



Date: June 28, 2016
To: Water Utility Board
From: Pete Holmgren, PE
Re: **Recommendations of Water Tower Site Configuration**
Project: **Blackhawk Tower**

Overview and Summary of Recommendations

Madison Water Utility (MWU) is seeking the board's approval to proceed with developing plans and specifications for their recommended location for the Blackhawk Tower project.

After researching several viable options, MWU is recommending approximate site location 4, per the attached site map.

Recommendations are based off of design analysis, cost comparisons, and public feedback.

Background

At the May 24th Water Utility Board hearing, Madison Water Utility (MWU) staff and their consultant Baxter & Woodman presented water tower design and site location recommendations. The Water Utility Board also listened to a number of attendees who registered to speak, and reviewed the written feedback and survey information that had been collected. Water Utility Board approved recommendations for the water tower style, paint scheme, and architectural concrete options. Discussion of the three recommended water tower site locations led to the emergence of a potential fourth site location. This fourth location ("Site 4") came about based on interests expressed by stakeholders through the week leading up to the public hearing, and from input given directly at the hearing.

"Site 4" was therefore conceived and discussed by the Water Utility Board and stakeholders as a sort of compromise between the stakeholders' two preferred sites; it would be approximately 140-feet north and 45-feet east of "Site 2". However, "Site 4" and the subsequent discussion came before the Water Utility Board later in the public hearing process than the Board would have preferred.

To ensure the integrity of the site selection process and allow the Water Utility Board to make the most informed decision, the Board voted to defer a final water tower site location decision to the June 28th meeting. Ahead of this meeting, MWU was tasked with gathering feedback from stakeholders and eliciting public opinion and preference of "Site 2" versus "Site 4" by:

- Meeting with identified stakeholders.

- Holding a public meeting.
- Generating an additional online survey.
- Providing notices and updates consistent with the current public participation process.

MWU hopes that this will help the Board in reaching a decision between “Site 2” and “Site 4” (the other two sites - “Site 1” and “Site 3” - were eliminated from consideration by the Board based on the information given at the previous hearing).

Location Analyses

The MWU-owned property was examined to determine the most favorable placement of the water tower. Considerations included land elevations; water tower site configurations; and potential views from the surrounding area.

A topographical survey was completed which allowed for an assessment of the elevations throughout the property. MWU targeted the highest areas as potential sites for the water tower because they would minimize the tower height. Three potential sites emerged as the most favorable (see Attachment B).

Sites 1 and 2 are near the highest areas of the property. Sites 3 and 4 are few feet lower in elevation than the other two and would allow for an additional 140-foot (estimated) space from the property to the south. With sites 1 and 3 no longer being considered, MWU looked more closely at sites 2 and 4 to compare differences in elevation and configuration. Some considerations from these findings include:

- “Site 2” is approximately 4.5-feet higher than “Site 4”, however grading of the landscape during construction could make this difference smaller.
- “Site 4” is approximately 140-feet closer to Old Sauk Road than “Site 2”, which would reduce the lengths of water main and driveway required to reach the water tower.
- Additional costs of a taller water tower on “Site 4” are roughly offset by cost savings from a shorter access drive and a shorter water main connection.

Interests from stakeholders included:

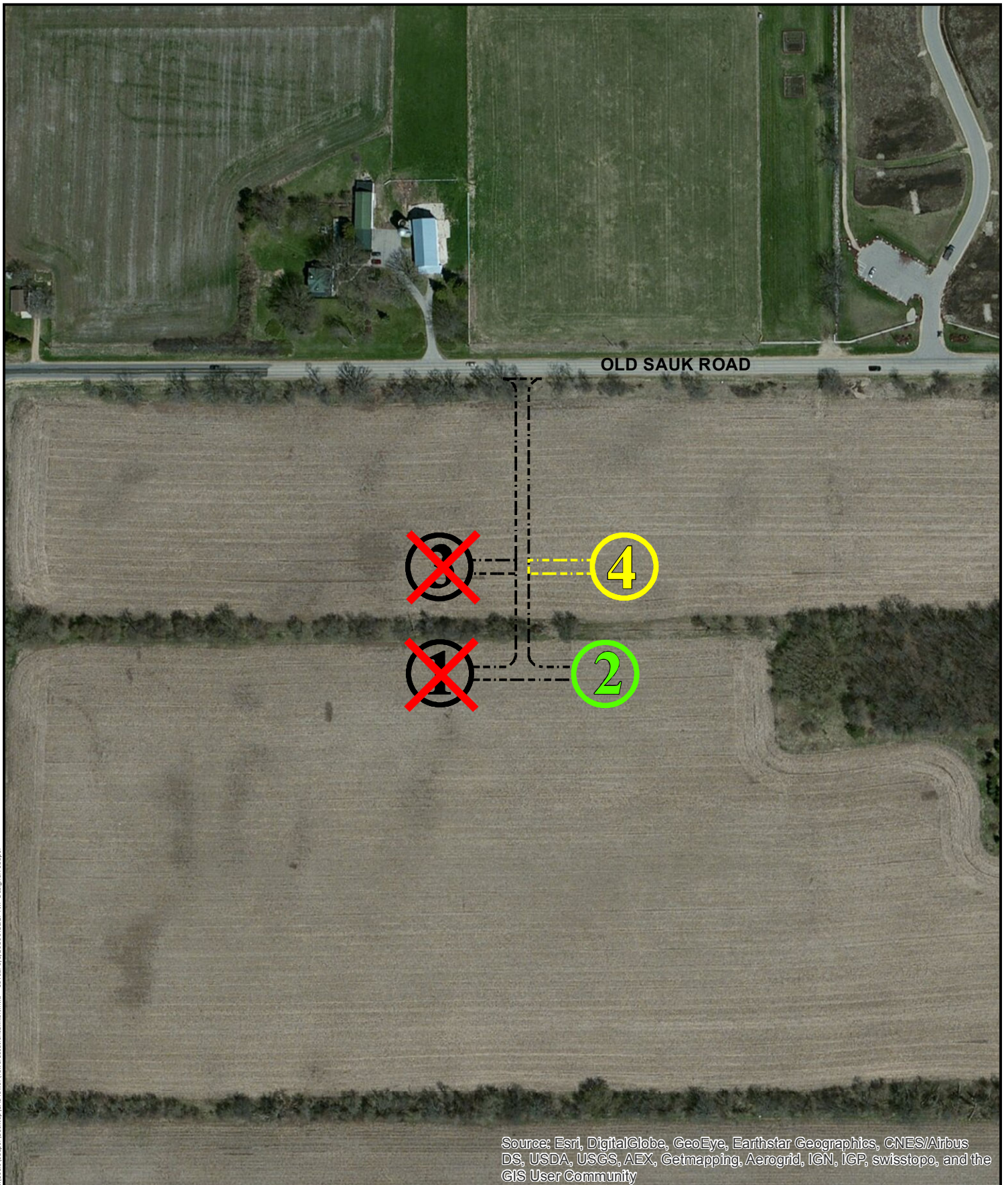
- Locating the water tower as far east as possible to preserve important viewsheds on the Pope Farm Conservancy property.
- Locating the water tower as far north as possible to protect against perceived negative land value impacts on the property directly to the south.
- Keeping open space around the water tower site to allow for the possibility of future park space.
- “Site 4” was the preferred option from the online survey.

Recommendation

Based on the above analysis and feedback received during the site evaluation process, MWU recommends “Site 4” as the location to proceed with for the water tower and site layout.

PROPOSED TOWER LOCATIONS

Blackhawk Water Tower
MADISON WATER UTILITY, MADISON WI



C:\Users\j35r\Desktop\CAD\Drawings\TowerLocations\Exhibit.mxd, Saved: 6/2/2016 9:11:27 AM, Designer: j35r/cf

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Source(s):



X = Previously Considered Locations

1" = 200'

