



**DIRECTOR OF ENGINEERING REPORT**

**May 15, 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:** Ovivo certified operation of the new mixer drive on 04/18/23. Westech certified the lid as complete after refilling the digester to the maximum water level.

Punchlist items remaining: Roof insulation and coating, installation of new handrails (stairway), site cleanup, final ground restoration (seeding), and delivery of O&M manuals/as-built drawings/test data.

Christy-Foltz submitted a letter to the Sanitary District on 2/16/23 requesting a time extension to April 6, 2023. The extension request letter has been reviewed and the contractor has been given comments on additional requirements for substantiating additional time. Staff expects those revisions to be made before the June trustee meeting. Substantial completion was attained 04/18/23.

**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

**Key Activities:** None

**Issues:** Liquidated damage assessment is ongoing with the contractor.

---

**NON-CONSTRUCTION ACTIVITY**

**22ENG31 ADMINISTRATIVE OFFICE COMPLEX:**

Trustees approved staff enter into negotiations with Burns and McDonnell for the Design and Construction related services associated with the new Admin and Laboratory Building.

*An update on the negotiations will be discussed at the trustee meeting.*

**UPCOMING PROJECTS:**

**22ENG44 – Grit Classifier and Conveyor Replacement**

Bid specifications were completed this month and the project was advertised on May 10<sup>th</sup>, 2023.

The supplier has been requested to provide updated delivery dates for both the grit classifiers and the grit removal conveyor.

**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 Plan (i.e. the CMOM plan). The CMOM is an NPDES requirement under Special Condition 18. An agreement was entered into with Telescan in April 2023.

Telescan to start televising on May 11<sup>th</sup>, 2023. Project to be completed by October 15<sup>th</sup>, 2023. Results will be uploaded to ArcGIS.

**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. At the time of this report, analysis of the bid is ongoing.

*A recommendation is expected to be available for the board's consideration at the trustee meeting.*

**23ENG08 – Road Repairs**

The district has an ongoing roadway maintenance program. Planning is complete for the in-plant roadwork. In QA of the project plans, some adjustments have been made delaying the advertisement of the work while plans are being updated.

**22ENG02 – Force Main Renewal (Lost Bridge-10")**

There is a force main renewal included in this project (the Lost Bridge 10") that crosses underneath Lake Decatur. The scope of work has been modified with Clark Dietz Engineers (CDI) out of Champaign.

*The revised professional services agreement is being reviewed and will be available for consideration in June.*

**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;**



## DIRECTOR OF ENGINEERING REPORT

May 15, 2023

---

203 repairs, move to replace in 2024; 217 Misc repairs; 231 touch up repairs, 233 Repair in 2023; 334 Caulking repairs

### **Collection System Master Plan - Resiliency Evaluation**

Staff is negotiating the scope of work with Clark Dietz Engineers to assist with updating the collection system master plan. This effort will review the existing master plan and provide recommendations for improvements.

---

### **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.

City staff received approval to separate storm water of Basins 5/6 and keep is separated.

City staff requested SDD to review the first draft of the Faries Parkway sewer relocation plans this last period. Review and comment has been provided with minimal revisions.

Kent and Don participated in a joint meeting with CITY, ADM and SDD. The formation of a “work group” looking at the NE quadrant of the CITY for water and wastewater needs was discussed. Don will be participating as an active member of the work group; Kent as a “policy guide” within SDD.

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

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:** Restoration/seeding to be complete by 5/12/23. Fencing installation is complete and gate assembly/installation to start 05/10/23. Estimated completion 05/12/23.

**Pending Changes:**

1. No cost change-Additional time for installing extra LF of fencing \$ 0

**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.

**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	01/09/23	12/20/22	180 days-Substantial



**PROJECT MANAGER REPORT**

**May 10<sup>th</sup>, 2023**

						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	05/09/23	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. One bid of ~\$960K received and under review.

*A recommendation is expected to be available for the board’s consideration at the trustee meeting.*

**21ENG15 Water Tower Painting:**

SCOPE: Power washing the wet interior surfaces and top coating the exterior surfaces of the District’s 300K gallon elevated non-potable water storage tower. Also included is power washing the exterior surfaces of the District’s 32-ft inside diameter gas holding sphere.						
Contractor: Neumann Co.			R.E. Inspector: Dixon Engineering			
Engineer: SDD/Donohue						
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
08/03/22	08/17/22	09/07/22	10/14/22	11/10/22	05/10/2023	330 days-Substantial 360 days - Final

**Key Activities:** Submittal review completed. Mobilization of equipment started 05/03/2023. Work to start on 05/11/2023.

**ARCGIS UPDATES**

<b>Project</b>	<b>Scope</b>	<b>Key Updates</b>
<b>Adding SDD documents to ArcGIS</b>	Provide access for viewing of SDD documents on ArcGIS Online by linking these to assets and properties. Documents include: PACP/MACP reports, tapping permits, as-built drawings	NONE
<b>PACP Inspection 2023</b>	Plan and execute the annual pipeline inspections.	Telescan to start televising on May 11 <sup>th</sup> 2023. Project to be completed by October 15 <sup>th</sup> , 2023. Results will be uploaded to ArcGIS.
<b>Biosolids Tracking</b>	Create a dashboard to display past biosolid applications for calendar years 2016-2022.	Biosolid application information for the years 2016-2021 are compiled into a spreadsheet. From this spreadsheet, the fields SDD has delivered to will need to be connected to spatial data on ArcGIS in the form of parcels. The joined data will be added to the dashboard along with the biosolid information for 2022 and allow the user the ability to sort by Land Application Date.
<b>Sanitary District Zone Finder</b>	Create an application which allows the user to check if an address is within the Sanitary District's Boundaries.	NONE