



Water Filtration Plant Clearwells Replacement Project City of Oshkosh Site Plan Review, General Planned Development and Specific Implementation Plan Amendment Applications

City of Oshkosh Plan Commission Workshop
October 15, 2024

AGENDA

1. Water Filtration Plant Clearwells Replacement Project Overview
2. Project Progress Since Plan Commission Meeting Update in September 2023
3. Site Plan Review, General Planned Development and Specific Implementation Plan Amendment Applications
4. Plan Commission Consideration
 - a) Zoning Ordinance Compliance Challenges
 - b) Structures' Decorative Panels
5. Next Steps

Clearwells Replacement Project Overview

Why do the Water Filtration Plant (WFP) Clearwells – potable water storage tanks – and pump stations need to be replaced?



- Clearwells do not comply with Wisconsin Administrative Code Chapter NR 811 because they are located below the groundwater table and 100-year flood plain.
- One Clearwell is 65 years old; two are over 110 years old. All tanks have been previously repaired and are in poor to fair condition.
- Water storage at the WFP is needed to reliably operate the facility and meet variable customer demand and fire protection system requirements.

Clearwells Replacement Project Overview

Over 15 Project meetings with the public and City entities including Common Council, Plan Commission, Inspection Services, and Ad Hoc Aesthetics Committee

- 2007. Wisconsin Department of Natural Resources (WDNR) issues Clearwells deficiency notice.
- 2008 – 2010. WFP Modifications and Demolition Project.
- 2012 – 2016. Clearwells Replacement preliminary design and other studies.
- 2017. Clearwells Replacement final design, permitting, and public review.
- 2018 – 2019. Update water demand forecasts per Public Service Commission (PSC) request.
- 2020 - 2021. Revise Clearwells Replacement Project scope; submit partially complete redesign for WDNR, PSC, and public review.
- 2021 – 2022. Investigate extending Clearwells service life and other water storage tank alternatives.
- 2023. Engage Project Aesthetics Ad Hoc Committee to enhance appearance of design and adjacent areas.
- 2024. Project final design and permitting.

Project Overview - Aesthetics Ad Hoc Committee Input Summary

1. Discussed current and potential use of areas adjacent to the WFP including Lake Shore Drive.
2. Helped develop and evaluate alternative design concepts for the Project structures' exteriors.
3. Recommended that Project landscaping concepts extend to Menominee Park and involve native plant, shrub, and tree species.
4. Supported idea to integrate water-themed educational features along Lake Shore Drive.



Progress Since Plan Commission Project Update in September 2023

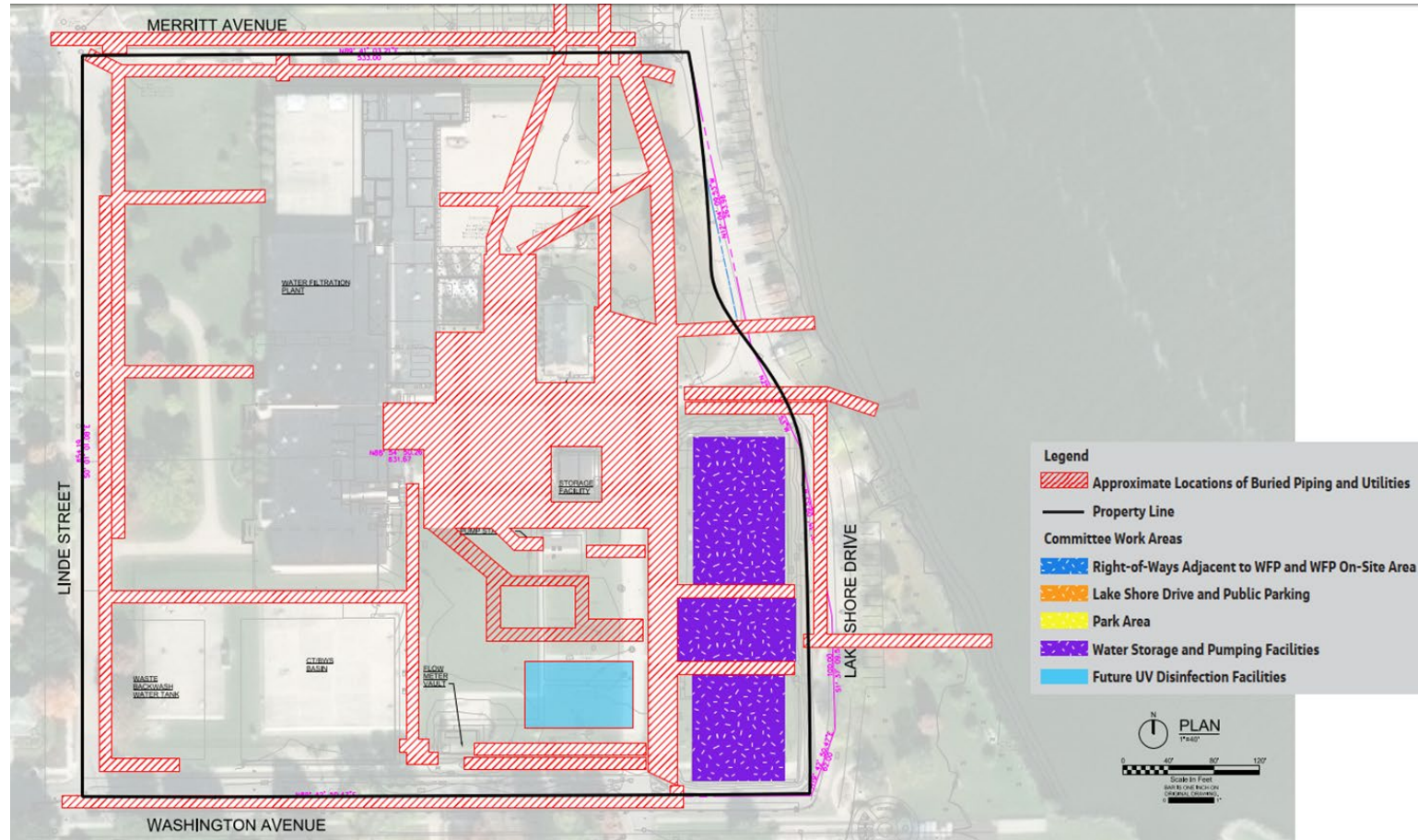
1. Developed construction bid documents drawings and specifications in close collaboration with City personnel.
2. Provided Project progress updates to state permitting agencies: WDNR and PSC
3. Prepared City and state permit applications and supporting documentation.
4. City retained landscape architect, SAIKI Design, to develop landscaping plans for Project site and adjacent areas to be implemented in late 2027 or early 2028.



Note: Decorative architectural panel and site landscaping concepts from 2023, used in current permitting documentation, will change with work by City's landscape architect and community input.

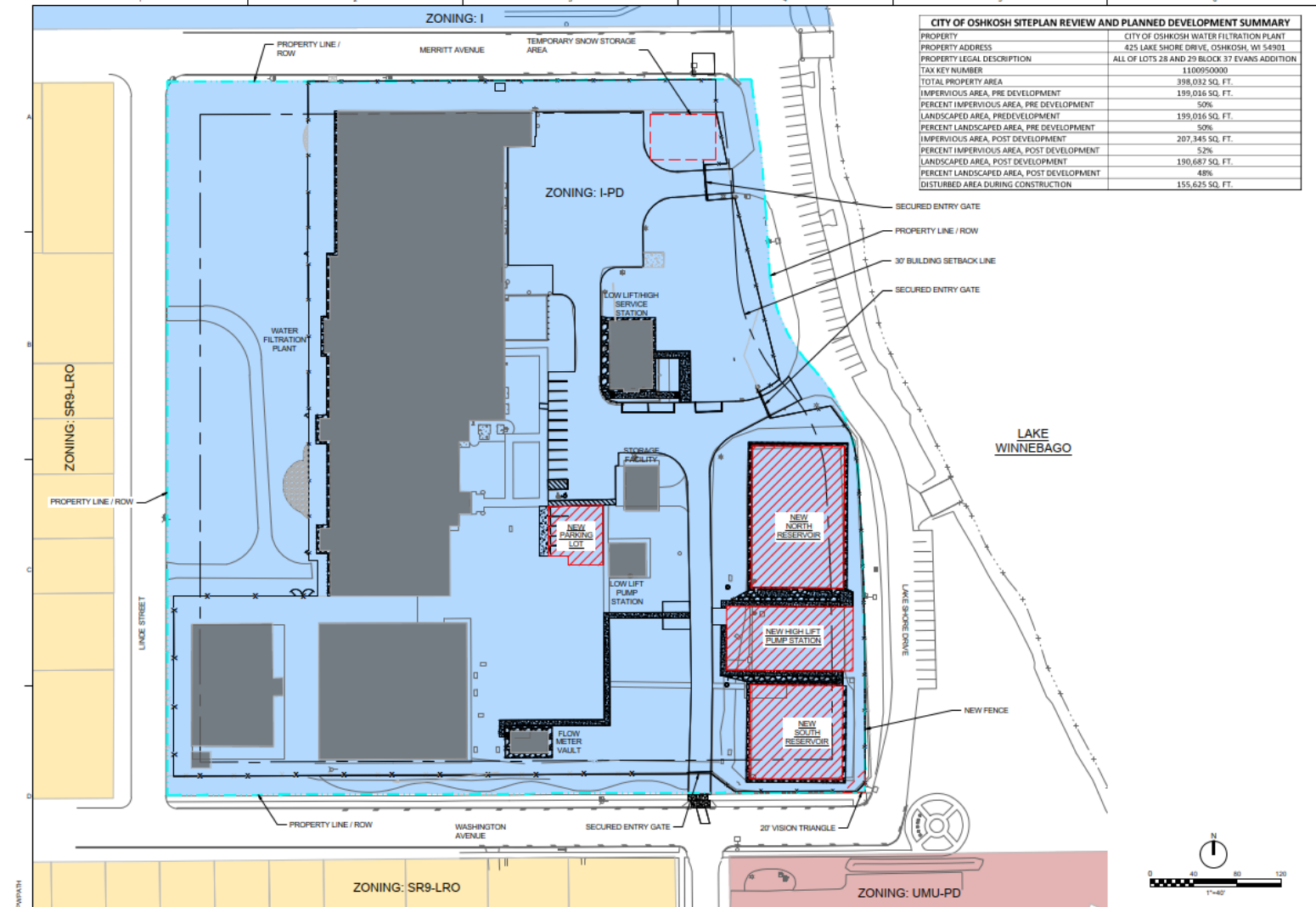
Plan Commission Consideration – Zoning Ordinance Compliance Challenges

- Site constraints
 - Compact, developed site supports continuous operation of City's water supply, treatment, storage and distribution assets.
 - Structures can't be located on top of critical buried piping and duct bank.
 - Limited paved areas for safe movement of large chemical delivery tanker trucks.
 - Open space on site is needed to accommodate future treatment requirements to meet drinking water regulations or needed to replace existing treatment processes.



Plan Commission Consideration – Zoning Ordinance Compliance Challenges

1. Portions of replacement structures are within the 30-foot setback from the property lines.
2. Portions of replacement structures are within the 20-foot setback from the perimeter fence.
3. The existing and proposed new southeast corner of the site corner of the site include a vision triangle that does not meet City requirements.



Plan Commission Consideration – Zoning Ordinance Compliance Challenges

- WFP has four front yards. The proposed Project does not meet the street frontage points for landscaping; however, the other City landscaping targets are met.
- Landscaping must compliment perimeter site fencing which provides a first layer of physical security and performs an important role in the City risk and resiliency strategy.
- Landscaping should follow Crime Prevention Through Environmental Design principles that can lead to reduction in crime.
 - Distinguish restricted areas from public areas.
 - Use design techniques to discourage access to restricted areas
 - Make intruders easily observable; maximize visibility of people.
- Site lighting requirements are met for new Project parking stalls, but not the entire site driving / parking area. Existing lighting near fence line, particularly at security gates, does not meet requirements.

Plan Commission Consideration – Zoning Ordinance Compliance Challenges



The Project proposes to compensate for Code non-compliant features by the inclusion of decorative security fence, architectural panels on structures and landscaping that integrates the WFP site with adjacent areas.

Graphic Panels Purpose and Objectives:

- Provide a conversation starter that inspires curiosity and sets an educational tone for future WFP site and adjacent area landscape enhancements and educational storytelling opportunities.
- Incorporate themes of local water-related natural resources.
- Design up to 12 unique panels that can be repeated and combined in a way that's both visually engaging and cost effective.
- Responds to input around integrating artful imagery into the Project within the constraints of visual access, physical access, art curation, and long-term maintenance.



2023 Imagery Produced by Jacobs for the Project Aesthetics Ad Hoc Committee

Themes of Water-Related Natural Resources:

- **Sturgeon** are an important cultural food resource and Lake Winnebago is home to one of North America's largest lake sturgeon populations.
- **Wild Rice** (*Zizania aquatica*) is a source of food, improves water quality, & provides wildlife habitat.
- **Canoes** as a form of transportation through local waterways.



Photos from WI DNR and Intertribal Lake Winnebago Wild Rice Revitalization Project websites

Image Inspiration from Oshkosh Public Museum Collection:

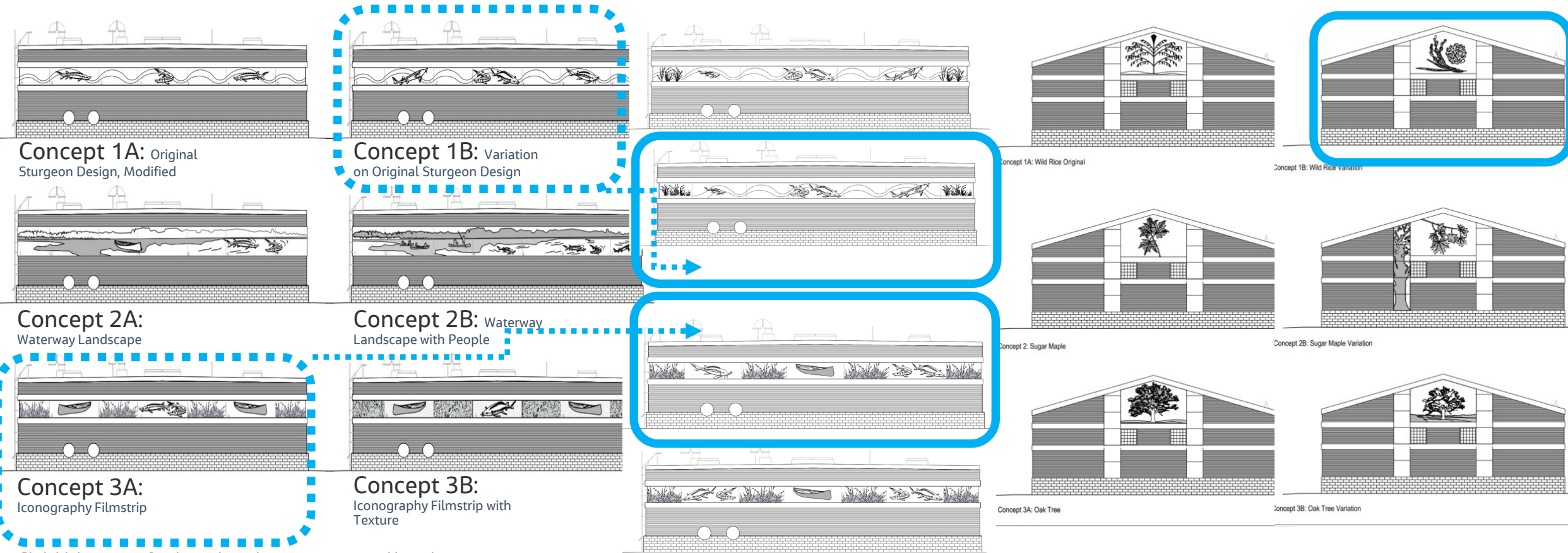
Juvenile and adult sturgeon decoys and canoes from the collection at the Oshkosh Public Museum have been used as inspiration for the concept imagery.



Photos courtesy of the Oshkosh Public Museum

Concept Studies & Design Process

Reviewed & Refined with the Oshkosh Public Museum & City Staff



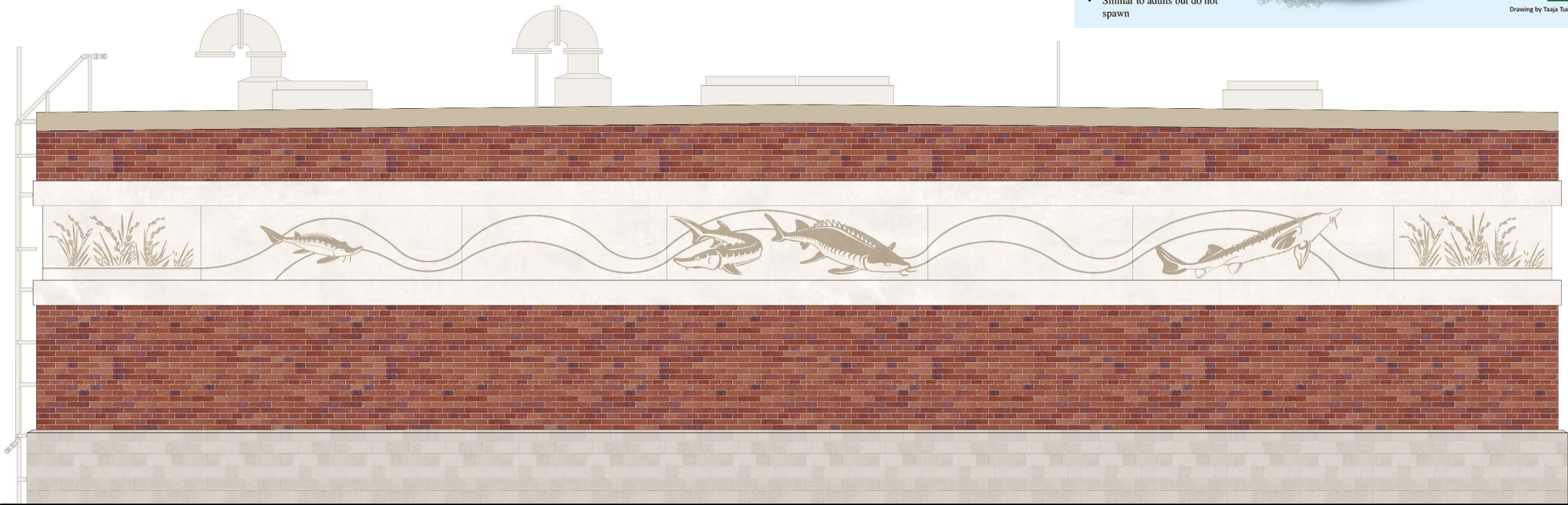
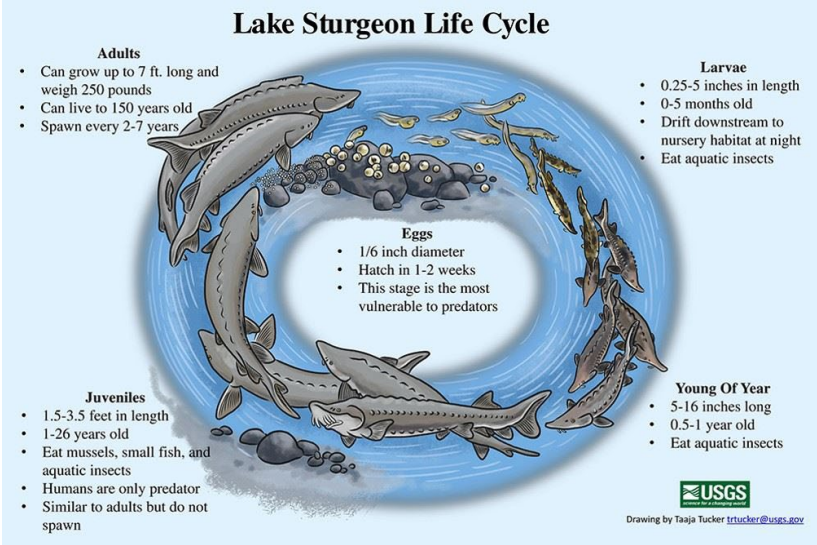
Six initial concepts for the tank enclosures were created based on imagery shared by the Oshkosh Public Museum.

Two of those concepts were selected for further refinement and exploration (shown on following pages).

Six initial concepts for the pump house were created and one resonated unanimously with the Oshkosh Public Museum group (shown on following pages).

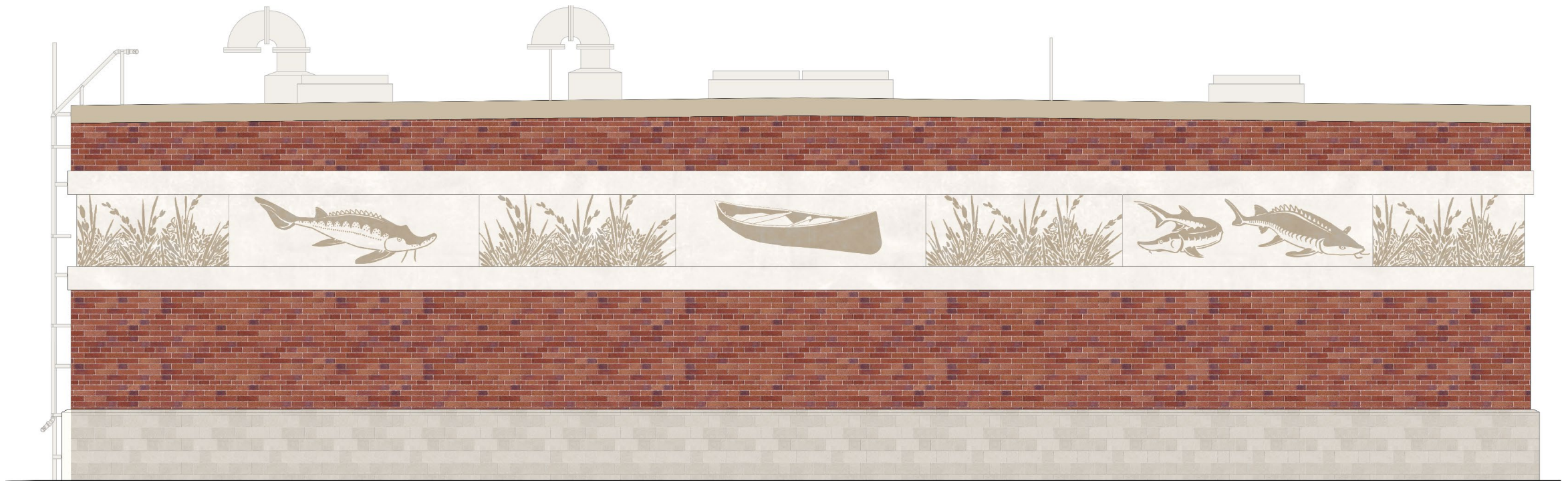
Tank Enclosure Preferred Option 1

This option has a flowing motif with grouped sturgeon referencing the sturgeon life cycle and movement within the Winnebago watershed framed by wild rice at the building corners.



Tank Enclosure Preferred Option 2

This option has a separated, alternating series of images featuring wild rice, sturgeon and a canoe.



Pump House Preferred Option

The wild rice imagery on the pump house has an asymmetrical, circular form emphasizing the grains of rice as food source.



Plan Commission Discussion

Next Steps

1. Public Neighborhood Meeting October 30, 2024.
2. Plan Commission meeting November 19, 2024.
3. WDNR and PSC Project permit reviews.
4. Incorporate input from City, City's landscape architect, WDNR and PSC in final bid documents.
5. Initiate construction first quarter, 2025.