

Island Park Bridge Conceptual Design Study

Public Open House



Purpose of the Open House

City Council is interested in collecting input from the public and stakeholders for the Conceptual Design Study. This open house is an opportunity to:

- » Review information on the alternatives being considered
- » Discuss the project with the project team
- » Provide feedback on the alternatives, design options and landscaping concepts

The project team has met with ten stakeholder groups. Feedback to-date on the proposed alternatives and evaluation criteria includes:

- » Safety of traffic and pedestrians
- » Construction and maintenance costs
- » Aesthetics
- » Access and mobility for all users



Project Background & Objectives

The City of Portage la Prairie is coordinating the Conceptual Design Study for the Island Park Bridge. AECOM is responsible for completing the Study and facilitating the public engagement process.

The Island Park Bridge, built in 1929, is the single public vehicle and pedestrian access to the island. The existing causeway is a temporary structure. Traffic using the bridge and causeway includes heavy trucks, buses, passenger vehicles, bicycles and pedestrians.

The current timber bridge is in very poor condition and is nearing the end of its service life. The timber structure is currently load-restricted to 13.4 tons; therefore, all heavy vehicles must use the temporary causeway.

Objectives for the new Island Park Bridge:

- » Create a long-term, cost-effective solution for access to Island Park.
- » Build the bridge/causeway to meet Manitoba Infrastructure and Transportation standards.
- » Accommodate all modes of transportation (motorized vehicles, pedestrians and cyclists).
- » Accommodate winter and summer navigation on the lake (e.g. snowmobiles, small watercrafts, skaters).

How Are The Alternatives Evaluated?

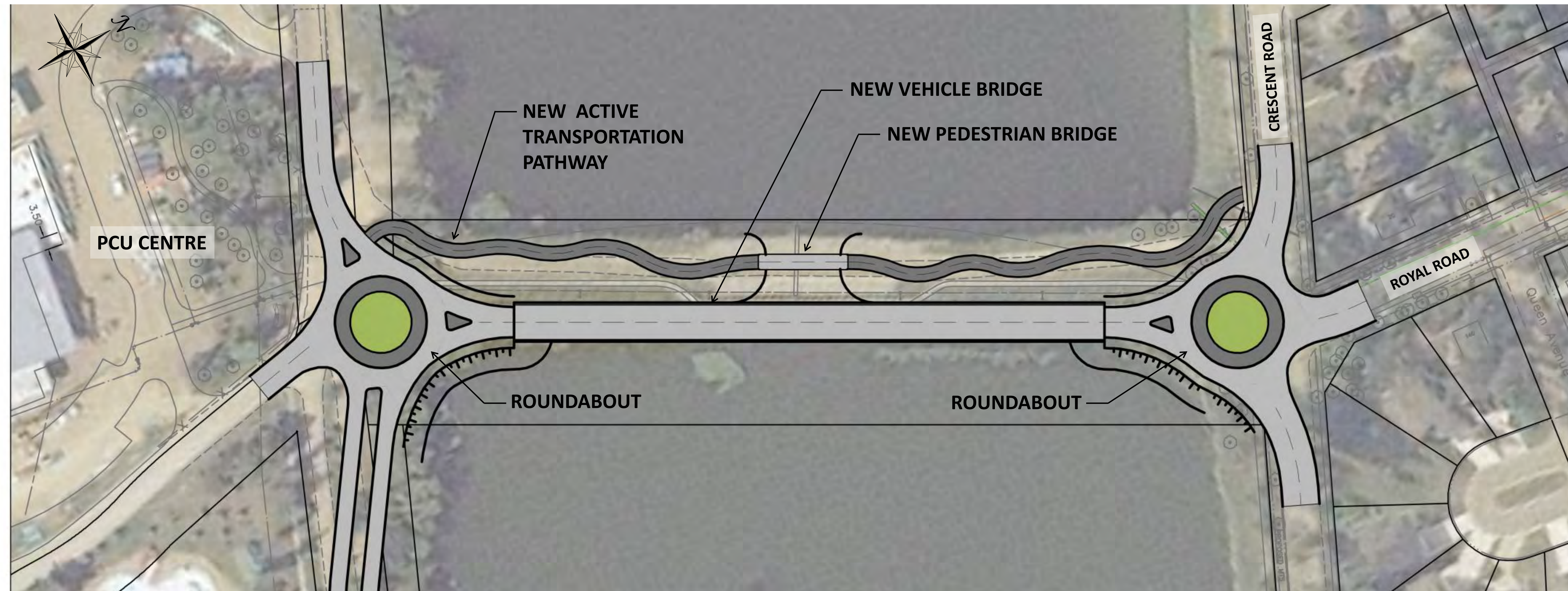
The alternatives are evaluated using a Preliminary Evaluation Matrix. Different criteria are weighted based on the criteria's level of importance.

Preliminary Evaluation Criteria

- » Feedback from stakeholders and the public
- » Right-of-Way & property requirements
- » Utility conflicts
- » Environmental constraints and permitting requirements
- » Historic and archaeological constraints
- » Traffic constraints and traffic analysis
- » Construction and maintenance costs



Alternative 1 – New Bridge



Alternative 1 Features

- Full length two-lane bridge (3 lanes optional).
- Highway traffic loading.
- Short span steel pedestrian bridge on existing causeway.
- May include roundabouts.
- Approximate construction cost: \$ 15 million.

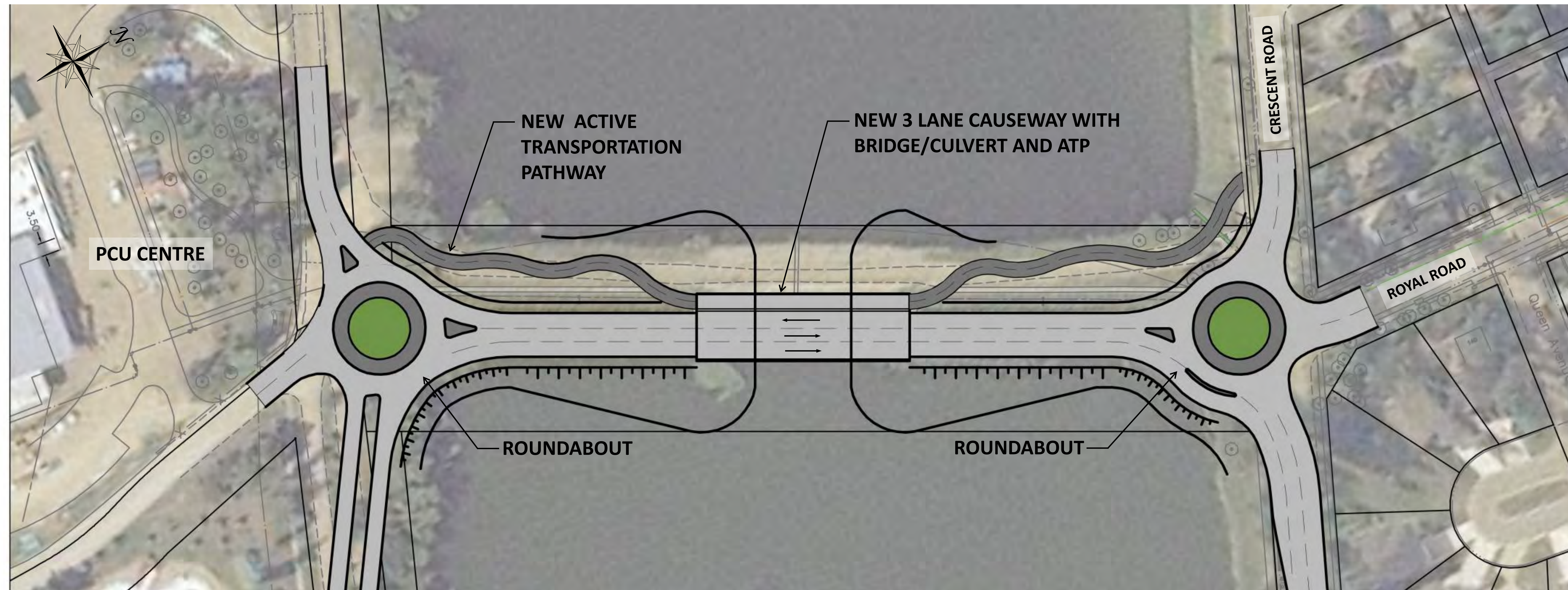
Evaluation Considerations:

- » Minimal impact on existing properties and utilities.
- » Lower environmental impact, because less fill is placed in the lake, except at the roundabouts.
- » Least historic impact, as it will resemble the existing multi-span bridge on the same alignment.
- » Can make use of existing causeway during construction for access to Island Park.

Stakeholder Feedback:

- » Should have clearance beneath for year-round recreational activities (e.g., canoes, snowmobiles, skaters, skiers, etc.).
- » Include look-outs and an area for Canada Day Fireworks.
- » Easily accessible for all modes of transportation, including paved paths for pedestrians.
- » Safety for pedestrians crossing the street on Crescent Road.

Alternative 2 – New 3-Lane Causeway



Alternative 2 Features

- Three-lane causeway with short span bridge or culverts in centre.
- Active Transportation Path for pedestrians would either cross along bridge or have a separate pedestrian bridge.
- May include roundabouts.
- Approximate construction cost: \$ 6.5 million.

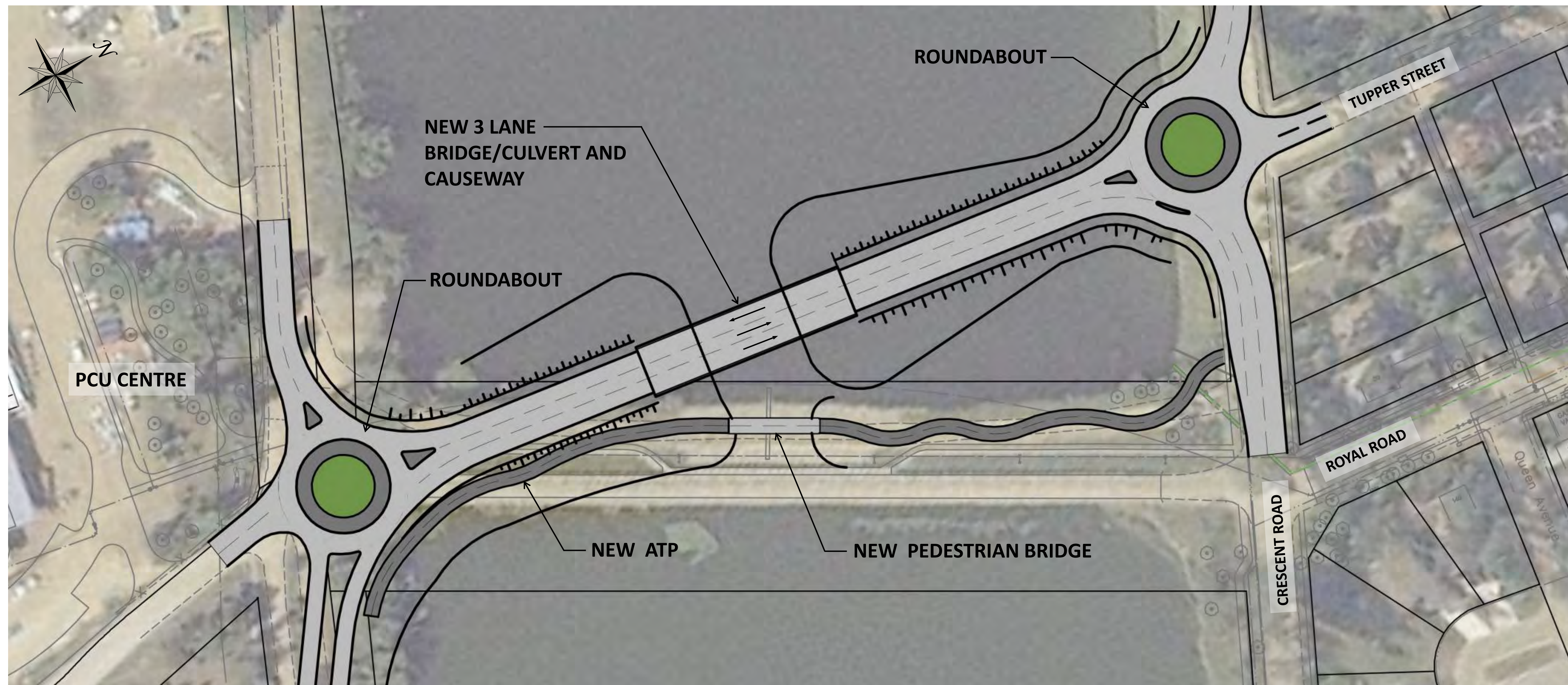
Evaluation Considerations:

- » Consists primarily of fill and the temporary causeway could potentially be utilized during construction.
- » Lowest overall maintenance and construction costs.
- » Three lanes improve traffic flow leaving island, but increase cost.

Stakeholder Feedback:

- » Should have clearance beneath for year-round recreational users.
- » Roundabouts would be consistent with future plans along Saskatchewan Avenue.
- » Easily accessible for all modes of transportation.
- » Safety for pedestrians crossing the street on Crescent Road.

Alternative 3 – Tupper Alignment



Alternative 3 Features

- New three-lane causeway similar to Alternative 2, but aligned with Tupper Street.
- Existing causeway used for active transportation path with separate pedestrian bridge.
- May include roundabouts.
- Approximate construction cost: \$ 7.5 million.

Evaluation Considerations:

- » Scored lowest for right-of-way and property because of increased traffic along Tupper Street.
- » Best traffic flow, because intersection aligns with railway overpass north of Saskatchewan Avenue.
- » Greater impact on buried utilities due to change in alignment.

Stakeholder Feedback:

- » Increased potential effects to residents along Tupper Street.
- » Should have clearance beneath for year-round recreational users.
- » Safety for pedestrians crossing the street on Crescent Road.

Traffic Analysis

Options Compared

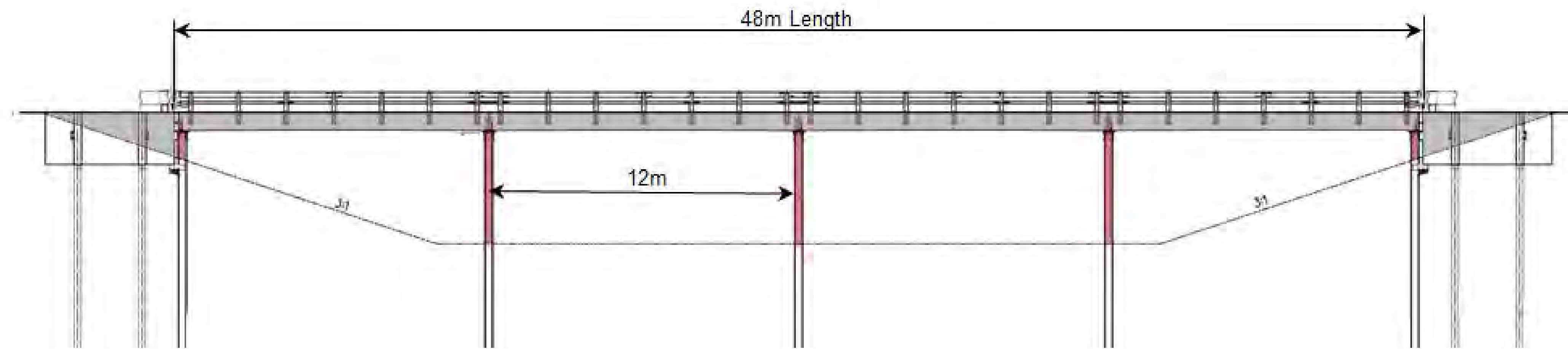
- » 2 Lanes with 4-Way Intersection
- » 3 Lanes with 4-Way Intersection
- » 2 Lanes with Roundabouts
- » 3 Lanes with Roundabouts



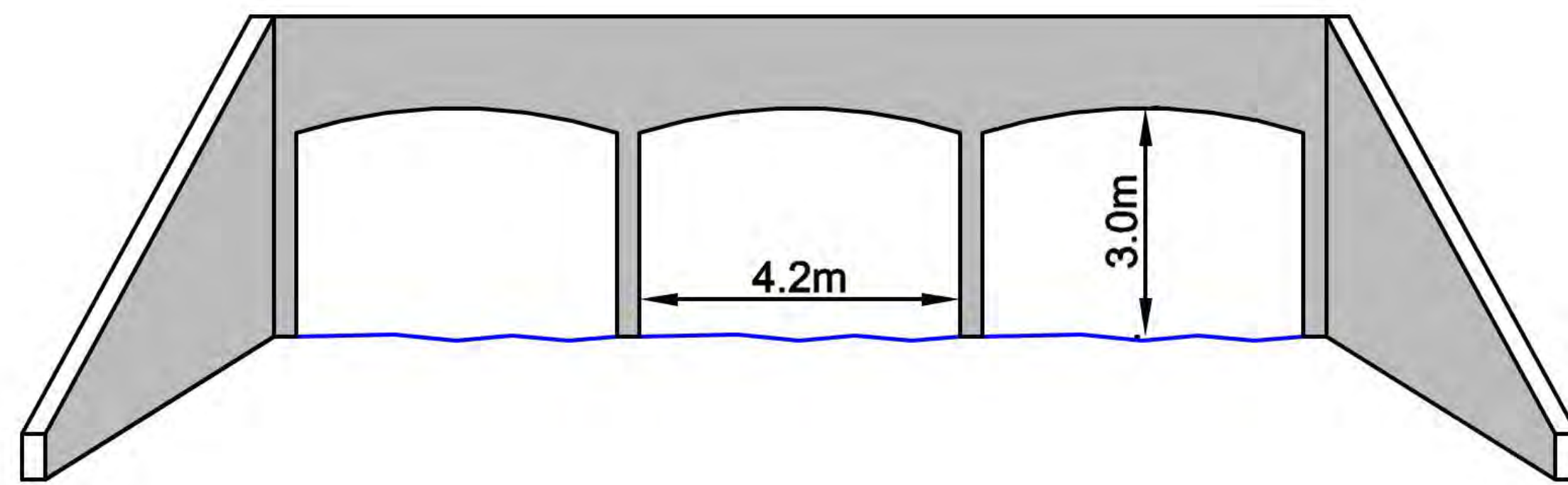
Details of Analysis

- » Used traffic data from Terriers' playoff game.
- » Modelled for peak traffic leaving the island.
- » Additional lane leaving island improves traffic flow significantly.
- » Three lanes further improved with roundabouts.
- » Will further evaluate pedestrian and cyclist traffic crossings at roundabouts.
- » Roundabouts would be designed to accommodate large truck traffic.

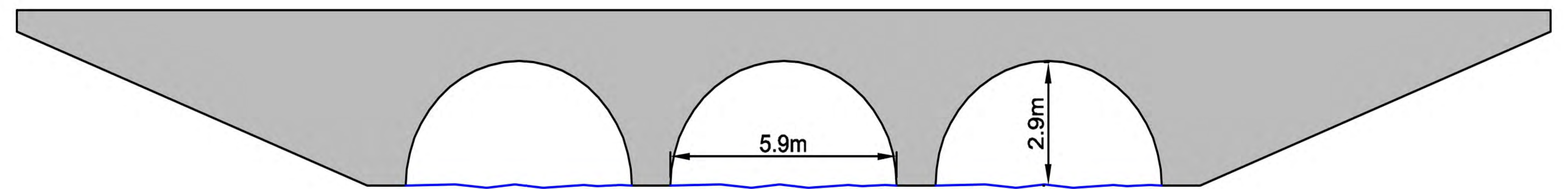
Bridge and Culvert Options



Four Span Bridge



Three Cell Box Culvert



Three Arch Culvert With Retaining Walls

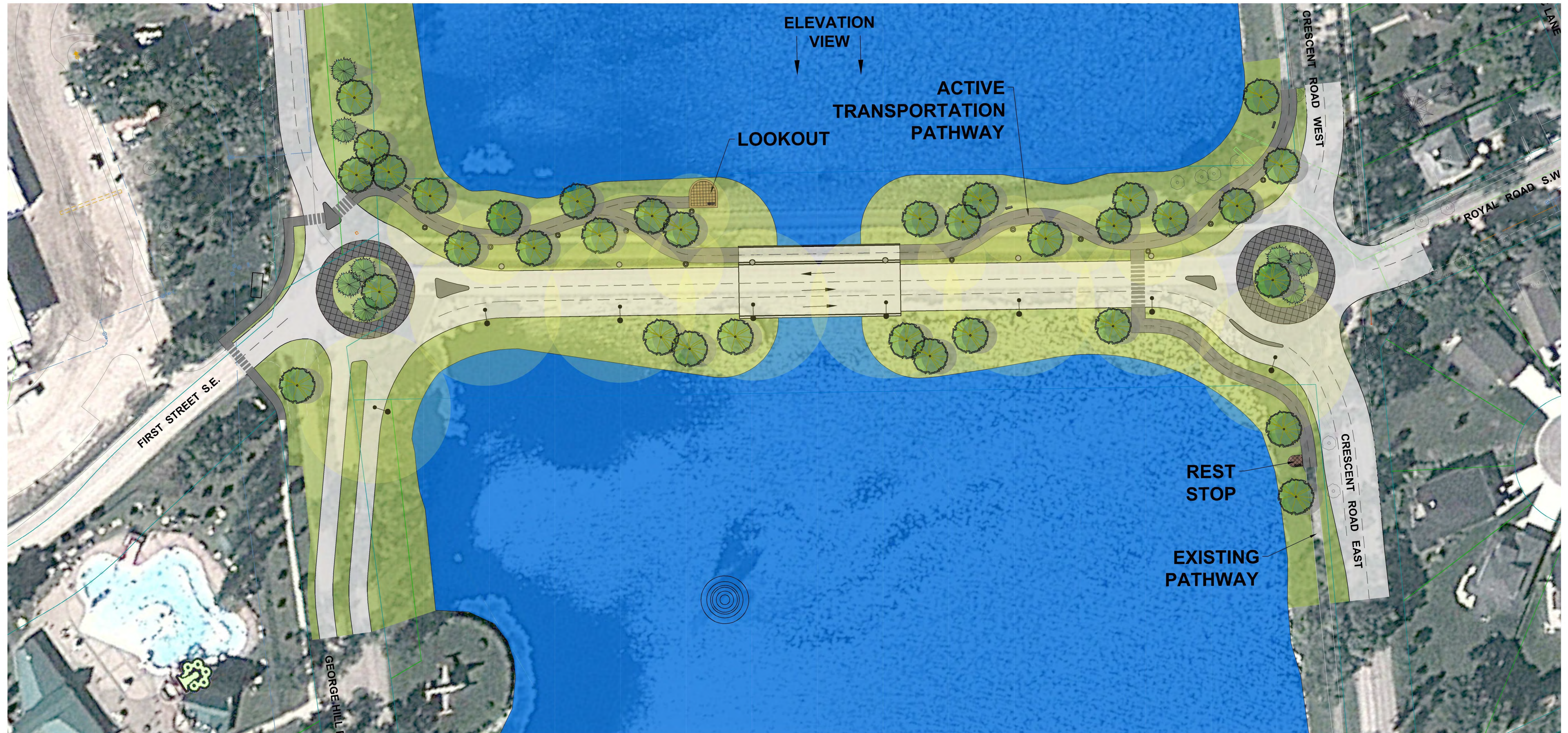


Optional Items

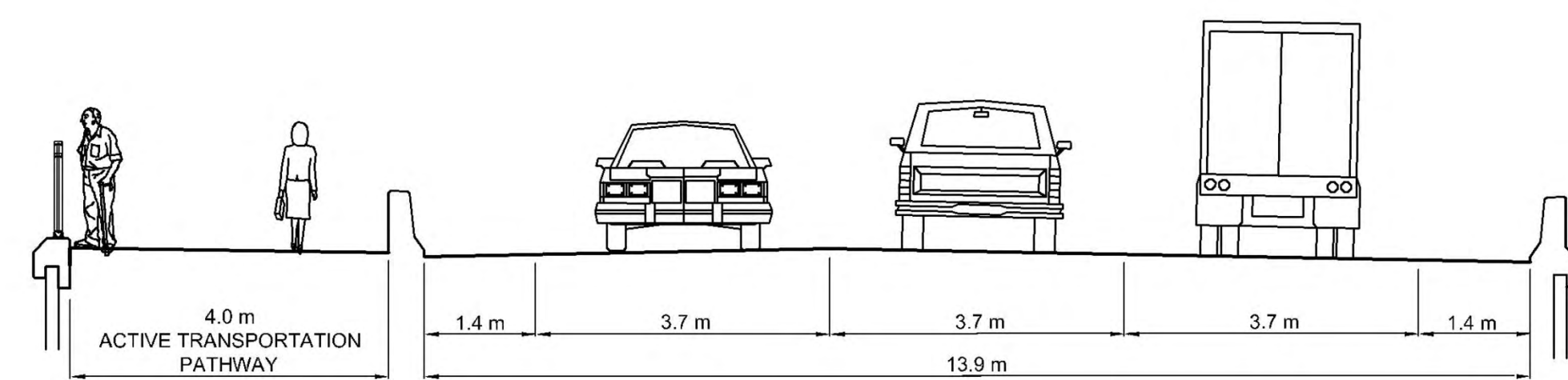
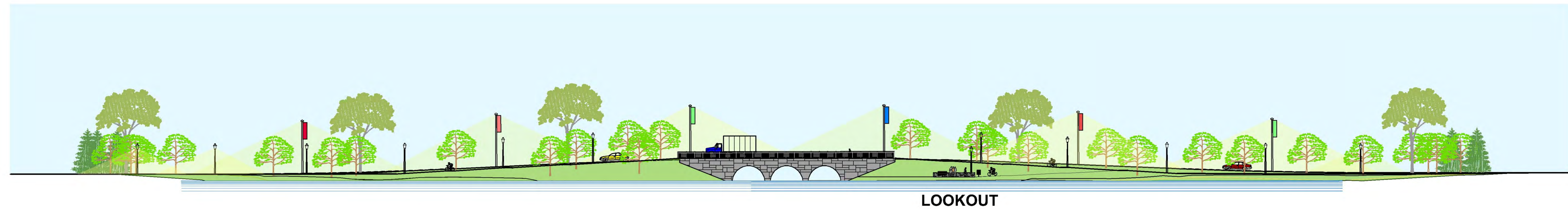
Options considered for the alternatives include:

- » **Roundabouts vs. 4-way Intersections** – Roundabouts typically improve traffic flow but also increase cost.
- » **Bridge vs. Culverts** – Bridges have increased construction and maintenance costs. Culverts are more economical but increase roadway height and amount of fill. Poor underlying soils may be an issue with culverts. A 3-lane bridge is also an option.
- » **Separate Pedestrian Bridge vs. Active Transportation Path on Vehicular Bridge or Culvert** – Separate pedestrian bridge increases cost, but this is partly offset by savings in roadway culvert length and decreased amount of fill.

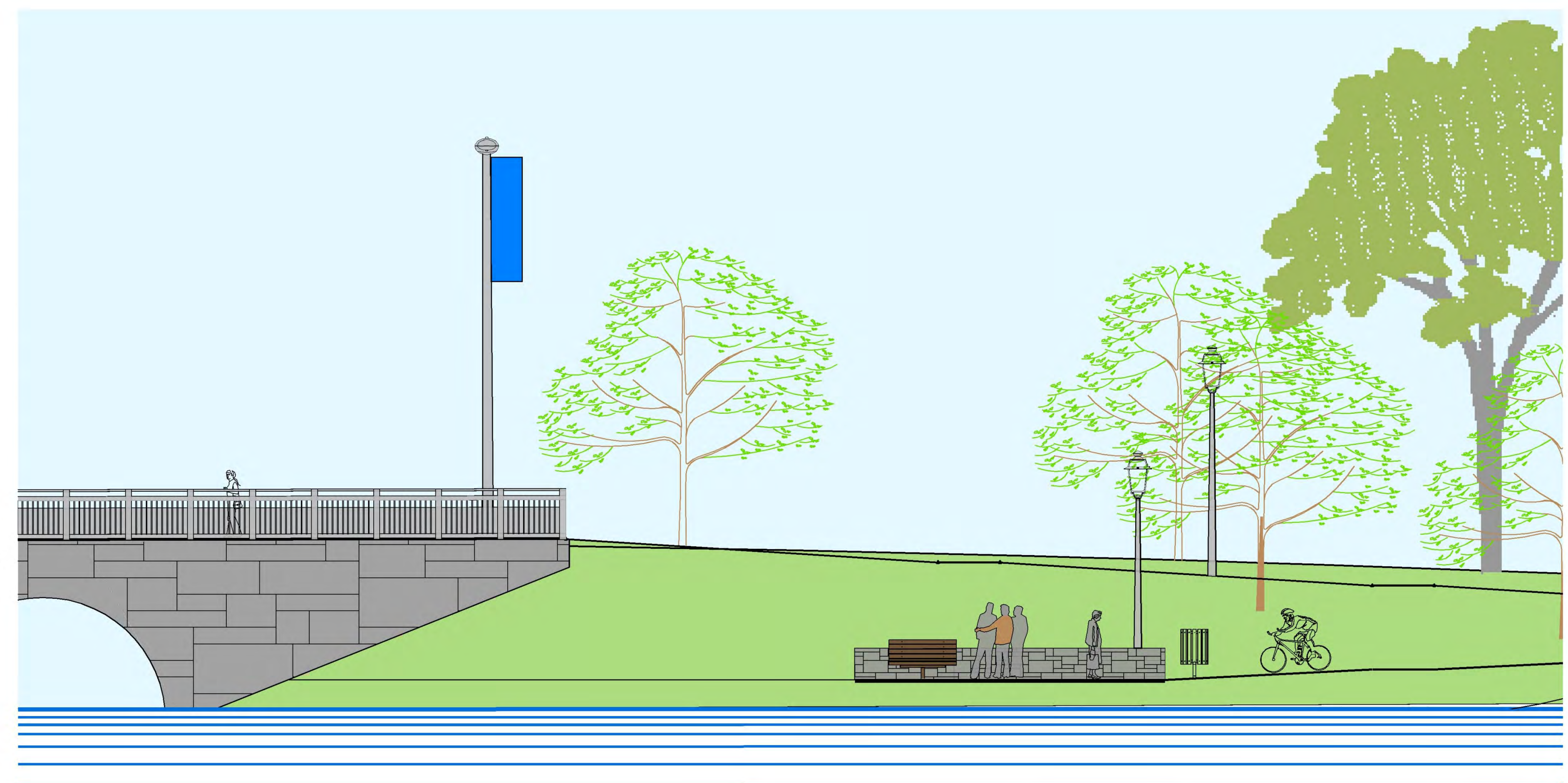
Landscaping – Plan View of Alternative 2



Landscaping – Elevation View Looking East

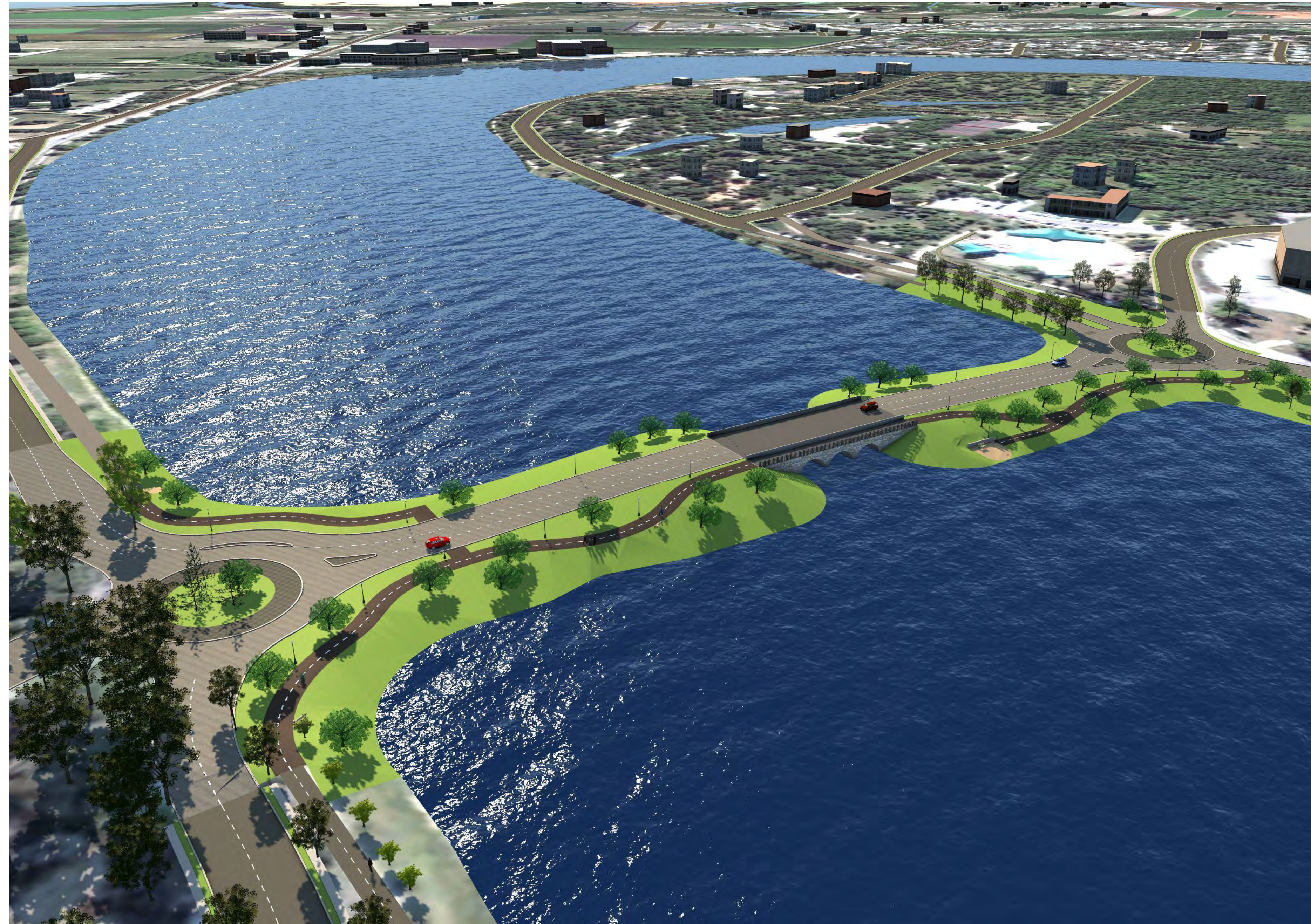


Section View



Lookout Detail

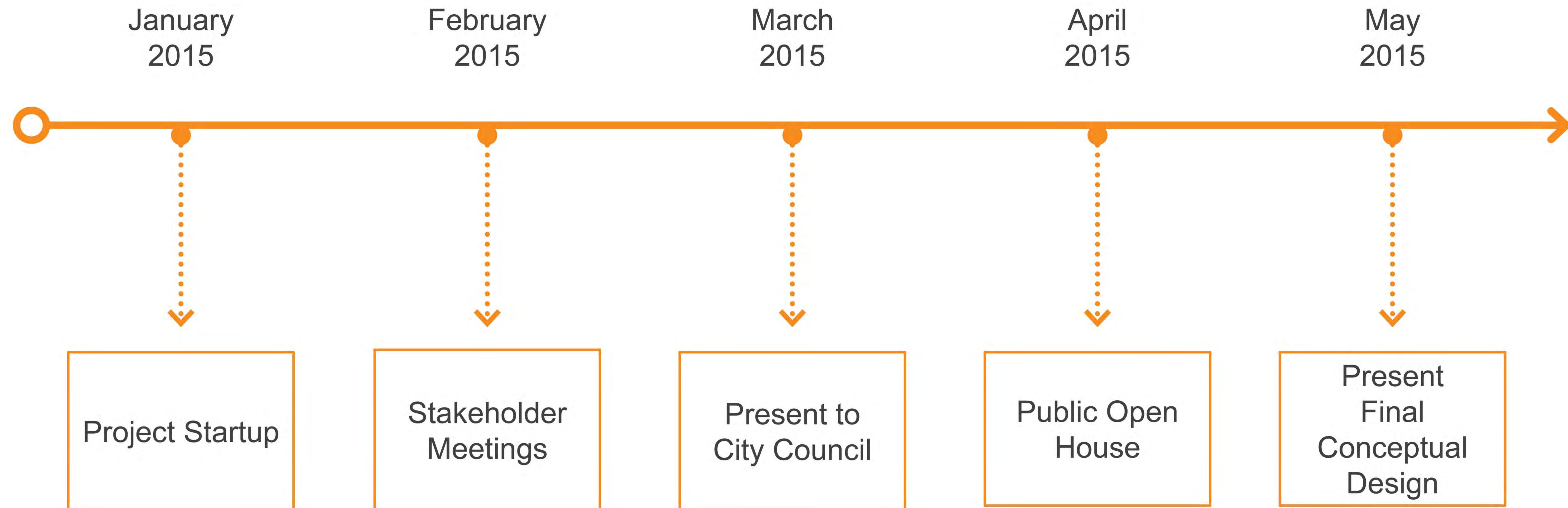
Video of 3D Model



3D Model based on Alternative 2

(Three lane causeway, three arch culvert, with roundabouts)

Project Timeline and Next Steps



- » Comments received from the public will be reviewed and incorporated into the final evaluation.
- » Project team will prepare a Final Conceptual Design Report for submission to the City.

Thank You For Participating

Please submit a comment sheet to provide us with your feedback.

City's Website: www.city-plap.com

Email Address: IPBridge@city-plap.com