



Capital Planning Committee Meeting Water Engineering

September 10, 2024 | Tim Kuhns

Agenda

- Top 3 Construction Project Report-Out
 - CIP # 115001 – Waterworks Park Yard Piping Replacement
 - CIP # 122013 – 14 Mile Transmission Main Loop
 - CIP # 122004 – 96-inch Transmission Main Relocation
- Top 3 projects performance
- Current challenges with CIP delivery
- Key factors in how CIP projects are prioritized

Water CIP Project STATUS

CIP #: 115001 Water Works Park Yard Piping Replacement

Project Manager: Michael Garrett
Project Delivery Method: Design-Bid-Build
Project Status: Construction Phase
CIP Score: 78.1



Contract	Contractor	Contract Amount	Earned Value	% Complete	Start	End	% Elapsed Time
• CS-055 (Design)	• AECOM	• \$5,598,493.74	• \$3,918,485.03	• 70%	• June 26, 2017	• February 26, 2026	• 83%
• 2000610 (Construction)	• Lakeshore Global	• \$49,467,913.00	• \$39,604,104.74	• 80%	• October 19, 2020	• September 3, 2025	• 80%

Water CIP Project INFO

CIP #: 115001 Water Works Park Yard Piping Replacement

💧 Project Scope of Work / Goals

- 💧 Replace all yard piping, valves, and production flow metering for piping on the discharge of the high lift station.

💧 Significance / Need / Background

- 💧 Yard piping, valves, and venturi meters were installed between 1880 and 1950. The piping system is older, experienced leakage, and required replacement.

Water CIP Project PHOTOS

CIP #: 115001 Water Works Park Yard Piping Replacement Project

Aerial of Construction



Piping D/S of Venturi Meter

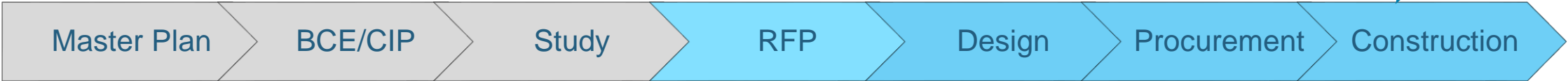


Water CIP Project STATUS

CIP #: 122013 14 Mile Transmission Main Loop (Phase 2)

Project Manager: Pete Fromm
Project Delivery Method: Design-Bid-Build
Project Status: Construction Phase
CIP Score: 77.4

We Are Here



Contract	Contractor	Contract Amount	Earned Value	% Complete	Start	End	% Elapsed Time
•1802448 (Design)	•Brown and Caldwell	•\$10,027,982.00	•\$9,563,757.47	•95%	•March 12, 2019	•January 12, 2025	•94%
•2004456 (Construction)	•Ric Man	•\$93,130,783.99	•\$89,207,868.95	•96%	•October 10, 2021	•August 30, 2024	•100%

Water CIP Project INFO

CIP #: 122013 14 Mile Transmission Main Loop (Phase 2)

💧 **Project Scope of Work / Goals**

- 💧 Installation of 8 miles of 54-inch transmission main and associated control valves and isolation valves.

💧 **Significance / Need / Background**

- 💧 Provide looped connection between 8 Mile Road and 14 Mile Road to increase redundancy for western-Wayne and Oakland Counties.

Water CIP Project PHOTOS

CIP #: 122013 14 Mile Transmission Main Loop (Phase 2)

Flow Control Valve



Installation at M-5 and 13 Mile



Water CIP Project STATUS

CIP #: 122004 96-inch Transmission Main Relocation (Phase 2)

Project Manager: Corey Brecht

Project Delivery Method: Design-Bid-Build

Project Status: Construction Phase

CIP Score: 83.5

We Are Here



Contract	Contractor	Contract Amount	Earned Value	% Complete	Start	End	% Elapsed Time
•1900741 (Design)	•Jacobs Engineering	•\$31,510,087.00	•\$21,413,371.00	•68%	•June 15, 2020	•November 6, 2027	•57%
•2300600 (Construction)	•Ric Man	•\$56,350,500.00	•\$26,413,055.26	•47%	•September 1, 2023	•August 1, 2025	•54%

Water CIP Project INFO

CIP #: 122004 96-inch Transmission Main Relocation (Phase 2)

💧 Project Scope of Work / Goals

- 💧 Installation of 8,000 feet of 96-inch transmission main along Dequindre Road in Rochester Hills.

💧 Significance / Need / Background

- 💧 Provides relocation of 96-inch transmission main that is currently located within the influence of an industrial landfill site.

Water CIP Project PHOTOS

CIP #: 122004 96-inch Transmission Main Relocation (Phase 2)

Dequindre Pipeline Installation



Typical tight shored trench



Top 3 Projects Performance

- **115001 – Water Works Park Yard Piping Replacement Project**
 - Schedule – LGC is on track to complete the yard piping and restoration by contract end date of September 3, 2025
 - Budget – LGC is on track to complete the Work within budget
 - Water Works Park already has functioning water production metering as a result of this project.
 - No impacts to service area during major shutdowns of the yard piping (1/2 of the discharge pipes at a time).
- **122003 – 14 Mile Transmission Main Loop Project**
 - Schedule – Ric Man has completed the Work by current contract end date of August 31, 2024. The schedule was extended through change order from original contract end date of February 10, 2024. This represents an extra 202 days to complete or schedule overage of 23%.
 - Budget – Original budget was \$92,468,705 and was increased to final budget amount of \$93,130,784. This represents less than a 1% overage.
 - Given the complexity of the project with multiple tunnel crossings and multiple stakeholders (Novi, MDOT, Wayne County, Farmington Hills, EGLE), the project has been a success. .
- **122004 – 96-inch Transmission Main Relocation Project (Phase 2)**
 - Schedule – Ric Man is on track to complete the project by August 1, 2025 completion date.
 - Budget – Ric Man is on track to complete the work within budget.

Current Challenges with CIP Delivery

- For right-of-way projects (transmission main installation), it is critical that construction sequencing and work restrictions are agreed upon with host community prior to construction contract award. These work restrictions would ideally be set in both the contract and the right-of-way permit.
- Cross-over between maintenance and capital project contractor pools has caused challenges with limited number of contractors working with GLWA.
- Generally, construction contractors can meet construction schedules and budgets. The key is getting the projects launched on time. Reliance on off peak shutdowns (September thru April) makes this issue extra important.

Key Factors in how projects are prioritized

- EGLE mandated projects are immediate priority (e.g. – flocculation at most WTPs, filtration at NE, etc).
- Priority is given to maintaining existing assets over installation of new assets.
- New assets may be prioritized if they significantly leverage use of existing assets (e.g. – 14 Mile Transmission Loop and Newburgh/Haggerty Pump Stations).
- Significant excess capacity at high lift stations has enabled GLWA to prioritize treatment projects over pumping projects.

Questions and Contact

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