

BLACKHAWK TOWER

DESIGN CONSIDERATIONS

Water Utility Board
May 24, 2016

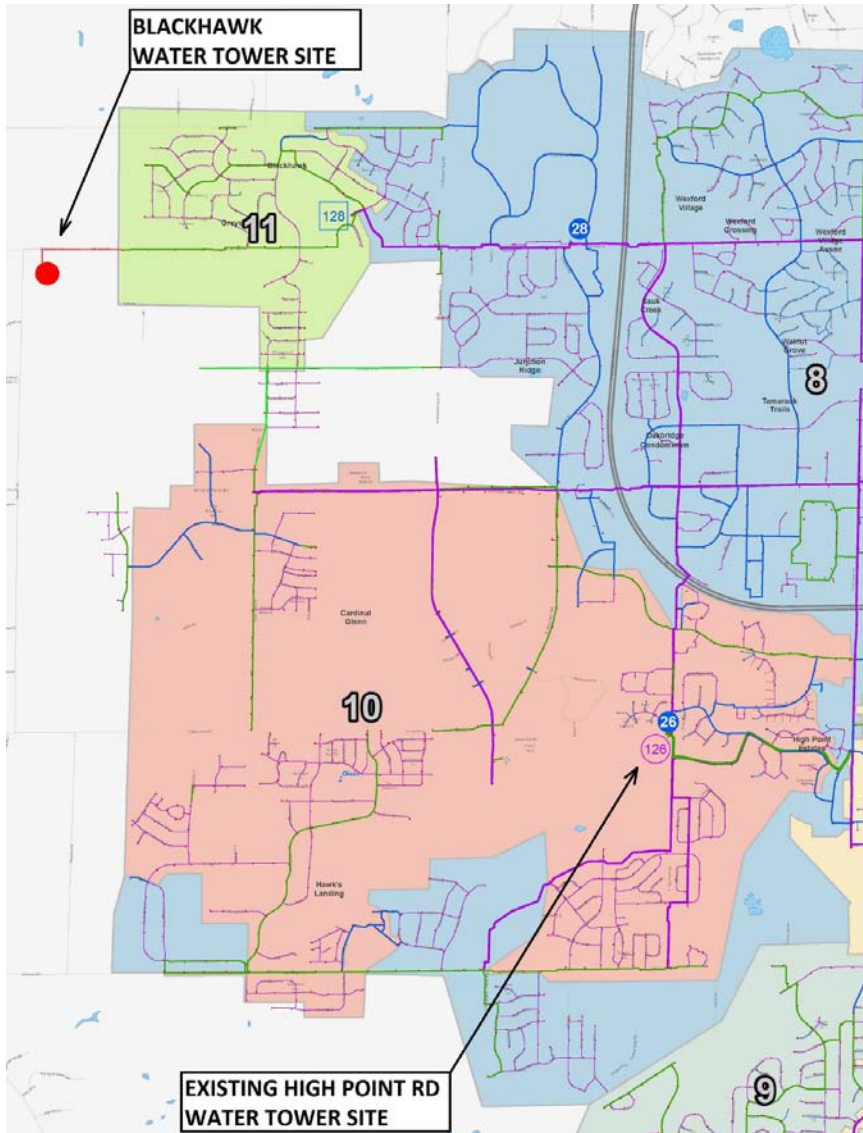




- 1. Brief Project Overview**
- 2. Project Status/Background**
- 3. Schedule**
- 4. Key Design Decisions**
 - **Tank Style(s)**
 - **Site Layout/Location**
 - **Paint/Aesthetics**



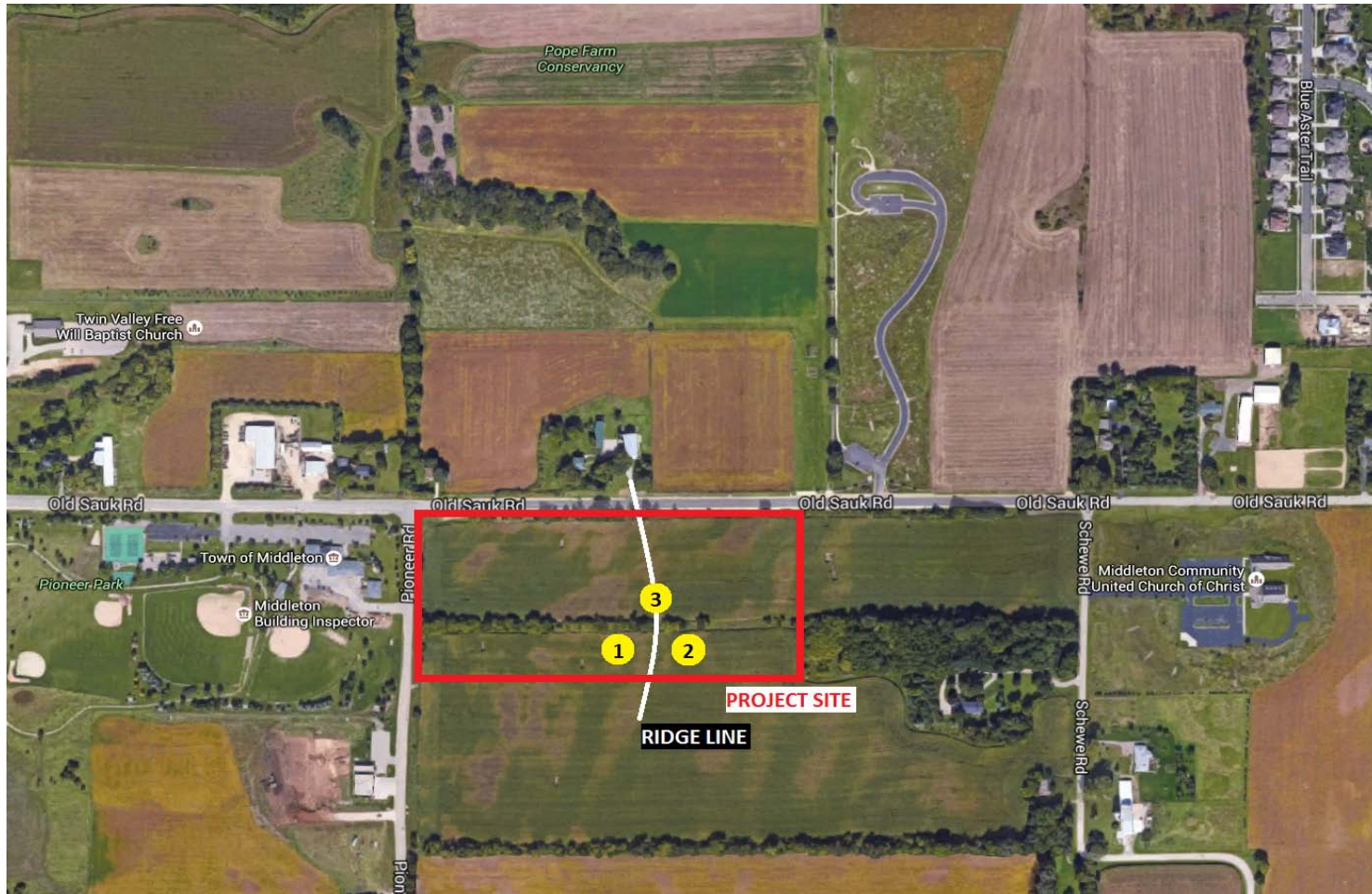
MAJOR PROJECT COMPONENTS



- **1,000,000 Gal. Elevated Tank**
- **Serves Combined Pressure Zones 10 and 11**
- **Provides Redundant Supply and Storage**
- **\$3,600,00 Budget (Tank and On-Site Improvements)**
- **Connecting Watermain by MWU**



PROJECT LOCATION & PROPERTY LIMITS



PROJECT PROPERTY LIMITS AND NEARBY PROPERTIES; PM #2





- 1. Held Initial Public Meeting (12/9/15)**
- 2. Completed Topographic Survey of Site**
- 3. Provided Various Opportunities for Public Input/Comment (Outreach Highlight Summary and Public Survey Results on Subsequent Slides)**
- 4. Completed Preliminary Planning and Evaluation Steps**
- 5. Held Second Public Meeting (5/5/16)**

RECENT PUBLIC OUTREACH HIGHLIGHTS



12/09/2015	Initial Public Meeting Attendees: 40-50
03/08/2016	Update to email list: Public Hearing at Water Board Click-throughs to web page: 70
03/11/2016	Public Hearing Notice Postcards sent to 2194 households
4/25/2016	Project Survey: Initial Design 16 respondents through 5/18/2016
4/25/2016	Public Meeting Notice Postcards sent to 2200 households
4/26/2016	Update to email list: Website update, Public Meeting notice Click-throughs to web page: 45
5/05/2016	Public Meeting: Initial Design Attendees: approx 15
5/11/2016	Public Hearing Notice Postcards sent to 2200 households
5/11/2016	Update to email list: Public Hearing Notice Click-throughs to web page: 15 Current active subscribers: 225
5/18/2016	Website Update: Public Hearing Memo Unique page views since launch: 796

Corresponding notices and updates have also been posted in a timely manner on the project website and social media.



DESIGN SURVEY



Open 4/25 to 5/18
16 total responses

- Top interest in project: Aesthetics
- Preferred site option: Site 1 (narrowly)
- Preferred tank paint scheme: Two-tone
- Preferred tank color: Blue



PROJECT SCHEDULE



TASK DESCRIPTION	2015		2016												2017												2018									
	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug		
Preliminary Design																																				
Begin Project	■																																			
Public Meeting No. 1		■																																		
Prepare Design Report			■	■	■	■	■																													
Public Meeting No. 2								■																												
Initial Regulatory Submittals									■	■																										
Final Design																																				
Prepare Final Plans and Specs																																				
Public Meeting No. 3																																				
Submit to DNR for Approval																																				
Bidding																																				
Prepare Contract Documents																																				
Advertise/Open Bids																																				
Award Contract																																				
Construction																																				
Review Equipment Submittals																																				
Fabricate Tank																																				
Foundation Construction																																				
Erect Tank																																				
Interior Equipment/Electrical																																				
Paint Tank																																				
Final Inspections																																				

KEY DESIGN DECISIONS – TANK STYLES



COMPOSITE

Estimated Construction Cost

\$2.7 Million

Maintenance Cost Rank

Lowest



HYDROPILLAR

Estimated Construction Cost

\$3.1 Million

Maintenance Cost Rank

Highest



SPHEROID

Estimated Construction Cost

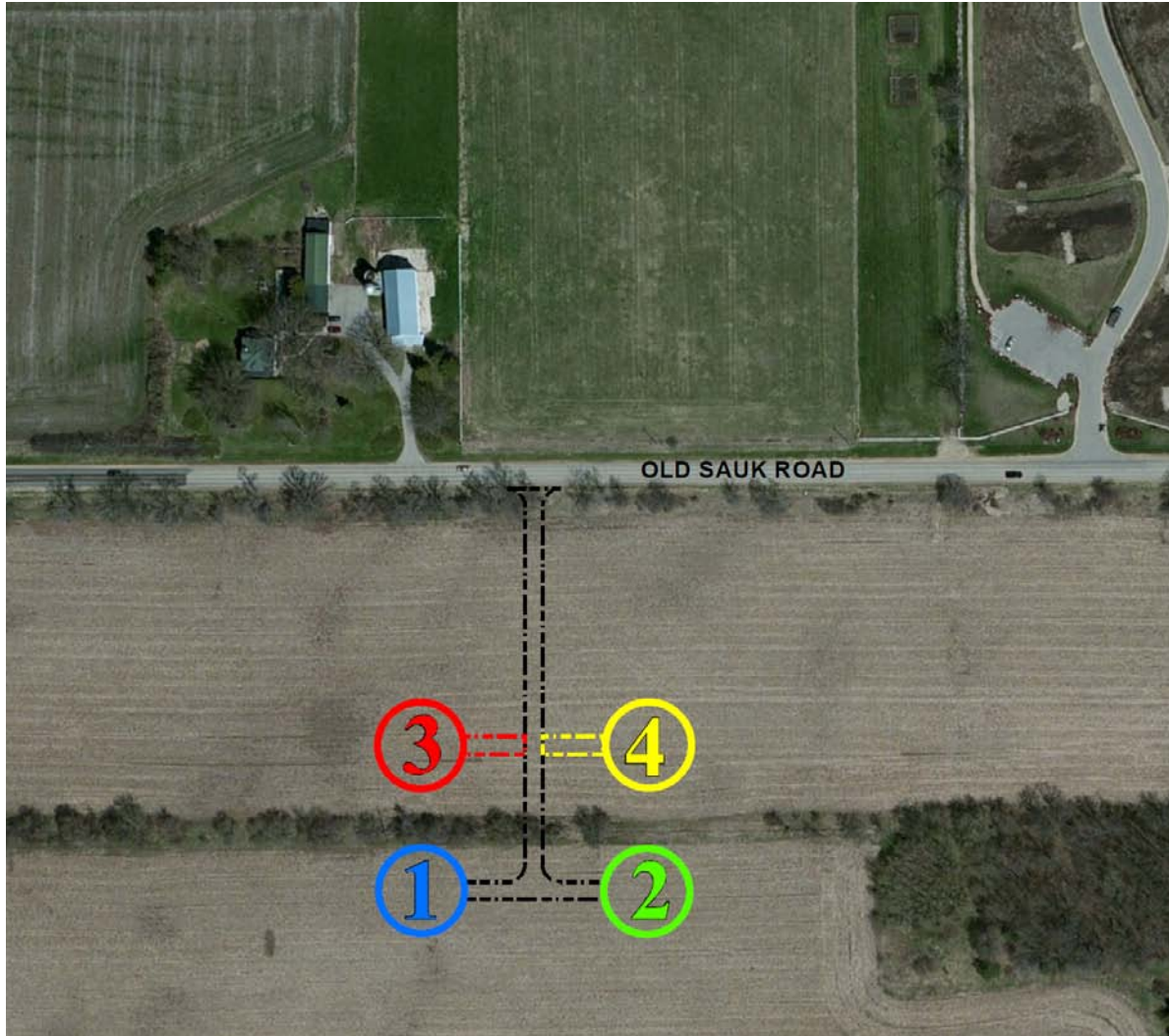
\$3.4 Million

Maintenance Cost Rank

Middle



KEY DESIGN DECISION – SITE LOCATION



Located Tank on High Ground with Access Road Off of Old Sauk Road

- 1. Suggested Tank Locations From PM #1**
- 2. Three Locations Presented at PM #2**
- 3. Net Savings to Move Closer to Road (Add \$3k/vf, but Deduct \$150/lf for Road and WM => Add \$4.5k for Location 2, Net \$12k savings for Location 3 and Net \$7.5k savings for Location 4)**



KEY DESIGN DECISION – PAINT



Single or Two Toned Tank Painting is Madison Standard

- Two Toned Reduces Mold and Staining Under Tank
- Used Neutral Colors
- No Logos/Names

KEY DESIGN DECISION – PAINT



Single or Two Toned Tank Paint Examples for Composite Tank



KEY DESIGN DECISION – AESTHETICS



Architectural Concrete
Forms and Concrete Quality
Control Requirements Provide for
Uniform Concrete Appearance
Between Concrete Pours



KEY DESIGN DECISION – AESTHETICS



Architectural Concrete Options



FOLLOW UP QUESTIONS?

