



DIRECTOR OF ENGINEERING REPORT

April 19, 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: Westech certified the installation of the cover this last period. The project also included a replacement mixer drive, which was also completed this period. The mixer manufacturer is scheduled to be on site this next week to certify the operation of the new drive. While the drive is being tested, staff will raise and lower the water level inside the digester to confirm full range of travel of the lid. Following this check out, a final 7 days of operation test will commence, after which substantial completion will be granted. Groundwater relief gaskets were replaced and the reliefs are no longer leaking.

Pending Changes:

- | | |
|--|------------------------|
| 1. Replacing manway hatch on Digester #4 (Unit cost). | \$ 28,776.00 -FINAL CO |
| 2. Delamination of coatings on Digester #3 is being addressed as contractor completes the installation of the cover. Contractor was directed to perform the work on a T&M basis. | \$ T&M |
| 3. Replacement of Gaskets on Floor Reliefs | \$T&M |
| 4. Time Extension Request (received 2/16/23) | TBD |

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

Issues: Liquidated damage assessment is ongoing with the contractor.

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 | \$TDB |
| 4. Generator installation modifications (combination of new requirements issued by State Fire Marshall and Owner Requested modifications) | \$9,947.17 |



DIRECTOR OF ENGINEERING REPORT

April 19, 2023

- 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 the 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
Submittals Reviewed: 9 complete /0 open.						
Requests for Information (RFIs): 7 complete /0 open						
Owner Requests for Proposal/Change Order (RFPCO): 0 complete / 0 open						

Key Activities: Staff started reviewing submittals this last period. We expect the contractor to begin work late May 2023. *There is a professional services agreement for water tower inspection activities associated with this project before the board for consideration.*

NON-CONSTRUCTION ACTIVITY

22ENG31 ADMINISTRATIVE OFFICE COMPLEX:

Trustees approved staff to enter into negotiations with Burns and McDonnell for the Design and Construction related services associated with the new Admin and Laboratory Building. Proposers were all notified of the decision and those negotiations are underway.

21ENG04 Force Main Inspection

Final report was received this last period. It highlighted a couple of locations along the Finley Creek force main where air release valves should be considered and areas along the Wyckles Lagoon (west side) force main where accelerated velocity in the pipe is occurring.

UPCOMING PROJECTS:

22ENG44 – Grit Classifier and Conveyor Replacement

Bid specifications preparation continued this last period. The manufacturer requested some final field measurements this last period. Those measurements were provided, and manufacturing is reported as having started.

23ENG17 – Sewer Televising and Rating

As part of the ongoing Collection System asset management planning, staff annually engages a sewer rating company to provide condition assessments prior to any sewer cleaning work. This is part of the ongoing Capacity, Management, Operations, and Maintenance (CMOM) Plan.

There is a professional services agreement before the board for consideration.

21CMP04 - Frac Tank Pilot Project (Nutrient Removal)

The existing agreement with Black and Veatch includes costs associated with setting up pilot testing and analyzing the results.

This project was advertised this period and purchase orders issued for pre-procured items. Pre-Bid meeting was held on 04/04/23. Addendum 01 issued clarifying scope of supply by owner.

23ENG08 – Road Repairs

The district has an ongoing roadway maintenance program. Planning is complete for the in-plant roadwork and staff expects to have bids advertised before the May trustee meeting.

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.

Staff has evaluated and is separating the work into two projects and proposing to do the design work for Lost Bridge in 2023 and Country Club in 2024. The scope of work is being modified with Clark Dietz Engineers (CDI) out of Champaign and staff expects a professional services agreement for review in May.

22ENG08 – Roofing Replacement/Repairs Project

<<No Update>> 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**

Damon Avenue Pump Station – Resiliency Evaluation

SDD is reviewing the pumping alternatives in/around the Damon Ave pump station. The current pumping configuration utilizes a pathway that traverses beneath a railroad which carries a significant amount of industrial flow. Alternative pathways are connected to the PS discharge, however, the condition of them is unknown. Staff is negotiating a task order with Clark-Dietz to perform an initial evaluation of the options to improve the operational resiliency at this station. This effort dovetails into a larger review of operational resiliency throughout the collection system. The Force Main Renewal of Lost Bridge and Country Club interceptors (listed above) fall under this same evaluation.

INTERGOVERNMENTAL ACTIVITIES

Staff had our quarterly meeting with the CITY this last period. City requested SDD provide them with an “allocation” of the capacity available within the collection system downstream of the Damon Ave pump station. This is a follow-on to the sewer study performed last year.

Staff had further discussion regarding path forward with the storm water separation of Basins 5/6. Public Works is intending to recommend the complete separation of stormwater from the sanitary sewer system.

Additionally, the Faries Parkway sewer relocation work will be reinitiated this year and SDD staff will be engaging the CITY with that design effort.

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

April 13th, 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: Sidewalk foundation and conduit for personnel gate in progress. Exit lane poured. Exit lane columns complete. Entrance lane curbs, duct bank, and roadway complete. All wall pours and bollards complete. Sodium bisulfite tank pad pour and access piping complete. Dechlorination road patch complete. Fencing installation underway (04/12/23 start) and gate assembly to arrive in Decatur the week of April 17th. Traffic patterns will be switched again to facilitate the entrance lane column extensions.

22ENG45 Primary Clarifier #5 Replacement Project:

SCOPE: Removal and replacement of the existing primary clarifier. Work will include the procurement, installation and commissioning of a new circular primary clarifier and appurtenances. Painting of UV light exposed and submerged carbon steel components, and miscellaneous electrical adjustments to facilitate the removals and commissioning of the new process unit.						
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	Mid June (tentative)	330 days-Substantial 360 days - Final

Key Activities: Component delivery moved from September to late October 23 (provided by Scott Plocher on 04/03/23) due to the inability to lower the tank level and confirm dimensions. Original key dates were demolition starting 08/09/23, coating removal/reapplication start 08/23/23, clarifier install start 09/06/23, and cleanup/demobilization finish 10/12/23. New dates will be updated following solid manufacturing schedule.



PROJECT MANAGER REPORT

April 13th, 2023

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 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.

21CMP04 Fermentation Reactor Pilot Plant:

SCOPE: The construction of a pilot fermenter system which will include installation of a new primary sludge pump in the existing Primary Clarifier Control Structure (Structure 210) and associated piping; piping modifications downstream of existing waste activated sludge (WAS) pump in the WAS Pump Station (Structure 112); a new compressed air mixing system; a steel frac tank that has been fabricated as a fermenter (Temporary Structure 100) and requires connections to primary sludge, WAS, compressed air mixing system, odorous air treatment system, and Primary Effluent Channel (Structure 022).						
Contractor: TBD			Original Contract Price: TBD			
Engineer: Black and Veatch						
R.E. Inspector: SDD						
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
03/24/23	04/04/23	05/04/23	TBD	TBD	TBD	TBD

Key Activities: The new primary sludge pump, frac tank, compressed air mixing system and one adjustable speed drive have been purchased by Owner (POs issued on 03/29/2023) and will be assigned to the Contractor upon contract award.

Addendum #1 issued.

Memorandum

Date: April 3, 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

- The contractual substantial completion date is Sept. 22, 2022. As of this letter’s day, C-F is 193 days beyond substantial completion. Christy-Foltz submitted a letter to the District on 2-16-2023 requesting a time extension to April 6, 2023. This request is under review by the District.
- Digester lid construction is complete. Ballasts have been installed within the lid, and all seal welding is complete.
- Digester Lid startup was attempted in later March. Upon filling the digester with water for startup testing, it was discovered that water was leaking from the digester’s PRVs and flooding the site. As the water level in the digester rose, water began escaping as fast as it was being pumped in, and full startup was postponed until the cause of the flooding identified and corrected. We were not able to raise the lid to the high water level to verify the lid can travel as intended. This test will be repeated after corrections are made; Testing is scheduled for 04/18/23. The corrections to the PRVs will be tracked as a T&M change order.
- Roofing contractor is on hold until weather conditions allow for installation.

Updated: 4-3-2023	Open	Closed	Total
Submittals	0	10	10
RFI	0	11	11
Change Order Request	3	15	17
Change Orders	1	4	5

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 executed, \$65,527.88.
- Change Order #5 has three items.