

**AGENDA ITEM EXECUTIVE SUMMARY**

Agenda Item number: 3.c

Title:

Phosphorus Removal and Digester Improvements Project
Update – Information only

Presenter:

Tim Wilson

Meeting: Government Services Committee

Date: January 28, 2019

Proposed Cost: n/a

Budgeted Amount: n/a

Not Budgeted: ☐**Executive Summary** (*if not budgeted please explain*):

Information only report on the Phosphorus Removal and Digester Improvements Project. The intent is to provide the Council Committee an update on the project status.

A member of the Public Works Staff will be available at each of the Government Services Committee meetings to respond to any questions or comments that the Council Committee may have.

Attachments (*please list*):

* Information only project report

Recommendation/Suggested Action (*briefly explain*):

None

Phosphorus Removal and Digester Improvements Project

January 2019

Construction Update Report

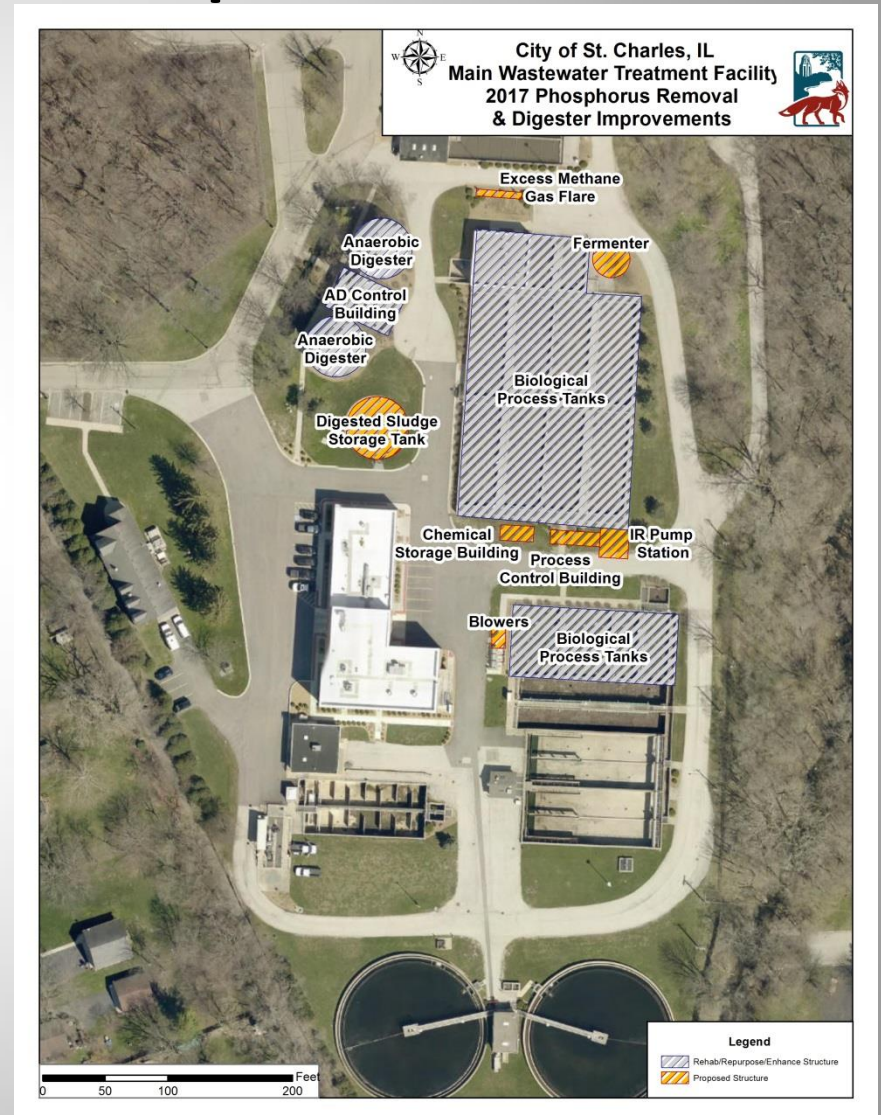
Construction Update

- Construction Contractor: IHC Construction Companies
- Project Schedule:
 - ~~Commence Construction : September 27, 2017~~
 - ~~Chemical Feed System Online : June 1, 2018~~
 - Substantial Completion : April 3, 2019
 - Final Completion : May 3, 2019
 - Pending Time Extension : 52 Days
- Construction Contract : \$13,294,896.00
- Approved Contract Change Orders : \$ 7,954.43
- Pending Contract Change Order (#6) : \$ 107,564.70
- Amount Billed to Date : \$10,826,150.00
- Est. Construction Percent Completed : 75 %

Construction Update

Current Construction Activity

- North Anaerobic Digester
- AD Control Building
- Digested Sludge Tank
- Fermenter
- IR Pump Station
- Chemical Storage Building
- Blowers
- Biological Aeration Tanks



Construction Update Topic #1

- North Digester Paint Coating and Steel Inspections
 - Concern:
 - The third party review of the North digester included the internal coating and steel inspections. The preliminary report was completed 10.10.2018. The report provided some recommendations on the coating replacement and steel repairs.
 - Impacts:
 - Review third party recommendation determine scope that is included in the contract and new scope work to be completed by contractor
 - Contractor will provide estimates for any changes in scope
 - Overall project schedule will be reviewed
 - Solution:
 - Contractor finished sand blasting the inside of the tank so all parties can see the needed repairs
 - After Sand blasting to determine what is included in the contract vs new scope
 - Contractor to provide time and material cost and schedule impacts
 - Council Action:
 - City Staff recommends the approval of Change order # 6 in the amount of \$107,564.70 and a 52 day contract extension.

Construction Update Topic #1

- Photos of some preliminary concerns

Coating Delamination and Failure



I-Beam holes in effluent box



Piping Holes



Construction Update Topic #1

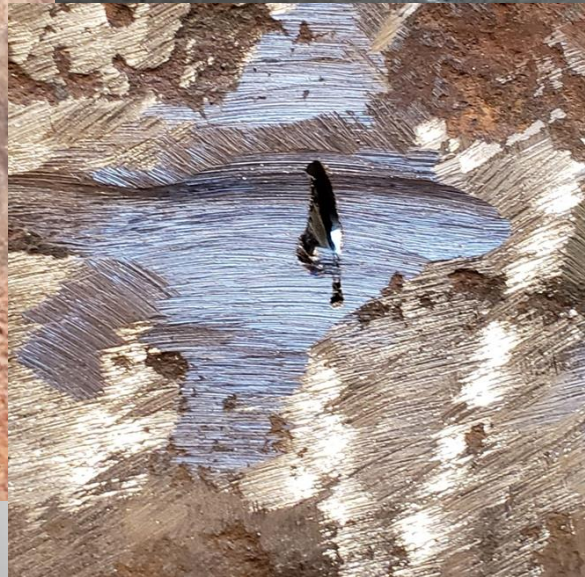
- Photos of some preliminary concerns

Deep Steel Pitting and Heavy Rust Build-up



Construction Update Topic #1

- Examples of steel pitting after paint removal
- Weld repairs are located at 60 different locations inside of the egg, with greater than 200 pit welds required



Construction Update Topic #1

- Example on how the weld repairs will be made to the north digester.



North Anaerobic Digester

Removal of the roof on the digester; Scaffolding being assembled in tank



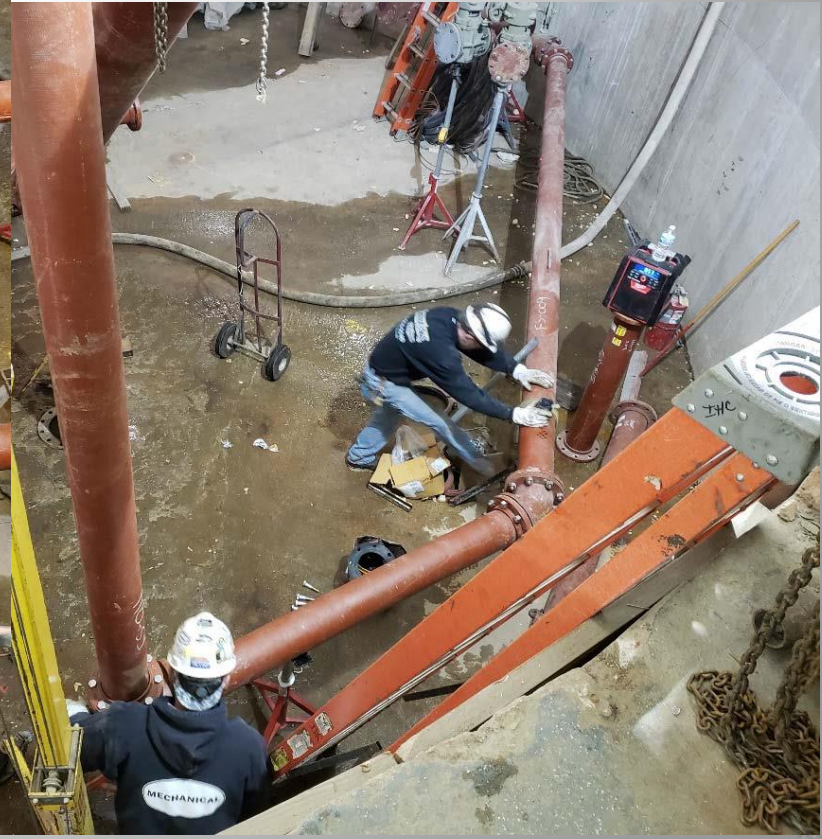
North Anaerobic Digester

- Inside the tank after sand blasting



Digesters

- North Cradle Piping



Upper Aeration Tanks



Upper Aeration Tanks

- Setting Last Bridge



Upper Aeration Tanks

New Blower Start-ups



Upper Aeration Tanks

Installing the last baffle walls and piping



Sludge Storage Tank



Sludge Storage Tank

- Welding in the plate on floating cover



Digester Sludge Storage Tank

- Final coating and assembly



IR Pump Station

- Ball Check Valves installed



Site Page

- Phosphorus Removal & Digester Improvements Project Page-
 - <https://www.stcharlesil.gov/projects/2017-phosphorus-removal-and-digester-improvements>