



INTENTIONAL INNOVATION

Town Council Meeting
Drinking Water System Improvements Phase 2
March 20, 2018

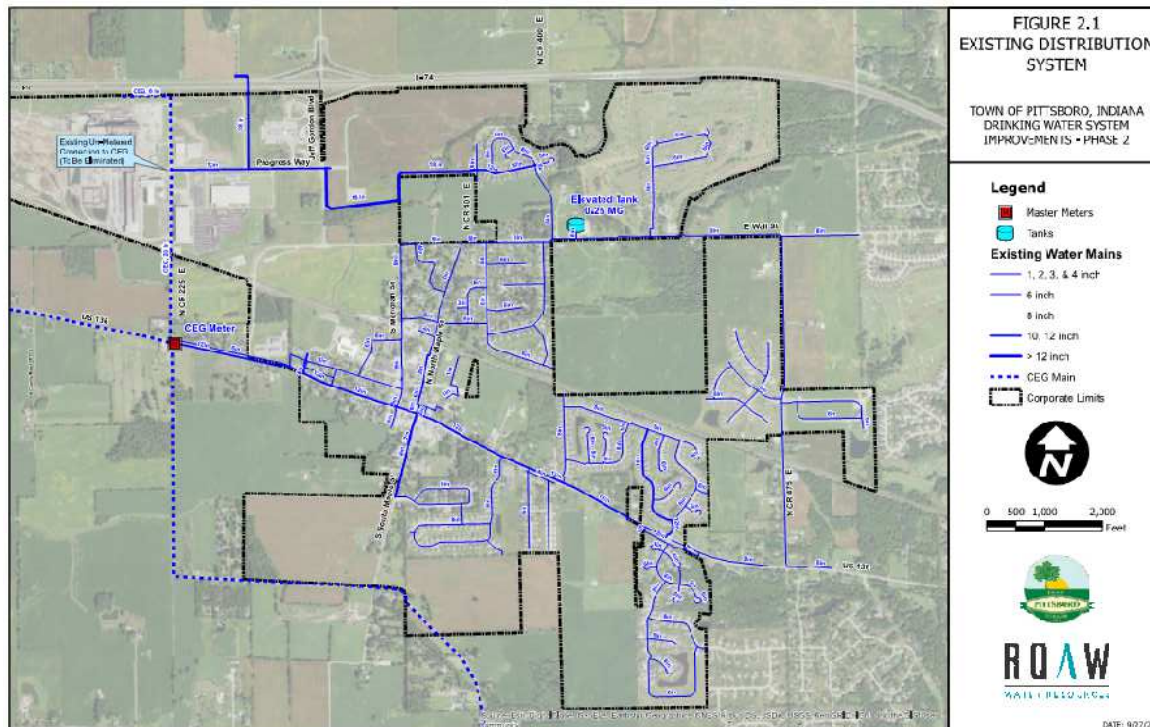
Agenda

- Project Background
- Detailed Project Overview
 - 1.0 MGD Water Treatment Plant
 - Distribution System
 - Well Fields
- Benefits to the Town
- Project Schedule
- Town Council Project Considerations

Project Background

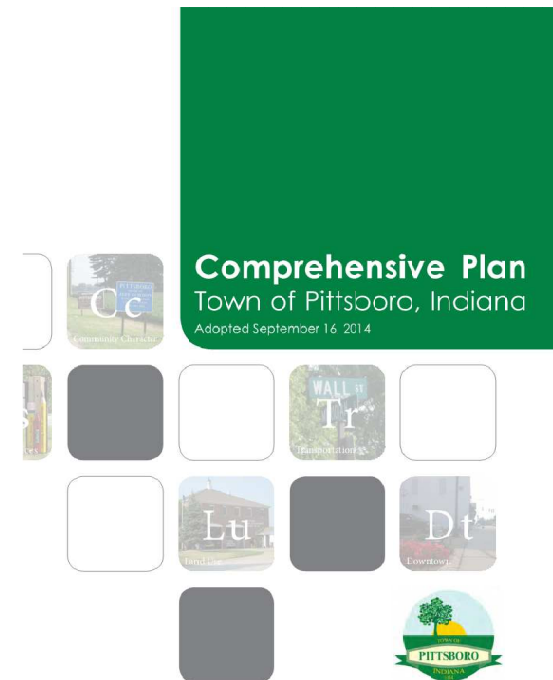
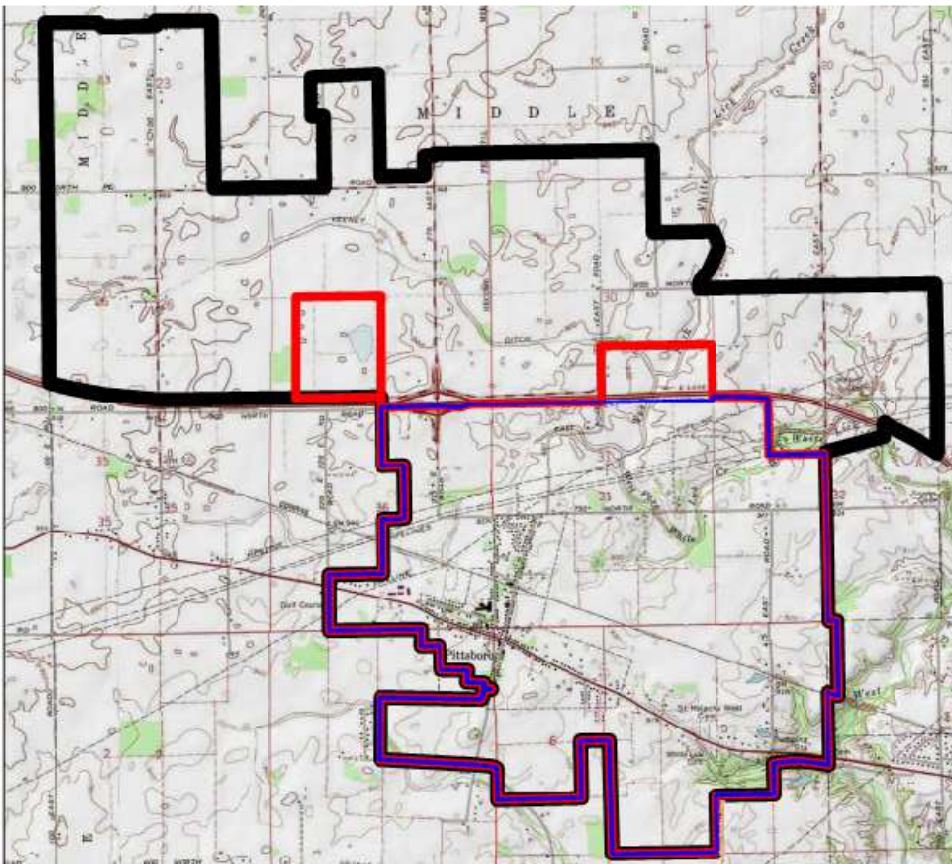
- Demands of the System

Description	Value
Average Design Flow	0.22 MGD
Peak Daily Demand	0.51 MGD
Maximum Day Peaking Factor	2.3



Project Background

- Ultimate Needs of the System



Description	Value
Ultimate Average Day Flow	2.92 MGD
Maximum Day Peaking Factor	2.3
Ultimate Maximum Day	6.70 MGD

Project Background

- 20-Year Needs of the System
 - *STATS Website* – 1,400 people over 20 years
 - 200 acres of development
 - 9% increase in build-out

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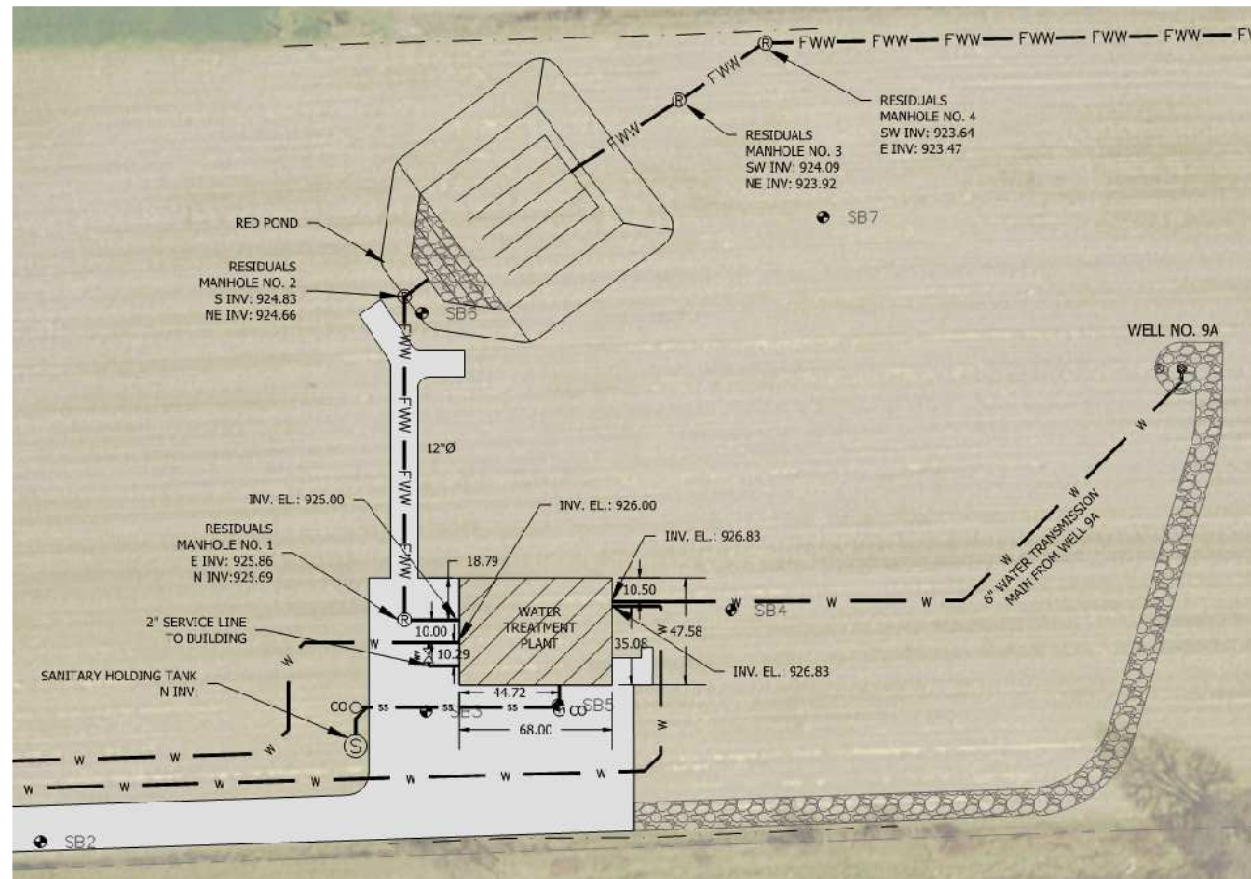
- Indiana Regions**
At-a-glance details about Indiana's counties, regions and metros.
- States**
Compare your state to others, complete with rankings.
- U.S. Counties**
Compare your county to others nationwide.
- U.S. Cities/Towns**
Access city and town data with state comparisons.

Description	Value
20-year Average Day Flow	0.46 MGD
Maximum Day Peaking Factor	2.3
20-year Maximum Day	1.06 MGD

Detailed Project Overview

Water Treatment Plant

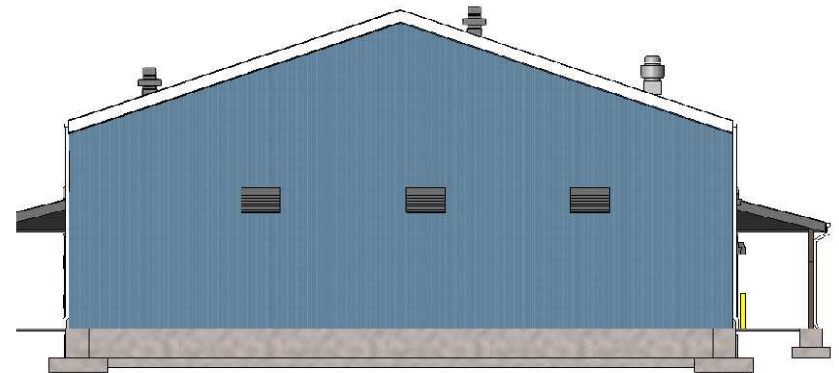
- Water Treatment Plant: 1.0 MGD



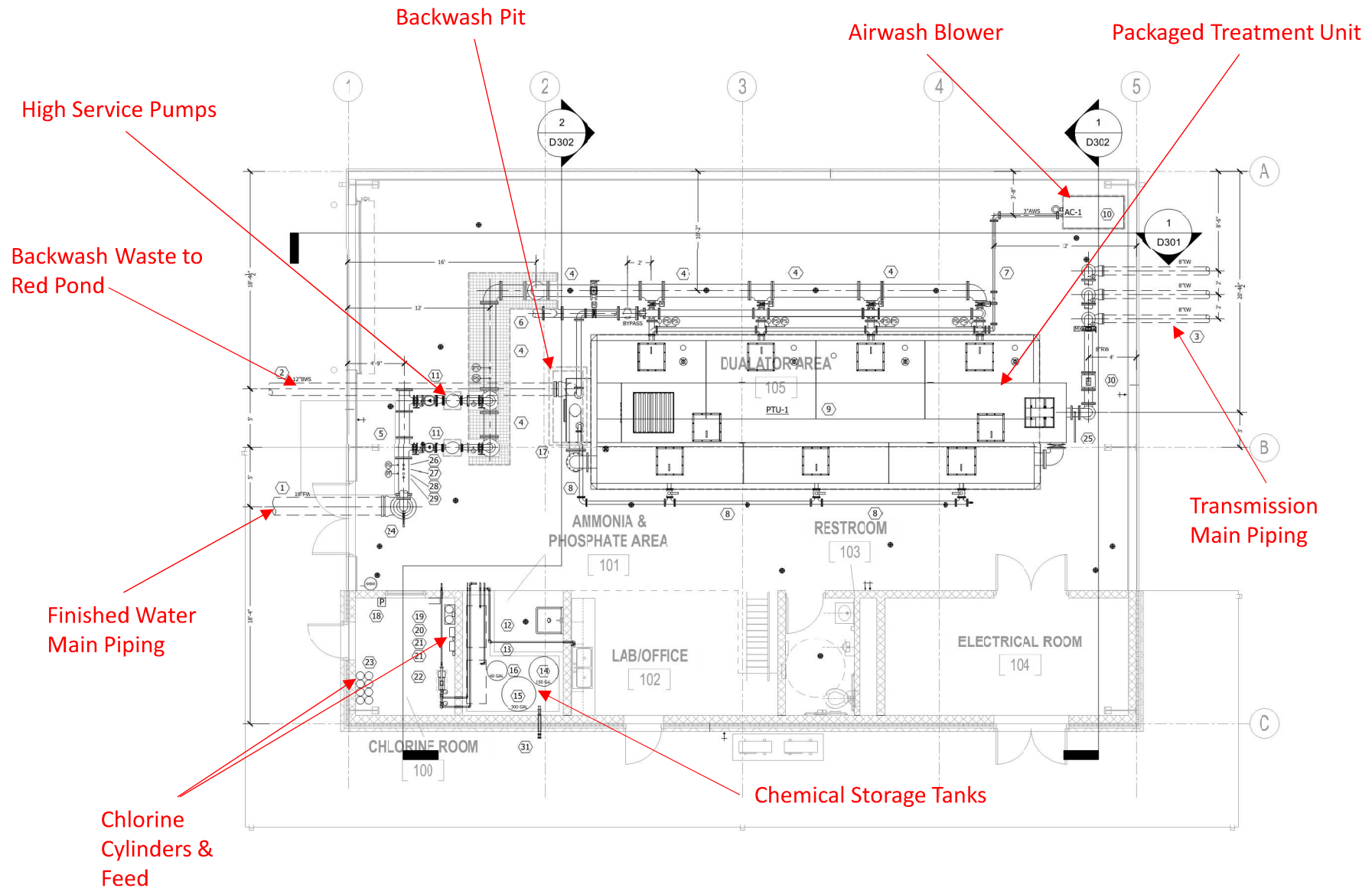
Detailed Project Overview

Water Treatment Plant

- Water Treatment Plant: 1.0 MGD

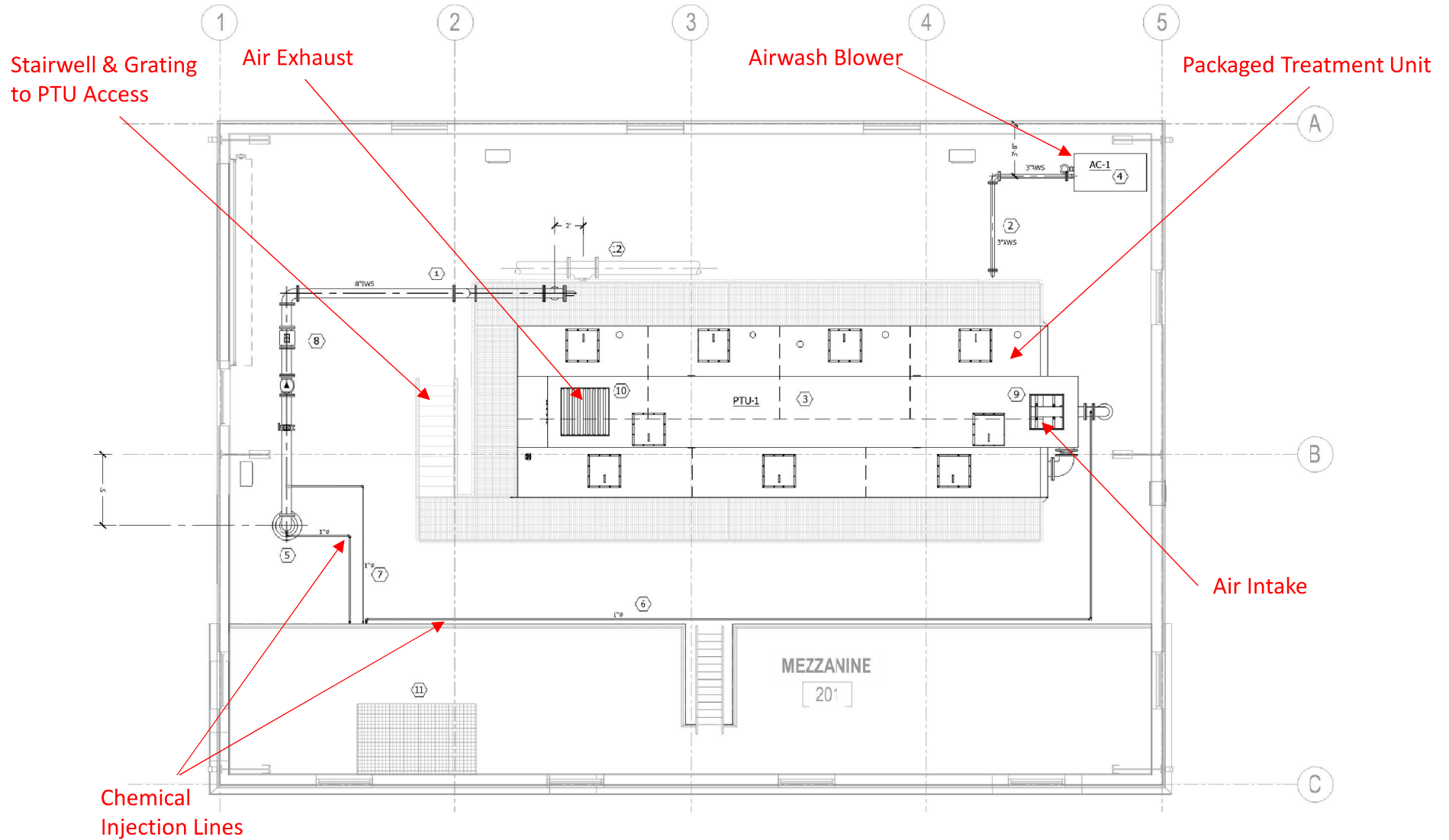


Detailed Project Overview Water Treatment Plant



Detailed Project Overview

Water Treatment Plant



Detailed Project Overview

Water Treatment Plant

- Dualator III Packaged Treatment Unit



(Tipton WTP)

Filter Piping

Packaged Treatment Unit

Control Panel

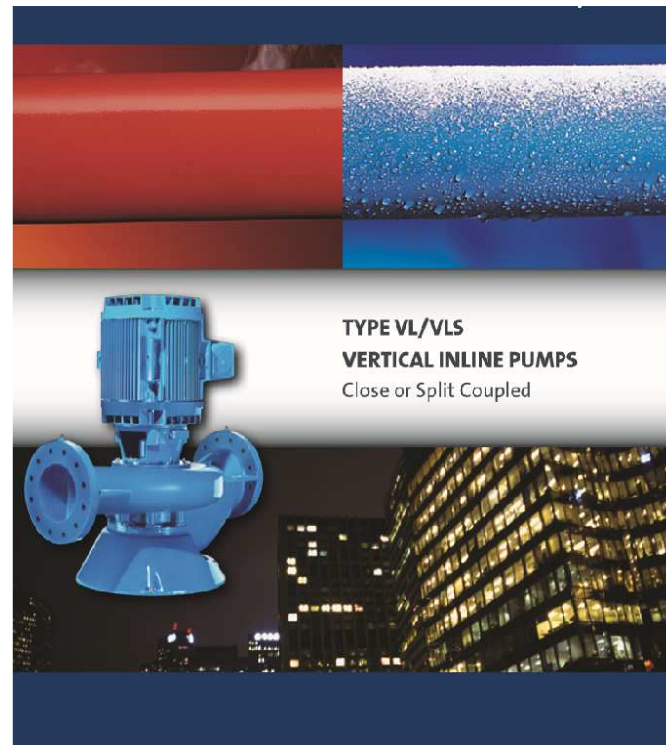
Airwash Blower

Detailed Project Overview Water Treatment Plant

- Pumps & Appurtenances



Well Pumps



High Service Pumps

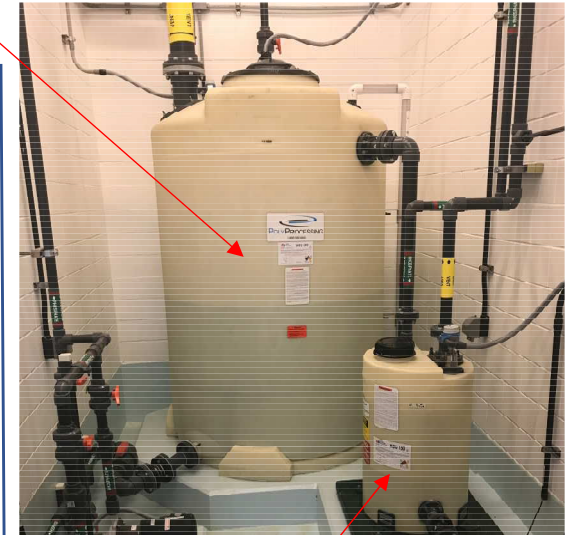


Flow Meters

Detailed Project Overview Water Treatment Plant

- Chemical Feed Systems

Phosphate Bulk Tank



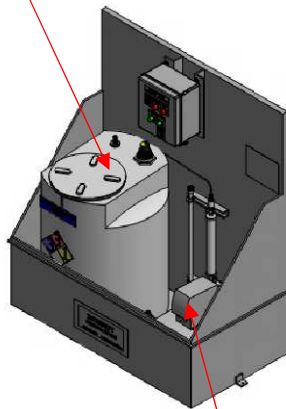
Active Cylinders & Regulators



Chlorine Booster
Pump & Piping

(Brownsburg WTP - 2)

Storage Tank



ISOMETRIC VIEW

Ammonia Feed Pump

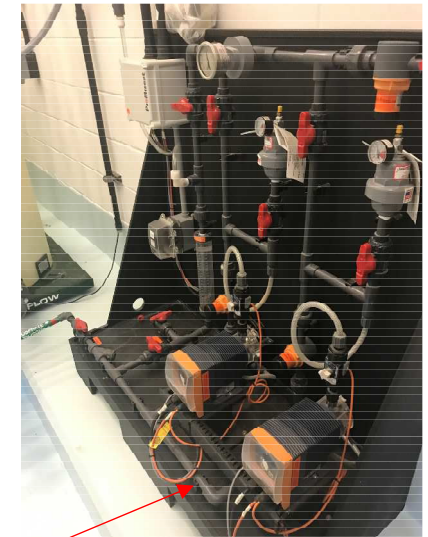
Ammonia Sulfate
System

Phosphate Day Tank



Spare Gas Cylinders

Phosphate Chemical
Feed Skid



(Brownsburg WTP - 1)

Detailed Project Overview

Water Treatment Plant

- Residuals Handling



Backwash Pit



(Brownsburg WTP – 2 – Red Pond)



Outfall to Creek

Detailed Project Overview

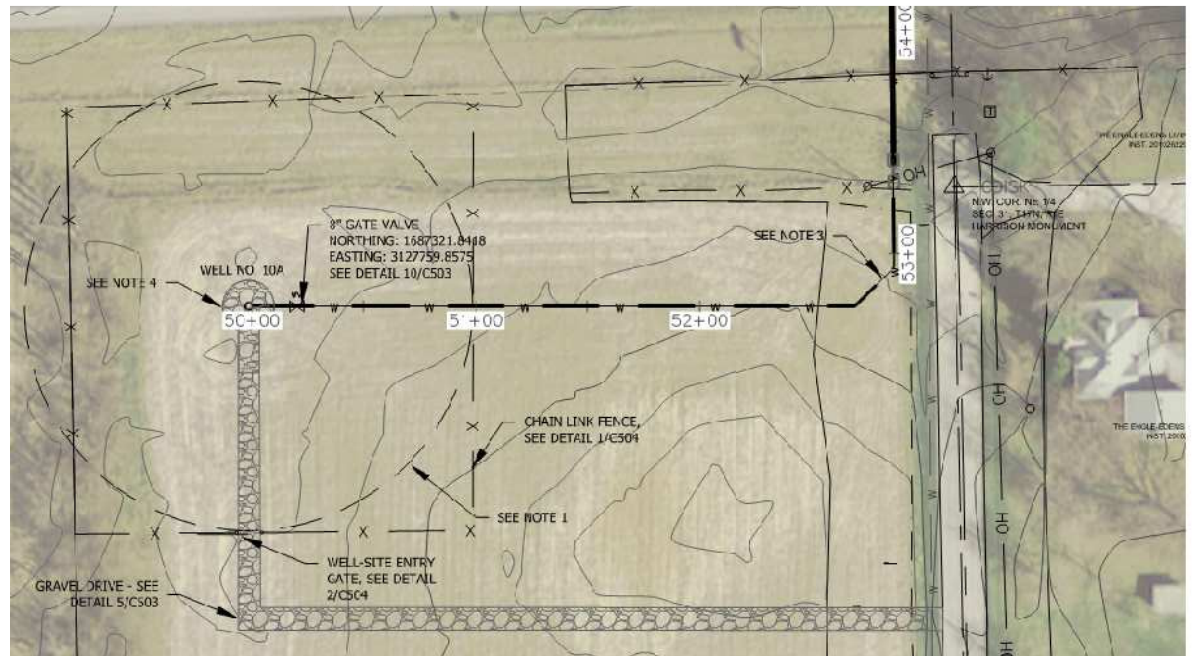
Distribution System

- Transmission Main: 1,550 ft of 8-inch PVC
- Water Main: 3,410 ft of 18-inch DIP



RQAW
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Detailed Project Overview

Cost Estimate



- Water Treatment Plant

Project Component	Cost Opinion
General Conditions	\$164,000
Sitework	\$217,000
Architectural & Structural	\$372,000
Mechanical & Plumbing	\$60,000
Electrical	\$168,000
Process Equipment & Piping	\$1,230,000
Residuals Handling	\$87,000
Instrumentation & Control	\$100,000
Water Treatment Plant Subtotal	\$2,398,000

Detailed Project Overview

Cost Estimate



- Transmission and Distribution

Project Component	Cost Opinion
General Conditions/Sitework	\$23,000
Transmission Mains (Raw Water)	\$165,000
Water Mains (Finished Water)	\$445,000
Distribution System Subtotal	\$633,000

Detailed Project Overview

Cost Estimate



- Well Fields

Project Component	Cost Opinion
General Conditions/Sitework	\$33,000
Well Development	\$156,000
Instrumentation & Control	\$25,000
Well Field Subtotal	\$214,000

Detailed Project Overview

Cost Estimate



Project Component	Cost Opinion
Water Treatment Plant	\$2,398,000
Transmission and Distribution	\$633,000
Well Fields	\$214,000
Subtotal of Work	\$3,245,000
Contractor's Overhead and Profit (15%)	\$487,000
Mobilization/Demobilization (5%)	\$162,000
Bonds & Insurance (3%)	\$98,000
Construction Subtotal	\$3,992,000
Construction Contingency (10%)	\$399,000
Total Opinion of Construction Cost	\$4,391,000

Construction Budget	\$4,000,000
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Benefits to the Town

- Rates
 - 2014 & 2016 Rate Increases
 - 2016 Water Rate Increase
 - 25% ↑ / CCF
 - 150-200% ↑ in Meter Service Charge



Benefits to the Town

- System Control



HGL?

Benefits to the Town

- System Reliability



Project Schedule

Project Task	Milestone
60% Submittal	March 20, 2018
INDOT Cut-Road Permit, Hendricks County Drainage Permit, Well Site Surveys	April 2018
Final Documents & IDEM Permit Submittal	May 2018
Financial Consultant Submits Due Diligence	June 2018
IDEM Permit Approved	July 2018
SRF Loan Closing	August 2018
Notice to Proceed	August 2018
Final Completion	February 2020

Town Council Project Considerations



- Delivery Method
 - Design-Bid-Build/GSC Process
- WTP Operations Staff
 - When?
 - Who?
- Future Rates

QUESTIONS?