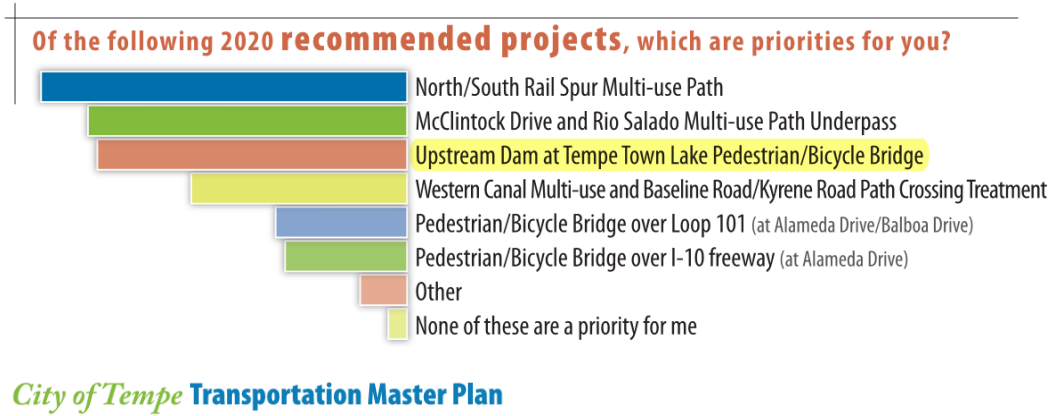
Upstream Dam Bike/Ped Bridge

Public Meeting: February 15, 2018
Karsten Golf Course Clubhouse

Tempe
Public Works

Overview

- Transportation Commission recommended
- In Tempe General Plan 2040
- In Tempe Transportation Master Plan
  - MAG Design Assistance Program Grant
  - Project Assessment & Preliminary Plans



Overview


Crosscut Canal SUP
Curry Road
Indian Bend Wash SUP to Scottsdale
Salt River Pima Maricopa Indian Community
Grand Canal SUP
Papago Park
SR 202L
SR 101L
Rio Salado SUP to Mesa
Rio Salado SUP to Phoenix
Rio Salado North Bank SUP
Rio Salado South Bank SUP
Tempe Marketplace
Rio Salado Parkway
Mill Avenue
Rural Road
McClintock Drive
University Drive

Summary of Need/Justification

Tempe Town Lake Barrier

- 2 mile deviation for off-street bicycle and pedestrian facilities

Existing Conditions

Existing Conditions

Upstream Dam

- Constructed – 1999
- Rubber Bladders Removed

Existing Conditions – Upstream Dam from North Bank

Existing Conditions – Upstream Dam from South Bank

Existing Conditions

South Bank

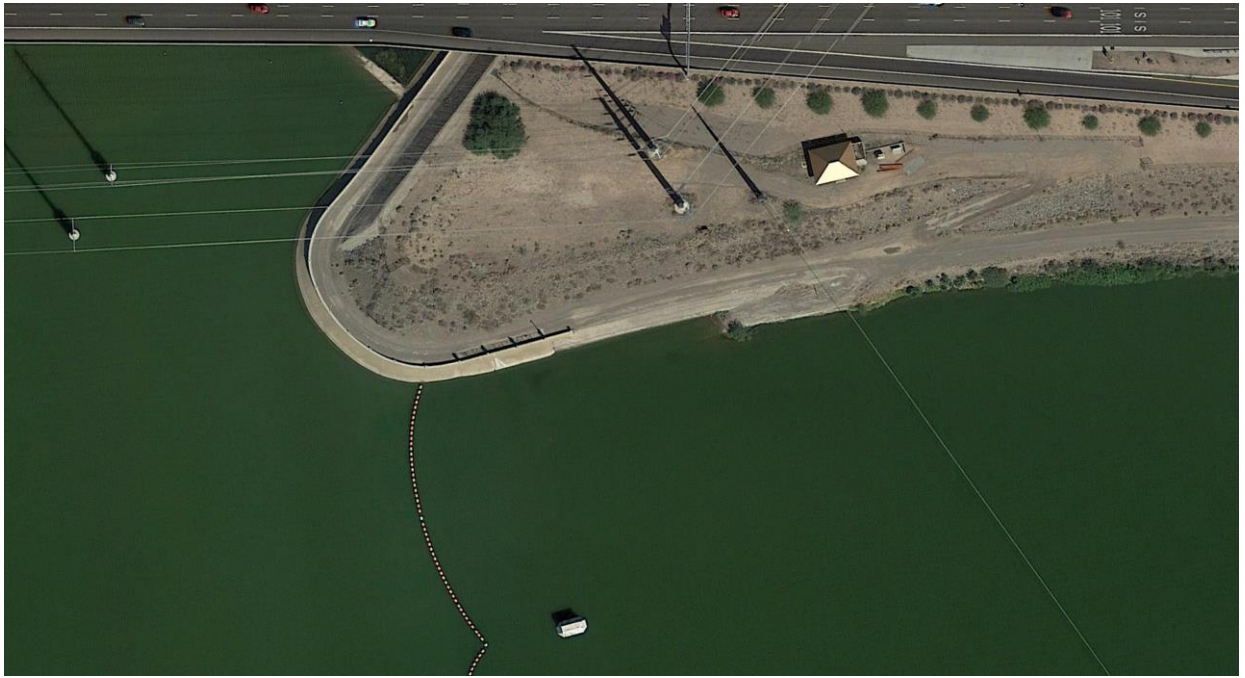
- Concrete Maintenance Ramp to East
- Abutment ~ Elevation 1156
- Rio Salado SUP ~ Elevation 1170
- CCTV Monitoring

Existing Conditions – South Bank

Existing Conditions

North Bank

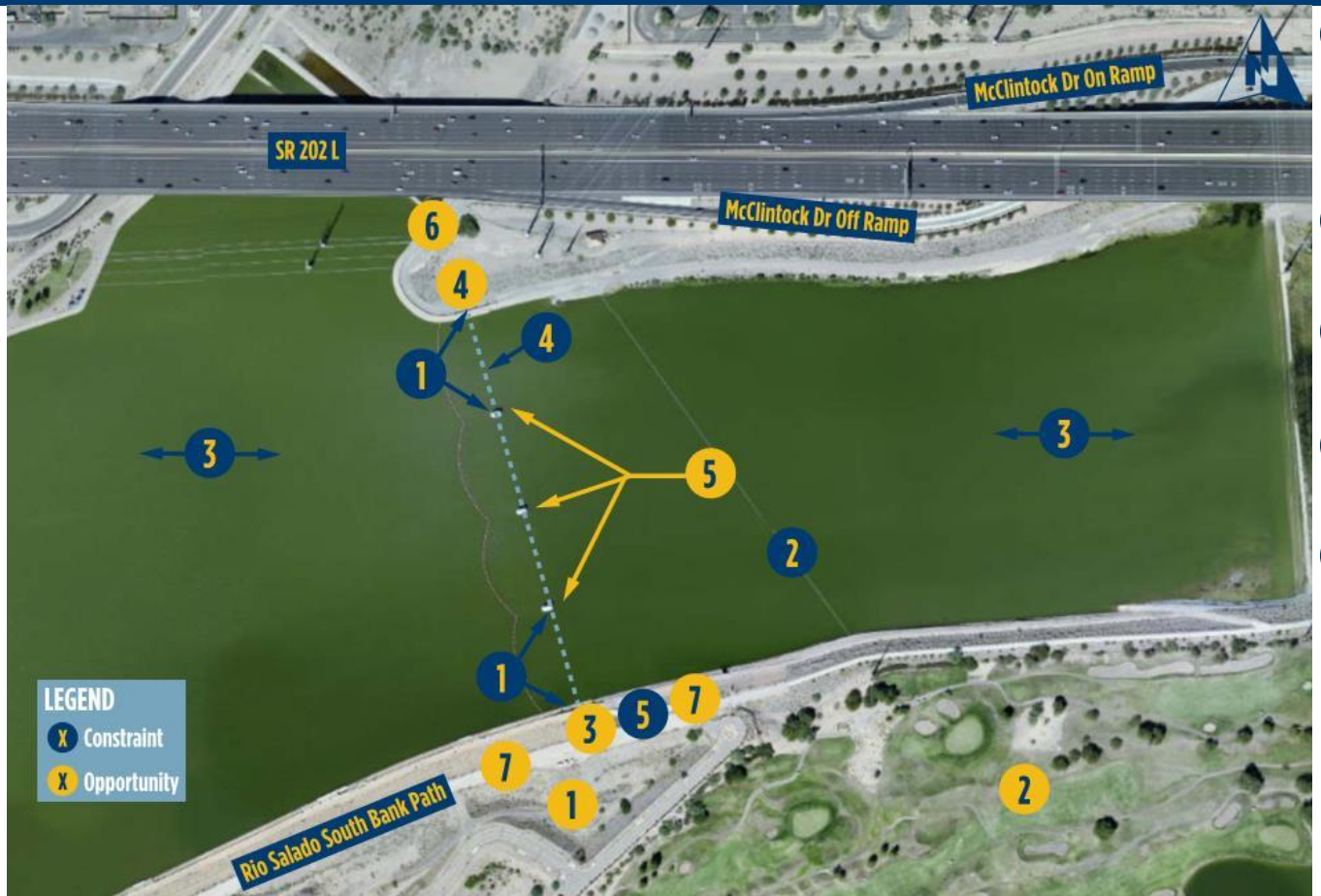
- CSA Maintenance Road
- Decomposed Granite Trail
- Abutment ~ Elevation 1157
- Nearest Dam Pier Cap ~ Elevation 1160
- CCTV Monitoring



Existing Conditions – North Bank

Opportunities and Constraints Map

1. Connect to The Pier 202/Southbank
2. Connect to ASU Novus Innovation Corridor
3. Node Location
4. Wayfinding
5. Existing Piers for use as bridge substructure
6. Connect to proposed path to Indian Bend Wash
7. Connect to South Bank Rio Salado Path



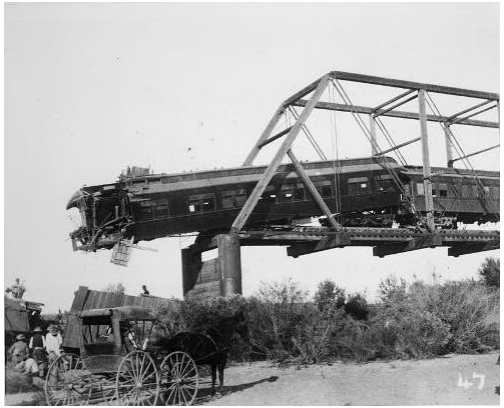
1. Existing pier cap elevation > 5-ft above abutment elevation
2. Power line constraints for construction access
3. FAA flight path lighting restrictions
4. Existing utilities under upstream dam
5. Indirect connection and >10-ft change from abutment elevation to South Bank Rio Salado Path

Concept Types

Preliminary Aesthetic Concept Inspiration

Salt River

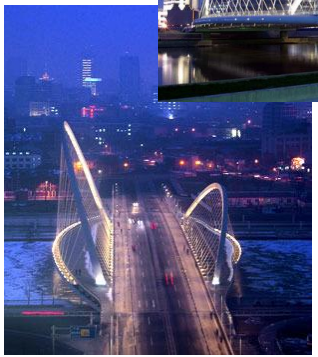
- Variable Flows
- Power and Impact
- Meandering Path
- Connection to Valley Development

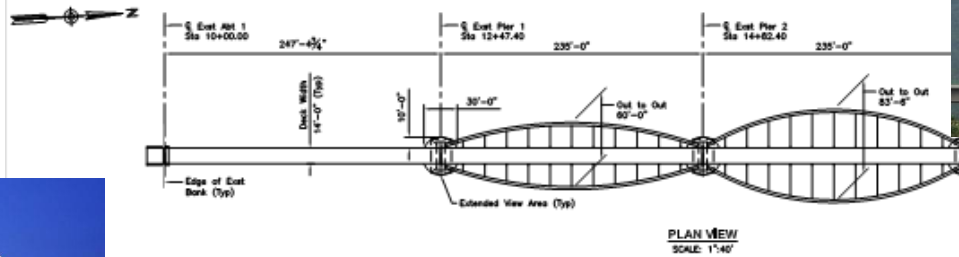


Four-span dual steel arch truss

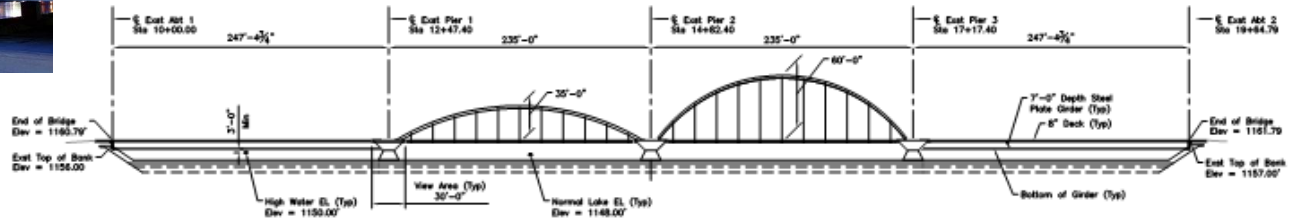
Augment Downstream Dam Elmore Pedestrian Bridge

- Steel Arches Flare Out
- Variable Height Arches
- View Platforms at Piers





PLAN VIEW
SCALE: 1"=40'

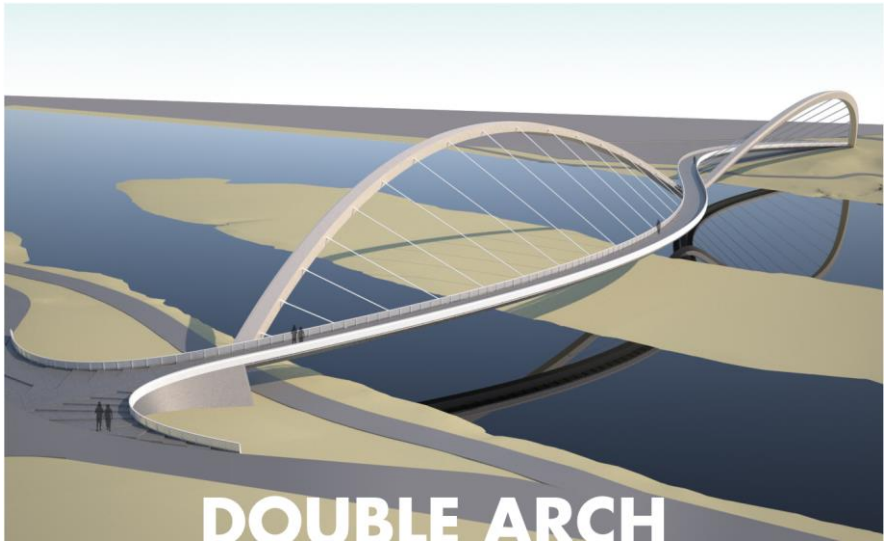


ELEVATION
SCALE: 1"=40'

Two-span double arch

Connect to Variable Flows and Meandering Path of Salt River

- Modification and use of Center Pier Only
- Cost ~ $2M greater than other concepts



Four-span steel arch truss

- Similar to Downstream Dam Elmore Pedestrian Bridge
  - Arch flare vs. crossing option
  - Cost similar to four-span dual steel arch

Other Design Elements

South Bank


EXISTING PAVED PATHWAY
PRELIMINARY
15%
NOT FOR CONSTRUCTION OR RECORDING

North Bank

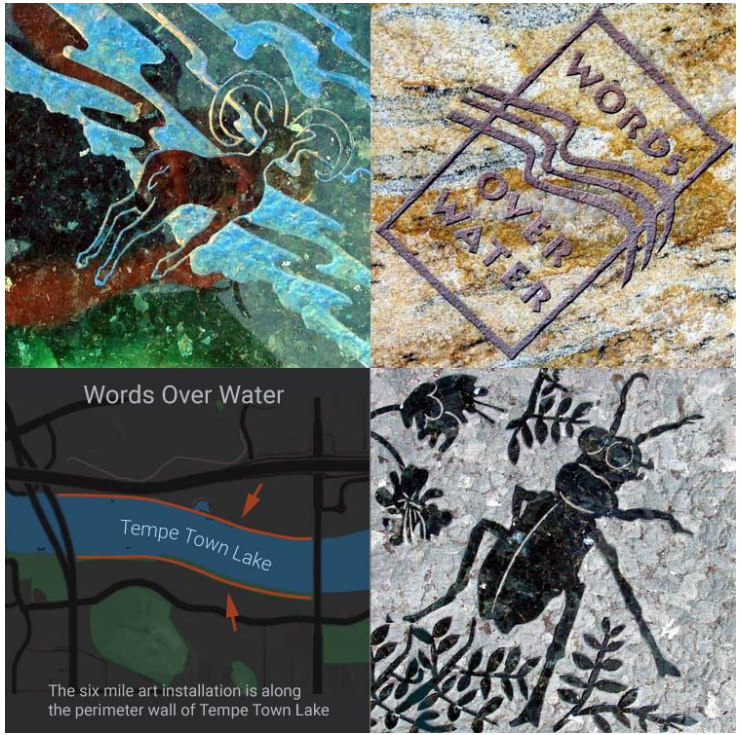

FUTURE PATH IMPROVEMENTS TO BE COMPLETED
BY ARMY CORPS OF ENGINEERS

Future Design Considerations

Public Art Integration

- Superstructure
- Bridge Deck
- Shade
- Lighting

Nodes, Landscaping



Next Steps

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- Public meetings
  - Thursday, February 15th – Review Opportunities & Constraints, Solicit Input
  - Tuesday, April 24th – Present Refined Designs
- Update to Transportation Commission following feedback
- Sustainability Commission