

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**

**21CMP04 Fermentation Reactor Pilot:**

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: Burdick			Original Contract Price: \$956,796.00			
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	06/21/23	07/31/23	07/24/23	12/21/23 Subst 01/20/24 Final

**Key Activities:** Final construction and SCADA integration was completed this last period. Staff began fermenter operations on 02/14/24.

Over the last period, Farnsworth Engineering verified automated control of all components and delivered programming for frac tank operation. HACH field calibrated monitoring probes for Total Suspended Solids, pH, and ORP and integration with SCADA was verified.

**Construction Issues:** Control schemes and loading scenarios were first attempted the week of February 5, but issues were encountered with valves unable to fully close leading to volume loss in the tank. Valves were cleared of debris, automatic operation of valve motors was confirmed, and tank operation was resumed until another valve obstruction occurred. The tank was drained on February 9 to address valves causing potential restrictions and pumping to the tank commenced on February 12. Automatic valve actuation again failed due to an obstructed valve. Disassembly and inspection of the suspect valve found the valve to be in good condition but operation of the valve was obstructed by fasteners that were pumped through the line (pictured below). The origin of these fasteners has not been determined.





Following the discovery and removal of the deleterious material, the valve actuator was inspected, calibrated and the fermenter pilot resumed in normal operation.

**23MNTxx Damon Ave. Pump Station Upgrades**

SCOPE: Two Divisions of work were advertised. Division A – involves removal of existing electrical utilities and installation of a dual service switchboard and ATS, a new 1200 AMP CT enclosure and removal and re-installation of two underground conduit duct banks. Division B - includes the removal of the existing #2 pump and installation of a pre-procured Flygt 385 HP, 455A submersible pump. Bypass pumping during the installation process is required until the new pump is commissioned.						
Contractor:			Original Contract Price:			
Engineer: AEX			Sum of Change Orders: \$0			
R.E. Inspector: SDD			Total Value:			
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
02/22/24	03/07/24	03/28/24				

**Key Activities:** Plans and specifications were completed this last period and the work has been advertised.

**Construction Issues:** None.

**NON-CONSTRUCTION ACTIVITY**

**DESIGN - 22ENG31 ADMINISTRATIVE OFFICE COMPLEX:**

This last period staff has conducted 5 meetings with AEX, two half day visits from AEX to obtain field measurements for overlaying existing desks, tables, etc... into new offices, 2 reviews with Black and Veatch for moving the laboratory design along and has another overall progress review scheduled for 2/19/24.

Lab floor plans from Black and Veatch have been incorporated into the AEX plans.

Schematic Design (10 weeks) is wrapping up. Schematic design requires delivery of a design level cost opinion that we are expecting to receive shortly.

Design Development (10 weeks) has started. This phase advances civil, architectural, mechanical and electrical documents; prepares major equipment lists; and delivers various structural and conceptual renderings for consideration.

Schedule:

Develop Contract Documents (ongoing)	
30% Documents	Feb 24
80% Documents	Apr 24
Advertise	May 24
Open Bids, Award and Execute	July 24
Construction Phase	52 weeks



**DESIGN - 22ENG02 Lost Bridge Force Main Renewal**

The designer is Clark Deitz Engineers (CDI). Plans and specifications are being finalized. Easements are currently being drafted. See attached Utility Easement figure.

Schedule:

Geotech report and boring contractor coordination	Nov 23
Alternatives evaluation and survey	Dec 23
ROW reviews	Dec 23
60% Design	Dec 23 Delivered for Review 1/9/24
90% Design	Mar 24
Advertise	Apr 24
Targeted Award Date	May 24

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

Staff received the draft of the master plan shortly after the first of the year. SDD is utilizing our GIS system to prepare additional exhibits for the report. The additional exhibits were completed this last month and provided to the engineer for review and incorporation into the final report.

Additional information became available regarding the CITY efforts to address the NE Corridor pumping station that is also being added into this planning document.

Schedule:

Develop Master Plan Outline	Oct 23
Develop sewer system gravity capacities report	Oct 23
Develop maps of sewer system condition assessment	SDD
Develop pumping station capacity reports	Nov 23
Develop "higher risk" capacity bottleneck report	Nov 23
Incorporate previous master plans into report	Dec 23
Incorporate discussion on ADM Service Partners	Dec 23
Prepare final report	Delivered Draft for Review 1/5/24

**UPCOMING PROJECTS:**

**STUDY – WRRF Groundwater Dewatering Plan Study**

Scope: Martha Silks is the Lead Hydrologist for LRE Water, SDD has a long history with her as she has served on teams working with dewatering issues in the plant dating back to the early 2000’s. LRE Water, an engineer out of Lawrence Kansas and staff have agreed on a scope of work anticipating they would bring 3 alternative solutions to address groundwater dewatering issues in this area of the plant.

Staff had a kickoff meeting with LRE this period to initiate the effort. LRE will be onsite March 5<sup>th</sup> and 6<sup>th</sup> to perform field inspections.

Plans and Specifications are being developed for installing 5-6 replacement wells around the West cluster of nitrifications (final) clarifiers while this study is underway.



**DESIGN – Sodium Bisulfite Building Tuckpoint Project**

Specifications are being finalized and we anticipate that this project will be advertised prior to the March trustee meeting.

**Collection System Inspection Work**

Request for Proposal is being prepared for upcoming 2024 sewer inspection work. This inspection is a component of the annual CMOM inspection plan.

**DESIGN – Final Clarifier Upgrades Project**

<<No Update>> The project includes replacement of 3 isolation gates on the influent channels, painting 2 carbon steel clarifiers, performing maintenance work on the clarifier floors, and repairing 8 isolation gates in the nitrification aeration tanks.

Final plan drawings have been received.

Plans and Specifications development will commence again once the Damon Project is advertised.

**INTERGOVERNMENTAL ACTIVITIES**

1. Staff has continued participating in meetings as needed with the CITY and ADM for the “NE quadrant work group” looking at water and wastewater needs in this corridor.

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



**PROJECT MANAGER REPORT**

**February 12<sup>th</sup>, 2024**

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**

**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			Original Contract Price: \$1,155,600.00			
Engineer: SDD			Sum of Change Orders: \$0			
R.E. Inspector: SDD			Total Value: \$1,155,600.00			
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	Feb 2024 (tentative)	330 days-Substantial 360 days - Final

**Key Activities:** Plocher Construction delivered clarifier components the week of February 12. SDD Operations staff began ground dewatering procedures on February 12 and evacuation of the clarifier later in the week. Plocher initiated demolition activities on February 19. During demolition SDD Engineering staff will inspect the lids of clarifier floor pressure relief valves to determine suitable replacements for defective components.

**23MNT22 Sidewalk and Stairs Replacement Project**

SCOPE: Removal and replacement of the stairs east of the Admin building, handrails and the sidewalks directly attached to them.						
Contractor: Christy-Foltz			Original Contract Price: \$54,178.00			
Engineer: SDD			Sum of Change Orders: \$0			
R.E. Inspector: SDD			Total Value: \$54,178.00			
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
09/08/2023	09/14/23	10/05/23	10/18/23	10/31/23	11/23/23	90 days-Substantial 120 days - Final

**Key Activities:** Concrete stairs and sidewalk sections are cured and measurements for handrails were taken on February 15. Christy-Foltz is in the process of fabricating the new handrails and will install them immediately following completion of the fabrication. The stairs will remain closed until the handrails are in place.

**23ENG22 McKinley Interceptor Repair**

SCOPE: Removal of approximately 115 ft of failing 48-inch centrifugally cast fiberglass pipe and replacement with PVC pipe. After the repair is made, the entire manhole to manhole gravity sewer segment is to be CIPP lined. Restoration will require slope stabilization with geofabric and rip rap.	
Contractor: SAK	Original Contract Price: \$841,365.00
Engineer: SDD	Sum of Change Orders: \$0
R.E. Inspector: SDD	Total Value: \$841,365.00



**PROJECT MANAGER REPORT**

**February 12<sup>th</sup>, 2024**

Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
10/26/23	11/02/23	11/22/23	12/21/23	12/28/23	1/23/24	180 days-Substantial 210 days - Final

**Key Activities:** Pipe and coupling materials have been ordered and SAK anticipates mobilizing and assembling bypass pumping equipment in early March. Entler Excavating is subcontracted to perform digging at the site. Excavation is expected to commence by mid-March pending availability of custom-made pipe couplers.

**22ENG44 East Headworks Grit Classifier Replacement**

<p><b>SCOPE:</b> Removal and replacement of the East headworks grit classifiers, grit removal conveyor and all appurtenances necessary to deliver a fully functioning integrated grit washing and removal system. Owner has pre-purchased the grit washers, the removal conveyor, and grit dumpster distribution sweep plate. Contractor will assume responsibility for coordinating receiving, unloading, and staging equipment from the manufacturers.</p>						
<p>Contractor: Christy-Foltz Engineer: SDD R.E. Inspector: SDD</p>			<p>Original Contract Price: \$165,950.00 Sum of Change Orders: \$0 Total Value: \$165,950.00</p>			
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion Dates
05/10/23	05/30/23	06/15/23	07/12/23	09/21/23	09/21/23	150 days-Substantial 150 days - Final

**Key Activities:** The new South classifier (002) fully installed and commissioned by Huber Technologies in the 217 building. The replacement main conveyor is installed and operational within automated control. Placement of the new North classifier (001) and auger is complete. Final utility connections for piping and electrical utilities is underway with anticipated completion of February 23. Huber Technologies is scheduled for later March for commissioning of the north unit (001) but is sooner as their schedule typically opens with customer cancellations.

**Future projects that are being investigated and bid packages being produced.**

1. Sodium Bisulfite Building Block Work
  - a. Updating Specifications
2. 2024 Roads Contract
  - a. Specifications and Plans
3. Nitrification Clarifier Dewatering
  - a. Specifications and Plans for replacement dewatering wells around west cluster.



February 7, 2024

Mr. Don Miller, P.E.  
Sanitary District of Decatur  
501 S. Dipper Lane  
Decatur, IL 62522

Re: Monthly Progress Update  
CD Project No. D0540050  
**Lost Bridge Force Main  
Invoice No. 7 (439039)**

Dear Mr. Miller:

This letter summarizes Clark Dietz's work for the Sanitary District of Decatur that was performed from January 1 through January 26, 2024.

**Work Completed this Month**

- Held regular internal progress meetings.
- Submitted 50% Drawings to the District for review.
- Began preparing project specifications.
- Modeled surge analysis model for the new forcemain.
- Reviewed subconsultant survey data and began preparing 50% drawings.
- Coordinated with fusible PVC manufacturer and District to move forward with designing project around boring under Lake Decatur.

**Work Anticipated for Next Month**

- Continue preparing drawings based on District comments.
- Survey subconsultant invoice.
- Finalize surge analysis for new forcemain and submit Preliminary Engineering Report.

**Schedule**

We have revised the project schedule based on the current progress. The following shows the anticipated design and bidding schedule.

- March 20 – 90% Design to District
- March 26 – District comments on 90% Design to CD
- April 3 – Advertise Project
- May 1 – Open Bids
- May 8 – Bid Recommendation
- May 15 – Board Approval
- June 1 – Notice to Proceed

This schedule is contingent upon quick agreement with the District on the preferred alignment alternative, no significant issues with utility, city, or county coordination, and timely review with minimal changes of progress sets.



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Please call me at 217-373-8933 if you have any questions.

Very Truly Yours,  
Clark Dietz, Inc.

Andrea W. Bretl, P.E.  
Project Manager





February 7, 2024

Mr. Don Miller, P.E.  
Sanitary District of Decatur  
501 S. Dipper Lane  
Decatur, IL 62522

Re: Monthly Progress Update  
CD Project No. D0540060  
**Northeast Sewer Master Plan**  
**Invoice No. 7 (439040)**

Dear Mr. Miller:

This letter summarizes Clark Dietz's work for the Sanitary District of Decatur that was performed from January 1 through January 26, 2024.

**Work Completed this Month**

- Held progress meetings with Clark Dietz and the District.
- Submit draft Master Plan to District

**Work Anticipated for Next Month**

- Meet with District to discuss Master Plan Draft
- Revise Master Plan per District comments.

**Schedule**

We anticipate submitted a revised draft Master Plan to the District by mid-February 2024.

Please call me at 217-373-8933 if you have any questions.

Very Truly Yours,  
Clark Dietz, Inc.

Andrea W. Bretl, P.E.  
Project Manager