation of the Digester 1 and 2 mixing and heating systems; structural rehabilitation of the Digesters 1 and 2 Control Building roof and the Dewatering Building and Energy Recovery Building roof; replacement of the Digesters 3 and 4 Control Building roof stairs; construction of a new boiler inside of the Energy Recovery Building and removal of the existing boiler within the Digesters 1 and 2 Control Building; construction of a new monorail system inside of the equipment repair room; and demolition of the existing laboratory building.

Resident Engineer (Process), Groundwater Replenishment System Final Expansion Project; Fountain Valley, CA; Orange County Water District (Duration: 2019 –2023; Value: \$188,181,000)—The GWRSFE is a water supply project designed to provide an additional 31,000 AFY of advanced treated wastewater (recycled water) to the groundwater basin in north and central Orange County. The GWRSFE scope of work includes upgrading the existing 100 MGD Advanced Water Purification Facility (AWPF) by adding 30 MGD of additional capacity; constructing Plant No. 2 Secondary Effluent Conveyance Facilities; and rehabilitating an existing pipeline between Plant No. 2 and Plant No. 1 to bring secondary effluent to the GWRS.

Prior Work History

Metropolitan Water District of Southern California (10/1990 to 07/2017)

Construction Team Manager—Multiple MWD Construction Contracts

Mr. Francuz managed multiple construction contracts throughout the MWD system including the Weymouth Ozone retrofit (he also served as resident engineer), Weymouth Gates Refurbishment (required a full plant shutdown and extensive electrical upgrades), Weymouth Solar Upgrades (design-build), Jensen Power system upgrades, and Jensen Solar Upgrade (design-build). Supervised resident engineers, assigned inspectors between projects, and provided support to the projects, as required. The value of these projects was \$200 million. Mr. Francuz promoted the development of his staff and interns by encouraging professional registration and certifications.

Resident Engineer—Weymouth Ozone Retrofit Project

Mr. Francuz managed and supervised the construction of a \$120 million project to construct an ozone oxidation system at the Weymouth Treatment Plant. The project featured an extensive life/safety system that integrated the ozone, HVAC, fire detection/suppression, and control systems, a shutdown (completed early) of MWD's Upper Feeder System to tie in the 144-inch ozone contactor feeders, and extensive architectural features. Mr. Francuz successfully negotiated an \$18.125 million change order to add enhancements to the reliability of the ozone system and a sulfuric acid tank farm and injection system.

Resident Engineer, Weymouth Junction Structure Seismic Upgrades

Mr. Francuz completed the shutdown work and completion of a \$10 million seismic retrofit of the junction structure between MWD's Upper Feeder system and the State Water Project. This shutdown project (finished early) required expedited reinforced concrete work and the removal and replacement of 108-inch and 120-inch valves and appurtenant piping.

Resident Engineer, Weymouth Power System Upgrades

Mr. Francuz supervised a \$30 million contract to replace the 70-year-old power system at the Weymouth Treatment Plant. This project featured the planning and sequencing of dozens of power outages to tie in the new electrical system while maintaining the water treatment plant in continuous operation. The new Weymouth power system upgrades also

included two 2.125-Megawatt diesel standby generators. Mr. Francuz was also the MWD field representative to coordinate with SCE and 10 contractors for the construction of a new \$30 million SCE 65Kv Feeder and substation at the Weymouth Plant, which required maintaining the plant on standby generators for the off-season power shutdown tie-in with SCE (finished early).

Resident Engineer, Mills Ozone Contactors 3 & 4

Mr. Francuz supervised a \$15 million contract to complete the ozone system at the Mills Treatment Plant. The project included extensive electrical power modifications to upgrade reliability of the existing ozone system. The tie-in shutdown required the shutdown of the State Water Project's Santa Ana Pipeline and was completed early.

Resident Engineer, Weymouth Fluoride Upgrade

Mr. Francuz supervised a \$10 million time-sensitive project to comply with the terms of an American Dental Association grant. The fluoride system consisted of Hastelloy-C piping and equipment and featured critical safety requirements for the operation of a fluorosilicic acid system.

Contract Administrator, Engineering

Mr. Francuz provided contract administration support for MWD construction contracts. In addition to the usual duties of processing contract payments, change orders, and credits, Mr. Francuz negotiated directly with contractors to settle claims and contract disputes to facilitate the completion of challenged contracts. Mr. Francuz also served on the MWD Engineering specification review board to make practical changes to the standard specifications. He was regularly tasked with short notice tasks such as preparing the expedited Engineer's Estimate for the Allen-McColloch pipeline repair which he completed in under three days.

Resident Engineer, East Newport Road (Domenigoni Parkway) Relocation

Due to his extensive background in heavy civil engineering projects, Mr. Francuz was assigned the construction of this time-sensitive road relocation project, which was required to be completed before major construction of MWD's Diamond Valley Reservoir could begin. The project featured four bridges, eight miles of four-lane roadway with traffic signals, and flood control channel work. The projects was built for both Riverside County Transportation and Riverside County Flood Control using DOT specifications.

**LICENSES /
CERTIFICATIONS**

American Welding Society,
Certified Welding Inspector
(CWI), No. 17063491

American Public Works
Association (APWA)
Certified Public
Infrastructure Inspector
(CPII), In Training

Professional Summary

Mr. Gary Schulz provides on-site quality assurance and quality control services for public works construction activities, field welding, shop fabrication, and civil site improvements projects. Mr. Schulz has been a certified welder for the past 35 years on an extensive number of large diameter pipeline projects in Southern California. His role has primarily been as a certified welder; however, he has performed in a supervisory role for quality control and as a general foreman of welding crews. Mr. Schulz is currently in training to become a certified public works infrastructure inspector to increase his extensive knowledge base in public works construction.

Project Experience

QA Inspector, Vista Village Drive Trunk Sewer Improvement (CIP 8212); Vista, CA; City of Vista (Completion: 10/01/20; Value: \$15,076,015)—Butier Engineering, Inc. provided construction management and QA inspection services for the construction of a new trunk sewer on West Vista Way between Vista Village Drive and Brass Lane. Most of the pipe construction occurred in West Vista Way requiring deep excavation in the traveled lanes. Construction consisted of the following: 3,500 linear feet of 24-inch diameter polyvinyl chloride (PVC) pipe; microtunneling a steel casing and carrier pipe under SR-78 in order to connect the new pipeline to an existing pipeline; 14 new 5-ft diameter manholes; four 4-ft diameter manholes; one 8-ft diameter manhole; 270 linear feet of 8-inch sewer; and modification of two manholes near Vista Village Drive. Certain portions of the project are being constructed during the night hours from 8:30 PM to 5:30 AM.

Welding QC Supervisor, Pipeline 4 Relining at Lake Murray; La Mesa, CA; Poseidon Resources Corporation (Completion: Summer 2017; Value: \$6.7 million)—Mr. Schulz was the welding quality control supervisor for the field welding performed by Dean's Welding. The project consisted of the installation of welded steel liners in a 5,750-foot portion of Pipeline 4. The relining was performed underground, within the existing pipeline, with worker and equipment access to the interior of the pipeline established by excavating three access portals spaced out along the pipeline alignment. All work was confined to Water Authority ROW and City of San Diego lands. Other above-ground activities included worker and equipment access at existing vaults, air vents, and blow-off valve stations along the project alignment, as well as equipment storage and worker activity at a specified staging yard east of the reservoir. The project also included work to decommission the Water Authority's existing Alvarado Hydroelectric Facility, located at the Alvarado Water Treatment Plant. Decommissioning entailed disconnection and removal of features within the existing building and vaults.

Certified Welder, Carlsbad 50 MGD Seawater RO Desalination Plant and 10-Mile Conveyance Pipeline; Carlsbad, CA; Poseidon Resources Corporation (Completion: Fall 2015; Value: \$537 million Plant and \$159 million Pipeline)—Mr. Schulz was a certified welder for Dean's Welding that completed all field welding for the Carlsbad Seawater Desalination Pipeline Project. In addition to the 50 MGD seawater desalination plant, the scope included the construction of a 2.5-million-gallon product water storage tank; product pump station; and conveyance pipeline to deliver the drinking water produced by the Project to water utilities and municipalities in San Diego County. The 10-mile, 54-inch diameter pipeline was constructed under Interstate 5 Highway and a railroad using a jack and bore tunnel method. Close coordination was required with the City of Carlsbad, SDCWA, SDG&E, Poseidon and the Coastal Commission during the construction of the tunnel option across Macario Canyon. The pipeline alignment included over 6,000 feet of tunnels performed by four different tunneling subcontractors. One of the tunnels was over 1,700 linear feet, 30 feet below sea level, and required a vertical shaft over 80 feet in height.

EDUCATION/TRAINING

College of Ocean Ring,
Commercial Underwater
Welding Inspector and NDT
Level II Technician, 1989

Fullerton College,
Architectural Drafting and
Blueprint Reading, 1988

ACI Seminars

Western Medical Gas on
Medical Gas Systems

ACIA / DSA Public School
House Construction

ACIA / OSHPD Inspectors
Training Course

Steel Structures Technology
Center, Inc., on Seismic
Applications, FEMA 350, 353

Gary Larson Concrete Course

LICENSES / CERTIFICATIONS

AWS Certified Welding
Inspector, #95100091
Exp. 10/2022

NACE Coating Inspector
Level 1 – Certified #57311
Exp. 01/31/2021

ICC Structural Steel and
Bolting Special Inspector
License #1025148-85
Exp. 12/10/2022

ICC Structural Welding
Special Inspector
License #1025148-85
Exp. 12/10/2022

ICC Spray Applied Fireproofing
Special Inspector
License #1025148-86
Exp. 12/10/2022

ICC Concrete &
Reinforcement Inspector
Certification #1025148

ACI Concrete Field Testing
Technician – Grade I
Technician, No. 00029533

ASNT Visual Inspector
Certification #233837

Professional Summary

Mr. Martin Bruneniks has over 35 years of experience performing general construction and specialty inspection services in a multitude of construction settings, including water/wastewater treatment facilities, pipelines, airports, commercial/retail and residential structures, refineries, offshore platforms, medical centers, schools, and universities. He is ICC-certified in several areas, including structural steel and welding, spray-applied fireproofing, and concrete. Experience includes both new and retrofit construction.

Martin's inspection experience includes the following: Construction phases, including new and retrofit construction on multiple-story structural steel buildings; earthquake retrofits; DSA related projects; OSHPD related projects; multiple-story tilt-top office buildings; refinery construction phases; shut down retrofits; tracking and monitoring wear; and verified hydrotesting of pipelines, pressure vessels, exchangers, and tanks.

Project Experience

Field Inspector, Coastal Treatment Plant Facility Improvements; Laguna Niguel, CA; South Orange County Wastewater Authority (Completion: 06/01/21; Value: \$9.4 million)—Martin is providing field inspection services for the Coastal Treatment Plant Facility Improvements. The scope of work includes the following: reconstruction of the ferric chloride system and secondary sedimentation basin equipment; construction of a replacement drainage pump station; fall protection safety improvements; miscellaneous structural and architectural improvements; replacement of the Motor Control Center (MCC) E8M in the Operations Building and installation of new MCC-15M and MCC-E15M in the DAF Utility Building; DAF electrical room improvements; replacement of switchgear including installation of new switchgear and repurposing the existing chlorine building; standby general improvements; electrical distribution system upgrade; installation of temporary power during construction; and replacement of three grit knife gate valves and access platforms for the upper valves.

Field Inspector, Mid-Basin Injection: Centennial Park Project; Santa Ana, CA; Orange County Water District (Completion: 03/2020; Value: \$29.5 million)—The Mid-Basin Injection project consisted of the construction of the following: four groundwater injection wells in below grade vaults; two (2) monitoring wells; a purified recycled water injection supply pipeline approximately 5,700 feet long that connects to the District's existing Groundwater Replenishment System (GWRS) pipeline and crosses the Santa Ana River; a backflush discharge pipeline approximately 4,200 feet long that discharges to the Greenville-Banning Channel and Centennial Park Lake; installation of submersible pumps within the four injection wells; replacement of approximately 9.6 acres of paving within the Park; demolishing an existing City of Santa Ana restroom facility; and constructing two new buildings with shared City and District uses. Butier coordinated with the City of Santa Ana, Santa Ana Unified School District, Heritage Museum, and government agencies.

Civil/Mechanical Inspector, J.B. Latham Treatment Plant Facility Improvements Packages A and C; Dana Point, CA; South Orange County Wastewater Authority (Completion: March 2017; Value: \$14 million)—Martin provided civil/mechanical field inspection services for the reconstruction of the aeration system; replacement of the aged switchgear, motor control center, and power distribution system; replacement of the engine driven blower system; refurbishment of mechanical and structural elements of the Plant 1 secondary sedimentation basins; and repair to the structural deficiencies throughout the plant basins.

Civil/Mechanical Inspector, Regional Treatment Plant Cogeneration and Switchgear Upgrades Project; Laguna Niguel, CA; South Orange County Wastewater Authority (Completion: July 2017; Value: \$9 million)—Martin provided civil/mechanical field

inspection services for the upgrade to the cogeneration and switchgear systems for the RTP. The scope of work included the following: construction of a new masonry building to the west of the Energy Building to house the new switchgear; removal of one of the existing 400 kW engine generator units; removal of power and control wiring from the remaining two 400 kW engine generator sets; installation of a new 800 kW engine generator system, new boiler system, and new co-generation control system; replacement of plant switchgear; relocation of temporary hot water pipeline; and replacement of the coating systems within Digester No. 2.

Civil/Mechanical Inspector, 930 Zone Recycled Water Pipeline; Chino and Chino Hills, CA; Inland Empire Utilities Agency (Completion: 2014; Value: \$12.5 million)—Martin provided field inspection services for the construction of 12,536 linear feet of 30-inch recycled water pipeline via open cut and trenchless methods and a new above-grade pressure reducing station. The project connects the existing 30-inch pipeline in Eucalyptus Avenue west of Peyton Drive with the existing 20-inch pipeline in Chino Hills Parkway just west of Monte Vista. Work includes excavation in City of Chino and Chino Hills streets, City of Chino Hills property, Caltrans right-of-way, SBCFCD right-of-way, and Army Corps of Engineers right-of-way; pipe bedding preparation; pipe installation; pipe appurtenance and lateral installation; backfill; saw-cutting of pavement; pavement removal, disposal, and replacement including grinding, base course, and surface course installation; sidewalk, curb and gutter replacement; traffic control; installation of corrosion test stations; irrigation and landscaping at Inland Hills Church; and removal and installation of new fencing along flood control channels. Work also includes street rehabilitation of the north half of Eucalyptus Avenue from Bluebell Drive to Pipeline Avenue.

Chief Inspector, Expansion of Talbert Seawater Intrusion Barrier Pipeline Replacement; Fountain Valley, CA; Orange County Water District (Completion: 2007; Value: \$2 million)—This pipeline replacement project increased the capacity of the Talbert Seawater Intrusion Barrier Pipeline in preparation for increased OCWD GWR System flows. The project included removal of approximately 1,700 lineal feet of 24-inch diameter pipeline in Ellis Avenue in Fountain Valley and replacing it with a new 30-inch diameter pipeline. Mr. Bruneniek's scope of work included document control; tracking and documenting submittal procedures, correspondence, RFIs, and change orders; reviewing construction documents and cost estimates; developing a QA/QC Plan; scheduling weekly meetings; community relations; supervising and coordinating field inspection and testing; contractor claims review; construction progress reports; reviewing/monitoring CPM schedule; compiling and submitting operation and maintenance manuals; and start-up, close-out, and acceptance services.

Chief Inspector, GWR System Unit 1 Pipeline; Fountain Valley to Santa Ana, CA Orange County Water District (Completion: 2007; Value: \$28 million)—Performed as Chief Inspector for 5.5 miles of 78-inch and 54-inch CML&C pipeline for this project. This project involved installation of approximately 31,000 LF of 78-inch, 72-inch, and 66-inch diameter cement mortar lined and coated (CML&C) steel pipe with each joint field-welded. The project also included installation of approximately 900 feet of 54-inch parallel Santa Ana River Discharge pipeline from the Advanced Water Treatment Facility to the Santa Ana River. This unit extends from the AWTF/OCSD Plant No. 1 site to just north of 17th Street in Santa Ana and includes tunnels at each street and freeway under crossing.

Inspector, Bradley Park Relocation of Pipelines 3 and 4; San Diego, CA; San Diego County Water Authority (Completion: 2004; Value: \$7.2 million)—Pipelines 3 and 4 pass through Bradley Park, which is an inactive municipal landfill of the County of San Diego that has been transformed into a park. The relocated pipelines connect to the existing pipelines north of Linda Vista Drive in the Authority's right-of-way. The project

included the construction of approximately 1,650 LF of 72-inch and 1,550 LF of 96-inch finished inside diameter cement mortar lined and dielectrically coated welded steel pipe (WSP); connections to existing WSP, pipeline Cathodic protection system; miscellaneous pipeline appurtenances including air-release/air vacuum valves and blowoffs; sidewalk; paving restoration; re-vegetation; and traffic control. Work also included the removal of approximately 230 LF of 72-inch and 96-inch diameter welded steel pipe. In addition, approximately 1,120 LF of Pipeline 3 and 970 LF of Pipeline 4 was abandoned in place.

Inspector, Tri-Agencies Pipeline Turnout Replacement; San Diego, CA; San Diego County Water Authority (Completion: 2004)—This project entailed the construction of a 10-foot, 8-inch x 14-foot, 7-inch reinforced concrete vault; approximately 100 feet of 36-inch welded steel pipe; installation of a new 36-inch turnout ball valve; and the replacement of an existing 30-inch turnout valve. The work also included connection to Pipeline 3 (72-inch pipeline), Pipeline 4 (96-inch pipeline), and the Tri-Agencies Pipeline (36-inch connection). In addition, the project included installation of a cathodic protection system and approximately 120 feet of electrical conduit from the new Tri-Agencies Pipeline 4 turnout vault to the Vallecitos 9 Flow Control Facility.

EDUCATION

B.S., Construction
Engineering, Arizona State
University, 1977

Graduate Studies, Arizona
State University

Professional Summary

Mr. Harris has 40 years of varied experience as a project manager, construction manager, resident engineer, and senior scheduler. As the on-site/owner representative for major municipal, public agency, and special district capital improvement projects, Mr. Harris has successfully managed the construction of multi-million-dollar water and wastewater treatment, pipeline, airport, solid waste landfill, and port facilities. Collectively, this project experience represents over \$700 million in construction costs.

Mr. Harris' expertise is in contract administration for design/build, design/bid/build, and construction management programs. He is an expert CPM scheduler, has established and implemented effective change order control systems, negotiated change orders with design/build contractors, performed routine shop drawing reviews, and resolved contractor claims.

Mr. Harris' responsibilities for the projects listed below include, but are not limited to, the following: CPM scheduling; supervising and managing the construction project field office; supervising personnel, including assistant RE, field engineer, inspectors, estimators and schedulers, engineering technicians, and administrative assistants; full contract administration; leading preconstruction and weekly construction meetings; responding to contractor correspondence, requests for information (RFIs), and submittals; shop drawing reviews; preparing and reviewing cost estimates; negotiating settlements for changes and claims; recommending extra work and claims settlements to Owners; negotiating and recommending monthly progress payments; preparing monthly progress reports; maintaining a daily diary of events; reviewing and approving materials, equipment, and testing procedures; coordinating with Owner operations personnel, PM staff, and stakeholders; and project start-up, acceptance, and close-out.

Project Experience

Senior Scheduler, Coastal Treatment Plant Facility Improvements; Laguna Niguel, CA; South Orange County Wastewater Authority (Completion: 06/2021; Value: \$9.4 million)—Casey is currently performing schedule reviewing services for the CTP Facility Improvements project. The scope of work includes the following: reconstruction of the ferric chloride system and secondary sedimentation basin equipment; construction of a replacement drainage pump station; fall protection safety improvements; miscellaneous structural and architectural improvements; replacement of the Motor Control Center (MCC) E8M in the Operations Building and installation of new MCC-15M and MCC-E15M in the DAF Utility Building; DAF electrical room improvements; replacement of switchgear including installation of new switchgear and repurposing the existing chlorine building; standby general improvements; electrical distribution system upgrade; installation of temporary power during construction; and replacement of three grit knife gate valves and access platforms for the upper valves.

Senior Scheduler, J.B. Latham Treatment Plant Package 'B' Improvements; Dana Point, CA; South Orange County Wastewater Authority (Duration: 07/2019 – 08/2021; Value: \$17.6 million)—Casey is currently performing schedule reviewing services for the J.B. Latham Treatment Plant Package 'B' Improvements project. The scope of work includes the following: rehabilitation of piping and valves at the Effluent Pump Station; process rehabilitation of Plant 2 Secondary Sedimentation Basins and the Digester 3 and Digester 4 heating systems; structural and process rehabilitation of the Plant 1 Secondary Sedimentation Basins, Primary Effluent Channel (Plant 1 portion), Plant 1 Primary Influent Channel and Sedimentation Basins, Plant 2 Primary Influent Channel Basins, and Dissolved Air Flotation Thickener Nos. 1 and 2; construction of a new Thickened Waste Activated Sludge Pump Station; cleaning and process rehabilitation of the Digester 1 and 2 mixing and heating systems; structural rehabilitation of the Digesters 1 and 2 Control Building roof and the Dewatering Building and Energy Recovery

Building roof; replacement of the Digesters 3 and 4 Control Building roof stairs; construction of a new boiler inside of the Energy Recovery Building and removal of the existing boiler within the Digesters 1 and 2 Control Building; construction of a new monorail system inside of the equipment repair room; and demolition of the existing laboratory building.

Project Manager/Senior Scheduler, J.B. Latham Treatment Plant Facility Improvements Packages A and C; Dana Point, CA; South Orange County Wastewater Authority (Completion: 2017; Value: \$14 million)—Casey provided project management and scheduling services for the reconstruction of the aeration system; replacement of the aged switchgear, motor control center, and power distribution system; replacement of the engine driven blower system; refurbishment of mechanical and structural elements of the Plant 1 secondary sedimentation basins; and repair to the structural deficiencies throughout the plant basins.

Project Manager/Senior Scheduler, Regional Treatment Plant Cogeneration and Switchgear Upgrades Project; Laguna Niguel, CA; South Orange County Wastewater Authority (Completion: July 2017; Value: \$9 million)—Casey provided project management and scheduling services for the upgrade to the cogeneration and switchgear systems for the RTP. The scope of work included the following: construction of a new masonry building to the west of the Energy Building to house the new switchgear; removal of one of the existing 400 kW engine generator units; removal of power and control wiring from the remaining two 400 kW engine generator sets; installation of a new 800 kW engine generator system, new boiler system, and new co-generation control system; replacement of plant switchgear; relocation of temporary hot water pipeline; and replacement of the coating systems within Digester No. 2.

Senior Scheduler, Lift Station 2 Force Main (LS-2 FM) Rehabilitation Project; Laguna Beach, CA; South Coast Water District (Completion: 07/2019; Value: \$2,945,000)—Butier Engineering, Inc. provided construction management and inspection services for the Lift Station 2 Force Main (LS-2 FM) Rehabilitation Project. The LS-2 FM Project consisted of the rehabilitation of the existing 6,400 foot, 20-inch diameter, polyurethane lined, polyethylene wrapped, Class 250 ductile iron pipe. It is located at 31104 Coast Highway in the City of Laguna Beach and ends at a **point of connection inside the SOCWA Coastal Treatment Plant (CTP)**. The scope of work included the following: sliplining using a 16-inch diameter HDPE; excavating 13 access pits; installation and operation of a full-length bypass system; replacing sections of pipe; installation of air vacuum release valves and surge tank; removal and disposal of existing valves; landscape restoration; 545 (LF) of 10" force main; sewer manholes and appurtenances; and abandonment of Segerstrom Lift Station. The Butier team coordinated closely with SOCWA; City of Laguna Beach; The Ranch at Laguna Beach; City of Laguna Beach Fire Department; local, state, and federal agencies; and local businesses and residents.

Project Manager / Senior Scheduler, Groundwater Replenishment System Final Expansion Project; Fountain Valley, CA; Orange County Water District (Duration: 2019 – 2023; Value: \$188,181,000)—Casey is responsible for providing project management, CPM scheduling, and constructability review services for the Groundwater Replenishment System Final Expansion (GWRSFE) Project. The GWRSFE is a water supply project designed to provide an additional 31,000 AFY of advanced treated wastewater (recycled water) to the groundwater basin in north and central Orange County. The GWRSFE scope of work includes upgrading the existing 100 MGD Advanced Water Purification Facility (AWPF) by adding 30 MGD of additional capacity; constructing Plant No. 2 Secondary Effluent Conveyance Facilities; and rehabilitating an existing pipeline between Plant No. 2 and Plant No. 1 to bring secondary effluent to the GWRS.

EDUCATION

Barrington University
B.A. Business Management

LICENSES / CERTIFICATIONS

NACE Certified Coating Inspector Level 3

No. 59122
Exp. 06/30/2021

AWS Certified Welding Inspector

No. 07060921
Exp. 06/01/2022

ICC Building Inspector

No. 0862502-B5
Exp. 11/22/2022

ICC Structural Masonry Special Inspector,

No. 0862502-84
Exp. 11/22/2022

ICC Structural Steel and Welding Special Inspector,

No. 0862502-85
Exp. 11/22/2022

ICC Reinforced Structural Concrete Special Inspector,

No. 0862502-49
Exp. 11/22/2022

ICC Spray-Applied Fireproofing Special Inspector

No. 0862502-86
Exp. 11/22/2022

NDT Non-Destructive Testing, UT Level I

OES Registered Disaster Inspector Buildings,

Structures and Lifelines
No. 1265

ACIA Registered Building Inspector

TROXLER Radiation Safety and Gauge Operation

Professional Summary

Mr. Baker brings 31 years of QA/QC experience in the construction industry. As a field inspector for Butier, Mr. Baker works primarily on water capital improvement projects, including treatment facilities, reservoirs, and pipelines. He is an AWS/ICC/PCI Certified Inspector. He is ICC certified in reinforced concrete with specific experience in code enforcement, performing inspections on reinforcement and concrete placement, shotcrete, high-strength non-shrink grout and epoxy work on retro-fitting. His ability to read plans and knowledge of building code interpretation and enforcement facilitate the execution of inspection duties typically assigned, including utility / agency coordination, preparation of daily reports, overseeing specialty subcontractors, reviewing and responding to RFIs and field memo responses, interpretation of drawings, and general correspondence with design engineers.

Project Experience

Lead Inspector, J.B. Latham Treatment Plant Package 'B' Improvements and Digester 4 Rehabilitation; Dana Point, CA; South Orange County Wastewater Authority

(Duration: 07/2019 – 08/19/2021; Value: \$17.6 million)—Mr. Baker is currently providing civil/mechanical field inspection services for the improvement and rehabilitation project. The scope of work includes the following: rehabilitation of piping and valves at the Effluent Pump Station; process rehabilitation of Plant 2 Secondary Sedimentation Basins; structural and process rehabilitation of the Plant 1 Secondary Sedimentation Basins; structural and process rehabilitation of the Primary Effluent Channel (Plant 1 portion); structural and process rehabilitation of the Plant 1 Primary Influent Channel and Sedimentation Basins; structural and process rehabilitation of the Plant 2 Primary Influent Channel Basins; structural and process rehabilitation of Dissolved Air Flotation Thickener Nos. 1 and 2. H; construction of a new Thickened Waste Activated Sludge Pump Station; cleaning and process rehabilitation of the Digester 1 and 2 mixing and heating systems; structural rehabilitation of the Digesters 1 and 2 Control Building roof; process rehabilitation of the Digester 3 and Digester 4 heating systems; replacement of the Digesters 3 and 4 Control Building roof stairs; construction of a new boiler inside of the Energy Recovery Building and removal of the existing boiler within the Digesters 1 and 2 Control Building; structural rehabilitation of the Dewatering Building and Energy Recovery Building roof; construction of a new monorail system inside of the equipment repair room; and demolition of the existing laboratory building.

Lead Inspector, Coastal Treatment Plant Facility Improvements; Laguna Niguel, CA; South Orange County Wastewater Authority (Completion: 06/01/21; Value: \$9.4 million)

—Mr. Baker is providing civil, structural, mechanical, and welding inspection services for the Coastal Treatment Plant Facility Improvements. The scope of work includes the following: reconstruction of the ferric chloride system and secondary sedimentation basin equipment; construction of a replacement drainage pump station; fall protection safety improvements; miscellaneous structural and architectural improvements; replacement of the Motor Control Center (MCC) E8M in the Operations Building and installation of new MCC-15M and MCC-E15M in the DAF Utility Building; DAF electrical room improvements; replacement of switchgear including installation of new switchgear and repurposing the existing chlorine building; standby general improvements; electrical distribution system upgrade; installation of temporary power during construction; and replacement of three grit knife gate valves and access platforms for the upper valves.

Lead Inspector, Santa Ana River Enhanced Recharge Phase 1A Sedimentation Basin and Pipeline; Highland, CA; San Bernardino Valley Municipal Water District (Duration: 07/2017 – 11/2018; Value: \$14.4 million)—The project is located in an undeveloped area near the upper reaches of the Santa Ana River, north of Redlands, California. The site is located adjacent to the southern flank of the San Bernardino Mountains on the western side of a relatively large alluvial fan complex associated with the Santa Ana River. It is also located approximately ½ mile downstream from the Seven Oaks Dam, which is an earth-fill dam designed for flood control. A new diversion structure and inlet channel was constructed to divert water to the new sedimentation basin and the Water Conservation District Canal. The new sedimentation basin removes fine sand prior to delivery to Valley District or Metropolitan facilities. It is 200-foot wide and 600-foot long and 10 feet deep. The new pipeline consists of 1,900 linear feet of 96-inch diameter CMLC welded steel pipe and 1,300 linear feet of 78-inch diameter CMLC welded steel pipe connecting the new sedimentation basin and the existing 78-inch diameter SBVMWD Foothill Pipeline.

Lead Inspector, Foothill Feeder 78-inch Pipeline Relocation; San Manuel Casino/San Bernardino, CA; San Bernardino Valley Municipal Water District (Completion: 11/30/2018; Value: \$10 million)—The project area borders the west end of the San Manuel Band of Mission Indians (SMBMI) tribal property, starting at the east end of Piedmont Drive and proceeding south along the western San Manuel Casino (Casino) property line. It then turns east, just north of the Casino's south perimeter wall, before turning into Marshall Boulevard where it reconnects with the original Foothill Pipeline. A 1,450 LF section of the pipeline that ran under the Casino's front entrance was relocated to an area immediately behind the Casino. The project reduces the risk of damage to the pipeline from above-ground operations, including the construction of a new Casino hotel by PENTA Building Group; secures the safety and continues operation of the pipeline in the event of an earthquake; and makes it easier for the District to monitor and maintain the pipeline as it passes through tribal land.

Lead Inspector, Regional Treatment Plant Cogeneration and Switchgear Upgrades Project; Dana Point, CA; South Orange County Wastewater Authority (Completion: 07/2017; Value: \$8.9 million)—Mr. Baker provided civil/mechanical field inspection services for the upgrade to the cogeneration and switchgear systems for the RTP. The scope of work included the following: construction of a new masonry building to the west of the Energy Building to house the new switchgear; removal of one of the existing 400 kW engine generator units; removal of power and control wiring from the remaining two 400 kW engine generator sets; installation of a new 800 kW engine generator system, new boiler system, and new co-generation control system; replacement of plant switchgear; relocation of temporary hot water pipeline; and replacement of the coating systems within Digester No. 2.

Lead Inspector, Vista Verde Reservoir Replacement Project—Phase II; Vista, CA; City of Escondido (Completion: 2018; Value \$9.5 million)—Butier provided construction management and inspection services for the replacement of the Vista Verde Reservoir. The former 750,000-gallon steel reservoir, which suffered from internal corrosion, was replaced with two 1-million-gallon Type I pre-stressed concrete reservoirs that are partially buried. The extra capacity for water storage allows additional development in the area. The scope of work also included new interconnecting piping, valve structure, grading, paving, site improvements, landscaping, electrical, instrumentation, and incidentals for a complete and usable facility. The pipeline portion of the project extends from the existing pump station along Vista Verde Way, up to the Vista Verde Way cul-de-sac (approximately 6,000 Linear Feet). It includes inlet, outlet and drain line up the hill to the vault structure.

QA Inspector (Simon Wong Engineering), Carlsbad 50 MGD Seawater Desalination Treatment Plant and 10-Mile Product Water Pipeline; Carlsbad, CA; San Diego County Water Authority (Duration: 02/2013 – 12/2015; Value: \$160 million-Pipeline Portion)—Duties included oversight of the 10-mile, 54-inch pipeline installation and associated valves, cathodic protection test stations, fiber optics and manway encasements along with inspection of pipe and structural welding, underground piping, metering pumps, electrical system, mechanical systems and SCADA control systems. The pipeline was constructed under the Interstate 5 Highway and a railroad using a jack and bore tunnel method. The alignment included over 6,000 feet of tunnels performed by four different tunneling subcontractors. One of the tunnels is over 1,700 linear feet, 30 feet below sea level, and required a vertical shaft over 80 feet in height.

EDUCATION

B.S., Engineering
Technology—Construction,
California State Polytechnic
University, Pomona, 2000

AREAS OF EXPERTISE

Procore Document Control
System

CPM Project Scheduling

Cost Control

Quality Control

Construction & Specialty
Trade Estimating

Cost Valuation

Value Engineering

Construction Inspections

Surveying

Structural Design

Change Order Negotiation

Cost Segregation Studies

Project Organization

Engineering Management

Owner Presentations

Project Review

Professional Summary

Mr. Wilson has over 20 years of field engineering, estimating, cost review, inspection, and engineering management experience. He brings his extensive knowledge of web-based document control systems to the Butier Team. As an Office Engineer / Document Control Specialist, Bryan is responsible for the flow and storage of all project documentation between the owner, design engineer, contractor, construction manager, and other key stakeholders. He provides the processes, procedures and training to effectively assist project teams with organizing and managing documentation (e.g., drawings, specifications, meeting minutes, RFIs, submittals, and change orders); ensures that pre-established document control requirements are met throughout the duration of the project; and produces logs, transmittals, and other reports as required.

Bryan's detailed estimating experience covers all aspects of building and heavy/civil design and construction, including earthwork, structural, mechanical, electrical, and plumbing components. He has conducted numerous physical inspections in order to verify the accuracy and scope of quantities and cost estimates derived from construction blueprints. In addition, Bryan has experience in project scheduling, negotiating construction change orders, and value engineering analyses.

Project Experience

Field Engineer/Document Control Specialist, Coastal Treatment Plant Facility Improvements; Laguna Niguel, CA; South Orange County Wastewater Authority (Completion: 06/2021; Value: \$9.4 million)—Bryan is currently providing field engineer services for the CTP Facility Improvements project. The scope of work includes the following: reconstruction of the ferric chloride system and secondary sedimentation basin equipment; construction of a replacement drainage pump station; fall protection safety improvements; miscellaneous structural and architectural improvements; replacement of the Motor Control Center (MCC) E8M in the Operations Building and installation of new MCC-15M and MCC-E15M in the DAF Utility Building; DAF electrical room improvements; replacement of switchgear including installation of new switchgear and repurposing the existing chlorine building; standby general improvements; electrical distribution system upgrade; installation of temporary power during construction; and replacement of three grit knife gate valves and access platforms for the upper valves.

Field Engineer/Document Control Specialist, J.B. Latham Treatment Plant Package 'B' Improvements; Dana Point, CA; South Orange County Wastewater Authority (Duration: 07/2019 — 08/2021; Value: \$17.6 million)—Bryan is currently providing field engineer services for the J.B. Latham Treatment Plant Package 'B' Improvements project. The scope of work includes the following: rehabilitation of piping and valves at the Effluent Pump Station; process rehabilitation of Plant 2 Secondary Sedimentation Basins and the Digester 3 and Digester 4 heating systems; structural and process rehabilitation of the Plant 1 Secondary Sedimentation Basins, Primary Effluent Channel (Plant 1 portion), Plant 1 Primary Influent Channel and Sedimentation Basins, Plant 2 Primary Influent Channel Basins, and Dissolved Air Flotation Thickener Nos. 1 and 2; construction of a new Thickened Waste Activated Sludge Pump Station; cleaning and process rehabilitation of the Digester 1 and 2 mixing and heating systems; structural rehabilitation of the Digesters 1 and 2 Control Building roof and the Dewatering Building and Energy Recovery Building roof; replacement of the Digesters 3 and 4 Control Building roof stairs; construction of a new boiler inside of the Energy Recovery Building and removal of the existing boiler within the Digesters 1 and 2 Control Building; construction of a new monorail system inside of the equipment repair room; and demolition of the existing laboratory building.

Field Engineer/Document Control Specialist, Lift Station 2 Force Main (LS-2 FM) Rehabilitation Project; Laguna Beach, CA; South Coast Water District (Completion: 07/2019; Value: \$2,945,000)—Butier Engineering, Inc. provided construction

management and inspection services for the Lift Station 2 Force Main (LS-2 FM) Rehabilitation Project. The LS-2 FM Project consisted of the rehabilitation of the existing 6,400 foot, 20-inch diameter, polyurethane lined, polyethylene wrapped, Class 250 ductile iron pipe. It is located at 31104 Coast Highway in the City of Laguna Beach and ends at a point of connection inside the SOCWA Coastal Treatment Plant (CTP). The scope of work included the following: sliplining using a 16-inch diameter HDPE; excavating 13 access pits; installation and operation of a full-length bypass system; replacing sections of pipe; installation of air vacuum release valves and surge tank; removal and disposal of existing valves; landscape restoration; 545 (LF) of 10" force main; sewer manholes and appurtenances; and abandonment of Segerstrom Lift Station. The Butier team coordinated closely with SOCWA; City of Laguna Beach; The Ranch at Laguna Beach; City of Laguna Beach Fire Department; local, state, and federal agencies; and local businesses and residents.

Office Engineer/Document Control Specialist, Reservoir No. 2 and Pump Station Rehabilitation; Fountain Valley, CA; City of Fountain Valley (Duration: 02/11/19 – 05/05/20; Value: \$7,854,000)—Butier provided construction management and inspection services for the construction of the existing 5 MG, above grade, pre-stressed concrete reservoir and indoor booster pump station. The scope of work included the following: demolition of the existing pump control building and construction of a new building; installation of three (3) vertical turbine pumps with 125 hp electric pump motors powered by VFD and associated controls; installation of SCE transformer, electrical and mechanical equipment, new piping, valves, standby generator, HVAC facilities, utility lines and connections, fiber optic cables, conduit and connections, pump station SCADA programmable logic controller, and an intrusion alarm system; installation of perimeter fencing, new security lighting, wraparound access driveway area and paver maintenance road, new sidewalks, new drought tolerant landscaping and irrigation system, concrete work on the tank and new roof coating; and construction of a basketball court in the park.

Office Engineer/Document Control Specialist, Walnut Street Storm Drain Pump Station Upgrades; Fountain Valley, CA; City of Fountain Valley (Completion: 10/2019; Value: \$5,001,630)—Butier provided construction management and inspection services for the construction of the Walnut Pump Station. The scope of work included remodeling the existing block building; construction of a new additional masonry block wall control room with HVAC facility and bathroom; replacement of the four (4) natural gas engines, exhaust systems, AFRC panels, right angle gear drives, pumps and associated controls; all associated mechanical and electrical equipment, new piping and valves; upgrade for SoCal as meter services; pump station yard grading and replacement with reinforced concrete; perimeter block wall repairs and new gates; installation of new stainless steel trash rack, dual heat exchanger systems and remedial repairs to the sump, grating and access ladders; new lighting; miscellaneous utility lines and connections, fiber optic cables, conduit and connections; new level controls and the installation of a pump station SCADA programmable logic controller and RTU.

Office Engineer/Document Control Specialist, Mid-Basin Injection: Centennial Park Project; Santa Ana, CA; Orange County Water District (Completion: 03/2020; Value: \$29.5 million)—The Mid-Basin Injection project consisted of the construction of the following: four groundwater injection wells in below grade vaults; two (2) monitoring wells; a purified recycled water injection supply pipeline approximately 5,700 feet long that connects to the District's existing Groundwater Replenishment System (GWRS) pipeline and crosses the Santa Ana River; a backflush discharge pipeline approximately 4,200 feet long that discharges to the Greenville-Banning Channel and Centennial Park Lake; installation of submersible pumps within the four injection wells; replacement of approximately 9.6 acres of paving within the Park; demolishing an existing City of Santa Ana restroom facility; and constructing two new buildings with shared City and District uses. Butier coordinated closely with the City of Santa Ana, Santa Ana Unified School District, Heritage Museum, and state and federal agencies.

5. Table of Effort



CTP Export Sludge Force Main Replacement Project



Description of Task	Discipline/Personnel/Rate/Units				
	Resident Engineer Louis Francuz	Field Engineer Bryan Wilson	Inspection M. Bruneniek/G. Schultz	Schedule Reviews Casey Harris	Total Costs
	\$ 190.00	\$ 155.00	\$ 140.00	\$ 190.00	
	Hours	Hours	Hours	Hours	
Pre-Construction Services					
Total Hours	240	164	1086	16	
Document Review	8				
Document Control System		8			
Quality Assurance/Quality Control Plan					
Cost Control System					
Preconstruction Meeting	4	4	4		
CM Staffing During Construction					
Progress Meetings	160	32			
Monthly Progress Reports		24			
Inspection Services			1050		
Schedule Review	32		.	16	
Safety Monitoring					
Pay Request Reviews		32			
Change Order Reviews	36	32			
Testing Coordination					
Operations Coordination					
Record Drawings					
Project Closeout		32	32		
Total Costs	\$ 45,600.00	\$ 25,420.00	\$ 152,040.00	\$ 3,040.00	\$ 226,100.00

Notes:

1. Based on 8 month schedule presented in the RFP.
2. Butier personnel will work from their current locations at the CTP and JBLTP facilities.