

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

**December 14, 2023
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 on **December 14, 2023, at 8:30 a.m.** SOCWA staff will be present and conducting the meeting at the SOCWA Administrative Office located at 34156 Del Obispo Street, Dana Point, California.

THE SOCWA MEETING ROOM IS WHEELCHAIR ACCESSIBLE. 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 SUCH 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. MEMBERS OF THE PUBLIC HAVE THE OPTION TO PARTICIPATE IN AND MAY JOIN THE MEETING REMOTELY VIA VIDEO CONFERENCE FOR VISUAL INFORMATION ONLY (USE ZOOM LINK BELOW) AND BY TELECONFERENCE FOR AUDIO PARTICIPATION (USE PHONE NUMBERS BELOW). THIS IS A PHONE-CALL MEETING AND NOT A WEB-CAST MEETING, SO PLEASE REFER TO AGENDA MATERIALS AS POSTED ON THE WEBSITE AT WWW.SOCWA.COM. ON YOUR REQUEST, EVERY EFFORT WILL BE MADE TO ACCOMMODATE PARTICIPATION. FOR PARTIES PARTICIPATING REMOTELY, PUBLIC COMMENTS WILL BE TAKEN DURING THE MEETING FOR ORAL COMMUNICATION IN ADDITION TO PUBLIC COMMENTS RECEIVED BY PARTIES PARTICIPATING IN PERSON. COMMENTS MAY BE SUBMITTED PRIOR TO THE MEETING VIA EMAIL TO ASSISTANT SECRETARY DANITA HIRSH AT DHIRSH@SOCWA.COM WITH THE SUBJECT LINE "REQUEST TO PROVIDE PUBLIC COMMENT." IN THE EMAIL, PLEASE INCLUDE YOUR NAME, THE ITEM YOU WISH TO SPEAK ABOUT, AND THE TELEPHONE NUMBER YOU WILL BE CALLING FROM SO THAT THE COORDINATOR CAN UN-MUTE YOUR LINE WHEN YOU ARE CALLED UPON TO SPEAK. THOSE MAKING PUBLIC COMMENT REQUESTS REMOTELY VIA TELEPHONE IN REAL-TIME WILL BE ASKED TO PROVIDE YOUR NAME, THE ITEM YOU WISH TO SPEAK ABOUT, AND THE TELEPHONE NUMBER THAT YOU ARE CALLING FROM SO THE COORDINATOR CAN UN-MUTE YOUR LINE WHEN YOU ARE CALLED UPON TO SPEAK. ONCE THE MEETING HAS COMMENCED, THE CHAIR WILL INVITE YOU TO SPEAK AND ASK THE COORDINATOR TO UN-MUTE YOUR LINE AT THE APPROPRIATE TIME.

AGENDA ATTACHMENTS 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 FOR PUBLIC INSPECTION IN THE AUTHORITY ADMINISTRATIVE OFFICE LOCATED AT 34156 DEL OBISPO STREET, DANA POINT, CA ("AUTHORITY OFFICE") OR BY PHONE REQUEST MADE TO THE AUTHORITY OFFICE AT 949-234-5452. IF SUCH WRITINGS ARE DISTRIBUTED TO MEMBERS OF THE ENGINEERING COMMITTEE LESS THAN SEVENTY-TWO (72) HOURS PRIOR TO THE MEETING, THEY WILL BE AVAILABLE IN THE RECEPTION AREA OF THE AUTHORITY OFFICE AT THE SAME TIME AS THEY ARE DISTRIBUTED TO THE ENGINEERING COMMITTEE AND SENT TO ANY REMOTE PARTICIPANTS REQUESTING EMAIL DELIVERY OR POSTED ON SOCWA'S WEBSITE. IF SUCH WRITINGS ARE DISTRIBUTED IMMEDIATELY PRIOR TO, OR DURING, THE MEETING, THEY WILL BE AVAILABLE IN THE MEETING ROOM OR IMMEDIATELY UPON VERBAL REQUEST TO BE DELIVERED VIA EMAIL TO REQUESTING PARTIES PARTICIPATING REMOTELY.

**THE PUBLIC MAY PARTICIPATE REMOTELY BY VIRTUAL MEANS. FOR AUDIO OF MEETING USE
THE CALL IN PHONE NUMBERS BELOW AND FOR VIDEO USE THE ZOOM LINK BELOW.**

Join Zoom Meeting

<https://socwa.zoom.us/>

Meeting ID: 865 8895 3266

Passcode: 862911

Dial by your location:

+1 669 900 6833 US (San Jose) +1 253 215 8782 US (Tacoma)

+1 346 248 7799 US (Houston) +1 312 626 6799 US (Chicago)

Find your local number: <https://socwa.zoom.us/j/kshlmrshd>

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.

PAGE NO.

3. Approval of Minutes..... 1
 - Engineering Committee Minutes of November 9, 2023

Recommended Action: Staff requests that the Engineering Committee approve the subject Minutes as submitted.

4. Operations Report..... 5

Recommended Action: Information Item.

5. JBL Package B Project Verbal Update [Project Committee 2]

Recommended Action: Information Item.

6. Capital Improvement Construction Projects Progress Report (November)
[Project Committees 2, 15, 17, & 24] 6

Recommended Action: Information Item.

7. Contract Award for MCC-M, Switchgear Circuit Breaker, and Portable Generator
Connection Pre-Procurement [Project Committees 2] 16

Recommended Action: Staff recommends that the Engineering Committee recommend that the PC 2 Board approve the contract to Pacific Parts & Controls for a total of \$250,244, including a 25% contingency for the JBL MCC-M, switchgear circuit breaker, and portable generator connection pre-procurement.

8. J. B. Latham Treatment Plant Effluent Pump Station and Energy Building Design Contract [Project Committees 2].....22

Recommended Action: Staff recommends that the Engineering Committee recommend that the PC 2 Board approve the contract to Carollo Engineers for a total of \$175,516 for the JBL Effluent Pump Station and Energy Building improvements.

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 7th day of December 2023.



Danita Hirsh, Assistant Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

Agenda Item

3

Engineering Committee Meeting

Meeting Date: December 14, 2023

TO: Engineering Committee

FROM: Roni Grant, Associate Engineer

SUBJECT: Approval of Minutes

Overview

Minutes from the following meetings are included for review and approval by the Engineering Committee:

- November 9, 2023

Recommended Action: Staff recommends that the Engineering Committee approve the Minutes as submitted.

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

Engineering Committee

November 9, 2023

DRAFT

The Regular Meeting of the South Orange County Wastewater Authority (SOCWA) Engineering Committee Meeting was held on November 9, 2023, at 8:30 a.m. in-person and via teleconferencing from the Administrative Offices located at 34156 Del Obispo Street, Dana Point, California. The following members of the Engineering Committee were present:

| | |
|-------------|--------------------------------|
| MARK McAVOY | City of Laguna Beach |
| HANNAH FORD | El Toro Water District |
| ROD WOODS | Moulton Niguel Water District |
| DON BUNTS | Santa Margarita Water District |
| MARC SERNA | South Coast Water District |

Absent:

| | |
|------------------|------------------------------|
| DAVE REBENS DORF | City of San Clemente |
| MIKE DUNBAR | Emerald Bay Service District |

Staff Present:

| | |
|-------------------|---|
| JIM BURROR | Acting General Manager/Director of Operations |
| RONI GRANT | Associate Engineer |
| MARY CAREY | Finance Controller |
| AMBER BAYLOR | Director of Environmental Compliance |
| MATT CLARKE | IT Administrator |
| DINA ASH | HR Administrator |
| JEANETTE COTINOLA | Procurement/Contracts Manager |
| DANITA HIRSH | Executive Assistant |

Also Present:

| | |
|------------------|--------------------------------|
| SHERRY WANNINGER | Moulton Niguel Water District |
| SAUNDRA JACOBS | Santa Margarita Water District |

1. Call Meeting to Order

Ms. Roni Grant, Associate Engineer, called the meeting to order at 8:34 a.m.

2. Public Comments

None.

3. Approval of Minutes

- a. Engineering Committee Minutes of September 14, 2023
- b. Engineering Committee Unofficial Minutes of October 12, 2023

ACTION TAKEN

A motion was made by Mr. Woods and seconded by Mr. McAvoy to approve the Engineering Committee Minutes for September 14, 2023, and the Unofficial Minutes for October 12, 2023, as submitted.

Motion carried: Aye 5, Nay 0, Abstained 0, Absent 2
Mr. McAvoy Aye
Ms. Ford Aye
Mr. Dunbar Absent
Mr. Woods Aye
Mr. Bunts Aye
Mr. Serna Aye
Mr. Rebensdorf Absent

4. Operations Report

Mr. Jim Burror, Acting General Manager/Director of Operations, reported on installing the improved technology flow meter at the Aliso Creek Ocean Outfall that was damaged during past storms.

Ms. Amber Baylor, Director of Environmental Compliance, gave an update on the City of San Clemente regarding the landfill EIR process and the permit amendment for the San Juan Creek Ocean Outfall. An open discussion ensued.

This was an information item; no action was taken.

Agenda Items 6, 8, and 9 were tabled until the next Engineering Committee meeting in December.

- 6. Package B Project Change Orders under the CIP Construction Progress Report [Project Committees 2]
 - 8. JBL Package B Construction Management Support Contract Amendment [Project Committee 2]
 - 9. On-Call Construction Management Support Contract [Project Committees 2, 15 and 17]
7. Contract Award for Coastal Treatment Plant (CTP) Personnel Building Reconstruction Engineering Services during Construction [Project Committee 15]

ACTION TAKEN

A motion was made by Mr. McAvoy and seconded by Mr. Serna that the PC 15 Board of Directors approve the contract to ProjectLine for \$31,150 for Engineering Services during Construction of the CTP Personnel Building Reconstruction Project.

Motion carried: Aye 2, Nay 0, Abstained 1, Absent 1
Mr. McAvoy Aye
Mr. Dunbar Absent
Ms. Woods Abstain
Mr. Serna Aye

Adjournment

There being no further business, Ms. Grant adjourned the meeting at 8:57 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 9, 2023, and approved by the Engineering Committee and received and filed by the Board of Directors of the South Orange County Wastewater Authority.

Danita Hirsh, Assistant Board Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

Agenda Item

4

Engineering Committee Meeting

Meeting Date: December 14, 2023

TO: Engineering Committee

FROM: Jim Burror, Acting General Manager/Director of Operations

SUBJECT: Operations Report

Overview

Verbal update on operations and maintenance activities.

Recommended Action: Information Item.

Agenda Item

6

Engineering Committee Meeting

Meeting Date: December 14, 2023

TO: Engineering Committee

FROM: Roni Grant, Associate Engineer

SUBJECT: Capital Improvement Construction Projects Progress and Change Order Report (December) [Project Committee Nos. 2, 15, 17 & 24]

Overview

This agenda item provides an update on projects in construction, including any change orders. Attached are the updated CIP reports.

Project Updates

JBL Package B

The project is complete, and Staff continues to work with the Construction Management team to close out all outstanding items.

JBL Centrate Line Upgrades

The notice to proceed (NTP) has been issued to SS Mechanical. Staff is working with the contractor to start procuring valves and piping for this project.

CTP Diffusers Replacement

The notice to proceed (NTP) has been issued to Filanc. Staff is working with the contractor to start the project in 2024.

ACOO Internal Seal Replacement

The project is complete. Staff appreciates all the support and assistance from the impacting agencies.

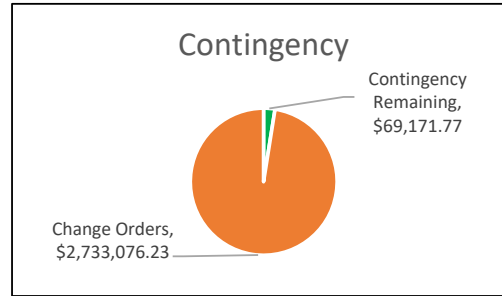
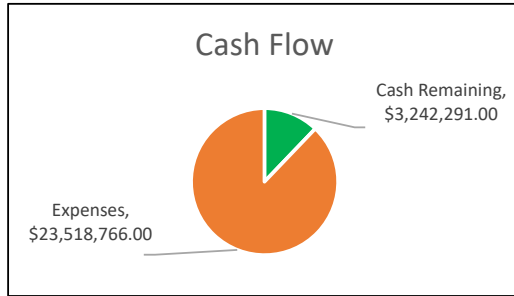
Recommended Action: Information Item.

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

December 7, 2023



Cash Flow

| | |
|-----------|------------------|
| Collected | \$ 26,761,057.00 |
| Expenses | \$ 23,518,766.00 |

Project Completion

| | |
|----------|------|
| Schedule | 100% |
| Budget | 99% |

Contracts

| Company | PO No. | Original | Change Orders | Amendments | Total | Invoiced |
|-------------------|--------|-------------------------|------------------------|------------------------|-------------------------|-------------------------|
| Olsson | 13497 | \$ 17,325,000.00 | \$ 1,784,746.58 | | \$ 19,109,746.58 | \$ 19,109,746.58 |
| Butier | 13647 | \$ 895,727.00 | | \$ 1,005,251.00 | \$ 1,900,978.00 | \$1,900,978.00 |
| Carollo | 13616 | \$ 846,528.00 | | \$ 616,037.00 | \$ 1,462,565.00 | \$1,396,904.66 |
| TetraTech | 13605 | \$ 94,000.00 | | \$ - | \$ 94,000.00 | \$ 93,884.70 |
| Ninyo & Moore | 14279 | \$ 49,399.00 | | \$ 30,000.00 | \$ 79,399.00 | \$ 50,166.27 |
| ADS Environmental | 16452 | \$ 107,200.00 | \$ - | | \$ 107,200.00 | \$ 61,875.00 |
| Dudek | 17401 | \$ 48,360.00 | | \$ - | \$ 48,360.00 | \$ 42,160.00 |
| | | \$ 19,366,214.00 | \$ 1,784,746.58 | \$ 1,651,288.00 | \$ 22,802,248.58 | \$ 22,655,715.21 |

Contingency

| Area | Project Code | Amount ** | Change Orders^ | Total Remaining | Percent Used |
|---------|--------------|------------------------|------------------------|---------------------|--------------|
| Liquids | 3220-000 | \$ 1,219,679.00 | \$ 1,194,892.44 | \$ 24,786.56 | 98.0% |
| Common | 3231-000 | \$ 38,120.00 | \$ 9,842.77 | \$ 28,277.23 | 25.8% |
| Solids | 3287-000 | \$ 1,544,449.00 | \$ 1,528,341.02 | \$ 16,107.98 | 99.0% |
| | | \$ 2,802,248.00 | \$ 2,733,076.23 | \$ 69,171.77 | 97.5% |

** Amount reflects contingency for Construction Contracts only

| Change Order No | MNWD | SCWD | SMWD | \$ Amount |
|--------------------|---------------|---------------|---------------|---------------|
| Grand Total | \$0.00 | \$0.00 | \$0.00 | \$0.00 |

Change Orders and Amendments

| Change Order No. | Vendor Name | Project ID | Description | Status Date | Days | Amount |
|--|-------------|------------|--|-------------|------------|------------------------|
| Approved by Board of Directors (Amendments) | | | | | 191 | \$ 1,801,461.47 |
| 1 | Olsson | 3287-000 | Addition of Loop Piping to the Existing Hot Water Lines Adjacent to Digester 3 | 12/12/2019 | 0 | \$ 4,725.00 |
| 2 | Olsson | 3287-000 | Asbestos Gaskets in Boiler hazardous disposal | 6/4/2020 | 0 | \$ 6,343.10 |
| 3 | Olsson | 3287-000 | Add Analog Infrastructure and Cabling | 6/4/2020 | 11 | \$ 37,969.60 |
| 4 | Olsson | 3287-000 | Digester 4 Coating Additional Sealant | 6/4/2020 | 3 | \$ 24,001.54 |
| 5 | Olsson | 3220-000 | Valve Handwheel Ergonomic extension | 8/6/2020 | 28 | \$ 16,370.30 |
| 6 | Olsson | 3287-000 | Change to DeZurik Plug Valves to match existing | 8/6/2020 | 90 | \$ 41,993.87 |
| 7 | Olsson | 3287-000 | Digester 4 Additional Concrete Repair | 8/6/2020 | 3 | \$ 7,412.74 |
| 8 | Olsson | 3287-000 | Repair Existing Damaged Electrical Box | 8/6/2020 | 0 | \$ (1,829.00) |
| 9 | Olsson | 3220-000 | Change the Telescoping Valve Boxes and Piping from Carbon Steel to Stainless Steel | 8/6/2020 | 0 | \$ 18,677.63 |
| 10 | Olsson | 3287-000 | Duct bank J Interferences | 12/17/2020 | 18 | \$ 73,639.42 |
| 11 | Olsson | 3220-000 | Blasting of Existing Influent Pipe Spools | 12/17/2020 | 5 | \$ 20,868.52 |
| 12 | Olsson | 3220-000 | Duct bank K Interferences | 12/17/2020 | 0 | \$ 15,567.08 |

| | | | | | | |
|----|--------|----------|---|------------|----|---------------|
| 13 | Olsson | 3287-000 | Digester 3/4 PLC Relocation | 12/17/2020 | 14 | \$ 41,367.51 |
| 14 | Olsson | 3287-000 | Digester 4 Additional Tank Repair | 12/17/2020 | 18 | \$ 33,642.75 |
| 15 | Olsson | 3220-000 | Duct bank O Interferences | 12/17/2020 | 0 | \$ 1,686.88 |
| 16 | Olsson | 3287-000 | Digester 3/4 Control Building Roof Replacement | 2/4/2021 | 0 | \$ 42,780.00 |
| 17 | Olsson | 3287-000 | MCC-D1 Modifications due to Change in Motor Size | 5/6/2021 | 0 | \$ 34,392.02 |
| 18 | Olsson | 3287-000 | Integrator Additional Site Visits | 5/6/2021 | 0 | \$ 7,571.97 |
| 19 | Olsson | 3287-000 | Multi-zone air conditioning unit in the Cogen MCC Room and Office | 6/3/2021 | 0 | \$ 29,417.20 |
| 20 | Olsson | 3220-000 | Overhead Walkway Removal at Plant 1 Secondary Basins 5 through 9 | 6/3/2021 | 0 | \$ 62,113.50 |
| 21 | Olsson | 3287-000 | Cogeneration PLC Modifications and Integration | 6/3/2021 | 0 | \$ 42,922.67 |
| 22 | Olsson | 3220-000 | Plant 1 Secondary Basins UV Rated Wear Strips | 9/2/2021 | 0 | \$ 28,965.33 |
| 23 | Olsson | 3287-000 | MCC-F1 Design Change | 9/2/2021 | | \$ 481,290.42 |
| 24 | Olsson | 3287-000 | DAF 2 Investigation Work and Inspection Blast | 10/7/2021 | | \$ 67,838.71 |
| 25 | Olsson | 3287-000 | New Fiber Conduit in West Blower Building | 10/7/2021 | | \$ 4,957.71 |
| 26 | Olsson | 3220-000 | Plant 1 Primary Basin Conduit Obstruction | 10/7/2021 | | \$ 8,444.20 |

| | | | | | | |
|----|--------|----------|---|------------|---|----------------|
| 27 | Olsson | 3220-000 | Plant 1 Influent Channel Additional Coating between Primary Basins 5 and 6 | 10/7/2021 | | \$ 15,469.98 |
| 28 | Olsson | 3287-000 | MCC-F1 Lighting Changes | 10/7/2021 | | \$ 7,843.04 |
| 29 | Olsson | 3287-000 | Digester 3 Ground Rod | 10/14/2021 | | \$ 7,269.16 |
| 30 | Olsson | 3220-000 | New Fiber Conduits at East Electrical and Storm Water Buildings | 10/14/2021 | | \$ 8,045.43 |
| 31 | Olsson | 3220-000 | Plant 2 Primary Influent Channel Repair Credit | 12/9/2021 | | \$ (15,903.00) |
| 32 | Olsson | 3220-000 | Plant 1 and 2 Telescoping Valve Pipe Supports | 12/9/2021 | | \$ 6,132.27 |
| 33 | Olsson | 3287-000 | 4" Gas Line Routing Modifications | 12/9/2021 | | \$ 18,146.07 |
| 34 | Olsson | 3287-000 | Gas Mixer Conduit Conflict | 12/9/2021 | | \$ 12,383.89 |
| 35 | Olsson | 3220-000 | P1 Primary Tanks 5 and 6 Temporary Power | 3/10/2022 | | \$ 7,256.05 |
| 36 | Olsson | 3220-000 | P1 Primary Tanks Skimmers Starter Modification | 3/10/2022 | | \$ 45,374.13 |
| 37 | Olsson | 3220-000 | P1 Primary Tanks Hopper Wall Coating | 3/10/2022 | | \$ 34,505.41 |
| 38 | Olsson | 3220-000 | P1 Effluent Channel Conduit Conflict | 3/10/2022 | | \$ 9,274.98 |
| 39 | Olsson | 3220-000 | P1 Primary Tanks Torque Limit Switch | 3/10/2022 | | \$ 7,149.86 |
| 40 | Olsson | 3287-000 | Multi-zone air conditioning unit in the Cogen MCC Room and Office | 3/10/2022 | | \$ (2,309.09) |
| 41 | Olsson | 3287-000 | DAFT 2 Repair | 3/10/2022 | | \$ 59,403.53 |
| 42 | Olsson | 3287-000 | Digesters 1 and 2 Heat Exchanger Layout Reconfiguration Electrical | 6/2/2022 | 1 | \$ 12,885.18 |

| | | | | | | |
|----|--------|----------|--|----------|--|---------------|
| 43 | Olsson | 3287-000 | Digester 3 Heat Exchanger Hot Water Loop Tie-In | 6/2/2022 | | \$ 2,774.58 |
| 44 | Olsson | 3220-000 | Plant 1 Primary Basin 1 Shutdown Repair Work | 6/2/2022 | | \$ 1,009.86 |
| 45 | Olsson | 3287-000 | Replace Compressor Line and Valve at Digester 4 | 6/2/2022 | | \$ 10,762.85 |
| 46 | Olsson | 3220-000 | Plant 2 Influent Gates Removal and Concrete Demo | 6/2/2022 | | \$ 5,389.66 |
| 47 | Olsson | 3287-000 | DAFT 2 Launder Support Detail | 6/9/2022 | | \$ 45,682.30 |
| 48 | Olsson | 3220-000 | Plant 1 Primary Basins 1, 2, 5 and 6 Coating Removal | 6/9/2022 | | \$ 111,101.16 |
| 49 | Olsson | 3220-000 | Plant 1 Primary Basins 1, 2, 5 and 6 Existing Equipment Removal and Reinstallation | 6/9/2022 | | \$ 71,864.17 |
| 50 | Olsson | 3287-000 | Digester Mixing Pumps Control Programming Change | 8/4/2022 | | \$ 4,397.77 |
| 51 | Olsson | 3220-000 | Plant 1 Primary Basins Skimmers I/O Connection and Programming Change | 8/4/2022 | | \$ 14,237.83 |
| 52 | Olsson | 3287-000 | Fiber Patch Cables to Connect the Centrifuge PLC to the Centrifuge Patch Panel | 8/4/2022 | | \$ 3,755.90 |
| 53 | Olsson | 3220-000 | Plant 1 Primary Basins 3 and 4 Coating Removal | 8/4/2022 | | \$ 43,222.24 |
| 54 | Olsson | 3220-000 | Plant 1 Secondary Basins Concrete Structural and Basins 2 and 3 Drive Plate Rework | 8/4/2022 | | \$ 20,860.16 |

| | | | | | | |
|----|--------|----------|---|-----------|--|---------------|
| 55 | Olsson | 3220-000 | Plant 2 Primary Basins Repair and Rehab of Head-Shaft Bearings | 8/4/2022 | | \$ 4,618.44 |
| 56 | Olsson | 3231-000 | Board SOCWA Front Office with Plywood to Cover Windows | 8/4/2022 | | \$ 3,305.76 |
| 57 | Olsson | 3220-000 | Seal the Openings at Plant 1 Primary Influent and Effluent Channels | 8/4/2022 | | \$ 25,491.03 |
| 58 | Olsson | 3220-000 | Plant 1 Primary Basins 3 and 4 Existing Equipment Removal and Reinstallation | 9/1/2022 | | \$ 26,498.32 |
| 59 | Olsson | 3220-000 | Plant 1 Secondary Basins Existing Embedded Metal Plates | 9/1/2022 | | \$ 4,290.48 |
| 60 | Olsson | 3220-000 | Plant 2 Primary Baffle Frame Replacement | 9/1/2022 | | \$ 18,291.57 |
| 61 | Olsson | 3287-000 | Digester hatch connection, temperature gauge adjustment, and potholing | 11/3/2022 | | \$ 9,971.62 |
| 62 | Olsson | 3220-000 | Plant 1 Primary and Secondary Basins crack injection, concrete repair, channel cleaning, solids removal | 11/3/2022 | | \$ 146,734.55 |
| 63 | Olsson | 3287-000 | Boiler Room Modifications | 12/8/2022 | | \$ 14,797.83 |
| 64 | Olsson | 3287-000 | DAFT 1 Repair | 12/8/2022 | | \$ 66,992.33 |
| 65 | Olsson | 3220-000 | Secondary Clarifier Telescoping Valve Modifications (Design Error) | 12/8/2022 | | \$ 32,709.94 |
| 66 | Olsson | 3287-000 | Digester Control Buildings Modifications | 2/2/2023 | | \$ 9,746.81 |

| | | | | | | |
|----------------|--------|----------|--|-----------|--|-----------------|
| 67 | Olsson | 3220-000 | Plant 1 and 2 Field Obstructions | 2/2/2023 | | \$ 8,871.74 |
| 68 | Olsson | 3287-000 | MCC-F1 Site Modifications | 2/2/2023 | | \$ 57,233.12 |
| 69 | Olsson | 3287-000 | DAFT and TWAS area additional slab modification and piping material change | 2/2/2023 | | \$ 19,368.58 |
| 70 | Olsson | 3287-000 | DAFT 1 Area Reconfiguration | 3/2/2023 | | \$ 3,046.43 |
| 71 | Olsson | 3287-000 | Digester 2 Hot Water Loop Change | 3/2/2023 | | \$ 29,525.46 |
| 72 | Olsson | 3220-000 | Plant 1 Seal Influent Channel Openings and Helical Drives Temporary Covers | 4/6/2023 | | \$ 10,831.51 |
| 73 | Olsson | 3287-000 | TWAS/DAFT Area Modifications | 12/7/2023 | | \$ 67,278.13 |
| 74 | Olsson | 3287-000 | Digester Area Ductbank Conflicts and Additional Work | 12/7/2023 | | \$ 82,810.21 |
| 75 | Olsson | 3231-000 | Lab Building Footing Demolition | 12/7/2023 | | \$ 6,537.01 |
| 76 | Olsson | 3220-000 | Plant 1 Additional Repair and Modification | 12/7/2023 | | \$ 39,052.96 |
| 77 | Olsson | 3220-000 | Plant 2 Additional Repair and Modification | 12/7/2023 | | \$ 41,697.76 |
| 78 | Olsson | 3220-000 | Aluminum Kickplate at Aeration Tanks | 12/7/2023 | | \$ 57,928.56 |
| 79 | Olsson | 3220-000 | Phase 1 Bypass Pumping | 12/7/2023 | | \$ 79,117.65 |
| 80 | Olsson | 3220-000 | Phases 2 and 3 Bypass Pumping | 12/7/2023 | | \$ 108,456.05 |
| Deduct-Common | Olsson | 3231-000 | Energy Building Monorail System Descope (F1-F4) | 8/4/2022 | | \$ (70,585.34) |
| Deduct-Liquids | Olsson | 3220-000 | Effluent Pump Station Descope (A1-A6) | 8/4/2022 | | \$ (483,605.73) |

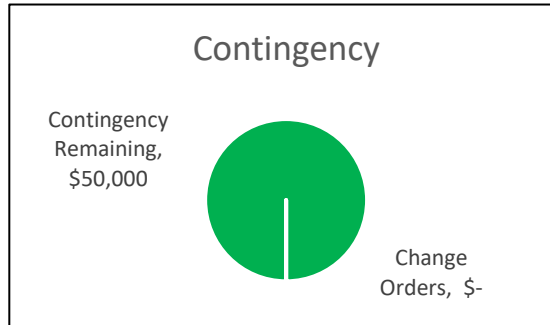
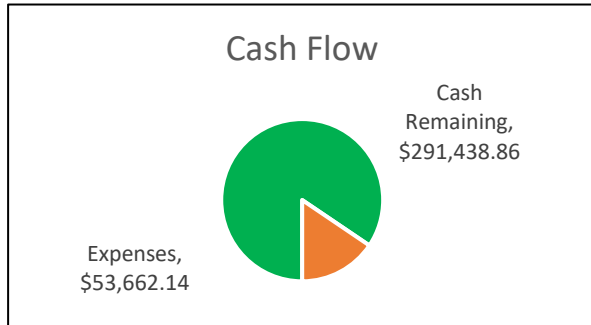
| | | | | | | |
|--|---------------|----------|---|-----------|------------|------------------------|
| Deduct-Solids | Olsson | 3287-000 | Energy Building Modifications Desclope (G1-G2, & H1-H2) | 8/4/2022 | | \$ (357,382.60) |
| HAL 01 | Hallsten | 3220-000 | Cover Layout Modifications | 8/4/2022 | | \$ 16,715.25 |
| Approved by Board of Directors (Amendments) | | | | | | \$ 1,651,288.00 |
| 1CM Common | Butier | 3231-000 | CM Change Order No. 1 | 7/13/2021 | | \$ 48,995.00 |
| 1CM Liquids | Butier | 3220-000 | CM Change Order No. 1 | 7/13/2021 | | \$ 294,125.00 |
| 1CM Solids | Butier | 3287-000 | CM Change Order No. 1 | 7/13/2021 | | \$ 269,595.00 |
| 1ESDC Common | Carollo | 3231-000 | ESDC Change Order No. 1 | 6/3/2021 | | \$ 18,210.00 |
| 1ESDC Liquids | Carollo | 3220-000 | ESDC Change Order No. 1 | 6/3/2021 | | \$ 109,256.00 |
| 1ESDC Solids | Carollo | 3287-000 | ESDC Change Order No. 1 | 6/3/2021 | | \$ 100,151.00 |
| 1G Common | Ninyo & Moore | 3231-000 | Geotechnical Services Change Order No. 1 | 2/3/2022 | | \$ 5,400.00 |
| 1G Liquids | Ninyo & Moore | 3220-000 | Geotechnical Services Change Order No. 1 | 2/3/2022 | | \$ 12,300.00 |
| 1G Solids | Ninyo & Moore | 3287-000 | Geotechnical Services Change Order No. 1 | 2/3/2022 | | \$ 12,300.00 |
| 2CM Liquids | Butier | 3220-000 | CM Change Order No 2 | 5/12/2022 | | \$ 196,268.00 |
| 2CM Solids | Butier | 3287-000 | CM Change Order No. 2 | 5/12/2022 | | \$ 196,268.00 |
| 2ESDC Common | Carollo | 3231-000 | ESDC Change Order No. 2 | 12/9/2021 | | \$ 11,075.00 |
| 2ESDC Liquids | Carollo | 3220-000 | ESDC Change Order No. 2 | 12/9/2021 | | \$ 196,440.00 |
| 2ESDC Solids | Carollo | 3287-000 | ESDC Change Order No. 2 | 12/9/2021 | | \$ 180,905.00 |
| Grand Total | | | | | 191 | \$ 3,452,749.47 |

Project Financial Status

| | |
|---------------------|---|
| Project Committee | 24 |
| Project Name | Aliso Creek Ocean Outfall Internal Seal Replacement |
| Project Description | Replacing 5 seals on the interior of the outfall |

Data Last Updated

December 7, 2023



Cash Flow

| | |
|-----------|---------------|
| Collected | \$ 345,101.00 |
| Expenses | \$ 53,662.14 |

Project Completion

| | |
|----------|------|
| Schedule | 100% |
| Budget | 87% |

Construction Contracts

| Company | PO No. | Original | Change Orders | Amendments | Total | Invoiced |
|----------------|--------|----------------------|---------------|-------------|----------------------|----------------------|
| J.F. Brennan | 19185 | \$ 261,753.00 | | | \$ 261,753.00 | \$ 261,753.00 |
| Black & Veatch | 18544 | \$ 75,310.00 | | | \$ 75,310.00 | \$ 30,461.25 |
| | | \$ 337,063.00 | \$ - | \$ - | \$ 337,063.00 | \$ 292,214.25 |

Construction Contingency

| Area | Project Code | Amount | Change Orders | Total Remaining | Percent Used |
|---------|--------------|---------------------|---------------|---------------------|--------------|
| Outfall | 3480-000 | \$ 50,000.00 | \$ - | \$ 50,000.00 | 0.0% |
| | | \$ 50,000.00 | \$ - | \$ 50,000.00 | 0.0% |

Agenda Item

7

Engineering Committee Meeting

Meeting Date: December 14, 2023

TO: Engineering Committee

FROM: Roni Grant, Associate Engineer

SUBJECT: Contract Award for MCC-M, Switchgear Circuit Breaker, and Portable Generator Connection Pre-Procurement [Project Committee 2]

Overview

SOCWA staff is currently working on a project to replace MCC-M, switchgear circuit breaker, and adding a portable generator connection for the existing Magnum breaker at the J.B. Latham treatment plant (JBL) under Project 3252-000, MCC M and G Replacement. The lead time for the MCC and appurtenances is approximately 52 weeks.

SOCWA staff has been looking into pre-purchasing this and other equipment due to the reported long lead times. Pre-purchasing would allow SOCWA to coordinate the construction bidding with the equipment delivery date. This approach will reduce the contractor's schedule and reduces the contractor's overhead costs.

SOCWA staff solicited quotes through Sourcewell for MCC-M, switchgear circuit breaker, and portable generator connection. One quote was received from Pacific Parts & Controls, representing the manufacturer Eaton. The vendor for Square D was non-responsive at this point, and staff will follow up with the second vendor. There are also further clarifications needed on the quote received from Pacific Parts, and staff expects to receive the revised quote by the time of the December Engineering Committee meeting.

Cost Allocation

The quote from Pacific Parts & Controls is \$162,703 for the MCC and switchgear circuit breaker. The quote for the portable generator connection is \$37,492. The total for the two items is \$200,195 including tax and freight. The engineer's estimate was \$300,000 for the MCC and portable generator connection, and \$50,000 for the switchgear circuit breaker. Staff is requesting a 25% contingency to cover other fees that might not be included in the quote. Table 1 shows the allocation of costs by member agency.

Table 1 – Cost Allocation by Member Agency

| Agency | Cost |
|--------------------------------|-------------|
| Moulton Niguel Water District | \$57,756 |
| Santa Margarita Water District | \$120,317 |
| South Coast Water District | \$72,171 |
| Total | \$250,244 |

The FY23/24 budget for Project 3252-000 (MCC M and G Replacement) is \$1M, which was intended for pre-purchasing equipment.

Recommended Action: Staff recommends that the Engineering Committee recommend that the PC 2 Board approve the contract to Pacific Parts & Controls for a total of \$250,244, including a 25% contingency for the JBL MCC-M, switchgear circuit breaker, and portable generator connection pre-procurement.

J.B. LATHAM TREATMENT PLANT MCC-M AND MCC-G REPLACEMENT PROJECT
Quotation – Revision 2

ADDER FOR SC, AF, AND COORD. STUDY: Available upon request

ADDER FOR ACCEPTANCE TESTING/TRAINING: Available upon request

Note that with power system short circuit and coordination studies and EESS site acceptance testing per EESS or NETA standard work scopes only, an extra year of warranty is provided by the factory to the customer at no extra cost.

PLANS DATED: May 2023 **Plan Sheets provided for this quotation:** E-Sheets

ORDER MUST BE RELEASED FOR MANUFACTURE WITHIN 90 DAYS OF DATE OF ORDER ENTRY OR BE SUBJECT TO ESCALATION COSTS. DUE TO EXTENDED DELIVERY DATES, PRICING MAY NOT BE HELD CONSTANT BETWEEN ORDER RELEASE AND SHIPMENT. PRICING MAY BE ADJUSTED PRIOR TO SHIPMENT.

GENERAL COMMENTS, CLARIFICATIONS, SPECIAL CONDITIONS

1. Eaton shall not be responsible for any failure to perform, or delay in performance of, its obligations resulting from the COVID-19 pandemic or any future epidemic, and Buyer shall not be entitled to any damages resulting thereof.
2. Cable terminations use mechanical type lugs, not compression type lugs, unless shown in the description of the equipment. Mechanical lugs will accept either copper or aluminum cables. Standard termination lugs are provided based on the ampacity of each circuit. Optional lugs are available that generally allow for the next larger standard cable size. Oversized lugs and/or additional quantities of parallel cables must be accommodated by the contractor's installation method (e.g. insulated cable splices in the equipment gutter, power terminal blocks, etc.) and are not part of this quotation.
3. Not included unless shown as a separate item within this bill of materials: safety switches, enclosed circuit breakers, starters meter sockets, spare parts / renewal parts and other miscellaneous equipment, 600 Volt or 250V fuses (others supplied only if noted specifically), extended warranty, seismic calculations, and selective coordination.
4. Dry type transformers (DOE 2016) - primary or secondary terminal lugs are not included. DTDI supplied with factory standard impedance and reactance levels unless shown otherwise.
5. Panels and switchboards- Eaton is not responsible for Title 24 design compliance unless Title 24 requirements are an integral part of the design. *** SPD and customer metering are only included where shown on single line or panel schedules. ***
6. Motor Control Centers – Overload heaters for motor starters are included in the price. However, these heaters will not be shipped until a verified list of full load amps or the specific heater sizes have been submitted to Eaton Electrical in writing
7. Eaton not responsible for Utility Meter Maximum center-line Height or CEC/NEC 6'-7" center of OCPD handle violation if the surface for electrical equipment supplied by Eaton – Enclosed Control, Fused or MCCB Switching Devices, Panelboards, Switchboards, LV Switchgear, MV Switchgear, etc.... – is installed on a surface more than 1" (i.e., housekeeping pads) above the level plane in front of the equipment as required by Utilities and NEC/CEC.
8. Order Entry- Eaton does not send utility approval drawings unless requested by customer. Customer to provide utility contact information. Lift gate truck requirement for switchboard delivery must be requested at or before time of order entry. Liquidated damages will not be accepted.
9. Defense Priorities & Allocations System (DPAS)- All prime contracts, subcontracts or purchase orders in support of an authorized program are given a priority rating. Eaton must be notified of the priority rating and ship date at time of bid.
10. The following (4) key elements must be referenced on the purchase order. If they are not, then the order is not considered compliant with 15 CFR Part 700.12 and will be rejected by Eaton.
 - Priority Rating
 - A required delivery date (on or about or asap will not do)
 - Manual or electronic signature from the customer (issuer of the purchase order)
 - A statement that reads in substance: "This is a rated order certified for national defense use, and you are required to follow all provisions of the Defense Priorities and Allocations System regulation (15 CFR 700)." (FAR 52.211-15)"

PROJECT COMMENTS AND CLARIFICATIONS:

1. Specification for the power breaker options is needed to provide an accurate part. In this BOM we have attempted to assume most the required functionality for the "Portable Generator Breaker".
2. The MCC is quoted as indoor NEMA1 Gasketed.



Pricing:

| <u>Item</u> | <u>Price</u> | <u>Estimated Lead-Time</u> |
|--|--------------|--|
| MCC | \$123,151 | Approval drawings: 8 weeks Lead-time: 60 weeks |
| Magnum Breaker-Generator Feed for existing Switchgear | \$31,249 | 30-34 weeks |
| Portable Generator Connection Switchboard (Option 1) and Kirk-Key provision for existing Magnum Breaker | \$34,795 | Approval drawings: 2 weeks Lead-time: 50-60 weeks |
| Portable Generator Connection Switchboard w/2nd Section (Option 2) and Kirk-Key provision for existing Magnum Breaker | \$40,268 | Approval drawings: 2 weeks Lead-time: 50-60 weeks |
| Site Acceptance Testing and Training (non-taxable labor) | \$13,095 | |
| Prices above are plus tax, and include freight prepaid (FOB Source). Add 1 week to lead-times for transit time. Lead-time is after return of approved drawings, if required. | | |

Notes:

Eaton supplies the Key Interlock provisions only. The customer is responsible for the locks, which can be Kirk or Castell.

Portable Generator Connection Switchboard

- We are quoting two options because: From Eaton engineer: “while you can terminate into the top of this N3R switchboard section directly into the lugs of the breaker, it is tight when it comes to moving 2000 amps of cables around. So I would recommend a 2nd section, to keep everything underground.”

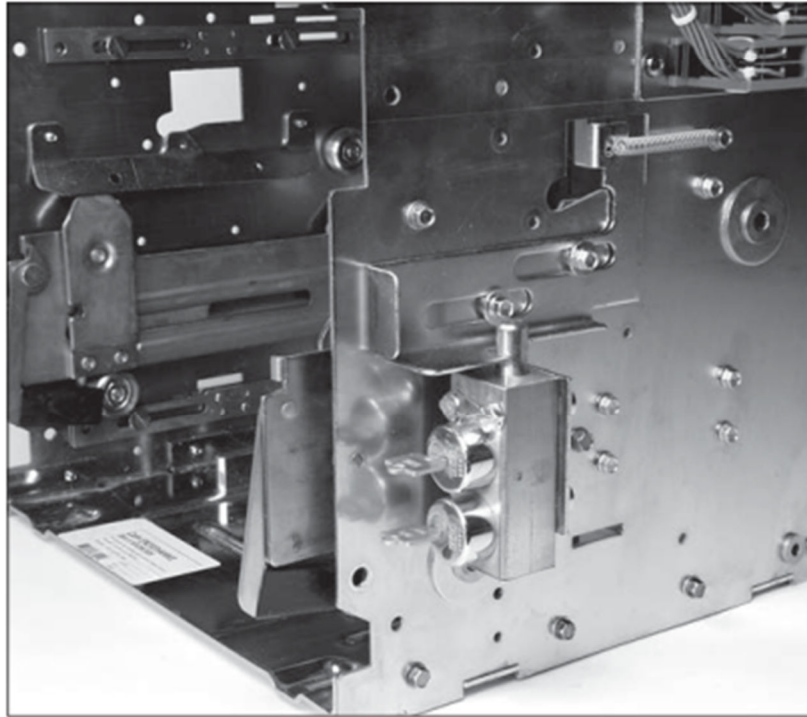
Magnum Breaker-Generator Feed for existing Switchgear

- For the Magnum breaker being added to the switchgear, that cell will need to be upgraded to accommodate the larger breaker. A cell upgrade kit is included in this quote. Note from Eaton: Any time we modify or replace a riser or cell components containing copper, we will send a new rating name plate for that section without a U.L. sticker. It is then up to the installing contractor to get a U.L. representative to come to the field and inspect modifications and issue a new U.L. sticker.
- Eaton Engineer recommends a 3-way interlocking key arrangement which requires a dual-key on the Magnum breaker being added to the switchgear for generator feed. Please see attached for details and pricing for this is included in this quote.

Switchgear Magnum Breaker

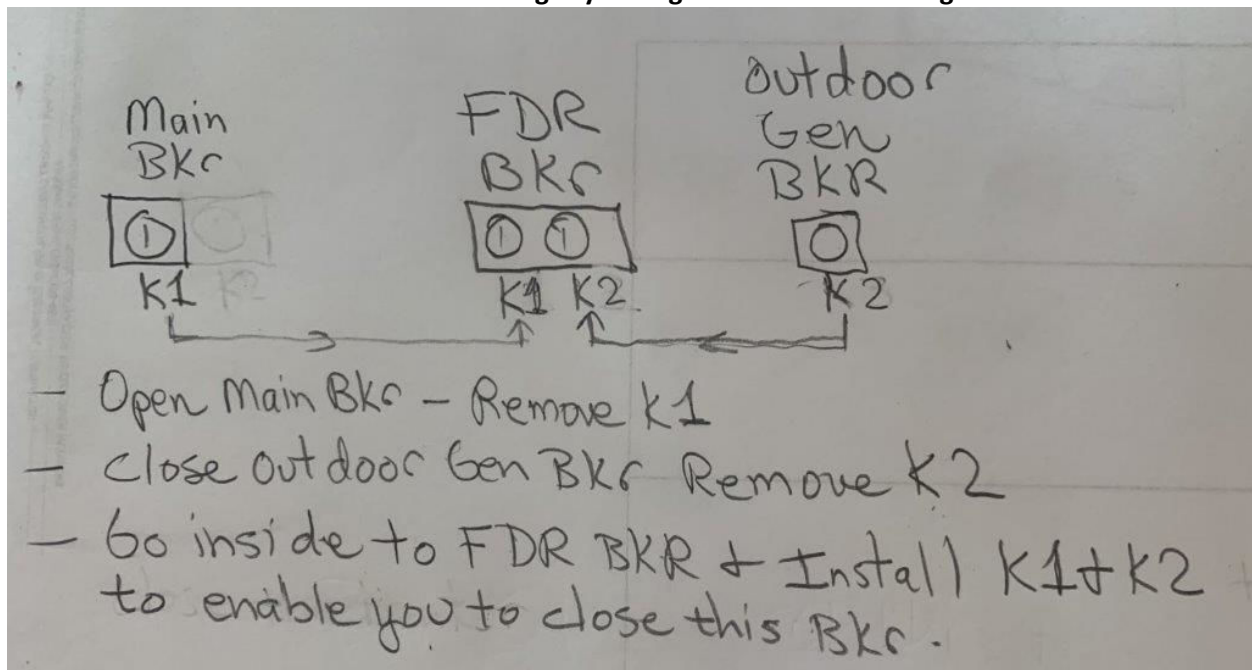
- **Cassette lock**

A cassette-mounted lock can be used in conjunction with different interlocking schemes, such as main-tie-main. The lock holds the breaker open in the CONNECTED position, preventing it from being closed. Up to three lock cylinders can be installed on one cassette. Eaton supplies the lock provisions only. The customer is responsible for the locks, which can be Kirk or Castell.



Cassette-mounted key lock

Recommend interlocking key arrangement from Eaton Engineer



BILL OF MATERIAL:

| Item No. | Qty | Product | Description |
|----------|-----|-----------------------------|---|
| | 1 | Motor Control Center | 60 Hz, Class 1B wiring, 480V 3-Phase Service, 65,000 Bracing, 65 Short Circuit Rating, Top Incoming, NEMA 1 Gasketed 21" Front Mt Only enclosure, 600A Copper Main Horizontal Bus, No Neutral, Main Breaker. Used X-Space: 81, Blank X-Space: 15, Future X-Space: 0, MCC Lead Time Code: B. |

Designation MCC-M

Qty List of Materials

- 3 HLD Main Bkr (350A trip), Lugs: 2-#400-500Kcmil
- 2 PXM2260 METER/DISPLAY 60HZ 5A 90-265V AC/DC
- 2 PXM2260
- 4 600V Potential transformer
- 6 600A Current transformer
- 4 FVNR Starter Size 1 [HMCP]
- 1 FVNR Starter Size 2 [HMCP]
- 3 FVNR Starter Size 4 [HMCP]
- 1 E125HCompact Bkr (15A trip)
- 1 E125HCompact Bkr (20A trip)
- 2 HFD Bkr (15A trip)
- 1 HFD Bkr (25A trip)
- 5 Size 1&2 FVNR-100VA Typical
- 11 Size 3&4 FVNR-150VA Typical
- 16 Size 1-4 Starter - Normally Closed
- 16 Size 1-4 Starter - Normally Open
- 8 1 Unit PB (Reset)
- 8 Red Run
- 8 Terminal Block - Latching Pull-Apart, Std.
- 8 2 Unit PB 10250T (Start/Stop)
- 8 Solid State Overload Relay (Standard C440)
- 32 D7 2P Relay
- 8 Wiremarkers at Each End
- 8 #16awg, MTW Control Wire
- 8 Additional X-Space
- 16 D15 On/Off Delay Timer
- 32 Amber Fault
- 16 3 Pos. Sel. Sw. (Hand-Off-Auto)
- 8 Pilot Light-PTT-10250T-LED (Stopped)
- 8 Pilot Light-PTT-10250T-LED (Run)
- 3 Key Interlock
- 16 Standard Trip
- 1 Thermal Magnetic Trip
- 8 Pilot Light-PTT-10250T-LED (Overload Trip)
- 1 30 Kva 3 ph, 440-480V / 120-208V High Efficiency Xfmr, 50A Pri., 110A Sec. Bkr.
- 1 PL1A Panelboard 225A 120/208V 3PH 4W 42 CKT
- 42 Pnlbd Bkr, BAB 1 Pole 20A bkr
- 2 250KA, SPD Standard + Surge Counter Features Package, with Circuit Breaker
- 1 12" Door
- 3 18" Door

- Qty List of Materials**
- 4 6" Door
 - 8 Tin Plated horizontal bus
 - 8 600A Vertical Bus (Tin-plated cu)
 - 8 Labyrinth, Isolated/Insulated vertical bus barrier with shutters
 - 8 600A Horiz. Cu Gnd Bus, 1/4" x 2" Bar
 - 8 65KA Bus Bracing
 - 8 Fire Wall Barriers between each section
 - 8 Bottom Vertical Bus Barrier
 - 8 600A 50Deg C, Copper Frnt Mtd 21" NEMA 1 Gasketed

Magnum Breaker-Generator Feed for existing Switchgear

| Item No. | Qty | Product | Description |
|----------|-----|----------------------------|-------------|
| | 1 | Magnum Air Circuit Breaker | MDS3 |

Catalog No MDN6203XEA201GNMNNNNNNNFX

- Catalog No** MDN6203XEA201GNMNNNNNNNFX
- Qty List of Materials**
- 1 Breaker, MDN-620, 3 Poles, 2000 Amps, Drawout
 - Current Sensors / Rating Plug, 2000
 - Trip Unit 1150 ARMS LSIG, 120-Vac Power Supply
 - Trip Indicator
 - NEUTRAL SENSOR 2000:1
 - DUAL KEY PROVISION
 - No Lugs, provide by others
 - CELL UPGRADE KIT to 2000A -- CELL 2A

Site Acceptance Testing and Training

| Item No. | Qty | Product | Description |
|----------|-----|----------|-------------|
| | 1 | EESS SAT | |

A Coordination Study does not exist.

Designation Site Acceptance Testing & Training

- Qty List of Materials**
- 1 1 Test Equipment Setup Locations
 - 1 One (1) trip of one (1) working day during the installation and startup of the equipment.
 - One (1) trip of one (1) working day two (2) months before the warranty expiration to identify any issues to be corrected under warranty.
 - One (1) trip of one (1) working day to perform training as specified herein.

MCC General Information

MCC General Information

Wiring Diagram Type Eaton Standard
 MCC Quantity
 Standards UL845, NEMA, NEC
 Special Codes UL
 Service Voltage (3 Phase) 480
 Frequency 60
 System 3PH3W
 Witness Testing No

Ind. Light Type
 PL Color (On) Push to Test
 PL Color (Off) Red
 PL Color (O.L. Trip) Green
 PL Color (Rev/Slow) Blue
 Amber

Enclosure Specifications

Total Structures 8
 Type NEMA 1 Gasketed
 Depth 21" Front Mt Only
 Height 90"
 Horizontal Wireways 9" High, Top & Bottom
 Vertical Wireways 4"
 Channel Sills No
 Bottom Plates None
 150 Watt Space Heaters No
 Space Heater Thermostat No
 Master Terminal Block Location None
 IBC/CBC Seismic Qualified No
 ABS Certified No

Structure Schedule

There are 8 structure(s).
 All structures have a 600 A vertical bus.
 Total width of all sections is 164"
 Height of all sections is 90"

Unit Modifications

#16awg, MTW Control Wire
 Wiremarkers at Each End
 Solid State Overload Relay (Standard C440)
 Terminal Block - Latching Pull-Apart, Std.

Bus System Specifications

Main Bus Amps 600
 Main Bus Material Copper
 Main Bus Bar Plating Tin
 Insulated Horiz. Bus No
 1000A/sq in. Cu Bus No
 Vertical Bus Amps See Structure Schedule
 Vertical Bus Material Tin Plated Copper
 Vertical Bus Barrier Labyrinth, Isolated/
 Insulated with shutters
 Bus Bracing 65,000
 Ground Bus 600
 Ground Bus Location Top
 Ground Bus Lug Size 1-#6-350Kcmil
 Ground Bus Lug Type Screw
 Plug-in 300A Vert. Gnd. Bus No
 Neutral None
 Horizontal Bus Temperature Rise 50 deg C
 Bottom Vert. Bus Barrier Yes
 Vertical Ground Bus No

Incoming Line Termination

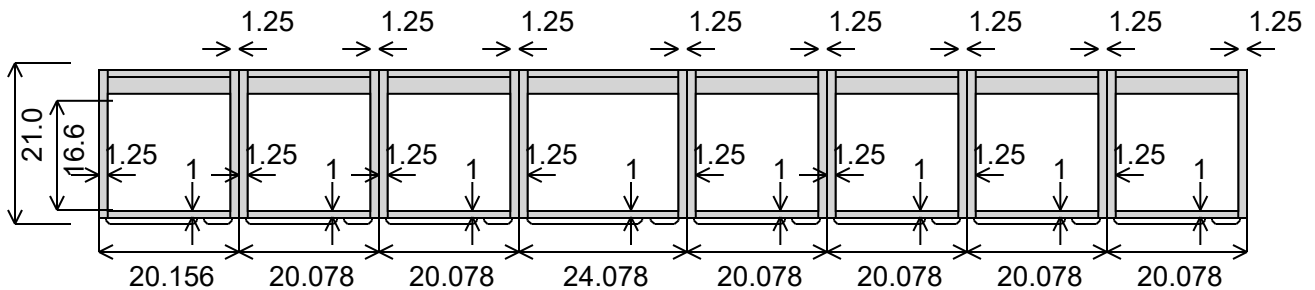
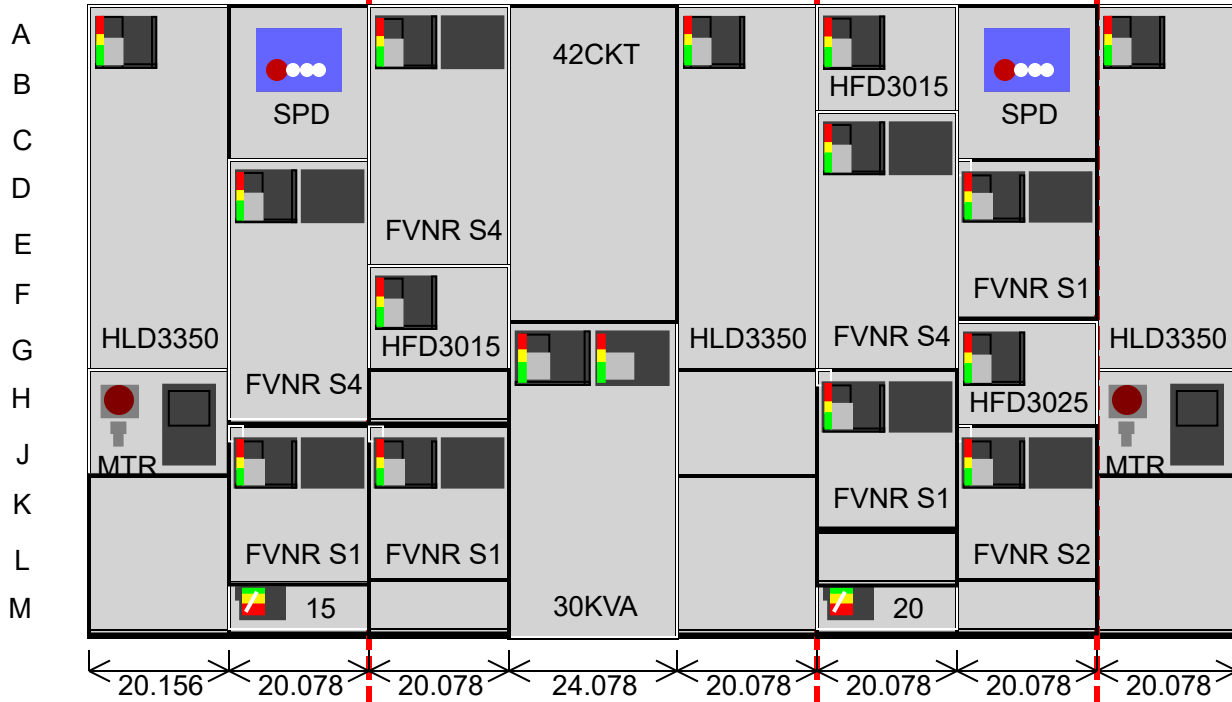
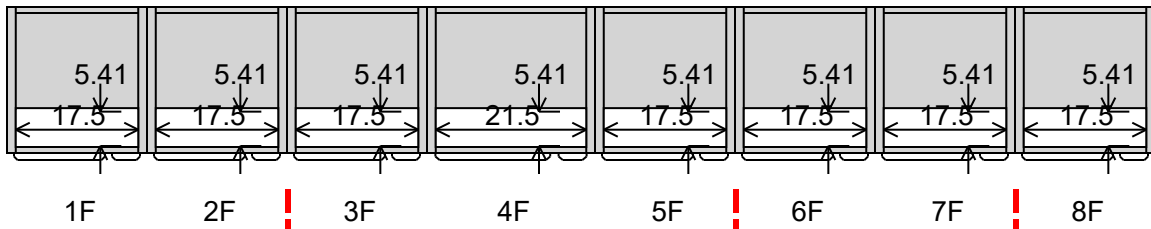
Device: HLD Main Bkr (350A trip), Lugs: 2-#400-500Kcmil
 Cable Entry Top
 Splice Kit / Transition None
 MCC Type Match Up
 MCC Type Match Up GO# ** None **

MCC Starter Specifications

Wiring Class 1B
 Control Voltage 120
 Control Voltage Src Ind CPT
 Nameplate Size 1" X 2.5"
 Nameplate Color Black / White Letters
 Pilot Dev. Model 10250T

| | | | | | |
|--|-------------------|--------------|--|--|--------|
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| | JASON D ALLINGTON | 12/6/2023 | | | |
| | APPROVED BY | DATE | JOB NAME | South Orange County Wastewater Authority JB Latham Trea MCC-M | |
| | | DESIGNATION | | | |
| | VERSION | TYPE | DRAWING TYPE Customer Appr. | | |
| | 1.0.3.3 | Freedom+ MCC | | | |
| NEG-ALT Number | REVISION | DWG SIZE | G.O. | ITEM | SHEET |
| LAED0917X0K2-0002 | | A | | | 1 of 6 |

Top View



Floor View

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| | | | |
|-------------------------------------|----------------------|---|---------------------------------|
| PREPARED BY JASON D ALLINGTON | DATE 12/6/2023 | Eaton Fayetteville, NC | |
| APPROVED BY | DATE | JOB NAME South Orange County Wastewater Authority JB Latham Trea | DESIGNATION MCC-M |
| VERSION 1.0.3.3 | TYPE Freedom+ MCC | DRAWING TYPE Customer Appr. | |
| NEG-ALT Number LAED0917X0K2-0002 | REVISION | DWG SIZE A | G.O. ITEM SHEET 2 of 6 |

| Unit | Nameplate | Description | Class | Starter Size HP/FLA Wire Diag. | Bkr/Sw Poles Trip/Clip | Unit Features |
|------|--------------------|--|-------|--------------------------------------|------------------------------|---|
| 1G | SWGR-MA | HLD Main Bkr (350A trip), Lugs: 2-#400-#400-500Kcmil | | NONE | HLD 3P 350 | 1 Thermal Magnetic Trip 1 Standard Trip 1 Key Interlock |
| 1J | | PXM2260 | | NONE | | |
| 1M | | 18" Door | | | | |
| 2C | | 250KA, SPD Standard + Surge Counter Features Package, with Circuit Breaker | | NONE | | |
| 2H | MAIN-2 NPWP-2 | FVNR Starter Size 4 [HMCP] | F206 | 4 60 NONE | HMCP 3P 150 | 2 Size 3&4 FVNR-150VA Typical 2 Size 1-4 Starter - Normally Open 2 Size 1-4 Starter - Normally Closed 2 3 Pos. Sel. Sw. (Hand-Off-Auto) 1 Pilot Light-PTT-10250T-LED (Run) 1 Pilot Light-PTT-10250T-LED (Stopped) 1 Pilot Light-PTT-10250T-LED (Overload Trip) 1 Additional X-Space 1 Standard Trip 1 Red Run 4 Amber Fault 1 1 Unit PB (Reset) 1 2 Unit PB 10250T (Start/Stop) 4 D7 2P Relay 2 D15 On/Off Delay Timer |
| 2L | JOCKEY-1 NPWP-1 | FVNR Starter Size 1 [HMCP] | F206 | 1 10 NONE | HMCP 3P 30 | 1 Size 1&2 FVNR-100VA Typical 1 Size 3&4 FVNR-150VA Typical 2 Size 1-4 Starter - Normally Open 2 Size 1-4 Starter - Normally Closed 2 3 Pos. Sel. Sw. (Hand-Off-Auto) 1 Pilot Light-PTT-10250T-LED (Run) 1 Pilot Light-PTT-10250T-LED (Stopped) 1 Pilot Light-PTT-10250T-LED (Overload Trip) 1 Additional X-Space 1 Standard Trip 1 Red Run 4 Amber Fault 1 1 Unit PB (Reset) 1 2 Unit PB 10250T (Start/Stop) 4 D7 2P Relay 2 D15 On/Off Delay Timer |
| 2M | STRAINER-1 | E125HCompact Bkr (15A trip) | | | E125H 3P 15 | 1 Standard Trip |
| 3E | SPARE | FVNR Starter Size 4 [HMCP] | F206 | 4 60 NONE | HMCP 3P 150 | 2 Size 3&4 FVNR-150VA Typical 2 Size 1-4 Starter - Normally Open 2 Size 1-4 Starter - Normally Closed 2 3 Pos. Sel. Sw. (Hand-Off-Auto) 1 Pilot Light-PTT-10250T-LED (Run) 1 Pilot Light-PTT-10250T-LED (Stopped) 1 Pilot Light-PTT-10250T-LED (Overload Trip) 1 Additional X-Space 1 Standard Trip 1 Red Run |

| | | | | | |
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| | JASON D ALLINGTON | 12/6/2023 | JOB NAME | South Orange County Wastewater Authority JB Latham Trea | |
| | APPROVED BY | DATE | DESIGNATION | MCC-M | |
| | VERSION | TYPE | DRAWING TYPE | | |
| | 1.0.3.3 | Freedom+ MCC | Customer Appr. | | |
| NEG-ALT Number | REVISION | DWG SIZE | G.O. | ITEM | SHEET |
| LAED0917X0K2-0002 | | A | | | 3 of 6 |

| Unit | Nameplate | Description | Class | Starter Size HP/FLA Wire Diag. | Bkr/Sw Poles Trip/Clip | Unit Features |
|------|------------------|---|-------|--------------------------------------|------------------------------|---|
| | | | | | | 4 Amber Fault 1 1 Unit PB (Reset) 1 2 Unit PB 10250T (Start/Stop) 4 D7 2P Relay 2 D15 On/Off Delay Timer |
| 3G | AHU-1R | HFD Bkr (15A trip) | | | HFD 3P 15 | 1 Standard Trip |
| | | | | 5599A85.DWF | | |
| 3H | | 6" Door | | | | |
| 3L | SPARE | FVNR Starter Size 1 [HMCP] | F206 | 1 10 NONE | HMCP 3P 30 | 1 Size 1&2 FVNR-100VA Typical 1 Size 3&4 FVNR-150VA Typical 2 Size 1-4 Starter - Normally Open 2 Size 1-4 Starter - Normally Closed 2 3 Pos. Sel. Sw. (Hand-Off-Auto) 1 Pilot Light-PTT-10250T-LED (Run) 1 Pilot Light-PTT-10250T-LED (Stopped) 1 Pilot Light-PTT-10250T-LED (Overload Trip) 1 Additional X-Space 1 Standard Trip 1 Red Run 4 Amber Fault 1 1 Unit PB (Reset) 1 2 Unit PB 10250T (Start/Stop) 4 D7 2P Relay 2 D15 On/Off Delay Timer |
| 3M | | 6" Door | | | | |
| 4F | LP-M | PL1A Panelboard 225A 120/208V 3PH 4W 42 CKT | | | | 42 Pnlbd Bkr, BAB 1 Pole 20A bkr |
| | | | | 5A10398.DWF | | |
| 4M | XMFR LP-M | 30 Kva 3 ph, 440-480 / 120-208V High Efficiency Xfmr, 50A Pri., 110A Sec. Bkr. | | | | |
| | | | | 5A10398.DWF | | |
| 5G | TIE | HLD Main Bkr (350A trip), Lugs: 2-#400- -#400-500Kcmil | | | HLD 3P 350 | 1 Standard Trip 1 Key Interlock |
| 5J | | 12" Door | | | | |
| 5M | | 18" Door | | | | |
| 6B | STRAINER-2 | HFD Bkr (15A trip) | | | HFD 3P 15 | 1 Standard Trip |
| | | | | 5599A85.DWF | | |
| 6G | MAIN-3 NPWP-3 | FVNR Starter Size 4 [HMCP] | F206 | 4 60 NONE | HMCP 3P 150 | 2 Size 3&4 FVNR-150VA Typical 2 Size 1-4 Starter - Normally Open 2 Size 1-4 Starter - Normally Closed 2 3 Pos. Sel. Sw. (Hand-Off-Auto) 1 Pilot Light-PTT-10250T-LED (Run) 1 Pilot Light-PTT-10250T-LED (Stopped) 1 Pilot Light-PTT-10250T-LED (Overload Trip) 1 Additional X-Space 1 Standard Trip 1 Red Run 4 Amber Fault 1 1 Unit PB (Reset) 1 2 Unit PB 10250T (Start/Stop) 4 D7 2P Relay 2 D15 On/Off Delay Timer |

| | | | | | |
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| | JASON D ALLINGTON | 12/6/2023 | JOB NAME | South Orange County Wastewater Authority JB Latham Trea | |
| | APPROVED BY | DATE | DESIGNATION | MCC-M | |
| | VERSION | TYPE | DRAWING TYPE | | |
| | 1.0.3.3 | Freedom+ MCC | Customer Appr. | | |
| NEG-ALT Number | REVISION | DWG SIZE | G.O. | ITEM | SHEET |
| LAED0917X0K2-0002 | | A | | | 4 of 6 |

| Unit | Nameplate | Description | Class | Starter Size HP/FLA Wire Diag. | Bkr/Sw Poles Trip/Clip | Unit Features |
|------|-------------------------|---|-------|--------------------------------------|------------------------------|---|
| 6K | JOCKEY-4 NPWP-4 | FVNR Starter Size 1 [HMCP] | F206 | 1 10 NONE | HMCP 3P 30 | 1 Size 1&2 FVNR-100VA Typical 1 Size 3&4 FVNR-150VA Typical 2 Size 1-4 Starter - Normally Open 2 Size 1-4 Starter - Normally Closed 2 3 Pos. Sel. Sw. (Hand-Off-Auto) 1 Pilot Light-PTT-10250T-LED (Run) 1 Pilot Light-PTT-10250T-LED (Stopped) 1 Pilot Light-PTT-10250T-LED (Overload Trip) 1 Additional X-Space 1 Standard Trip 1 Red Run 4 Amber Fault 1 1 Unit PB (Reset) 1 2 Unit PB 10250T (Start/Stop) 4 D7 2P Relay 2 D15 On/Off Delay Timer |
| 6L | | 6" Door | | | | |
| 6M | MUFFIN MONSTER | E125H Compact Bkr (20A trip) | | | E125H 3P 20 | 1 Standard Trip |
| 7C | | 250KA, SPD Standard + Surge Counter Features Package, with Circuit Breaker | | NONE | | |
| 7F | DECANT PUMP 02P26013 | FVNR Starter Size 1 [HMCP] | F206 | 1 10 NONE | HMCP 3P 30 | 1 Size 1&2 FVNR-100VA Typical 1 Size 3&4 FVNR-150VA Typical 2 Size 1-4 Starter - Normally Open 2 Size 1-4 Starter - Normally Closed 2 3 Pos. Sel. Sw. (Hand-Off-Auto) 1 Pilot Light-PTT-10250T-LED (Run) 1 Pilot Light-PTT-10250T-LED (Stopped) 1 Pilot Light-PTT-10250T-LED (Overload Trip) 1 Additional X-Space 1 Standard Trip 1 Red Run 4 Amber Fault 1 1 Unit PB (Reset) 1 2 Unit PB 10250T (Start/Stop) 4 D7 2P Relay 2 D15 On/Off Delay Timer |
| 7H | LP-K | HFD Bkr (25A trip) | | | HFD 3P 25 | 1 Standard Trip |
| 7L | SCUM PUMP 02P26112 | FVNR Starter Size 2 [HMCP] | F206 | 2 15 NONE | HMCP 3P 50 | 1 Size 1&2 FVNR-100VA Typical 1 Size 3&4 FVNR-150VA Typical 2 Size 1-4 Starter - Normally Open 2 Size 1-4 Starter - Normally Closed 2 3 Pos. Sel. Sw. (Hand-Off-Auto) 1 Pilot Light-PTT-10250T-LED (Run) 1 Pilot Light-PTT-10250T-LED (Stopped) 1 Pilot Light-PTT-10250T-LED (Overload Trip) 1 Additional X-Space 1 Standard Trip 1 Red Run |

| | | | | | |
|---|-------------------|--------------|------------------------|---|--------|
| <p>The information on this document is created by Eaton Corporation. It is disclosed in confidence and it is only to be used for the purpose in which it is supplied.</p> | PREPARED BY | DATE | Eaton Fayetteville, NC | | |
| | JASON D ALLINGTON | 12/6/2023 | JOB NAME | South Orange County Wastewater Authority JB Latham Trea | |
| | APPROVED BY | DATE | DESIGNATION | MCC-M | |
| | VERSION | TYPE | DRAWING TYPE | | |
| | 1.0.3.3 | Freedom+ MCC | Customer Appr. | | |
| NEG-ALT Number | REVISION | DWG SIZE | G.O. | ITEM | SHEET |
| LAED0917X0K2-0002 | | A | | | 5 of 6 |

| <u>Unit</u> | <u>Nameplate</u> | <u>Description</u> | <u>Class</u> | <u>Starter Size</u> <u>HP/FLA</u> <u>Wire Diag.</u> | <u>Bkr/Sw</u> <u>Poles</u> <u>Trip/Clip</u> | <u>Unit</u> <u>Features</u> |
|-------------|------------------|--|--------------|---|---|--|
| 7M | | 6" Door | | | | 4 Amber Fault 1 1 Unit PB (Reset) 1 2 Unit PB 10250T (Start/Stop) 4 D7 2P Relay 2 D15 On/Off Delay Timer |
| 8G | SWGR-MAR-EAST | HLD Main Bkr (350A trip), Lugs: 2-#400-#400-500Kcmil | | NONE | HLD 3P 350 | 1 Standard Trip 1 Key Interlock |
| 8J | | PXM2260 | | NONE | | |
| 8M | | 18" Door | | | | |

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| | | | | | |
|-------------------------------------|----------------------|---|----------------------|------------------|-----------------|
| PREPARED BY JASON D ALLINGTON | DATE 12/6/2023 | Eaton | | Fayetteville, NC | |
| APPROVED BY | DATE | JOB NAME South Orange County Wastewater Authority JB Latham Trea | DESIGNATION MCC-M | | |
| VERSION 1.0.3.3 | TYPE Freedom+ MCC | DRAWING TYPE Customer Appr. | | | |
| NEG-ALT Number LAED0917X0K2-0002 | REVISION | DWG SIZE A | G.O. | ITEM | SHEET 6 of 6 |

Portable Generator Connection Switchboard (Option 1) and Kirk-Key provision for existing Magnum Breaker

| Item No. | Qty | Product | Description |
|------------------|------------|---|---|
| | 1 | Switchboards | Pow-R-Line C Switchboard, Front Access/ Front and Rear Align, Type 3R (nonwalk-in) Flat Roof, 480Y/277V 3-Phase 4-Wire, 2000 Tin Plated Copper, Minimum Interrupting Rating: 65kA, Bus Bracing Rating: 65kA, Depth: 30 In |
| | | Catalog No | SDFNFPNX0D0B1 |
| | | Designation | Portable Generator Connection |
| Structure | 1 | 2000 Amp Tin Plated CU Main Structure | Solid Bottom Plate Compartment 1 - Breaker 2000A 3P [RGH 2000A Frame] Mechanical (6) #4-500 kcmil Generator Incoming Power Quick Connect Receptacles, Input (Male) TripType Not Found |
| | Qty | List of Materials | |
| | 1 | Type 3R (nonwalk-in) Flat Roof | |
| | 1 | Heater Package - (CPT, heater, thermostat, fused disconnect) | |
| | 1 | Service Entrance Label | |
| | 1 | Tin Plated Copper Ground Bus | |
| | 1 | 2000 Amp Tin Plated CU Main Structure | |
| | 1 | Mechanical (6) #4-500 kcmil | |
| | 1 | Key Interlock (Breaker) | |
| | 1 | Generator Incoming Power Quick Connect Receptacles, Input (Male) | |
| | 1 | Solid Bottom Plate | |
| | 1 | Seismic Freestanding Label (IBC/CBC Seismic Qualified) | |
| | 1 | 2000A 3P [RGH 2000A Frame], Trip 2000 A, 310+ w/ GFA, HLA, (6) #4-500 kcmil, Mechanical, Bottom | |
| | 1 | Kirk-Key provision for existing Magnum Breaker | |

Switchboard General Information

Pow-R-Line C - Specifications

Quantity: 1

Alignment: Front Access/ Front and Rear Align

Service: 480Y/277V 3-Phase 4-Wire

Minimum Interrupt Rating: 65 kA

Bus Specifications

Bus Amps: 2000

Bus Bracing Rating: 65kA

Neutral Amps: 2000

Bus Material: Tin Plated Copper

Heat Test

Ground Bus Material: Tin Plated Copper Ground Bus Bolted To Frame, (1) #6-350 kcmil Ground Lug

Incoming Information

Incoming Qty & Size: None

Structure Specifications

Service Entrance

Enclosure Type: Type 3R (nonwalk-in) Flat Roof

Enclosure: Outdoor Enlosure Configuration Per Euserc Dwg 354

Seismic Label (IBC/CBC Seismic Qualified) - Freestanding

Refer to seismic installation data sheet TD01508002E and drawing 1A32497 for details.

Heater package - (CPT, heater, thermostat, fused disconnect)

Special Notes

Qty Description

Catalog Number

Enclosure properties

Struct #

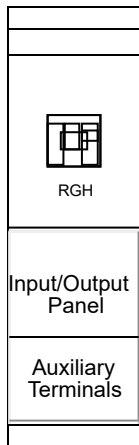
1

Description/Modifications

Generator Quick Connect Structure - 2000A Max. (Auxiliary Structure)

Solid bottom plate

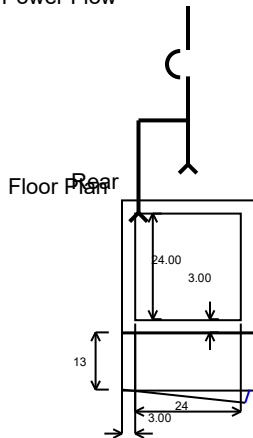
| | | | | | |
|---|---------------|--------------|--|-------------------------------|--------|
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| | JOHN H JANSEN | 12/7/2023 | | | |
| | APPROVED BY | DATE | JOB NAME | SOCWA Generator Quick Connect | |
| | | DESIGNATION | Portable Generator Connection | | |
| | VERSION | TYPE | DRAWING TYPE | | |
| | 9.0.33.3 | Switchboards | CustAppr | | |
| NEG-ALT Number | REVISION | DWG SIZE | G.O. | ITEM | SHEET |
| K7851019X3K1-0000 | 0 | DwgA | | | 1 of 3 |



Front View

| | | |
|--------|----|---|
| Struct | 1 | * |
| Depth | 30 | |
| Width | 30 | |

Power Flow



Total of 1 Structures, Total Weight of 652 Weight-Lbs. with Front Hinged Doors.
 Total of 1 Structures, Total Width of 30 Inches with Front Hinged Doors.

| | | | | | |
|--------------------------|-------|--|--|--|--|
| Structure | 1 | | | | |
| Ship-Inches | 30.00 | | | | |
| Ship-MM | 762 | | | | |
| Wdth-Inches | 30.00 | | | | |
| Wdth-MM | 762 | | | | |
| Depth(Inner)-In. | 30.00 | | | | |
| Depth(Inner)-MM | 762 | | | | |
| Depth(Outer)-In. | 43.00 | | | | |
| Depth(Outer)-MM | 1092 | | | | |
| Height-Inches | 90.00 | | | | |
| Height-MM | 2286 | | | | |
| Weight-Lbs.(Est.) | 652 | | | | |
| Weight-Kg.(Est.) | 295 | | | | |

| | | | | | |
|---|---------------|--------------|----------------|-------------------------------|--------|
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| | JOHN H JANSEN | 12/7/2023 | JOB NAME | SOCWA Generator Quick Connect | |
| | APPROVED BY | DATE | DESIGNATION | Portable Generator Connection | |
| | VERSION | TYPE | DRAWING TYPE | | |
| | 9.0.33.3 | Switchboards | CustAppr | | |
| NEG-ALT Number | REVISION | DWG SIZE | G.O. | ITEM | SHEET |
| K7851019X3K1-0000 | 0 | DwgA | | | 2 of 3 |

Switchboard Units Information

| Str# | Unit | Description/Modifications | Nameplate |
|------|------|---|-----------|
| 1 | | Generator Breaker-2000A 3P [RGH 2000A Frame], Trip(Ir) 2000A., 310+ w/ GFA, HLA, LSG Auxiliary Terminals, Mechanical, (6) #4-500 kcmil, Bottom Kirk Key interlock Neutral Terminal, (6) #4-500 kcmil Input/Output Receptacles, Input (Male) | |

| | | | | | | | |
|--|------------------------------|----------------------|--------------------------|--|-----------------|----------|--|
| The information on this document is created by Eaton Corporation. It is disclosed in confidence and it is only to be used for the purpose in which it is supplied. | PREPARED BY JOHN H JANSEN | DATE 12/7/2023 | Eaton | | | SumterSC | |
| | APPROVED BY | DATE | JOB NAME DESIGNATION | SOCWA Generator Quick Connect Portable Generator Connection | | | |
| | VERSION 9.0.33.3 | TYPE Switchboards | DRAWING TYPE CustAppr | | | | |
| NEG-ALT Number K7851019X3K1-0000 | REVISION 0 | DWG SIZE DwgA | G.O. | ITEM | SHEET 3 of 3 | | |

Portable Generator Connection Switchboard w/2nd Section (Option 2) and Kirk-Key provision for existing Magnum Breaker

| Item No. | Qty | Product | Description |
|------------------|------------|---|---|
| | 1 | Switchboards | Pow-R-Line C Switchboard, Front Access/ Front and Rear Align, Type 3R (nonwalk-in) Flat Roof, 480Y/277V 3-Phase 4-Wire, 2000 Tin Plated Copper, Minimum Interrupting Rating: 65kA, Bus Bracing Rating: 65kA, Depth: 30 In |
| | | Catalog No | SDFNFPNX0D0B2 |
| | | Designation | Portable Generator Connection |
| Structure | 1 | 2000 Amp Tin Plated CU Main Structure | Solid Bottom Plate Compartment 1 - Breaker 2000A 3P [RGH 2000A Frame] Mechanical (6) #4-500 kcmil Generator Incoming Power Quick Connect Receptacles, Input (Male) TripType Not Found |
| Structure | 2 | 2000 Amp Tin Plated CU Bussed Outgoing Cable Section | Solid Bottom Plate |
| | Qty | List of Materials | |
| | 2 | Type 3R (nonwalk-in) Flat Roof | |
| | 2 | Heater Package - (CPT, heater, thermostat, fused disconnect) | |
| | 1 | Service Entrance Label | |
| | 2 | Tin Plated Copper Ground Bus | |
| | 1 | 2000 Amp Tin Plated CU Main Structure | |
| | 1 | Mechanical (6) #4-500 kcmil | |
| | 1 | Key Interlock (Breaker) | |
| | 1 | Generator Incoming Power Quick Connect Receptacles, Input (Male) | |
| | 2 | Solid Bottom Plate | |
| | 2 | Seismic Freestanding Label (IBC/CBC Seismic Qualified) | |
| | 1 | 2000 Amp Tin Plated CU Bussed Outgoing Cable Section | |
| | 1 | 2000A 3P [RGH 2000A Frame], Trip 2000 A, 310+ w/ GFA, HLA, (6) #4-500 kcmil, Mechanical, Bottom | |
| | 1 | Kirk-Key provision for existing Magnum Breaker | |

Eaton Selling Policy 25-000 applies.

All orders must be released for manufacture within 90 days of date of order entry. If approval drawings are required, drawings must be returned approved for release within 60 days of mailing. If drawings are not returned accordingly, and/or if shipment is delayed for any reason, the price of the order will increase by 1.0% per month or fraction thereof for the time the shipment is delayed.

Seller shall not be responsible for any failure to perform, or delay in performance of, its obligations resulting from the COVID-19 pandemic or any future epidemic, and Buyer shall not be entitled to any damages resulting thereof.

Kevin Renek
 Sr. Application Engineer
 909-590-6802
 krenek@pacificparts.com

Switchboard General Information

Pow-R-Line C - Specifications

Quantity: 1

Alignment: Front Access/ Front and Rear Align

Service: 480Y/277V 3-Phase 4-Wire

Minimum Interrupt Rating: 65 kA

Bus Specifications

Bus Amps: 2000

Bus Bracing Rating: 65kA

Neutral Amps: 2000

Bus Material: Tin Plated Copper

Heat Test

Ground Bus Material: Tin Plated Copper Ground Bus Bolted To Frame, (1) #6-350 kcmil Ground Lug

Incoming Information

Incoming Qty & Size: (6) #4-500 kcmil

Structure Specifications

Service Entrance

Enclosure Type: Type 3R (nonwalk-in) Flat Roof

Enclosure: Outdoor Enlosure Configuration Per Euserc Dwg 354

Seismic Label (IBC/CBC Seismic Qualified) - Freestanding

Refer to seismic installation data sheet TD01508002E and drawing 1A32497 for details.

Heater package - (CPT, heater, thermostat, fused disconnect)

Special Notes

Qty Description

Catalog Number

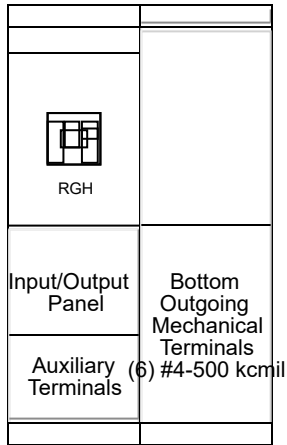
Enclosure properties

Struct #

Description/Modifications

| | |
|---|--|
| 1 | Generator Quick Connect Structure - 2000A Max. (Auxiliary Structure) Solid bottom plate |
| 2 | Bussed structure with lugs for outgoing cable (Auxiliary Structure) Solid bottom plate |

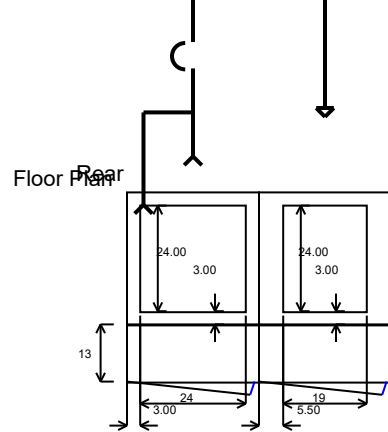
| | | | | | |
|--|---------------|--------------|--|-------------------------------|--------|
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| | JOHN H JANSEN | 12/7/2023 | | | |
| | APPROVED BY | DATE | JOB NAME | SOCWA Generator Quick Connect | |
| | | DESIGNATION | Portable Generator Connection | | |
| | VERSION | TYPE | DRAWING TYPE | | |
| | 9.0.33.3 | Switchboards | CustAppr | | |
| NEG-ALT Number | REVISION | DWG SIZE | G.O. | ITEM | SHEET |
| K7851019X3K1-0000 | 0 | DwgA | | | 1 of 3 |



Front View

| | | |
|--------|-----|-----|
| Struct | 1 * | 2 * |
| Depth | 30 | 30 |
| Width | 30 | 30 |

Power Flow



Total of 2 Structures, Total Weight of 1266 Weight-Lbs. with Front Hinged Doors.
Total of 2 Structures, Total Width of 60 Inches with Front Hinged Doors.

| Structure | 1 | 2 | | | |
|-------------------|-------|-------|--|--|--|
| Ship-Inches | 30.00 | 30.00 | | | |
| Ship-MM | 762 | 762 | | | |
| Width-Inches | 30.00 | 30.00 | | | |
| Width-MM | 762 | 762 | | | |
| Depth(Inner)-In. | 30.00 | 30.00 | | | |
| Depth(Inner)-MM | 762 | 762 | | | |
| Depth(Outer)-In. | 43.00 | 43.00 | | | |
| Depth(Outer)-MM | 1092 | 1092 | | | |
| Height-Inches | 90.00 | 90.00 | | | |
| Height-MM | 2286 | 2286 | | | |
| Weight-Lbs.(Est.) | 652 | 614 | | | |
| Weight-Kg.(Est.) | 295 | 278 | | | |

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| | | | | | |
|-------------------------------------|----------------------|---|--|----------|-----------------|
| PREPARED BY JOHN H JANSEN | DATE 12/7/2023 | Eaton | | SumterSC | |
| APPROVED BY | DATE | JOB NAME SOCWA Generator Quick Connect | DESIGNATION Portable Generator Connection | | |
| VERSION 9.0.33.3 | TYPE Switchboards | DRAWING TYPE CustAppr | | | |
| NEG-ALT Number K7851019X3K1-0000 | REVISION 0 | DWG SIZE DwgA | G.O. | ITEM | SHEET 2 of 3 |

Switchboard Units Information

| Str# | Unit | Description/Modifications | Nameplate |
|------|------|---|-----------|
| 1 | | Generator Breaker-2000A 3P [RGH 2000A Frame], Trip(Ir) 2000A., 310+ w/ GFA, HLA, LSG Auxiliary Terminals, Mechanical, (6) #4-500 kcmil, Bottom Kirk Key interlock Neutral Terminal, (6) #4-500 kcmil Input/Output Receptacles, Input (Male) | |
| 2 | | | |

| | | | | | | |
|--|------------------------------|----------------------|--------------------------|--|-----------------|----------|
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| | APPROVED BY | DATE | JOB NAME DESIGNATION | SOCWA Generator Quick Connect Portable Generator Connection | | |
| | VERSION 9.0.33.3 | TYPE Switchboards | DRAWING TYPE CustAppr | | | |
| NEG-ALT Number K7851019X3K1-0000 | REVISION 0 | DWG SIZE DwgA | G.O. | ITEM | SHEET 3 of 3 | |

Agenda Item

8

Engineering Committee Meeting

Meeting Date: December 14, 2023

TO: Engineering Committee

FROM: Roni Grant, Associate Engineer

SUBJECT: J. B. Latham Treatment Plant Effluent Pump Station and Energy Building Design Contract [Project Committee 2]

Overview

SOCWA staff removed the Effluent Pump Station and Energy Building Improvements from the Package B Improvements scope of work. SCOWA staff obtained a proposal from Carollo Engineers to provide engineering services associated with the re-packaging of the two scope items that were removed.

The proposed Scope of Services includes the revision and re-packaging of drawings and specifications. There will be additional efforts associated with the Energy Building Improvements, which include:

- Jib-crane addition at the upper level of the Energy Building
- Seismic retrofit of the roof framing and wall anchorage connections
- Safety upgrades include guardrails, skylights, and other items.

Carollo proposed a total fee of \$175,516. Staff broke down the costs of \$66,710 for the Energy Building Roof improvements, \$44,471 for the hoist system, and \$64,335 for the Effluent Pump Station improvements.

Cost Allocation

The Effluent Pump Station Improvements will be funded by 32226L-000 and have a budget of \$200,000 for the 23/24 fiscal year. Table 1 shows the allocation of costs by member agency.

Table 1 – Cost Allocation by Member Agency (32226L-000)

| Agency | Cost |
|--------------------------------|-------------|
| Moulton Niguel Water District | \$14,849 |
| Santa Margarita Water District | \$30,932 |
| South Coast Water District | \$18,554 |
| Total | \$64,335 |

The Energy Building Roof improvements will be funded by 32225S-000 (solids) and have an available fund previously collected of \$75,000. Table 2 shows the allocation of costs by member agency.

Table 2 – Cost Allocation by Member Agency (32225S-000)

| Agency | Cost |
|--------------------------------|-------------|
| Moulton Niguel Water District | \$14,423 |
| Santa Margarita Water District | \$38,945 |
| South Coast Water District | \$13,342 |
| Total | \$66,710 |

The hoist system will be funded by 3216-000 (common) and has a previously collected fund of \$49,999. Table 3 shows the allocation of costs by member agency.

Table 3 – Cost Allocation by Member Agency (3216-000)

| Agency | Cost |
|--------------------------------|-------------|
| Moulton Niguel Water District | \$9,939 |
| Santa Margarita Water District | \$23,671 |
| South Coast Water District | \$10,861 |
| Total | \$44,471 |

Recommended Action: Staff recommends that the Engineering Committee recommend that the PC 2 Board approve the contract to Carollo Engineers for a total of \$175,516 for the JBL Effluent Pump Station and Energy Building improvements.



December 6, 2023

Roni Young
South Orange County Wastewater Authority
34156 Del Obispo Street
Dana Point, CA 92629

Subject: J.B. Latham Treatment Plant (JBLTP) Facility Effluent Pump Station & Energy Recovery Building Re-package

Dear Ms. Young:

Pursuant to your request, Carollo Engineers, Inc. (Carollo) has prepared this letter proposal for the South Orange County Wastewater Authority (SOCWA) to provide engineering services associated with re-packaging of the Effluent Pump Station and Energy Recovery Building improvements that were removed from the Package B Improvements at the J.B. Latham Treatment Plant. The scope of services related to a re-package effort are outlined below.

Scope of Services

The proposed Scope of Services includes the revision and re-package of drawings and specifications. References to work in other areas from the previous Package B Improvements Project will be removed from the drawings and specifications, and only reflect the work to the Effluent Pump Station and the Energy Recovery Building. These documents will be re-packaged for SOCWA approval and become a new bid package for the work. Work at the Energy Recovery Building will include the following new work:

- Jib-crane addition at the 2nd floor of the Energy Recovery Building.
- Seismic retrofit of the roof framing and wall anchorage connections at the Energy Recovery Building.
- Safety Upgrades at Energy Recover Building roof including guardrail, skylights, and other items identified as part of Package B project.

Carollo will evaluate a proposed location for the jib-crane and develop strengthening details as required at the Energy Recovery Building 2nd floor and supporting elements to accommodate the installation. The 2019 California Building Code will be used as the basis for design of the structural support and strengthening. The crane hoist will be electric however the boom rotation will be manual. It is assumed the crane will not have any monitoring or alarm status to SCADA.

Carollo shall perform an update to the seismic retrofit design so that it complies with the 2019 California Building Code. Significant changes are not anticipated, but some adjustments may be necessary. An alternative attachment detail will be needed where the foul air ducting interferes with access to the roof/wall interface.

Carollo will update/adapt the Energy Recovery Building safety improvement details that were prepared for the Package B project. Significant changes are not anticipated but some adjustments may be necessary to address differing existing conditions identified during the Package B project.

Page 2

Carollo will prepare general and discipline drawings to support the design elements listed above. Carollo will prepare applicable administrative and technical specifications to support the design elements listed above. Carollo will develop a cost estimate at the draft submittal. The estimate will be updated at the final submittal milestone.

Carollo will also review the Contractor's "As-Built" drawings from the Package B Improvements Project construction for any design clarifications that may have occurred in the Effluent Pump Station area. These potential changes will be review with SOCWA to confirm the approach to the design documents.

Deliverables

Plans/Specifications packages in electronic format (PDF file of Plans and Microsoft® Word file of Specifications, with 11-inch by 17-inch pages and 8.5-inch by 11-inch pages, respectively) at the Draft and Final Submittal design stages.

Schedule

Assuming approval of this amendment by January 1, 2024, the schedule for the overall project will be revised as follows:

- Draft Submittal to SOCWA: 4/1/2024
- SOCWA Draft Review Time: 4/1/2024 – 4/16/2024
- Final Submittal to SOCWA: 6/1/2024

Roni Young
South Orange County Wastewater Authority
December 6, 2023

Page 3

Budget

A table with the estimated level of effort and fee is appended as Exhibit B. The exhibit also includes a list of drawings that are anticipated to be required as new or modified sheets.

Please let us know if you have any questions.

Sincerely,
CAROLLO ENGINEERS, INC.

Jeff Weishaar, P.E.
Vice President

JW:bg

Enclosures: Fee Table

cc:

South Orange County Wastewater Authority

JB Latham WWTP
Effluent Pump Station Energy Recovery Building Design

Exhibit A - Proposed Fee

| TASK | Project Manage | Project Engineers | Structural | Electrical | CAD | Admin | Total Hours | Total Labor | Other Direct Costs | Task Total |
|---------------------------------|----------------|-------------------|------------|------------|-----------|----------|-------------|-------------|--------------------|------------|
| Energy Recovery Building | | | | | | | | | | |
| Project Management & Meetings | 8 | 16 | 8 | 6 | | | 38 | \$ 8,140 | \$ 532 | \$ 8,672 |
| Site Visit | 4 | 4 | 8 | 8 | | | 24 | \$ 5,020 | \$ 1,086 | \$ 6,106 |
| Energy Recovery Building | | | | | | | | | | |
| Draft Bid Documents | 16 | 48 | 56 | 34 | 110 | 8 | 272 | \$ 51,430 | \$ 4,308 | \$ 55,738 |
| Final Bid Documents | 12 | 28 | 20 | 20 | 54 | 6 | 140 | \$ 26,840 | \$ 2,460 | \$ 29,300 |
| Effluent Pump Station | | | | | | | | | | |
| Draft Bid Documents | 8 | 24 | 24 | 22 | 70 | 8 | 156 | \$ 29,070 | \$ 2,684 | \$ 31,754 |
| Final Bid Documents | 4 | 20 | 16 | 16 | 42 | 6 | 104 | \$ 19,260 | \$ 1,956 | \$ 21,216 |
| Prebid Meeting | 4 | 4 | 4 | | | | 12 | \$ 2,740 | \$ 168 | \$ 2,908 |
| Addendum (1 Total) | 4 | 36 | 24 | 8 | 20 | 6 | 98 | \$ 18,450 | \$ 1,372 | \$ 19,822 |
| | | | | | | | | | | |
| HOURS TOTAL | 60 | 180 | 160 | 114 | 296 | 34 | 844 | \$ 160,950 | \$ 14,566 | \$ 175,516 |
| RATE | \$305 | \$190 | \$190 | \$190 | \$175 | \$135 | | | | |
| COST TOTAL | \$ 18,300 | \$ 34,200 | \$ 30,400 | \$ 21,660 | \$ 51,800 | \$ 4,590 | | \$ 160,950 | \$14,566 | \$ 175,516 |