Fort Wayne Tunnel Works

Foster Park Retrieval Shaft

October 25, 2017
• Brief review of the Tunnel & Shafts project
• Why we have to be in Foster Park
  • Retrieval Shaft
  • Drop Shaft
• What the project is going to solve
• What you’ll be seeing soon
• Working with Parks
  • Safety
  • Trail
  • Golf Course
  • Log Cabin
Sewer system facts

- 3 types of sewer systems
  - Sanitary
  - Stormwater
  - Combined
- 1/3rd of Fort Wayne’s sewers are combined
- 41 CSO locations
- A typical year of rain will trigger CSO discharges 71 times
Foster Park - combined sewer discharge

- Fort Wayne’s 2nd largest Combined Sewer Overflow Point
Consent Decree

• Fort Wayne entered in April 2008
• Implement the LTCP to reduce the volume of combined sewage into the 3 rivers by 2025
• St. Joseph River to have no more than 1 overflow event per typical year
• St. Marys and Maumee Rivers to have no more than 4 overflow events per typical year
CSO Reduction Program

- Reduce through separation
- Treat more/Store more
- Collect more
Tunnel Works Program

- Three Rivers Protection and Overflow Reduction Tunnel (3RPORT)
  - Deep-rock tunnel
  - Drop shafts
  - Pump station
- Near surface infrastructure
  - Consolidation sewers
Tunnel Works Program

- Largest public infrastructure investment in Fort Wayne’s history
- Protects neighborhoods
- Meets federal mandates
- Meets future needs of sewer system

Citizens Energy Deep Rock Connector Tunnel – Indianapolis, IN
Courtesy of AECOM

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Tunnel operation
Tunnel Boring Machine (TBM)
The 3RPORT deep-rock tunnel

- Approximately 5 miles
- 19-ft bore, 16-ft finished diameter
- Seven (7) connections to the tunnel (drop shafts)
- Tunnel depth will be 220 ft
- Tunnel can convey about 800 million gallons per day (mgd)
The 3RPORT deep-rock tunnel

- The tunnel will have two means of emptying
  - Gravity siphon
  - Pumped
- Siphon will be connected to the Wet Weather Pump Station
- Deep Dewatering Pump Station will be in the same shaft as the tunnel launch shaft
Types of tunnel shafts

• Retrieval shaft
  • Location where TBM is removed after finishing its work
  • 30 feet in diameter
  • Requires large space (2+ acres)

• Drop shaft
  • Locations where sewage flow drops into tunnel
  • Typically 4 to 8 feet in diameter
  • Requires no more than an acre for construction
Working shaft & DDPS shaft
Foster Park

Retrieval Shaft Working Site

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Retrieval shaft
Fenced worksite area
Current activities at Foster Park required for safe worksite

- Surveying begins – 10/27/17
- Clearing and Removal of Vegetation and Fence Installation – late October, 2017
- Utility Relocation – early November, 2017
- Leveling working site surface mid November, 2017
- Cranes will move in December, 2017
- Digging tentatively begins in January, 2018
  - *Schedules may vary depending upon weather*
For more information, please visit the *Tunnel Works* website at:

[FortWayneTunnel.org](http://FortWayneTunnel.org)

For questions about the *Tunnel Works* Program, please email City Utilities at:

[FortWayneTunnel@cityoffortwayne.org](mailto:FortWayneTunnel@cityoffortwayne.org)