



DIRECTOR OF ENGINEERING REPORT

January 18, 2023

District Engineering manages projects, consultants, contractors, and equipment suppliers. Consultant reports and Project Managers reports are included in this section along with details regarding the status of the associated study, design, or construction projects.

ACTIVE PROJECTS

20-07 Digester Complex Improvements:

SCOPE: The Digester #3 floating cover and the face brick on all four digester tanks is being replaced.						
Contractor: Christy-Foltz			R.E. Inspector: SDD/W Gray - Donohue			
Engineer: Donohue and Associates						
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion
11/17/20	12/01/20	12/22/20	02/17/21	03/18/21	03/18/21	9/22/2022 Substantial 10/22/22 Final
Submittals Reviewed: 9 complete /0 open						
Requests for Information (RFIs): 7 complete /0 open						
Owner Requests for Proposal/Change Order (RFPCO): 11 complete / 3 open						

Key Activities: Welding on the new cover/holder in ongoing. The intermediate support ring welding should be complete week ending 01/21/23. Expect ballast block supports installation to begin next week also. No new construction issues. *Change order #04 is before the board for consideration.*

Issues: Substantial completion date was Thursday 9/22/22; the last progress schedule indicates the contractor expects to be substantially complete on 3/1/23, updated schedule to be provided this week.

Pending Changes:

- WCD 01 and WCD 02: Additional Pump Down of Digester Contents: Contract documents required SDD to bring digester liquid elevation down to 593.0 and digesters have been turned over to contractor at various liquid elevations due to pump down issues. Contractor was put on time and material for the additional pumping required.
Digester 1 – 594.50; Digester 2 - 595.80; Digester 3 – 595.33; Digester 4 – 593.00
\$ 7,584.94 -CO#4 (Dig #1)
\$ 31,668.00 (Est Total)
- Establish a Unit Cost Adjustment for Replacing manway hatch on Digester #1, authorizing payment on digester #1. \$ 28,776.00 -CO#4
- Digester #1 cold joint repairs. District issued Field Order to remove damaged concrete, prepare the leaking concrete seam, and install Xypex patch along the cold joint in the concrete walls. Work is being performed on a T&M basis. \$ 29,166.94 -CO#4
- Delamination of coatings on Digester #3 will be addressed as contractor completes the installation of the cover. Contractor was directed to perform the work on a T&M basis. \$ T&M

20-01 Lake Shore Drive PS Replacement:

SCOPE: The lift station is being reconfigured with submersible pumps.						
Contractor: Christy-Foltz			R.E. Inspector: SDD/ C. Larimore- CDI			
Engineer: Clark Dietz Engineers, Inc						
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
12/02/20	01/05/21	02/03/21	03/24/21	04/07/21	04/07/21	4/2/22 Substantial 5/2/22 Final



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Key Activities: Staff received final Operations and Maintenance submittals on 12/16/22. Additional change order item requests were received this period. SDD and Clark Dietz met with C-F this last period to discuss contract completion dates. The pay application summary included in this report was reviewed along with a reminder that there are additional engineering cost offsets that staff believes are caused by the contractor inefficiencies in management of the project (\$29K).

Issues: Staff is expecting the contractor to again request additional days be added to the contract. Clark Dietz has been requested to prepare a final change order for trustee consideration next month.

Pending Changes:

- | | |
|---|--------------|
| 1. Additional fencing added because of requested grading modifications and fence corner relocations | \$ 9,028.00 |
| 2. Additional OT hours caused by West Plant discharges. | \$23,388.76. |
| 3. Set-offs due to liquidated damages | |
| 4. Generator installation modifications (combination of new requirements issued by State Fire Marshall and Owner Requested modifications) | \$9,947.17 |
| 5. Modifications to sidewalk, installation of concrete pad and bollard installation by diesel fill port. | \$7,769.29 |
| 6. Tree Removal (Ameren requirement for installation of power feed) | \$3,712.50 |
| 7. Additional grating in generator room | \$2,734.60 |

20ENG15 Water Tower Painting Project:

SCOPE: Power Wash, Surface preparation and overcoat of plant water tower. Included is a power wash of t wet interior for inspection, installation of the SDD logo on the tower and power wash of the gas sphere in front of the digester complex.						
Contractor: Neumann Company Contractors			Original Contract Price: \$197,200			
Engineer: Donohue and Associates						
R.E. Inspector: SDD						
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
08/03/22	08/17/22	09/07/22	09/21/22	11/10/22	xx/xx/23	360 days-Substantial

Key Activities: Bonds and Insurances were approved this last period and Notice to Proceed was issued. Staff expects the contractor to begin work late spring 2023.

NON-CONSTRUCTION ACTIVITY

ADMINISTRATIVE OFFICE MASTER PLANNING:

Staff received Request for Qualifications (RFQ) for the design a new 'Wastewater Reclamation Office Complex' (name to be determined later) this last period.

RFQs were received from:

- | | |
|--|---|
| HDR Engineering (Springfield IL) | Dewberry Architects (Pasadena CA) |
| Farnsworth Group (Bloomington IL) | Cordogan Clark Associates (Aurora IL) |
| Muller and Muller / Clark Dietz (Champaign IL) | Crawford Murphy and Tilley (Springfield IL) |
| Burns and McDonnell / AEX (Chicago IL) | |

Firms were advised that within 30 days, the District would either make a selection on who to move forward with, or invite short listed firms in to make proposals in person.

January 18, 2023

21ENG51 Wet Weather Interceptor Capacity Study – Damon to Treatment Plant

The model has now been calibrated utilizing 3 different rain events and validated against 2 additional, independent rain events. The SDD has up to 5 different model runs to project capacity available in the agreement with the engineers. We expect feedback from the engineers after the first run (25-yr storm). We are anticipating the completion of this study by the end of January 2023. Progress review is scheduled for Wednesday 01/18/23.

21ENG04 Force Main Inspection

Finley Creek FM (16") (5300 LF of ductile iron pipe) and the 8" Wyckles force main. Review of the final report is scheduled for 01/23/23.

UPCOMING PROJECTS:

21ENG42 – Post Aerobic Digestion (PAD)

BV has provided a technical memorandum (TM) confirming the process applicability for future BNR operations and provides the design specifications necessary under the BNR treatment systems. Decisions on moving forward with this will be addressed as staff works through the solids handling train in the future BNR plant.

22ENG02&10 – Force Main Renewal (Lost Bridge and Country Club)

The FM renewals in this project include replacement of cast iron segments of the Country Club interceptor and the Lost Bridge 10" interceptor that crosses underneath Lake Decatur. Scope of work has been agreed to with Clark Dietz Engineers (CDI) out of Champaign and a professional services agreement has been received. The anticipated overall cost of the project is higher than anticipated and the budget is being reviewed before proceeding.

22ENG44 – Grit Classifier and Conveyor Replacement

Bid specifications were started this last period; plan sheets are being revised. Staff is waiting for the classifier submittal to arrive from the supplier. The grit conveyor submittal was received and approved this last period.

Frac Tank for Nutrient Removal Pilot Study

Staff has been meeting with BV and working through the requirements for pumping and controls of the fermentation operation. BV has been requested to provide cost estimates for preparing the pilot and making it operational.

22ENG08 – Roofing Replacement/Repairs Project

Projected scope is **042 (Wood Shop) REPAIR; 017 (Oiler bldg) REPAIR; 044 (Ferrous Pump Room) Replacement; 200 (Emergency Bypass) Replace Shingle roof with metal; 043 Repairs; 059 Caulking Repairs; 077 PM touch up; 112 Vent Pipe left on roof that needs removed, apply protective coating on expansion joint; 113 Touch up repairs; 117 PM Repairs, loose wall flashing; 203 repairs, move to replace in 2024; 217 Misc repairs; 231 touch up repairs, 233 Repair in 2023; 334 Caulking repairs**

INTERGOVERNMENTAL ACTIVITIES

The CITY has requested additional feedback on their plans to address basement backups caused by stormwater during rain events in Basin 5/6.

Request from Harristown to discuss potential for Regionalizing their WWTP to the SDD.

If there are any questions, please contact me by telephone at 422-6931 ext 216, or by email at DonM@sddcleanwater.org.



PROJECT MANAGER REPORT

January 6th, 2023

District Engineering manages projects, consultants, contractors, and equipment suppliers. Consultant reports and Project Managers reports are included in this section along with details regarding the status of the associated study, design, or construction projects.

ACTIVE PROJECTS

21ADM50 Front Gate, Fence, and Road Repairs:

SCOPE: Replacement of the damaged front gate, plant fencing repairs, and localized cast in place concrete work in the plant are included in this project. There are two Divisions of work to be awarded separately: 1) General/Concrete; and 2) Fence and Gate						
Contractor: Christy-Foltz			Original Contract Price: \$632,047			
Engineer: SDD						
R.E. Inspector: SDD						
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
08/11/22	08/30/22	10/04/22	10/26/22	11/16/22	11/15/22	Div 1 – 120 days Div 2 – 150 days

Key Activities: Demolition of existing front gate and exit lane in progress. Rebar submittals approved, rebar to be delivered 01/09/23. Concrete barrier wall construction is in progress.

22ENG45 Primary Clarifier #5 Replacement Project:

SCOPE: Replacement of clarifier mechanism, drive and scum box. Reuse and repaint existing bridge						
Contractor: Plocher			R.E. Inspector: SDD			
Engineer: SDD						
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
09/16/22	09/27/22	11/01/22	11/17/22	11/30/22	TBD	330 days-Substantial 360 days - Final

Key Activities: Initial measurements obtained. Coating submittal reviewed and approved with comments. Pre-construction meeting to be held after production schedule of equipment is provided.

21ENG40 Replacement of Sludge Transfer Pump:

SCOPE: Remove and replace the existing Abel Sludge Transfer Pump (south) that has reached the end of its useful life.						
Contractor: Burdick Plumbing and Heating			Engineer: SDD			
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
09/21/22	10/11/22	11/03/22	11/17/22	01/09/22	12/20/22	180 days-Substantial 210 days - Final

Key Activities: Initial product submittal review completed by owner. Pump released for production on 01/03/23 with expected completion date of manufacturing on 09/12/23. Installation expected to proceed after delivery and require approximately 45 calendar days to complete. Change of dates for substantial and final completion will follow manufacturer’s firm delivery date schedule.



Memorandum

Date: January 4, 2023
To: Donald B. Miller, P.E., Director of Engineering
From: Will Gray, P.E., Donohue & Associates
Re: **Project Status Report**
2020-07 Digester Improvements Project
Donohue Project No. 13782

Project Progress Items

- An updated project schedule was received from C-F on 10-25-2022. This schedule shows the project being substantially complete by March 1, 2023. The contractual substantial completion date is Sept. 22, 2022.
- Christy-Foltz continues welding the intermediate support ring, structural “Tees”, and side walls of the digester lid superstructure. SDD is using a certified weld inspector (CWI) to inspect the completed welds. C-F is approximately 90% complete with intermediate support ring welding.
- Once superstructure side walls are welded, C-F will begin welding the radial beams and ballast support brackets. This is expected to take approx. 4-weeks to complete.
- C-F will also have to fly in ballast blocks for storage on the digester floor. They will then set the ballast blocks in their designated location within the lid. This work can be completed during rain and is expected to take approx. 3 weeks to complete.

Updated: 1-4-2023	Open	Closed	Total
Submittals	0	10	10
RFI	0	8	8
Change Order Request	0	15	15
Change Orders	1	3	4

CHANGE ORDER LOG

- Change Order #1 has been executed, \$42,549.39.
- Change Order #2 has been executed, \$46,173.89.
- Change Order #3 has been executed, \$442,219.00. Add 193 days to contract.
- Change Order #4 has been compiled and is ready for consideration, \$65,527.88.