



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 Engineer: Donohue and Associates			R.E. Inspector: SDD/W Gray - Donohue			
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	3/13/2022 + 30 Final
Submittals Reviewed: 6 complete /0 open Requests for Information (RFIs): 6 complete /0 open Owner Requests for Proposal/Change Order (RFPCO): 4 complete / 0 open						

Key Activities: All repairs for have been made to the concrete cold joint on Dig #4 and the facility is ready to receive the installation of the insulation panel. Contractor completed side entry hatch replacement on Dig #3 and is in the process of completing #4 hatch replacement.

Installation of the insulation on #4 is expected to take 2 weeks. Upon completion digester #4 can be returned to service and digester #1 will need to be turned over to the contractor for emptying and cleaning and subsequent brick facia removal.

Issues: Digester #3 Cover delivery is scheduled for 20 weeks out. Updated schedule from contractor indicates they are to begin installation of the cover on 3/11/22; 2 days before current substantial completion. Effectively meaning the contractor is 128 days behind the current schedule. This last month SDD received the expected time extension letter and has responded to the letter rejecting the time extension stating in it that the information provided was insufficient to justify the extension.

Pending Changes:

1. WCD 01: Additional Pump Down of Digester Contents: Contract documents required SDD to bring digester liquid elevation down to 593.0. Digester 3 quit pumping down at 595.33 and Digester #2 at 595.8. Contractor was put on time and material for the additional pumping required. \$ 31,668.00
2. Digesters #4 and #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. \$ T&M
3. Excessive corrosion was discovered on the interior access hatch infrastructure on Digester #3. Contractor was directed to replace corroded material with SS plate and angle. Work was done on a T&M basis. \$ T&M – Dig #3
4. Excessive corrosion was discovered on the interior access hatch infrastructure on Digester #4 and 1. RFPCO was requested for these hatches. A negotiated price of 28,776 Each. \$57,552.00

20-01 Lake Shore Drive PS Replacement:



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SCOPE: The lift station is being reconfigured with submersible pumps.						
Contractor: Christy-Foltz			R.E. Inspector: SDD/J Edenburn - CDI			
Engineer: Clark Dietz Engineers, Inc						
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion
12/02/20	01/05/21	02/03/21	03/24/21	04/07/21	04/07/21	4/2/2022 + 30 Final
Submittals Reviewed: 61 received / 59 completed / 32 Rejected Requests for Information (RFIs): 8 submitted/7 completed Owner Requests for Proposal/Change Order (RFPCO): 1 Issued/1 Completed Change Orders: 1 completed						

Key Activities: Bypass operations did not start as expected on 11/15/21. "Proof of bypass performance is rescheduled to begin 12/10/21.

Issues: The current schedule shows substantial completion being 05/16/22 which is 5 weeks beyond contractual substantial completion date. The contractor has been requested to update the schedule again as bypass operations are another 4 weeks delayed due to pumping setup and equipment failure issues.

Clark Dietz has informed the District that the Contractor related issues noted above will cause them to exceed the scope of the work included in the not to exceed contract. The District in turn has informed the Contractor that the contract provides for the District to charge engineering contract overages due to the Contractor back to the Contractor.

1. **Changes:** NONE PENDING

20-01 South Shores Sewer Rehab:

SCOPE: CIPP lining of approximately 17,700 LF of sewer, tie-in connections and approximately 700 vertical feet of cementitious manhole restoration.						
Contractor: SAK Construction			Engineer: Farnsworth Group, Inc			
Advertise	Pre-bid	Bid Open	Intent Award Final Award	Notice to Proceed	Pre-Construction	Contract Completion
12/15/20	02/02/21	03/02/21	03/17/21 05/26/21	06/21/21	06/15/21	270 Substantial 300 Final
Submittals Reviewed: 4 received / 0 outstanding Requests for Information (RFIs): none Owner Requests for Proposal/Change Order (RFPCO): none						

Key Activities: Sewer cleaning has been completed and much of the mainline sewer is completed. The section of sewer between Mountain Harbor and Route 51 remains to be completed. Manhole rehab started on 11/8/21 and is ongoing.

Issue: A 125' section of sewer along the lake in the Mountain Harbor subdivision appears to have defects in the liner and must be repaired. Contractor is reviewing the repair options at this time.

During a construction inspection it was discovered that the manhole rehab subcontractor was not utilizing an antimicrobial additive to the calcium aluminate product that is specified. Staff is working through remediation actions with the contractor at this time.

One community related construction issue arose this last period when the contractor used a vacant lot to access a manhole without contacting the property owner first. The property owner discovered construction activity and came to the district to address the concern. Staff met contractor and owner on site and reviewed remediation measures and agreed on level of restoration required.

20-08 Roof Rehabilitation Project:

<p>SCOPE: Each year the SDD Asset Management Program plans for rehabilitation on roofing systems on the district facilities. Of the 16 roofs inspected, 10 require attention. The scope includes replacement of existing roofing system of Bldg. 871 (well house) at Wyckles Facility. The balance of the 9 roofs is for application of coatings on buildings 870 & 872 (Wyckles Facility), 860 (St. Louis Bridge Pump Station), 584 (Oakland Avenue C.S.O. Facility), 526 (7th Ward C.S.O.), 502 (McKinley Avenue C.S.O.), and 557, 559, 561 (Lincoln Park C.S.O.).</p>						
Contractor: Top Quality Roofing				Engineer: SDD		
Advertise	Pre-Bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Scheduled Completion
03/30/21	04/13/21	05/11/21	06/16/21	08/04/21	08/04/21	120 days

Key Activities: All roofing activities (substantial completion) have been completed as of 12/01/2021. Final walkdown with Top Quality and Garland is scheduled for 12/10/2021. *There is a final change order before the board for consideration that is to remove unused contingencies from the contract.*

21-03 Effluent Pump #3 Replacement:

<p>SCOPE: Scope of work includes the removal of existing effluent pump #3, installation of replacement pump/motor, procurement/installation of a FSI (formed suction intake) and flow modification appurtenances in the influent channel.</p>						
Contractor: TBD				Engineer: SDD		
Advertise	Pre-Bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Scheduled Completion
12/14/2021	xx/xx/2022	xx/xx/2022	02/xx/2022	xx/xx/2022	xx/xx/2022	xx/xx/2022

Key Activities: A purchase order for the replacement effluent pump was issued to Van Devanter Engineering Company on 08/27/2021 with an estimated arrival of the pump in 03/2022. Final QA/QC is being done on plans and specifications and project is anticipated to be advertised on 12/14/2021.

Demolition of 1245 Koshinski Lane property

<p>SCOPE: The district is taking quotes for the demolition of the single-family home near the South Sludge lagoon property.</p> <p>Request for quote of demolition sent to five general contractors on 11/08/2021. One “no bid,” one no response, and three bids received on or before 11/22/2021.</p>	
Byers Construction	\$36,100.00
JRH Services Inc.	\$13,650.00
Entler Excavating	\$10,800.00
Luka Construction	No Bid
Klein Excavating	No Response
<p>SDD is currently in the process of completing the demolition permit as required by the county of Macon.</p>	



NON-CONSTRUCTION ACTIVITY

ADMINISTRATIVE OFFICE MASTER PLANNING:

SCOPE: Phased approach to evaluating existing Administrative Facilities at the SDD.

Phase 1 – Current State facility assessment looked at the condition and costs to maintain existing administrative infrastructure.

Phase 2 – Space Needs and Building Utilization was to assess the current space available, evaluate the utilization of that space and calculate the raw space required based on industry standards.

Phase 3 - (\$10,000) Phase 3 is to perform a pre-design level study ranging from modifications and upgrades to the existing facilities to the possibility of a new facility, based on the space needs that were identified in Phase 2. The study includes a high-level cost opinion that provides context for the findings from Phase 1 and 2.

Update: A draft of the Phase 3 report is expected the week of 12/17/21. That draft will outline a series of alternatives for dealing with Administrative/Facilities upgrades. This draft will outline 6 possible alternatives, discuss the upgrade alternative options, and then decide which options to put cost opinions on prior to finalizing the Phase 3 report. Alternatives being discussed:

1. Baseline – update existing Board, Administration, Lab, Maintenance and Operations facilities
2. Relocate all to new facility (roughly 35,000 SF)
3. Add a new lab to existing Admin building, move board room and consolidate existing facilities
4. Renovate existing lab, build new Board, Admin, Maintenance and Operations facility
5. Build new Board, Admin and Lab facility, renovate existing Admin Building for Maintenance and Operations
6. Build new Board, Admin and Lab facility, raze existing Admin Building and build new Maintenance and Operations facility

PLANNING: PHOSPHORUS REMOVAL

Staff issued the request for qualifications (RFQ) for firms qualified and interested in performing Program Manager (PM) services to the Sanitary District of Decatur for Phosphorous Removal Planning, Design Criteria generation, Design Administration, Watershed management and general NPDES Permit compliance items related to milestones for meeting permit target dates.

The schedule published in the RFQ follows the following timeline:

PRE-SUBMITTAL CONFERENCE	06/08/21	Completed
RFQ'S DUE	07/16/21	Completed
REVIEW SUBMITTED RFQ'S	07/19 thru 07/30	Completed
SCHEDULE/ COMPLETE PROPOSAL INTERVIEWS	08/09 thru 08/20	Completed
MAKE SELECTION	08/24/21	Completed
AWARD CONTRACT	10/20/21 DELAYED	

This last period, a draft of the agreement has been distributed to attorney Flynn and trustees Cochran and Jacobsen for review and comment.

DESIGN: Fermentation Reactor – Black and Veatch

<<No Update>> Opinion of probable construction cost arrived for review by SDD. Projected cost is significantly higher than expected and staff is considering alternatives to proceeding with the construction.

Design Kickoff Meeting	03/10/21	Complete
Preliminary Engineering Assessment	05/10/21	Complete

30% Design Submittal/Review	06/21/21	Complete
90% Design Submittal/Review	08/19/21 10/29/21	Complete
Final Design Submittal	08/27/21 12/10/21	

UPCOMING PROJECTS:

20-10 Sodium Bisulfite Tank Replacement: <<No Update>> Development of project plans to replace the two sodium bisulfite tanks is ongoing.

Replacement of Sludge Transfer Pump: <<No Update>> Staff is preparing plans for the procurement and installation of a replacement transfer pump. This pump moves sludge from the main treatment plant to the Wyckles Facility.

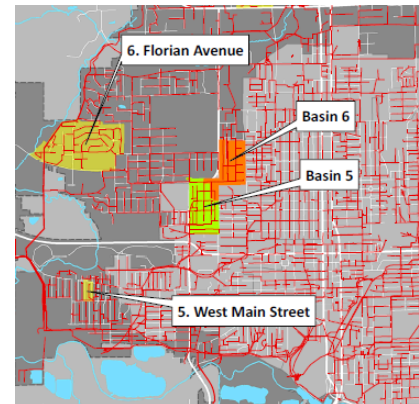
STUDY: East Headworks Grit Flow Modeling – Clemson Engineering Hydraulics

<<No Update>> This effort is to model the flow of grit through the east primary headworks. Dr David Werth of Clemson Engineering is the hydraulic modeling expert that worked with SDD through the effluent pump station flow issues. The district experiences imbalanced grit loading through this structure and with the West Headworks upgrades is desiring to address the imbalanced grit load. This modeling effort is expected to be around \$30,000.

INTERGOVERNMENTAL ACTIVITIES

Discussions with CITY/AECOM regarding Basins 5/6 I&I reduction are ongoing. The CITY requested a meeting this last period to discuss the approach they are wishing to pursue to reduce basement backups in this area. The paragraphs below provided by AECOM outline the approach.

As a result of the City of Decatur’s USEPA Administrative Consent Order (ACO), the City is required to “...identify solutions to any hydraulic deficiencies within both its Separate Sewer Collection System and its Combined Sanitary Sewer Collection System that are contributing to SSOs, Unauthorized Combined Sewer Overflows, and Property Backups.” The City is also required to estimate the benefit “...in terms of either the I/I in gallons removed or SSOs, Unauthorized Combined Overflows and Property Backups prevented...”).



One critical area in the City’s collection system is Basins 5 and 6, which are located at the western edge of the City’s combined sewer collection system and have experienced basement (property) backups but have not experienced any known Unauthorized Combined Sewer Overflows. In order to prevent basement backups in these basins, the City is currently proposing the following approach (“Alternative 5A”):

1. Completely separate the sewers in Basin 6. This is estimated to completely eliminate approximately 160,000 gallons of stormwater from the collection system during the 5-year, 2-hour storm and eliminate all 37 basement (property) backups that are currently predicted by the hydrologic and hydraulic model to occur within the basin.
2. Separate the sewers in Basin 5 and detain/store this stormwater, which will then be conveyed back into the combined sewer system (approx. 1.4 million gallons for the 5-year, 2-hour storm) in such a way that there will be no increase in the downstream peak flows. This is estimated to eliminate all 54 basement (property) backups that are currently predicted by the hydrologic and hydraulic model to occur within the basin.

The preliminary Engineer’s Opinion of Probable Cost for the above project is \$7.8 million. In our opinion, this alternative completely meets the requirements of the City’s ACO. **While all 1.4 of the million gallons of stormwater from Basin 5 could be completely removed from the combined sewer system for an additional \$2.5 million (see item #2 above), we do not believe this is required for the City to meet the ACO.** Furthermore, based on



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AECOM's past experience with the USEPA, we do not believe the USEPA will have a problem with this proposed solution.

Not included in this summary is the impact that this approach could have on the Fairview Control Structure, which is an integral part of the CSO flow control system and has three different discharge paths through it...

Wastewater/Stormwater Treatment Path through Fairview Structures

Normal flow to SDD – Full Treatment

1st O/F to 7th Ward – For Primary Treatment Only

2nd O/F to Stevens Creek – Non-treated discharge

SDD will not allow any additional wastewater to O/F to Stevens Creek as a non-treated discharge.

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

December 2, 2021

Sanitary District of Decatur
501 Dipper Lane
Decatur, IL 62522

Attn: Don Miller, Director of Engineering

Re: 20-06 South Shores Rehab
Project Status Report

Dear Don:

We are pleased to provide the following project status summary for the current project that Farnsworth Group is working on for the District. Our most recent monthly invoice for work on this current project is attached for your consideration.

1. 20-06 South Shores Sewer Rehab (L17-5456):

A. Construction Progress:

- Cured-in-place lining installation is proceeding along the second segment of the interceptor sewer main 763 between Manholes 763B-01 and 763-22. As of 12/01/21, an initial portion of this segment has been lined from manhole 763B-01 to 763-28. This is the final segment of sewer remaining to be CIPP lined and is anticipated to be completed by mid-December.
- Cured-in-place lining installation along the first segment of sewer interceptor main branch (763) from Manholes 22 to the pump station is complete.
- Cured-in-place lining installation along the 12" sewer main branch (763A) is complete.
- Cured-in-place lining installation along the 18" sewer main branch (763B) is complete.
- Bypass piping has been removed from Manhole 763-24 to Manhole 763-01.
- Bypass piping is installed and operational for the second segment of the interceptor main 763 from S. Main St. (Bus 51) to the east end of S. Shores Dr.
- Cleaning and televising work is completed for entire project.
- Manhole rehabilitation work is proceeding throughout project.

B. Construction administration and on-site observation are ongoing with review of shop drawings and Contractor Pay Applications.

- RFI's: 8 RFI's received via email; 8 RFI's reviewed and returned via email to date
- Change Orders: None received to date
- Shop Drawings: 7 submittals received; 7 submittals reviewed and returned to date

Sanitary District of Decatur

December 2, 2021

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- Contractor Pay Applications: Pay Application #5 has been reviewed and recommended by Farnsworth and submitted to the District for review and approval.
 - Additional Construction Observation provided this month: 6 Hours
- C. As of this Project Invoice #13 (Invoice No. 229460), we have billed \$150,778.65 to date on the project scope which is 73% of the total estimated fee of \$207,800. The additional construction observation services billed to date of \$6,271.59 have been provided separately from the Base scope on an as needed basis.

If you have any questions or need any additional information regarding the status of this project, please feel free to contact me any time. Thanks.

Sincerely,

FARNSWORTH GROUP, INC.

Kevin N. Hannel, PE
Engineering Manager



December 8, 2021

Mr. Donald Miller
Sanitary District of Decatur
501 S. Dipper Lane
Decatur, IL 62522

Re: Lakeshore Drive Lift Station Replacement Project
SDD Project No. 20-01
Clark Dietz Project No. D0540030
Monthly Progress Update

Dear Mr. Miller:

This letter summarizes the work of the Lakeshore Drive Lift Station construction project for November 2021. This month their major activities included reviewing submittals and coordinating weekly progress meetings.

- Submittals: Christy-Foltz has sent 61 submittals, nine were reviewed and returned during this period. Thirty-two submittals have been rejected in whole or in part. When scoping the project Clark Dietz assumed a total of 40 submittal reviews. We have been concerned that there are many submittals that the contractor has not yet sent and we have made and transmitted to the contractor a log of additional submittals that we are expecting.
- RFIs: Christy-Foltz has sent eight RFIs, four were reviewed and returned during this period.
- RFPs and Change Orders: We have sent one RFP for the elimination of the 20-inch forcemain, which resulted in Change Order 1. The contractor has sent one additional time change request which was reviewed and commented upon.
- Pay Application: Christy-Foltz has sent four pay applications.
- Meetings: Clark Dietz prepared agendas, lead, and prepared minutes for two construction progress meetings during this billing period, at your request.
- Schedule: Christy-Foltz has submitted five construction schedules as of the end of this billing period. The first four were rejected due to unrealistic task dates. We have noted in previous status update letters, that for months we have seen a risk in the contract schedule would not be met based on the status of rejected shop drawings and the pace of work. Weekly or bi-weekly progress meetings are being held to help the Contractor get back on schedule. A fifth was submitted on 10/20/21 and was accepted, however that schedule noted that bypass pumping started would be completed by 10/29/21. As of the date of this letter, this first bypass pumping start-up task has not been completed, making this initial task already 40 days late per that schedule. The 10/20/21 schedule also has substantial completion on 5/16/22, which is 44 days past the contractual deadline. The additional bypass pumping startup delays makes it likely that the overall project will be over 80 days late.
- Bypass pumping delays: there have been many various delays in starting the bypass pumping system including the contractor:
 - determining the means of making the connection to the 30-inch forcemain followed by waiting for delivery of tapping sleeves
 - fixing leaking of the bypass piping,
 - addressing programming, alarming, and instrumentation issues with the bypass pump controller,



- preparing a detailed bypass pumping operational plan, and
- addressing issues with initial setpoints on the pump operating range.

We have been providing information and feedback to the contractor to address each issue within approximately 24 hours on week days to keep the project moving as much as possible.

- Resident Project Representative: per your request we have staffed this project with a full-time inspector on the days when work is occurring on-site. This inspector communicates regularly with your staff to discuss progress and scheduling. This task is outside of the scope of work of our agreement and we have been tracking our time and noting it as a separate line item on our invoices.

The upcoming contract dates are summarized as follows:

- April 2, 2022 – Substantial Completion
- May 2, 2022 – Final Completion

In November, the contractor did successfully tap the 30” forcemain that is used to convey flow from Lakeshore Drive lift station to the Eastside Booster station. As noted, the next is bypass pumping system startup so that the lift station demolition and construction can begin. However, the bypass pumping startup has encountered numerous issues with controls and alarming, which has delayed other construction activities. In December, we anticipate that bypass pumping will start and then demolition of the existing station can start and construction of the new station can begin. We anticipate that Clark Dietz’s time during this period will include receiving and reviewing additional shop drawings, coordinating with the contractor regarding their schedule and questions, attending and preparing agendas and minutes for progress meetings, and performing resident project representative duties.

Many of the items noted above including the number of submittals, the number of rejected submittals, the frequency of meetings, preparing and transmitting additional information to the contractor regarding numerous questions, and schedule delays in addition to the engineering work required to prepare Change Order 1 will cause us to exceed our predicted time-and-materials costs that was included in our agreement. We plan to continue working with the District to review materials, answer questions, lead progress meetings, and perform site observation on the same time-and-material basis for the remainder of the project unless directed otherwise by the District.

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