

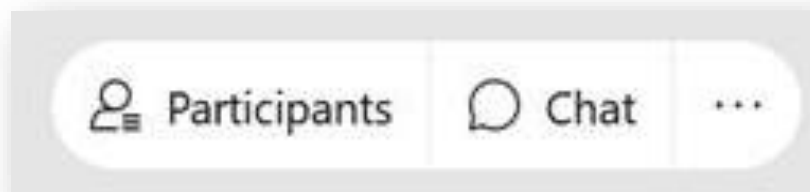
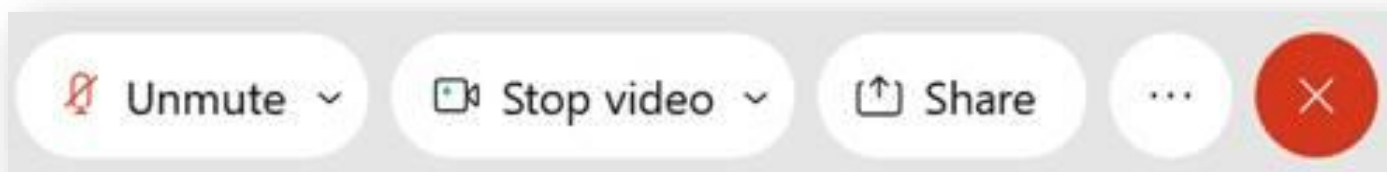


Urban Design and Aesthetics Working Group (UDAWG) Meeting #9

Multnomah County
Department of Community Services
Transportation Division
September 29, 2021

Meeting Protocols

Using WebEx participation features



For WebEx tech support call or email Bri Dunn:

503.727.3972

Brianna.Dunn@hdrinc.com



Agenda

1. Welcome, Introductions, and Housekeeping
2. Preferred Alternative Refinements
 - Preferred Alternative Decision Process
 - West Approach Bridge Type
 - Movable Bridge Type
3. Next Steps



Introductions and Roll Call

Community Task Force

- **Amy Rathfelder**, Portland Business Alliance
- **Art Graves**, Multnomah County Bike and Pedestrian Citizen Advisory Committee
- **Dennis Corwin**, Portland Spirit
- **Ed Wortman**, Community Member
- **Frederick Cooper**, Laurelhurst Neighborhood Emergency Team and Laurelhurst Neighborhood Association
- **Gabe Rahe**, Burnside Skate Park
- **Howie Bierbaum**, Portland Saturday Market
- **Jackie Tate**, Community Member
- **Jane Gordon**, University of Oregon
- **Jennifer Stein**, Central City Concern
- **Marie Dodds**, AAA of Oregon
- **Neil Jensen**, Gresham Area Chamber of Commerce
- **Paul Leitman**, Oregon Walks
- **TBD**, Old Town Community Association
- **Peter Finley Fry**, Central Eastside Industrial Council
- **Sharon Wood Wortman**, Community Member
- **Stella Funk Butler**, Coalition of Gresham Neighborhood Associations
- **Susan Lindsay**, Buckman Community Association
- **Tesia Eisenberg**, Mercy Corps
- **William Burgel**, Portland Freight Advisory Committee



Pre-meeting Information Packet

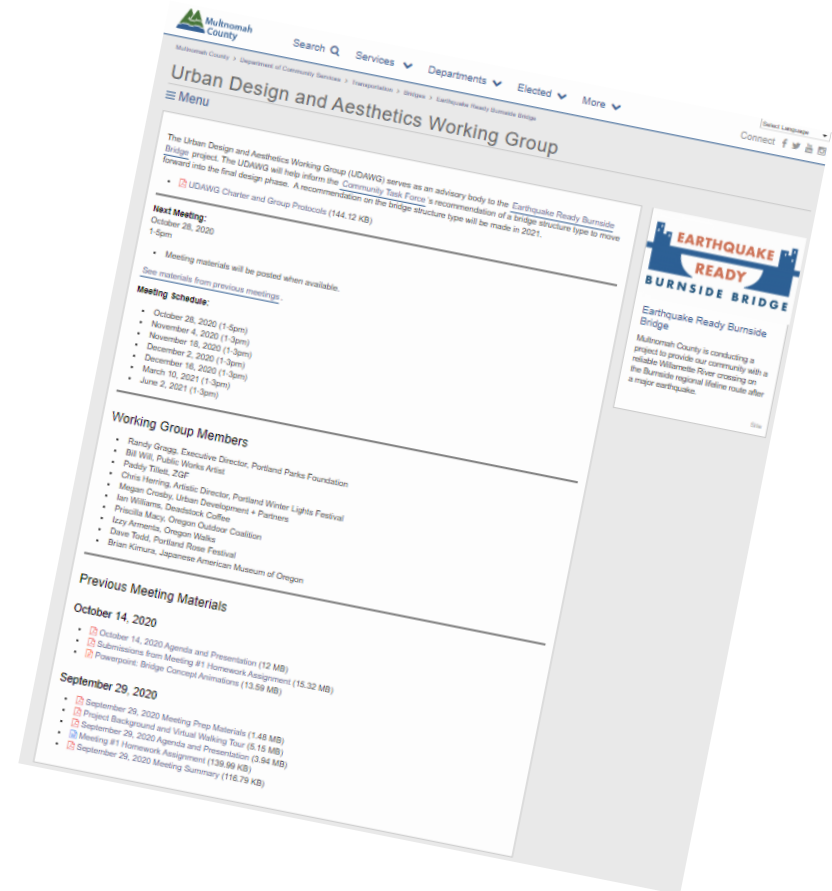
Content

Online UDAWG Library:

<https://multco.us/earthquake-ready-burnside-bridge/urban-design-and-aesthetics-working-group>

UDAWG Meeting #9 Materials:

- UDAWG Mtg #8 Notes
- UDAWG Mtg #9 Agenda



UDAWG Meetings

YOU MADE IT!

We are HERE
↓

	UDAWG Meeting Number and Date								
	#1 (9/30)	#2 (10/14)	#3 (10/28)	#4 (11/4)	#5 (11/18)	#6 (12/2)	#7 (12/16)	#8 (7/28)	#9 (9/29)
Character of Portland and the Burnside Bridge									
Visual Design Principles									
Visual Design Guidelines							... 2		
Technical Design Criteria									
Menu of Bridge Types									
Range of Feasible Bridge Types							1		
Evaluation Criteria Topic(s)									
Evaluation Measures							... 3		
Input on CTF's Eval Criteria									
Input on CTF's Rec Bridge Type									

Today: West Approach and Movable Span Bridge Type Input

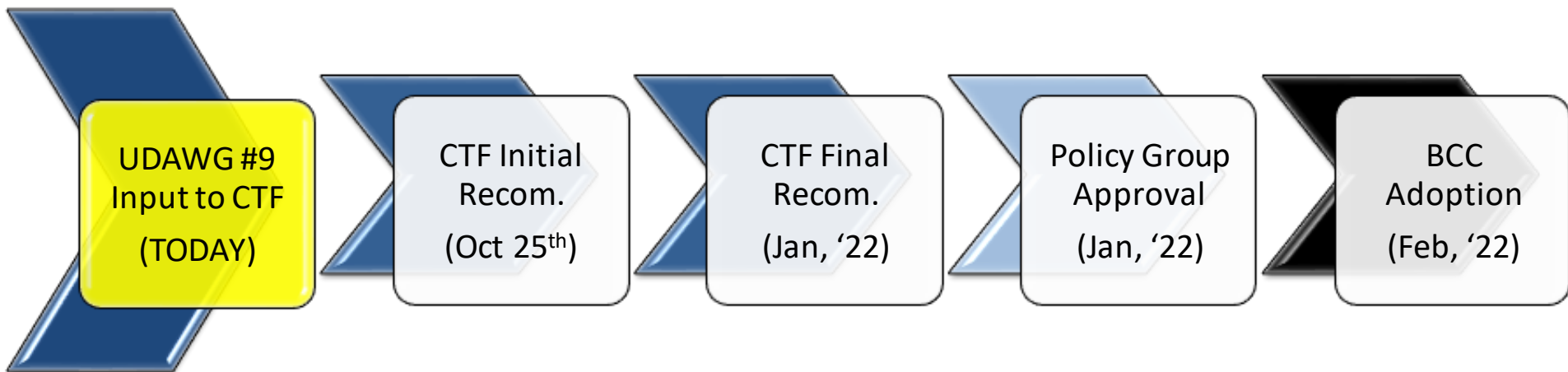




Preferred Alternative Refinements

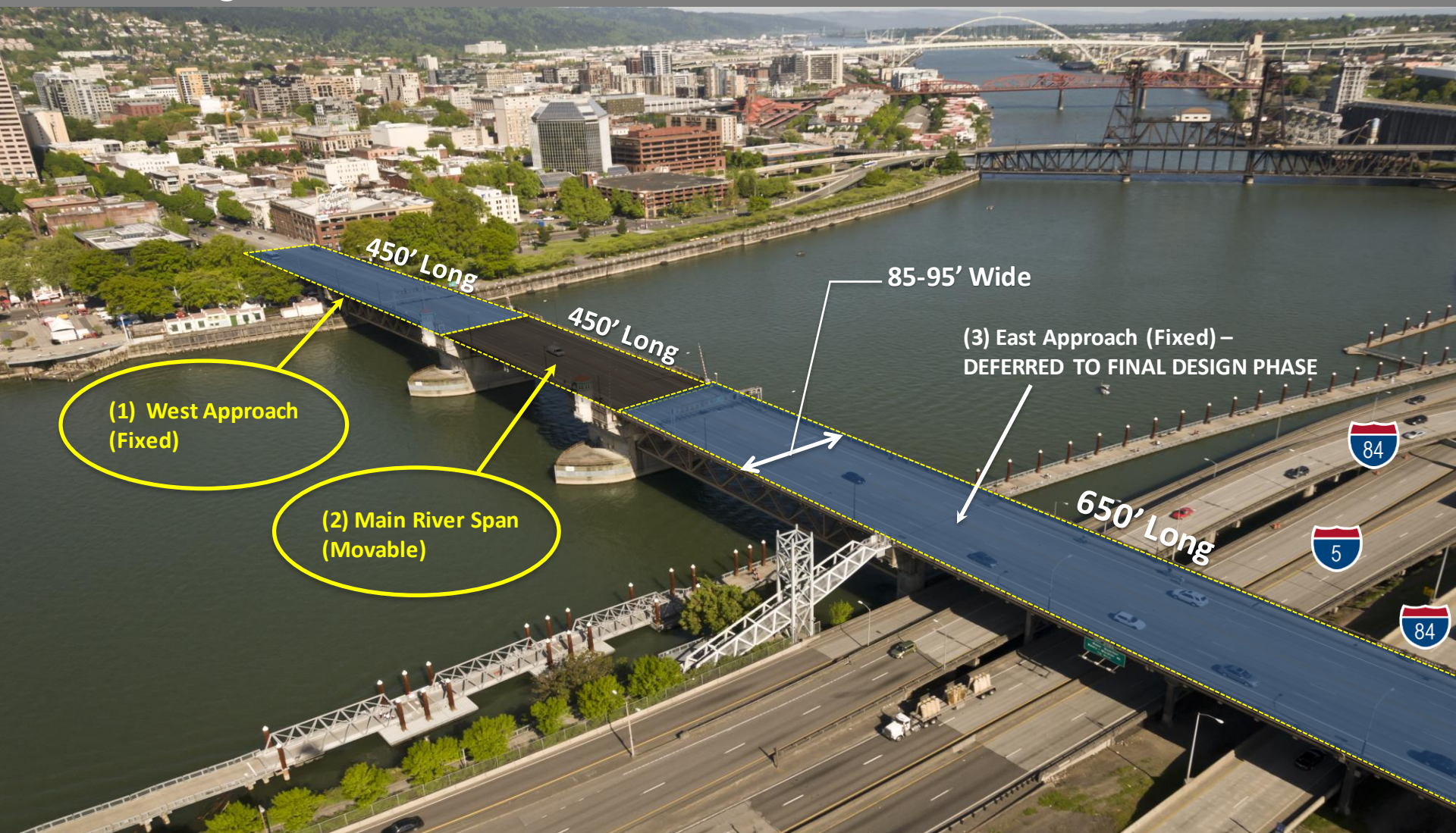


Preferred Alt Decision Process



Preferred Alternative Refinements

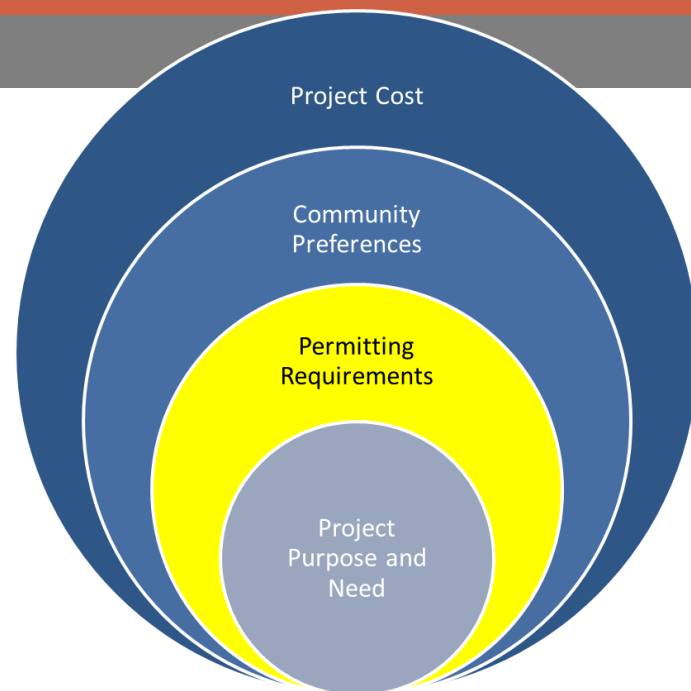
“Three bridges in one”



Permitting Requirements

Why do the NEPA findings and future permitting influence Project decisions?

- NEPA requires that EISs demonstrate that the preferred alternative complies with federal environmental regulations
 - **National Historic Preservation Act** – mitigation for adverse effects
 - **Federal Transportation Act Section 4(f) (parks and historic resources)**
 - must select the least harm alternative
 - **Endangered Species Act** – avoid jeopardy
 - **Clean Water Act** (river and navigation channel impacts) – Least Environmentally Damaging Practicable Alternative
 - **Rivers and Harbors Act** (bridges and navigation) – USCG approval





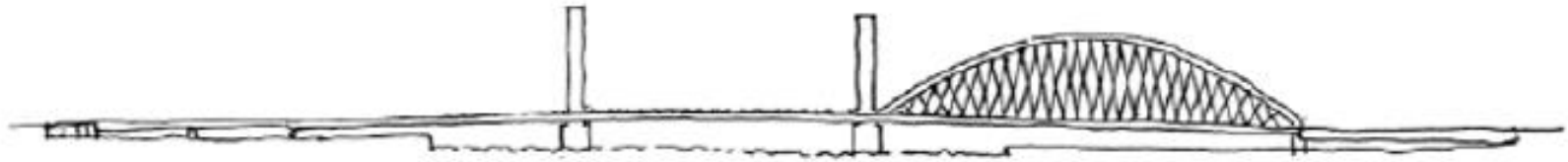
West Approach Bridge Type



Range of Long Span Bridge Types

Tied Arch: West Approach Variations

**Lift
Options**



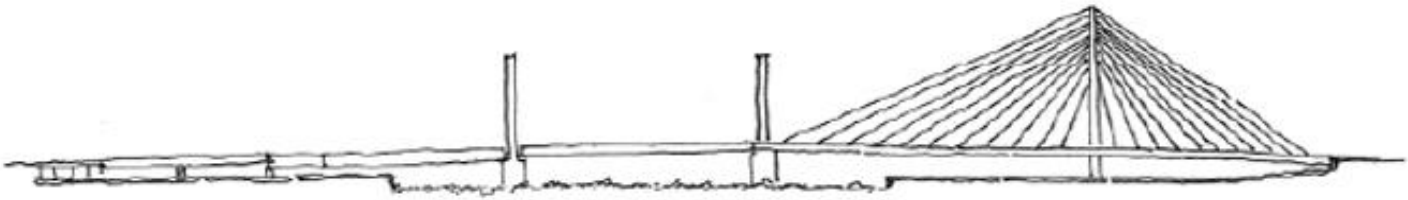
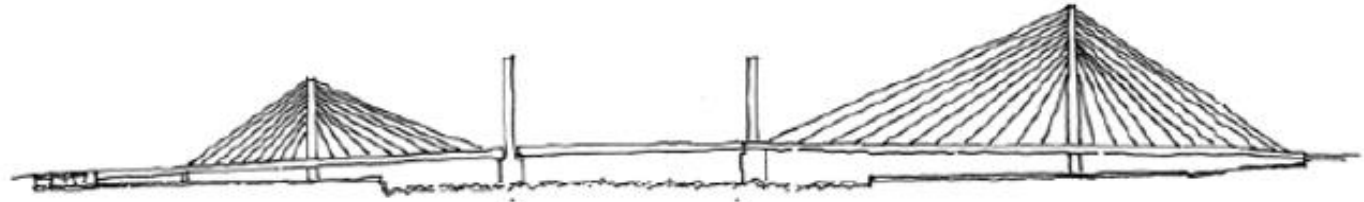
**Bascule
Options**



Range of Long Span Bridge Types

Cable Supported: West Approach Variations

**Lift
Options**

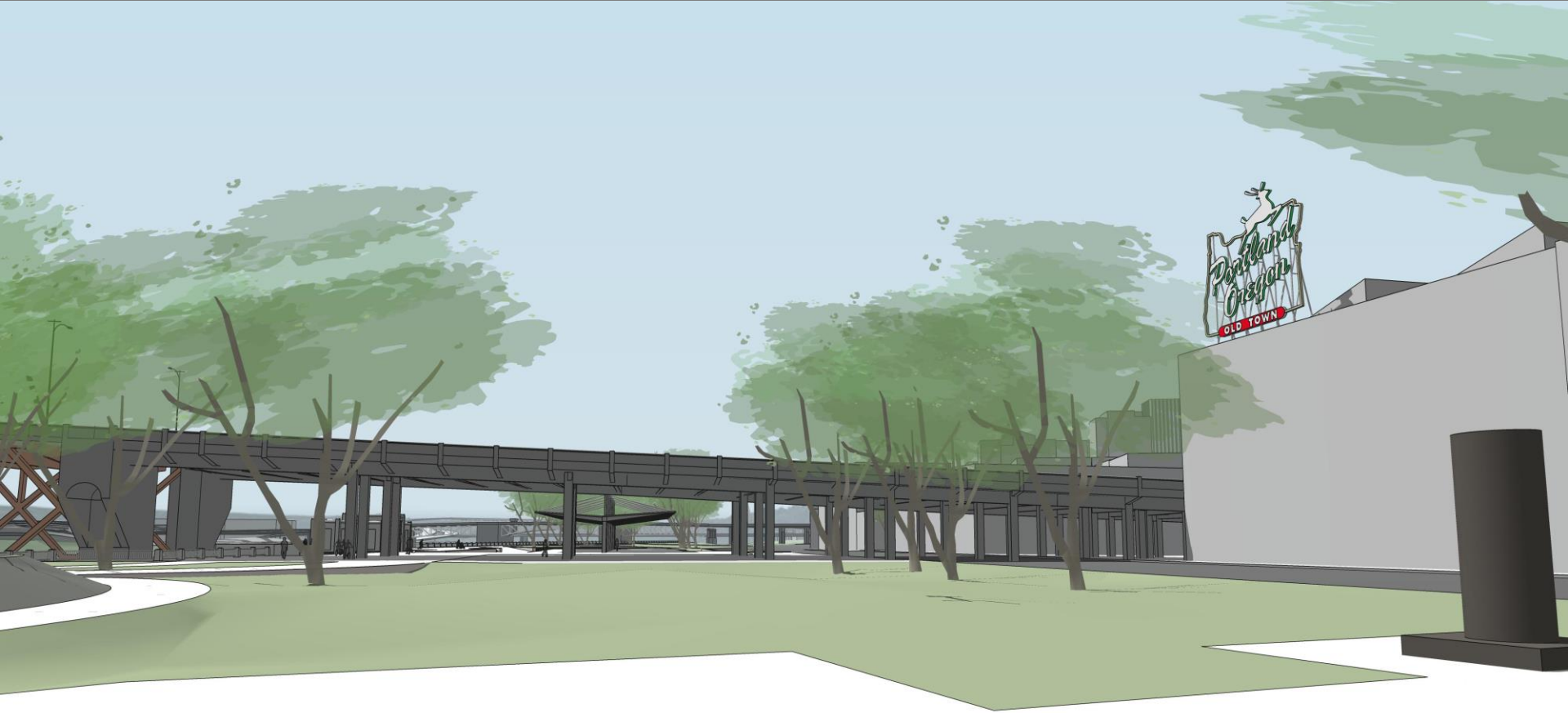


**Bascule
Options**



West Approach

Existing Girder Bridge



Long-span Approach Options in the DEIS

Replacement Long Span is the Recommended Preferred Alternative

Tied Arch



Cable Stayed

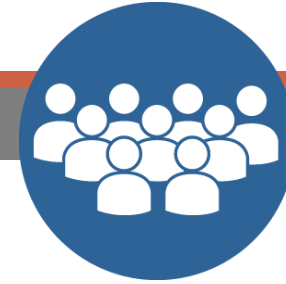


Girder (West Approach only)



West Approach Bridge Type

Assessment



- **Permitting Requirements**
 - National Parks Service (Section 106 / Section 4(f)):
 - Above deck elements **create an Adverse Effect** on the Skidmore / Old Town Historic District that is avoided with a girder concept
 - Historic Landmarks Commission (DAR):
 - Due to visual impacts to historic districts, Girder-styled west approach option **best meets zoning code and historic guidelines**
 - **Preference for “observable asymmetry”** due to distinct differences in urban fabric on west and east sides



City of Portland
Historic Landmarks Commission
Design Commission

Design Advice Request

SUMMARY MEMO

Date: March 31, 2021

To: Heather Catron, HDR
Megan Neill, Multnomah County

From: Hillary Adam, Design Review
503-823-8953 | hillary.adam@portlandoregon.gov

Re: EA 21-007324 DA – Earthquake Ready Burnside Bridge – Bridge Type Selection (HLC)
EA 21-007685 DA – Earthquake Ready Burnside Bridge – Bridge Type Selection (DC)
Joint Design Advice Request Commission Summary Memo – March 4, 2021

Thank you for taking advantage of the opportunity to hold a Design Advice Request regarding your project. I hope you find it informative and valuable as you continue with your project development. Following, is a summary of the comments provided by the Historic Landmarks Commission and the Design Commission at the March 4, 2021 Design Advice Request. This summary was generated from notes taken at the public meeting and a subsequent review of the public meeting recordings. To review those recordings, please visit: <https://efiles.portlandoregon.gov/Record/14383212>.

These Historic Landmarks Commission and Design Commission comments are intended to guide you in further design exploration of your project. These comments may also inform City staff when giving guidance over the course of future related land use reviews. It should be understood that these comments address the project as presented on March 4, 2021. As the project design evolves, the comments, too, may evolve or may no longer be pertinent.

Design Advice Requests are not intended to substitute for other Code-required land use or legislative procedures. Please keep in mind that the formal Type 3 and Type 4 land use review process [which includes a land use review application, public notification and a Final Decision] must be followed once the Design Advice Request meetings are complete, if formal approval for specific elements of your project is desired.

Please continue to coordinate with me as you prepare your future Land Use Review Applications.

Encl:
Summary Memo

Cc: Historic Landmarks Commission
Design Commission
Respondents

FROM CONCEPT TO CONSTRUCTION



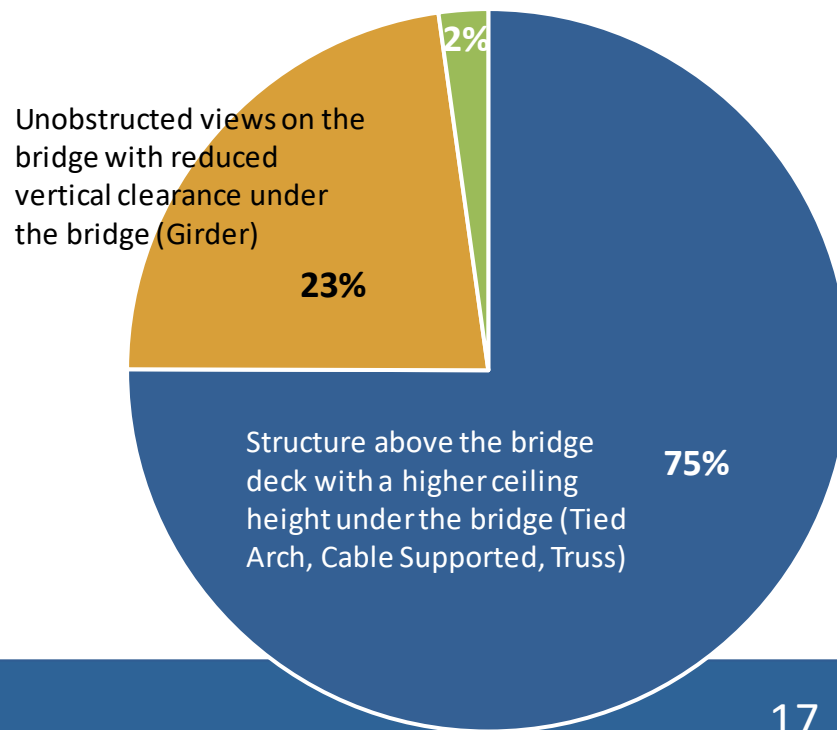
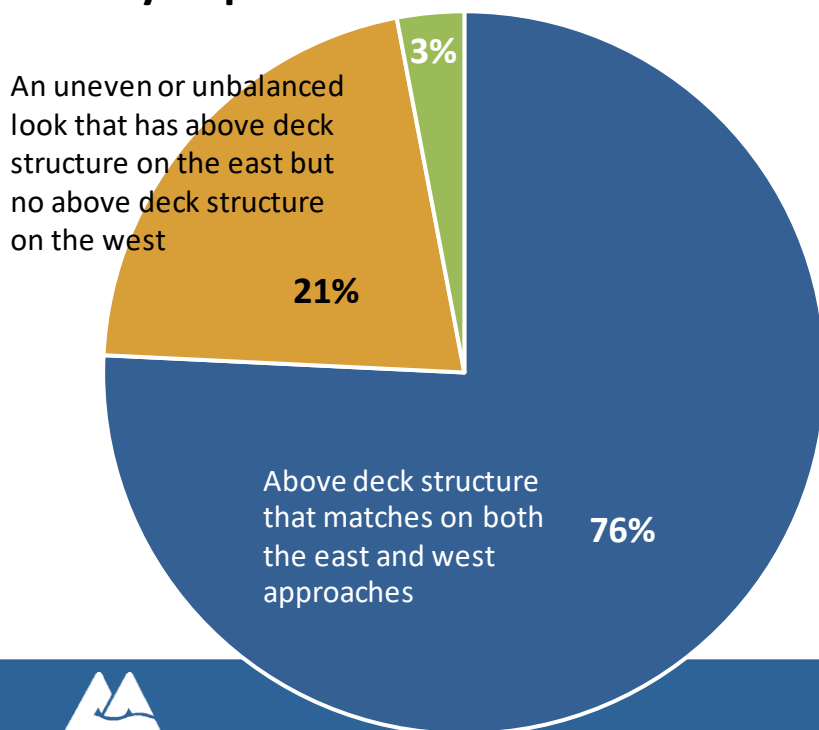
West Approach Bridge Type

Assessment

- **Cost:**
 - Modified girder option is **\$20-40M less expensive** than any above deck option

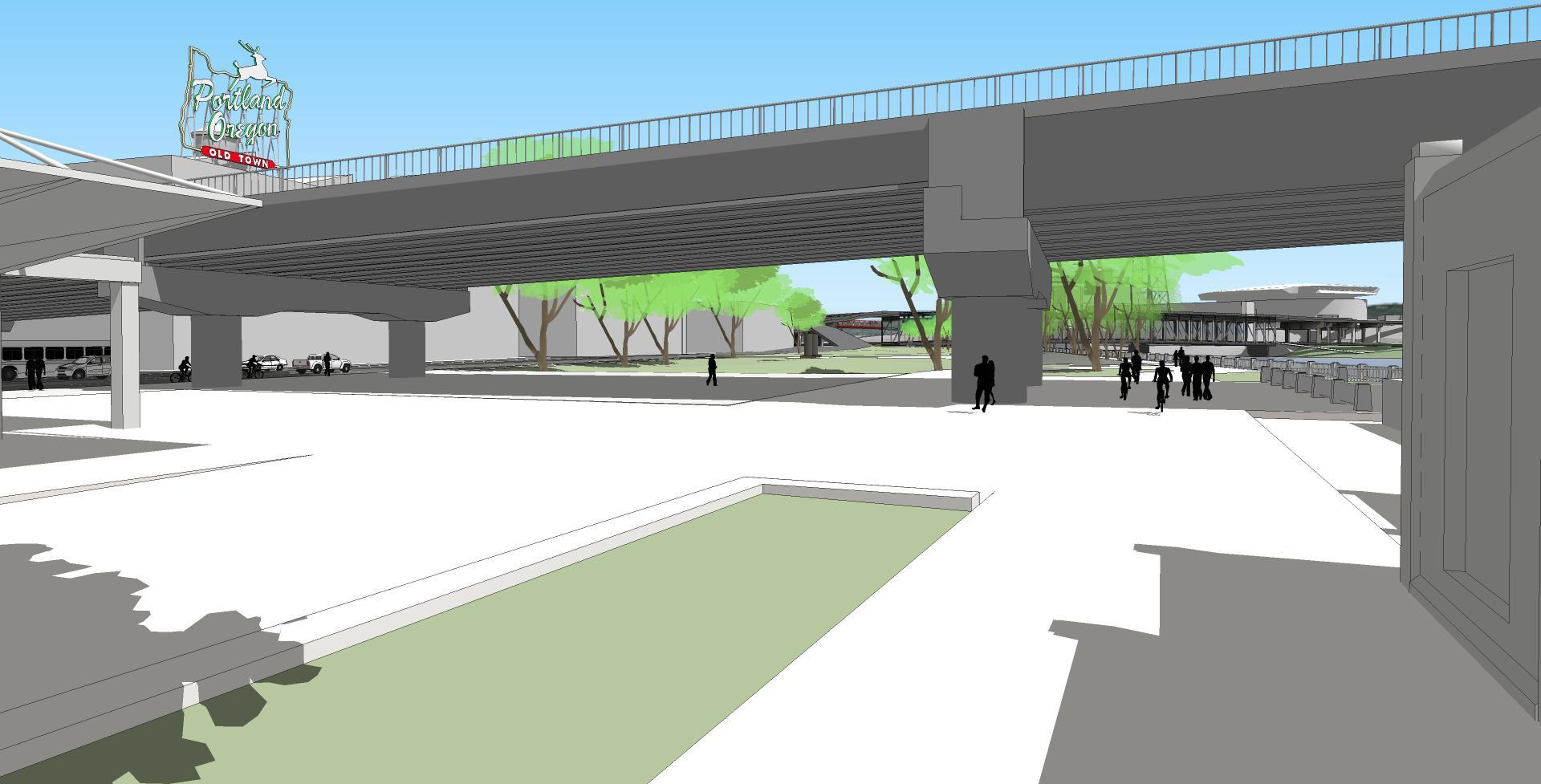
- **Community Preferences** (1,676 responses from early 2021):

QUESTION: For the WEST APPROACH SPAN, if you had to choose, which bridge type features would you prefer?



West Approach Bridge Type

County Recommendation: West Approach Girder for all Bridge Compositions





Movable Span Bridge Type



Existing Willamette River Bridges

Downtown Portland Area



① Fremont Bridge



② Broadway Bridge



③ Steel Bridge



④ Burnside Bridge



⑤ Morrison Bridge



⑥ Hawthorne Bridge



⑦ Marquam Bridge



⑧ Tilikum Crossing



⑨ Ross Island Bridge



Range of Bridge Types

Movable Span

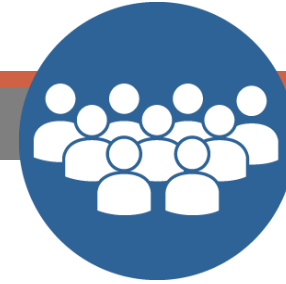
Lift



Bascule



Movable Span Bridge Type



Assessment

- **Permitting Requirements**
 - National Parks Service (Section 106 / Section 4(f)):
 - NPS recommends the bascule option to complement the Skidmore / Old Town Historic District
 - Historic Landmarks Commission (DAR):
 - Bascule movable bridge option **minimizes impacts to views**
 - **Preference for “observable asymmetry”** due to distinct differences in urban fabric on west and east sides
 - East Approach Bridge Type Input:
 - Cable Supported option offers similar scale and visual cohesion to east side building heights
 - Cable Supported option offers more transparency



City of Portland
Historic Landmarks Commission
Design Commission

Design Advice Request

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FROM CONCEPT TO CONSTRUCTION



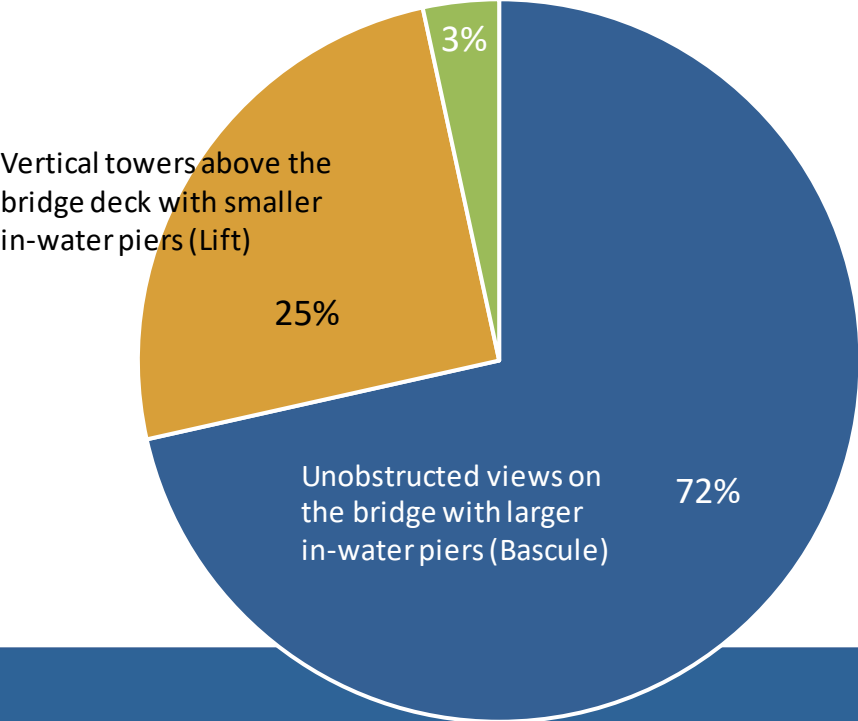
Movable Span Bridge Type

Assessment

- **Cost:**
 - Bascule option is \$25-35M less expensive than the Lift Option

- **Community Preferences** (1,676 responses from early 2021):

QUESTION: For the MOVABLE SPAN, if you had to choose, what would you prefer?



Type Selection Evaluation Criteria

Key Words and Phrases

1. Human Experience & Bridge Surroundings

- Clear views in all directions
 - Bridge surface for public events
 - Intrinsic gateway and a sense of arrival to and from bridge
 - Enhanced on-bridge experience
 - Enhanced in-water uses
 - Connectivity with river from under / around the bridge
- Complements & responds to the character of the Old Town / Chinatown and Downtown neighborhoods
 - Complements & responds to the character of Kerns and Buckman neighborhoods and Central Eastside Industrial District
 - Complements and responds to the character of the existing Willamette River bridges, while being distinctive in its own right



Type Selection Evaluation Criteria

Key Words and Phrases

2. Overall Look and Feel of the Bridge

- Creates a look of balance, unity, and flow from multiple viewpoints
- Balance the desire for a minimized visual mass, especially in the river, while providing seismic stability and reliability
- Capture elements of the existing historic bridge
- Reflect the best practices in modern technologies, engineering, and architecture
- An identifiable beacon of safety, a landmark, and a destination within the city during the day and after dark
- Enhances the natural environment



Type Selection Evaluation Criteria

Key Words and Phrases

3. Cost and Construction Impacts to Users

- Minimize Total Project cost to plan, design, and construct the bridge
- Minimize long-term costs and support future needs after construction
- Minimize impacts to the traveling public and surrounding property owners / tenants during construction
- Minimize impacts to adjacent properties during construction





Movable Bridge Supporting Info:

Basic Form Bridge Views



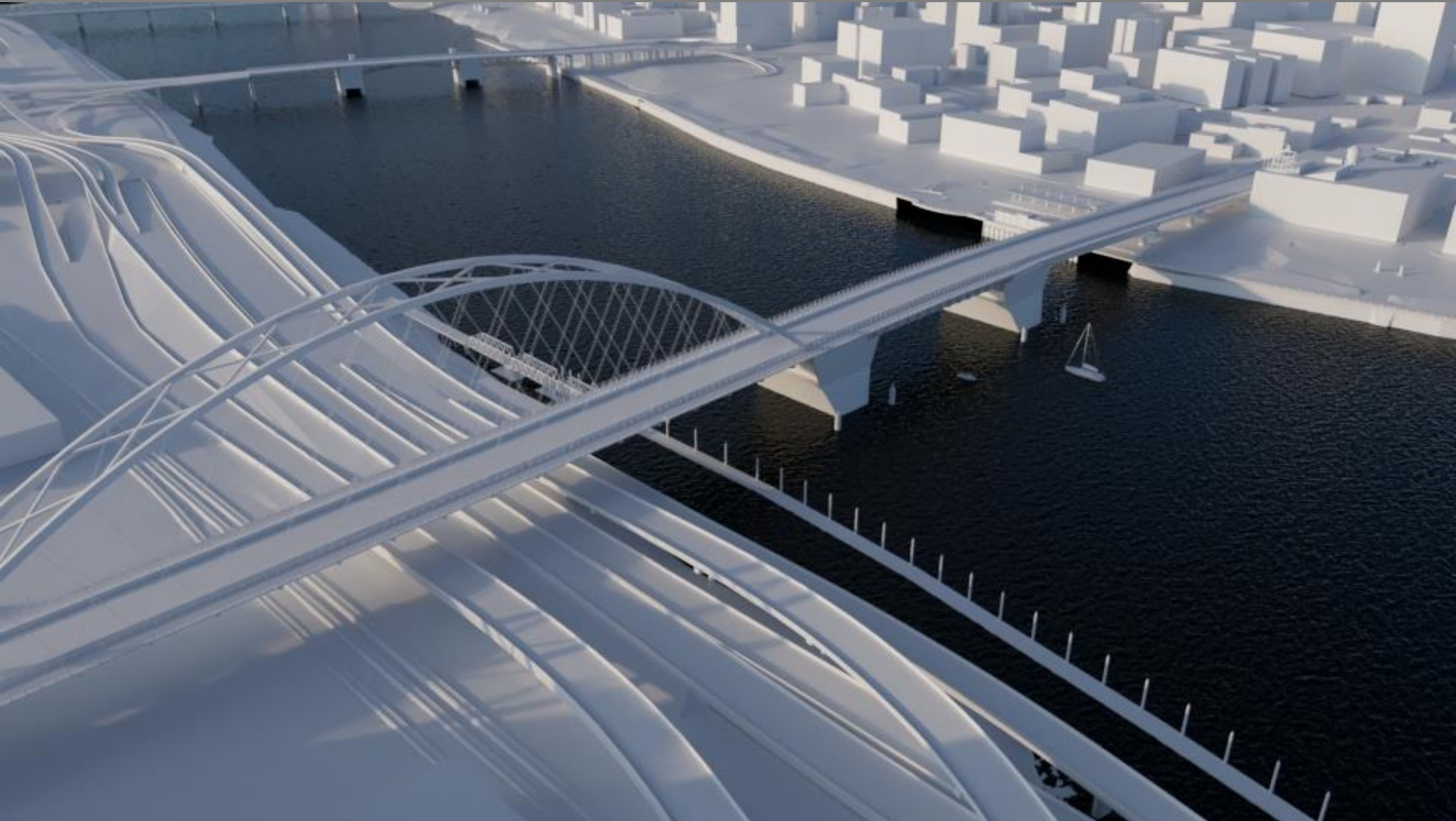
Movable Span Bridge Type

Overview – Existing Condition



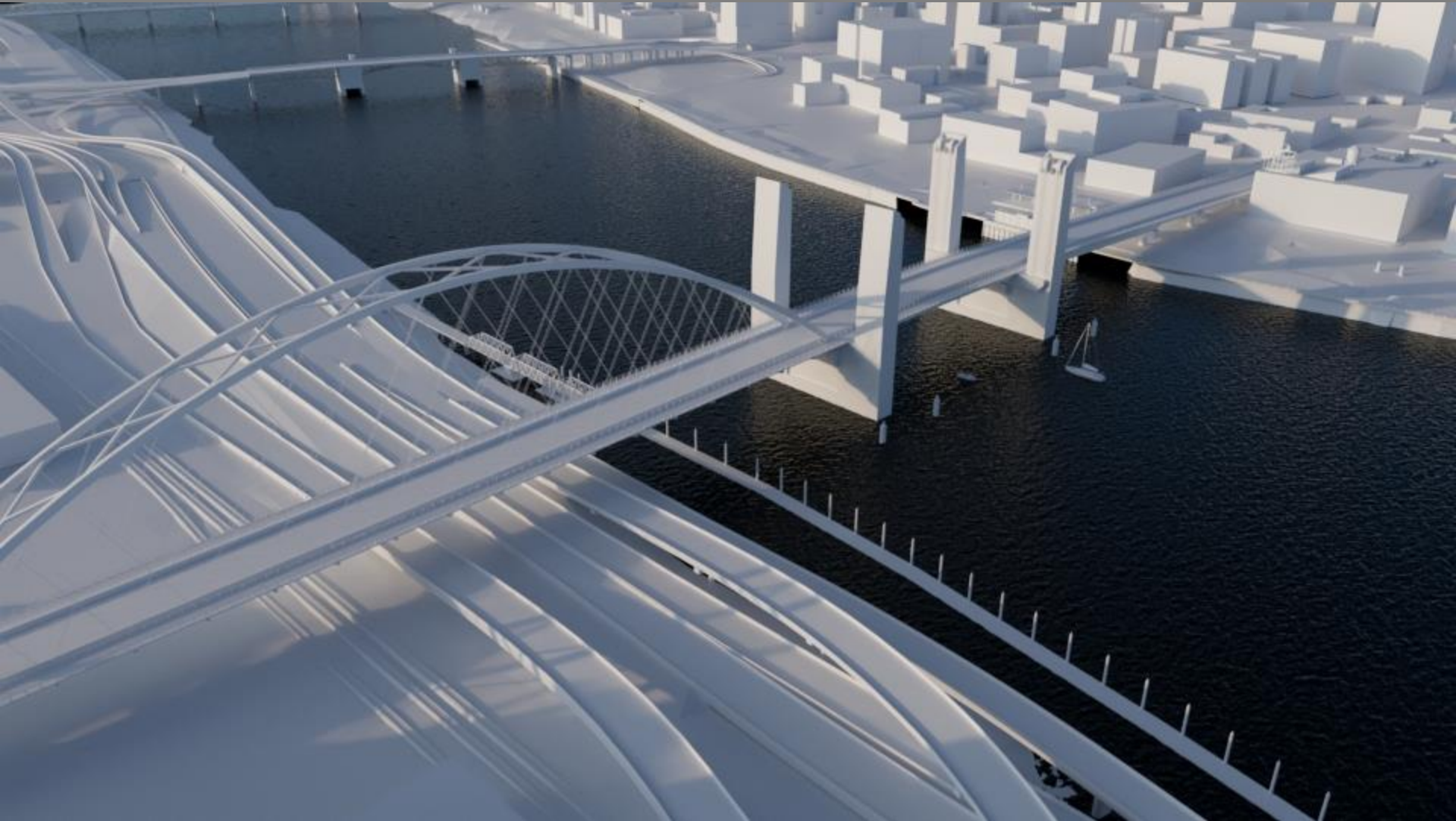
Movable Span Bridge Type

Overview – Tied Arch with Bascule



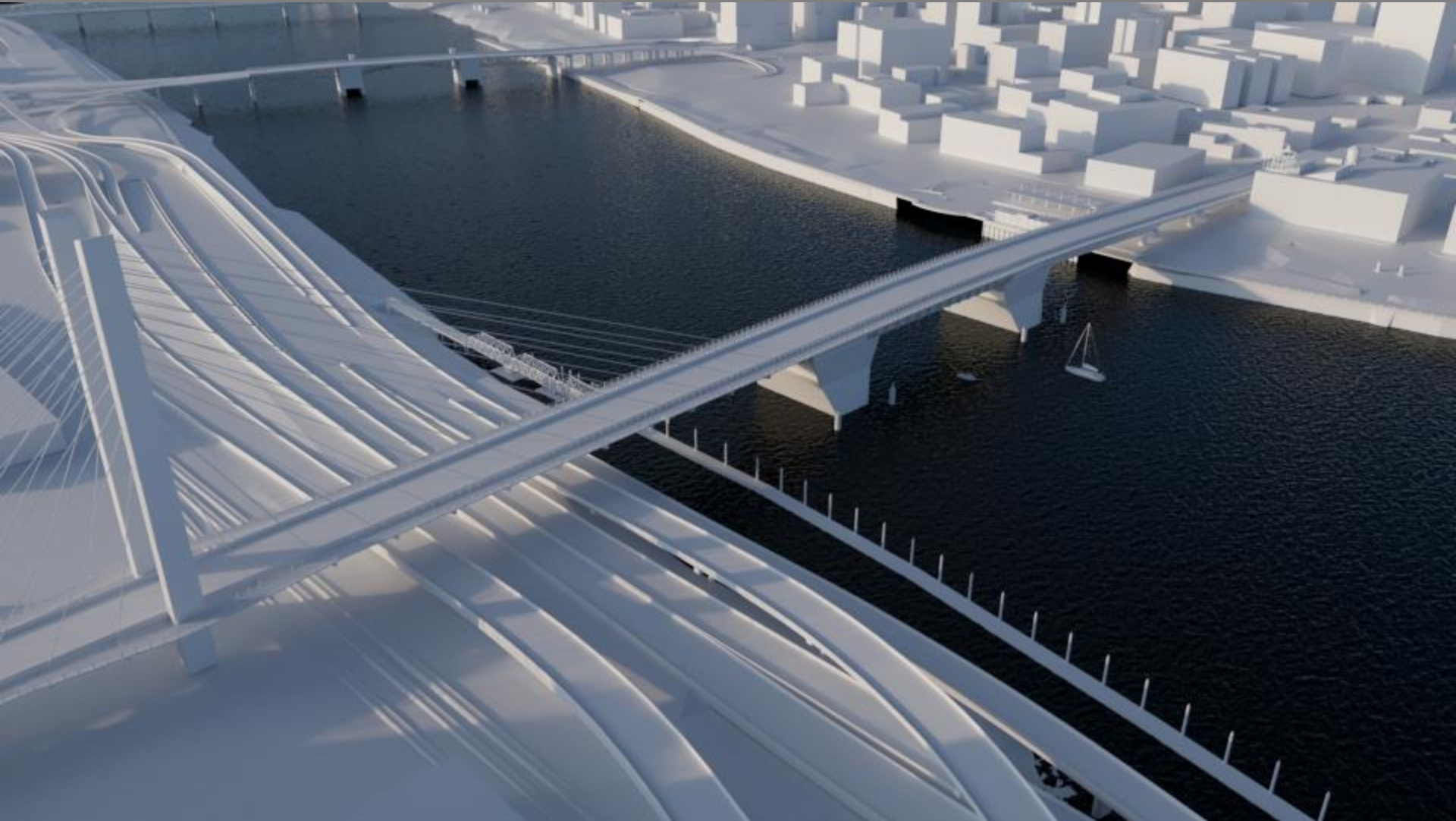
Movable Span Bridge Type

Overview – Tied Arch with Lift



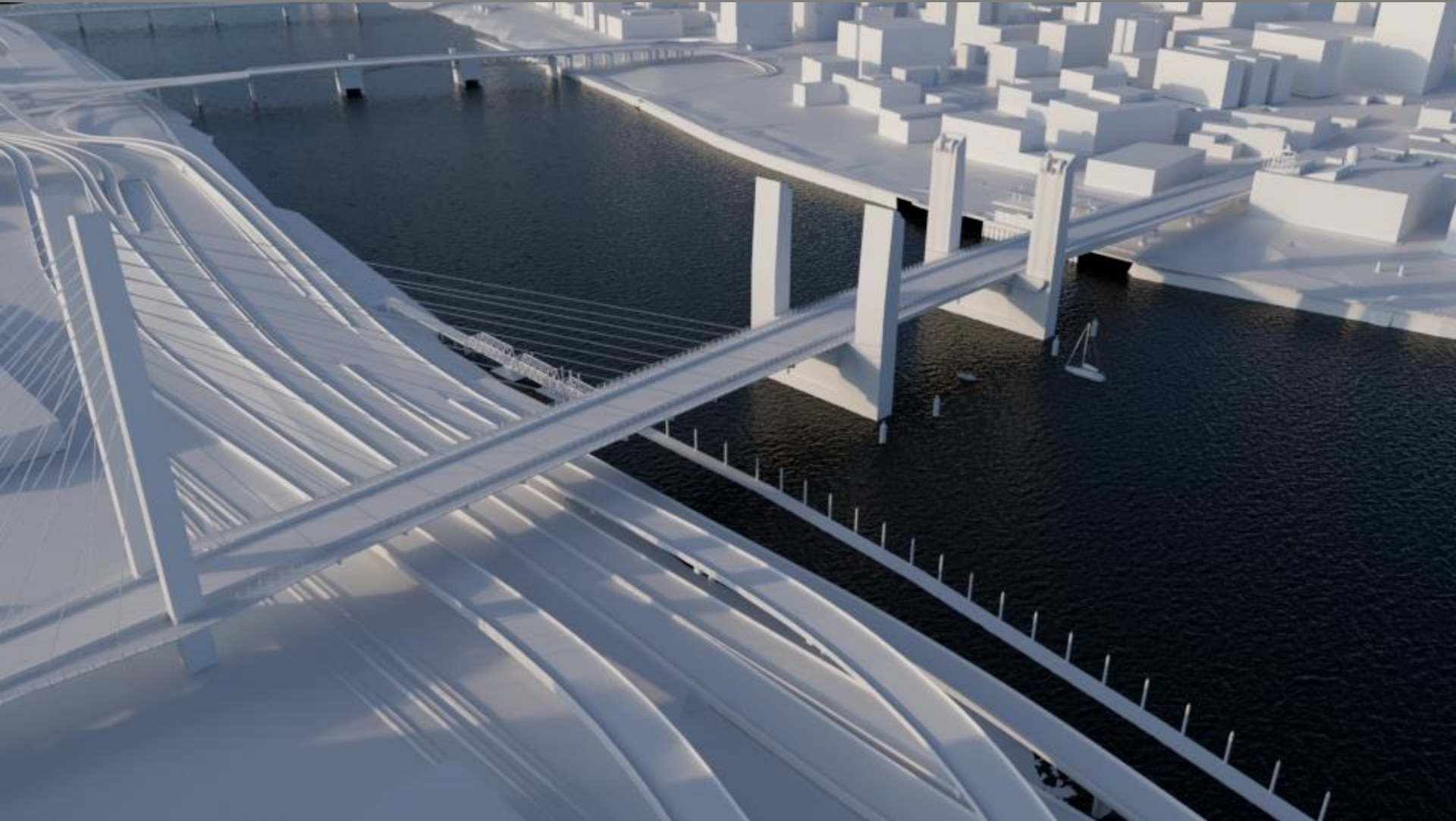
Movable Span Bridge Type

Overview – Cable Stayed with Bascule



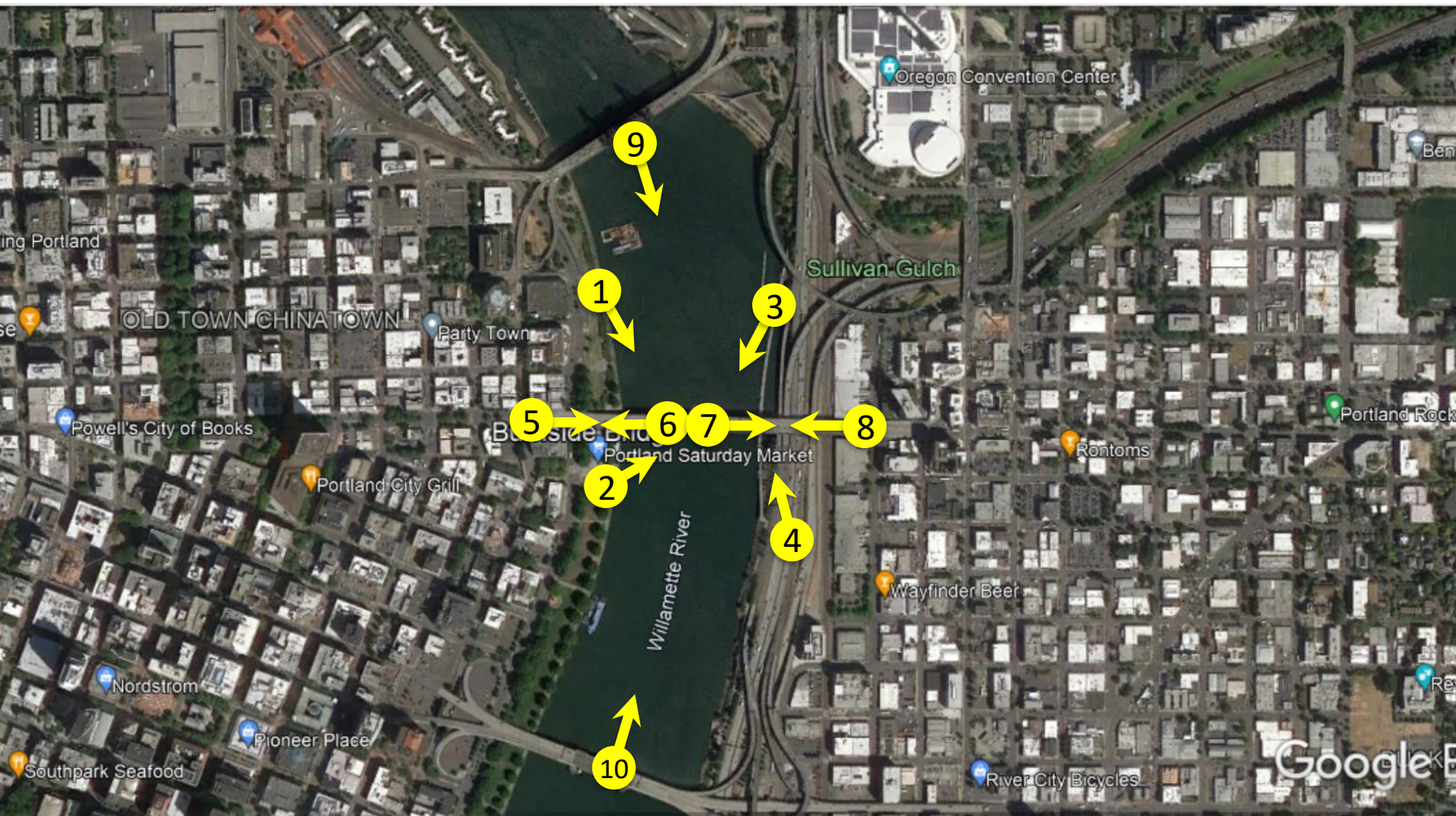
Movable Span Bridge Type

Overview – Cable Stayed with Lift



Movable Span Bridge Type

Select Key Views



Bridge Views: From Waterfront Park

Existing Views

View 1: *SE from Waterfront Park (Located north of bridge)*



Movable Span Bridge Type

View 1: Looking SW from Waterfront Park



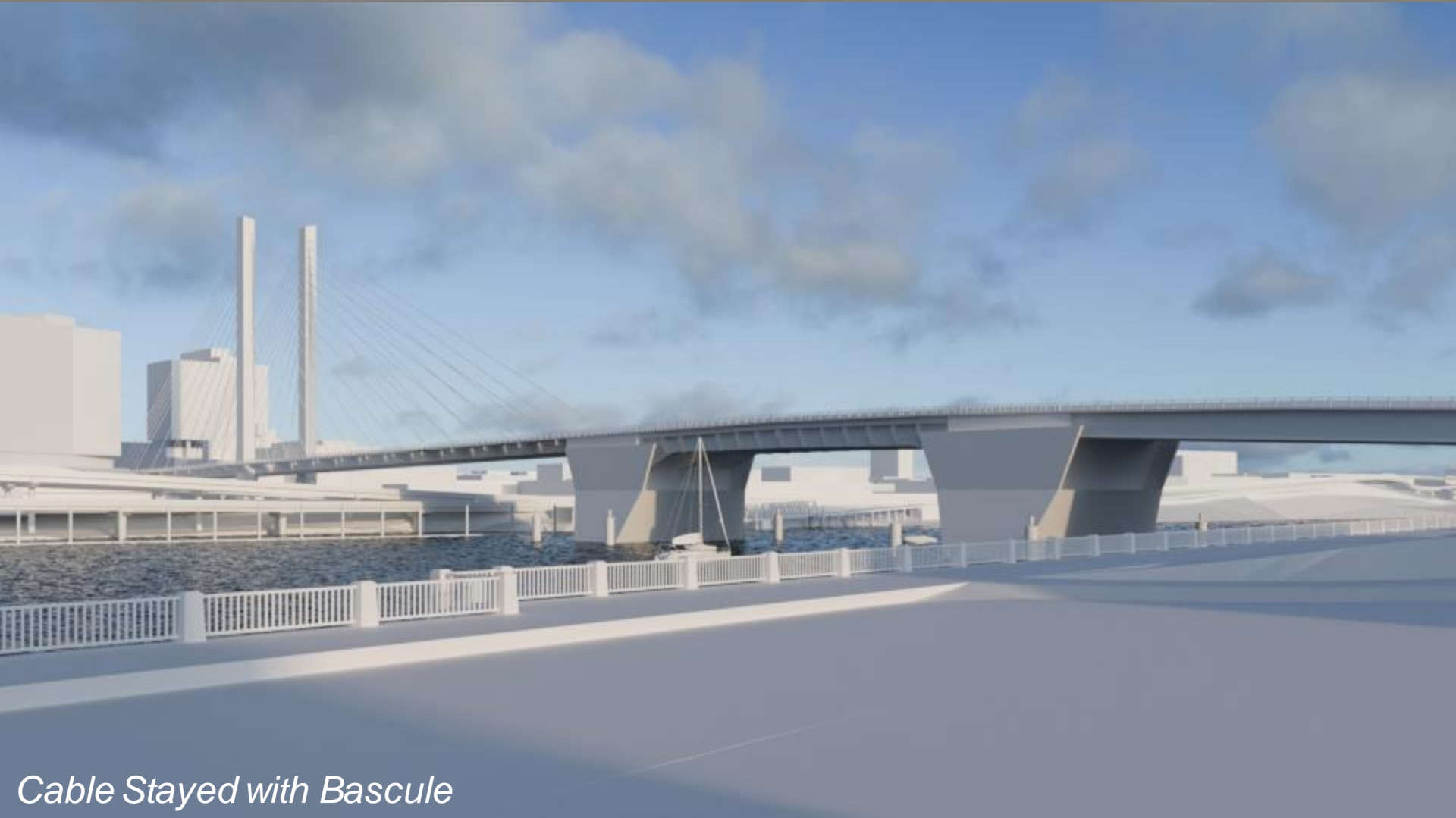
Movable Span Bridge Type

View 1: Looking SW from Waterfront Park



Movable Span Bridge Type

View 1: Looking SW from Waterfront Park

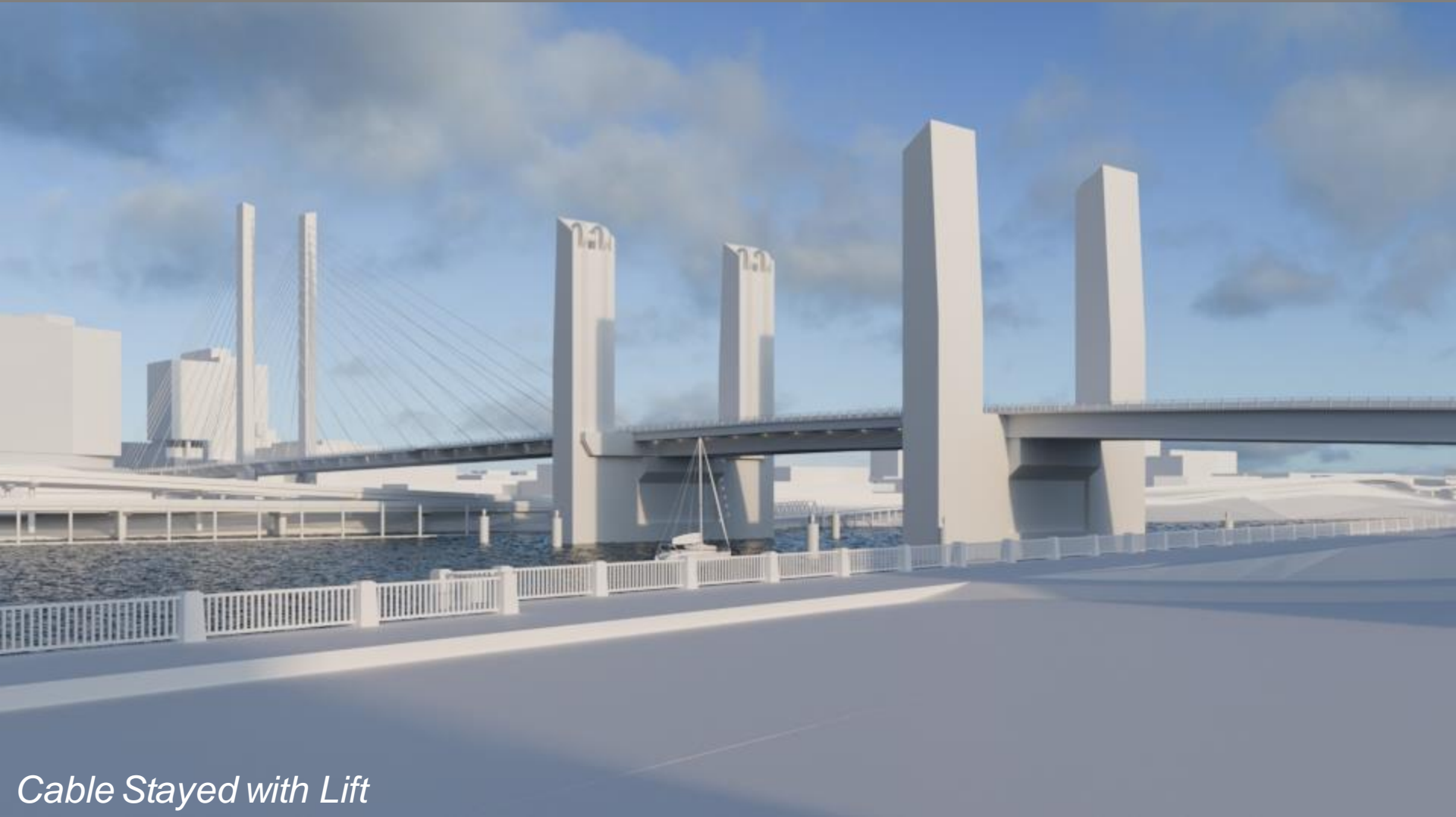


Cable Stayed with Bascule



Movable Span Bridge Type

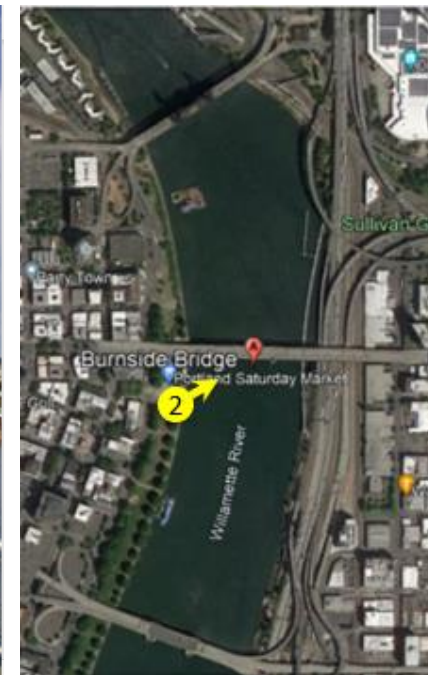
View 1: Looking SW from Waterfront Park



Bridge Views: From Waterfront Park

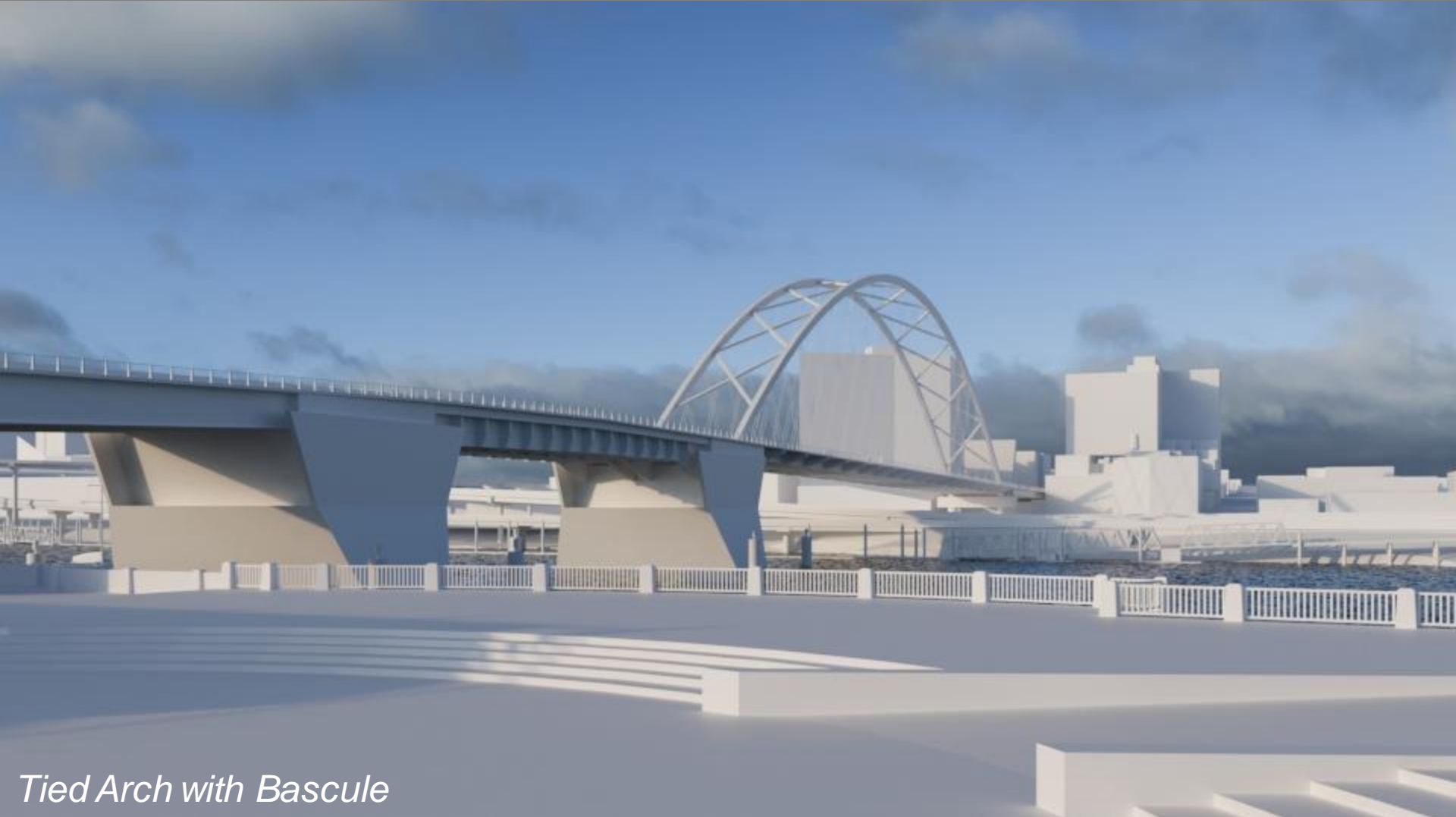
Existing Views

View 2: *NE from Waterfront Park (Located south of bridge)*



Movable Span Bridge Type

View 2: Looking NE from Waterfront Park



Tied Arch with Bascule



Movable Span Bridge Type

View 2: Looking NE from Waterfront Park



Tied Arch with Lift



Movable Span Bridge Type

View 2: Looking NE from Waterfront Park



Cable Stayed with Bascule



Movable Span Bridge Type

View 2: Looking NE from Waterfront Park



Bridge Views

Existing Views

View 3: *SW from Eastbank Esplanade (Located north of bridge)*



Movable Span Bridge Type

View 3: Looking SW from I-84 Ramp



Tied Arch with Bascule



Movable Span Bridge Type

View 3: Looking SW from I-84 Ramp



Tied Arch with Lift



Movable Span Bridge Type

View 3: Looking SW from I-84 Ramp



Cable Stayed with Bascule



Movable Span Bridge Type

View 3: Looking SW from I-84 Ramp



Cable Stayed with Lift



Bridge Views

Existing Views

View 4: *NE from I-5 (Located south of bridge)*



Movable Span Bridge Type

View 4: Looking North from I-5 ramp to Morrison Bridge



Tied Arch with Bascule



Movable Span Bridge Type

View 4: Looking North from I-5 ramp to Morrison Bridge



Movable Span Bridge Type

View 4: Looking North from I-5 ramp to Morrison Bridge



Cable Stayed with Bascule



Movable Span Bridge Type

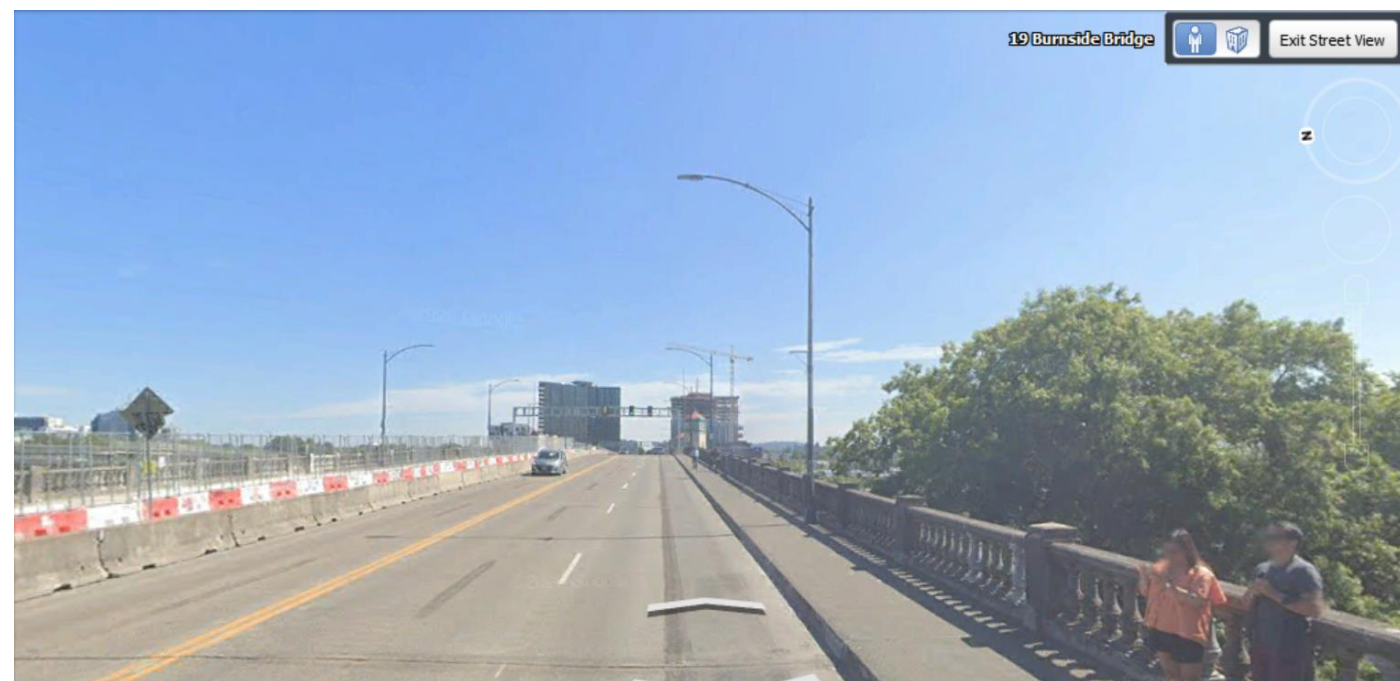
View 4: Looking North from I-5 ramp to Morrison Bridge



Bridge Views

Existing Views

View 5: *Easterly from Bridge Deck (Located @ West Bridgehead)*



Movable Span Bridge Type

View 5: Looking East from Burnside Bridge



Tied Arch with Bascule



Movable Span Bridge Type

View 5: Looking East from Burnside Bridge



Tied Arch with Lift



Movable Span Bridge Type

View 5: Looking East from Burnside Bridge



Cable Stayed with Bascule



Movable Span Bridge Type

View 5: Looking East from Burnside Bridge



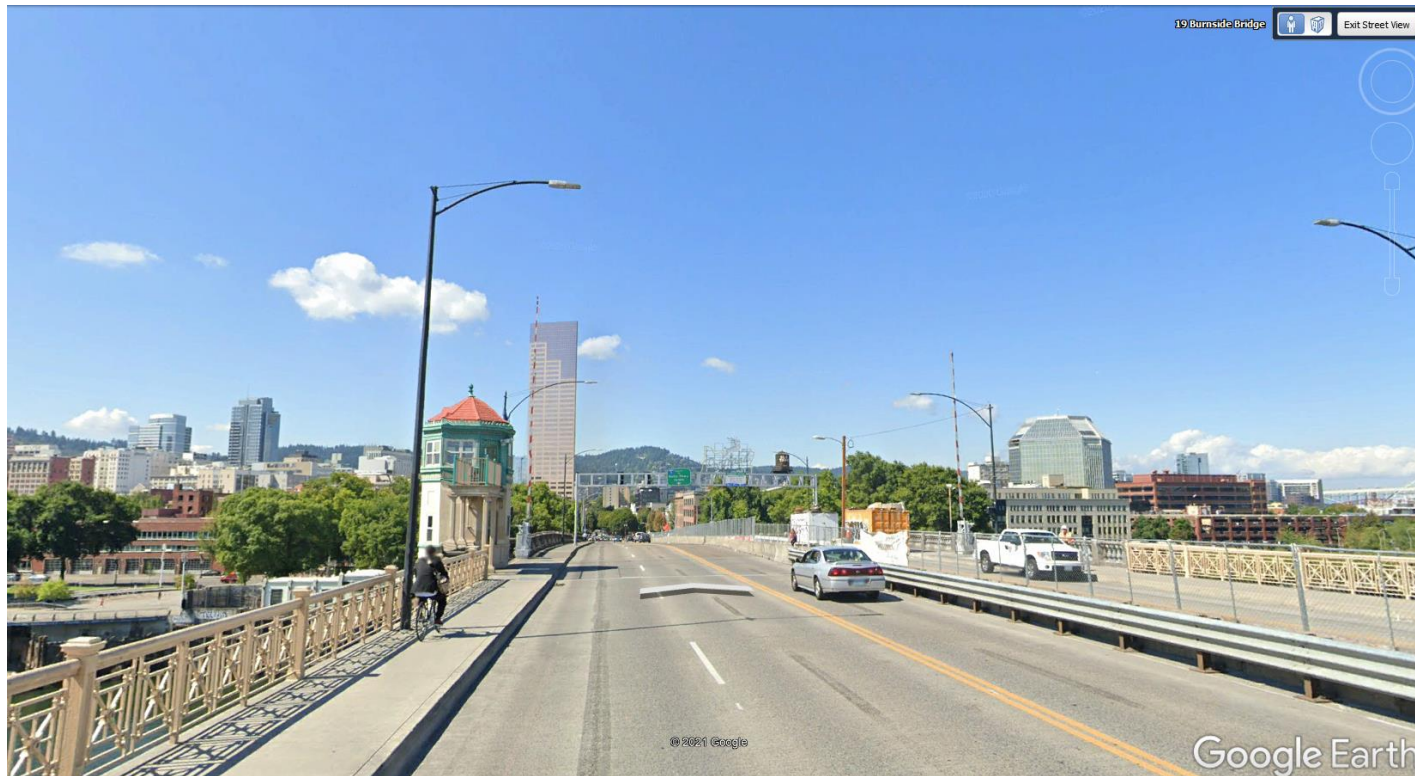
Cable Stayed with Lift



Bridge Views

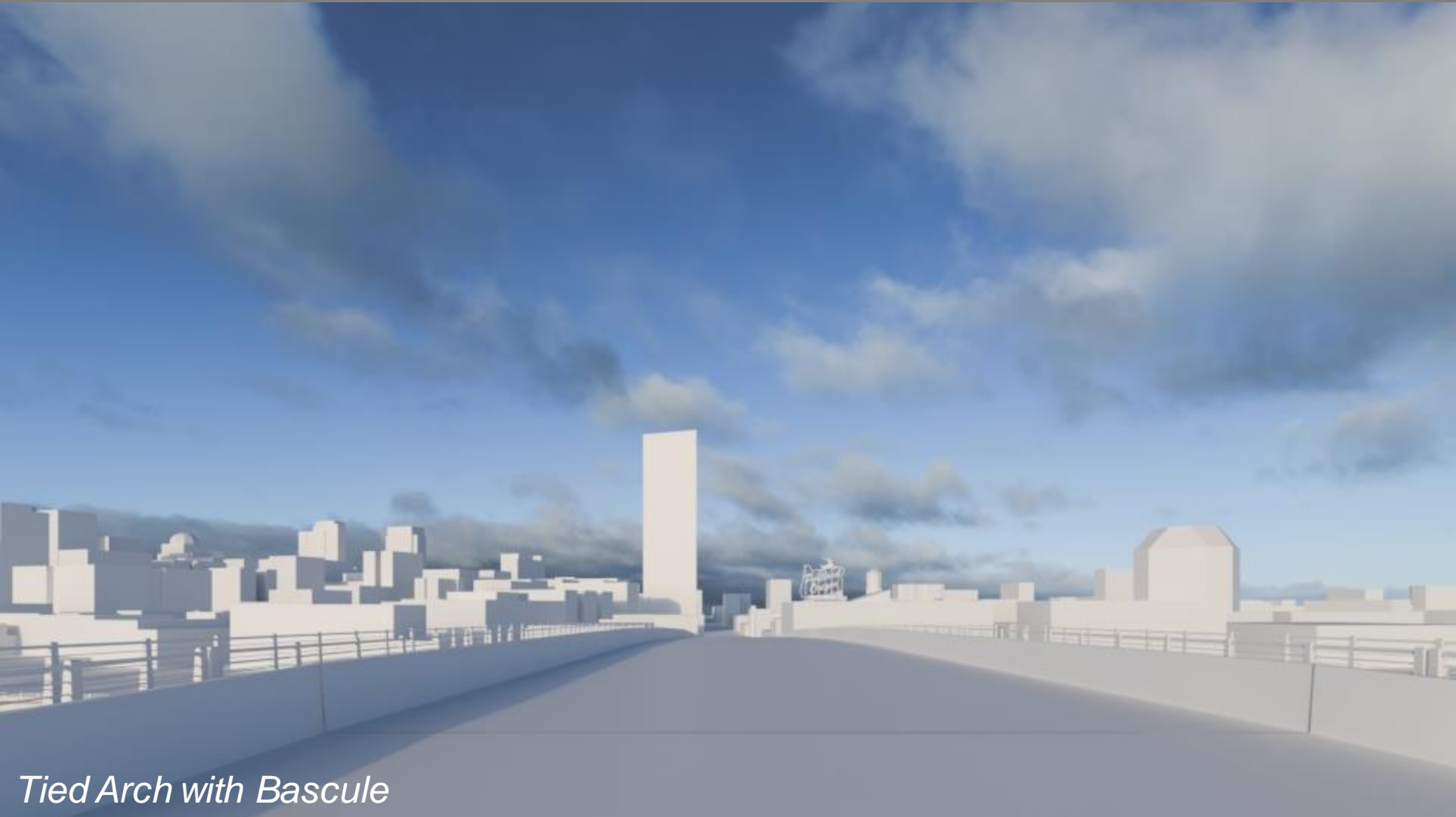
Existing Views

View 6: *Westerly from Bridge Deck (Located @ midspan)*



Movable Span Bridge Type

View 6: Looking West from Burnside Bridge

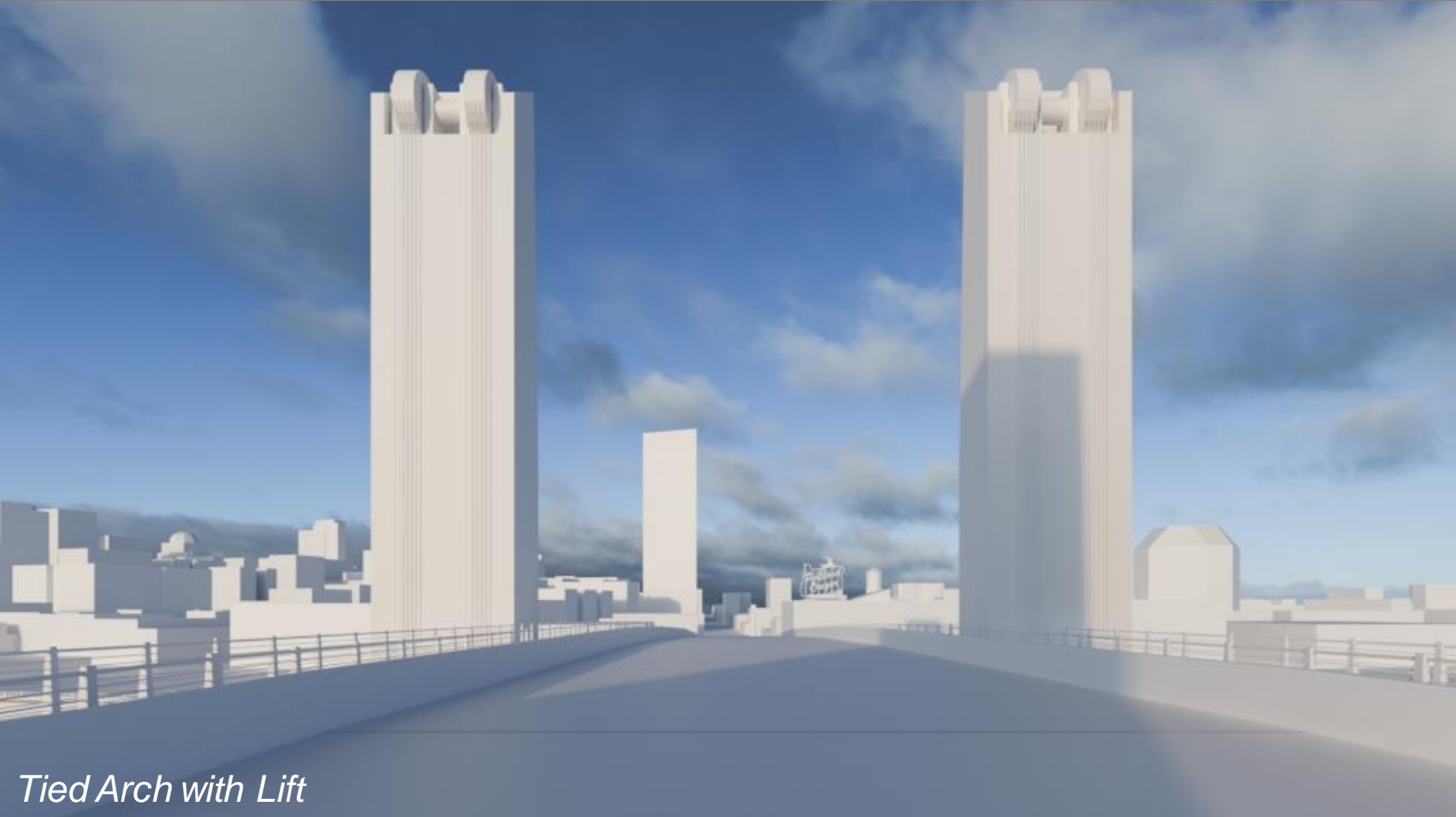


Tied Arch with Bascule



Movable Span Bridge Type

View 6: Looking West from Burnside Bridge

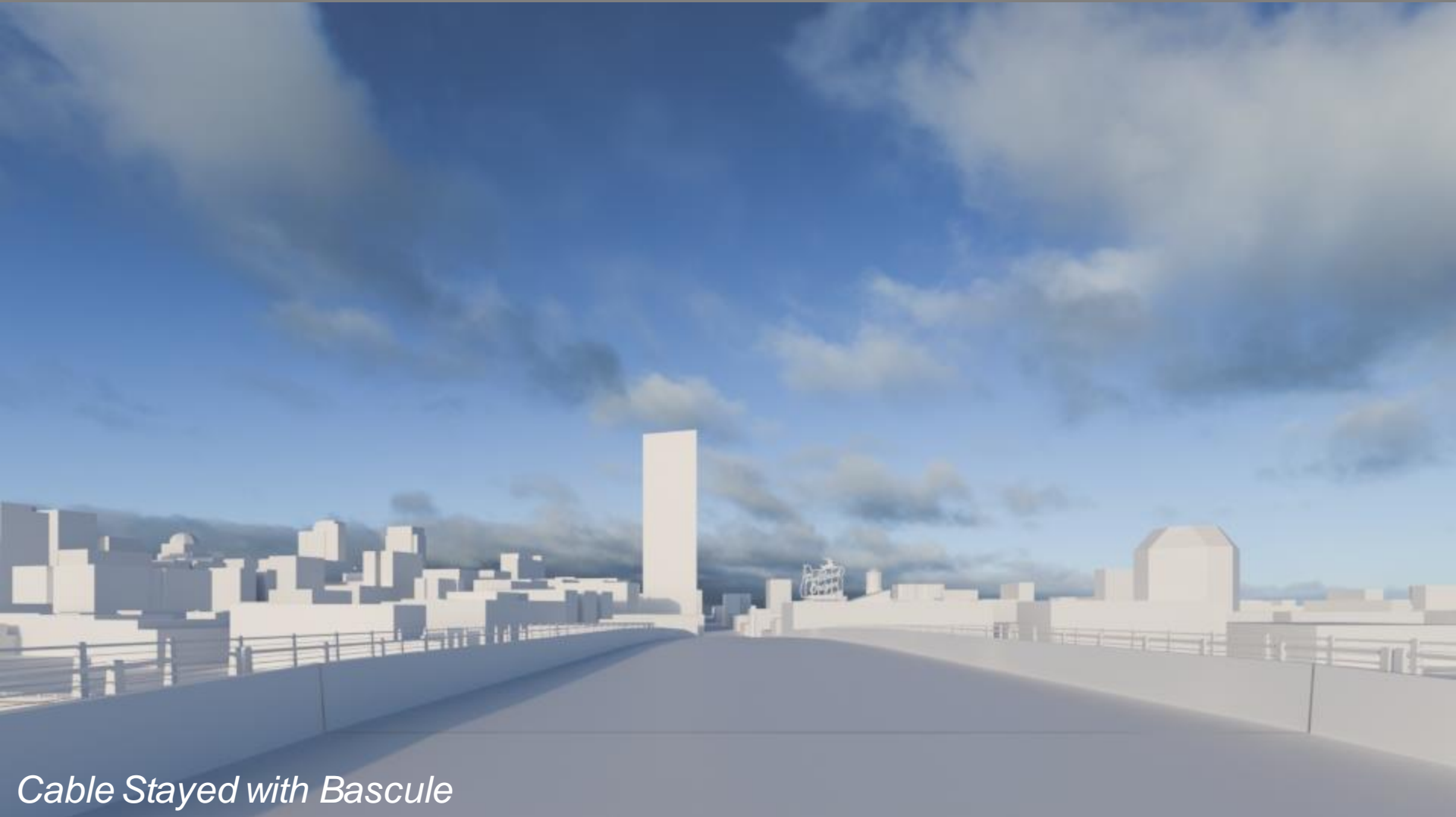


Tied Arch with Lift



Movable Span Bridge Type

View 6: Looking West from Burnside Bridge



Cable Stayed with Bascule



Movable Span Bridge Type

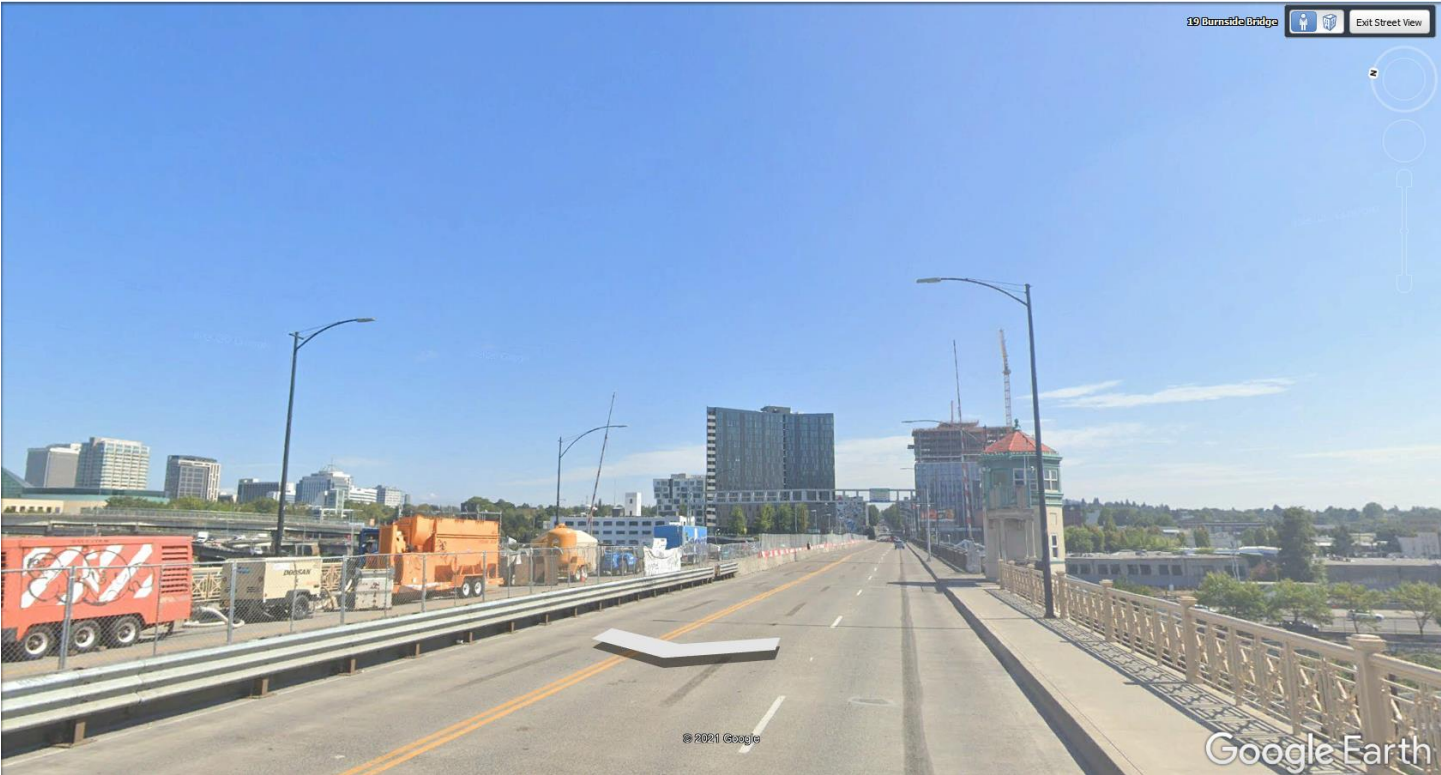
View 6: Looking West from Burnside Bridge



Bridge Views

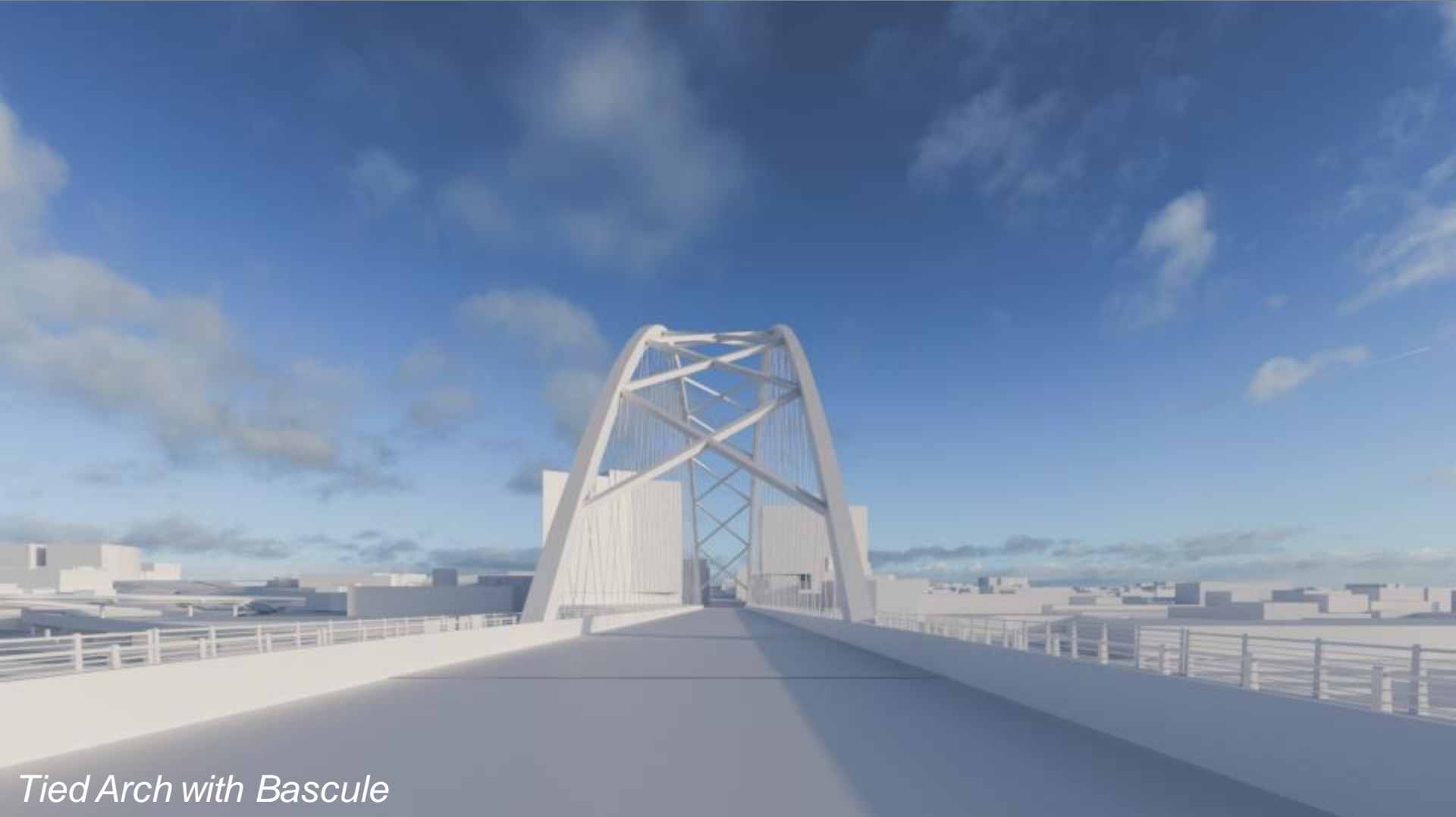
Existing Views

View 7:
Easterly from Bridge Deck (Located @ midspan)



Movable Span Bridge Type

View 7: Looking East from Burnside Bridge Midspan



Tied Arch with Bascule



Movable Span Bridge Type

View 7: Looking East from Burnside Bridge



Movable Span Bridge Type

View 7: Looking East from Burnside Bridge Midspan



Cable Stayed with Bascule



Movable Span Bridge Type

View 7: Looking East from Burnside Bridge Midspan



Cable Stayed with Lift



Bridge Views

Existing Views

View 8:
Westerly from Bridge Deck (Located @ East Bridgehead)



Movable Span Bridge Type

View 8: Looking West from Burnside Bridge



Tied Arch with Bascule



Movable Span Bridge Type

View 8: Looking West from Burnside Bridge



Tied Arch with Lift



Movable Span Bridge Type

View 8: Looking West from Burnside Bridge

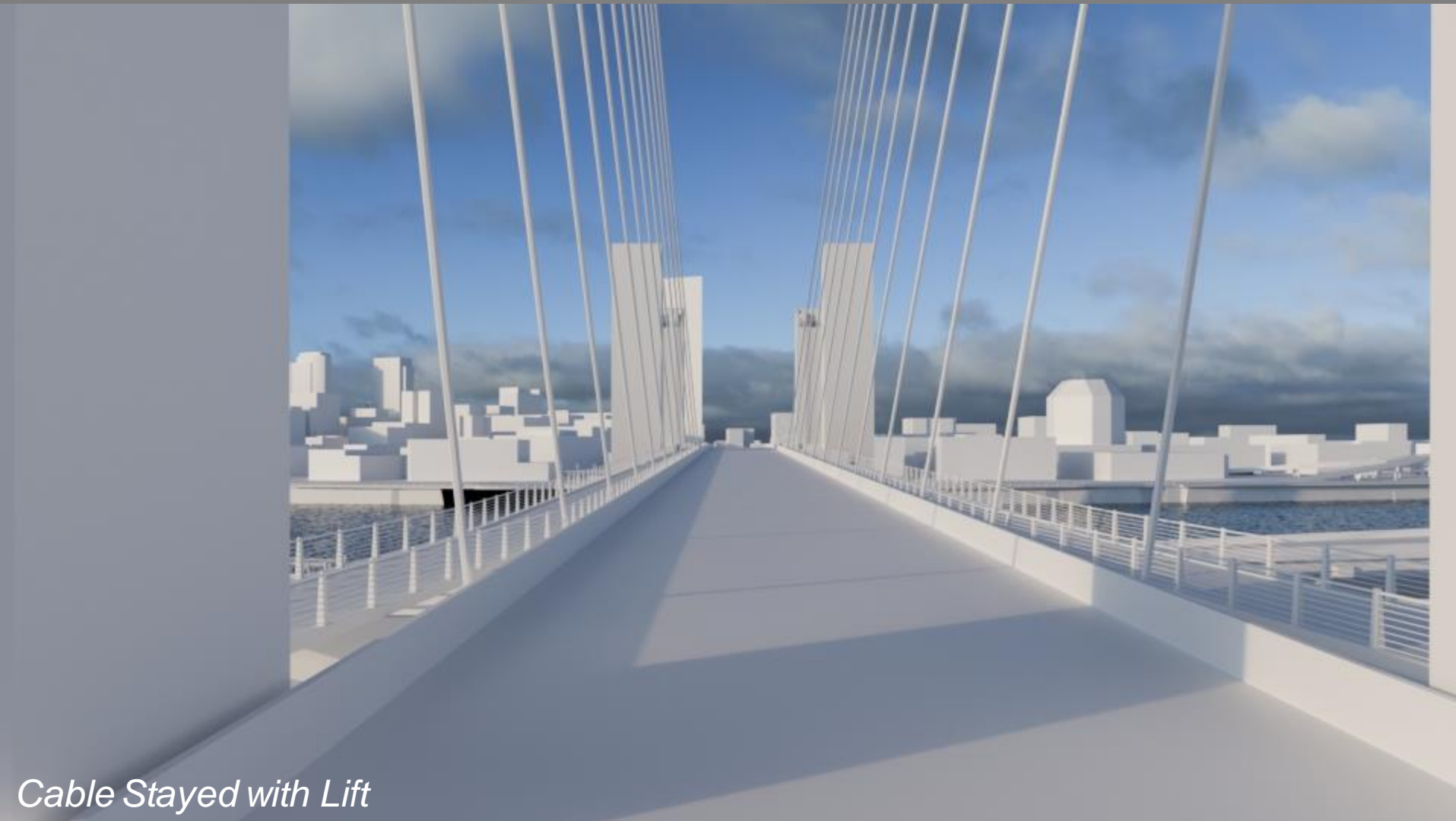


Cable Stayed with Bascule



Movable Span Bridge Type

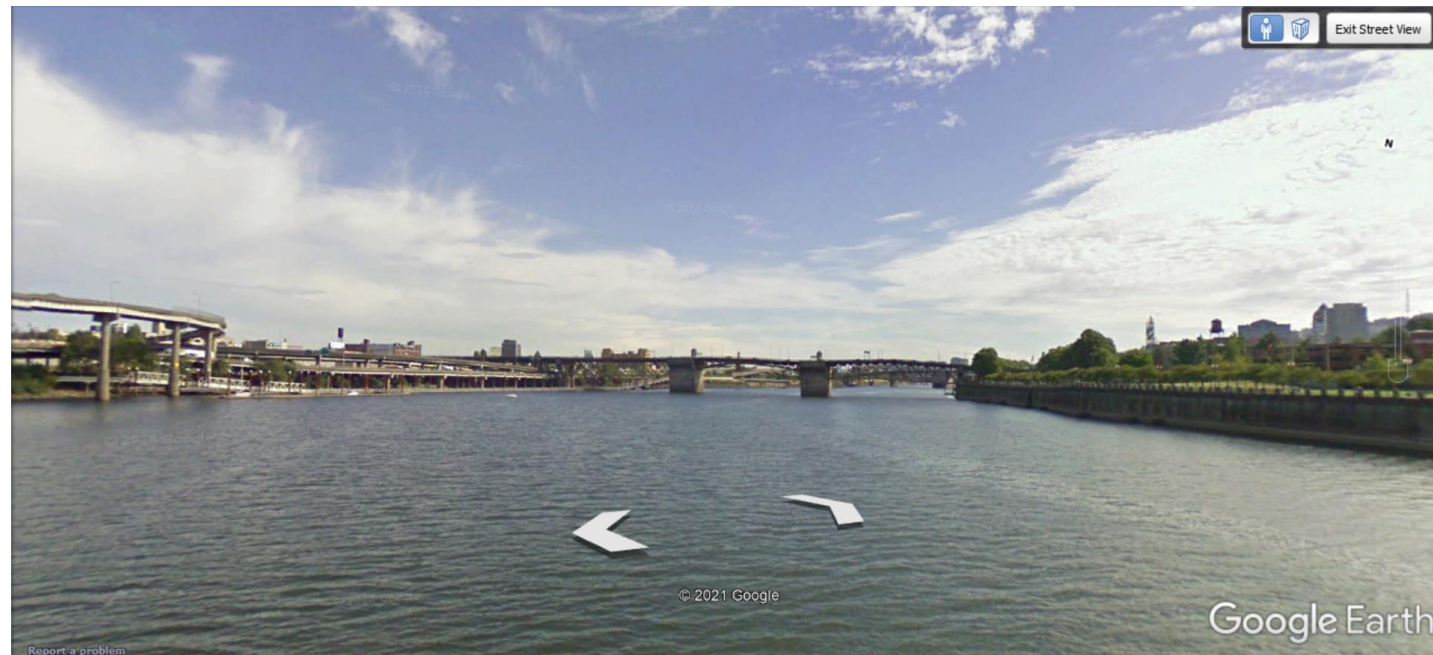
View 8: Looking West from Burnside Bridge



Bridge Views

Existing Views

View 9: *Southerly from Steel Bridge (From lower deck level)*



Movable Span Bridge Type

View 9: Looking South from Steel Bridge



Tied Arch with Bascule



Movable Span Bridge Type

View 9: Looking South from Steel Bridge



Tied Arch with Lift



Movable Span Bridge Type

View 9: Looking South from Steel Bridge



Movable Span Bridge Type

View 9: Looking South from Steel Bridge



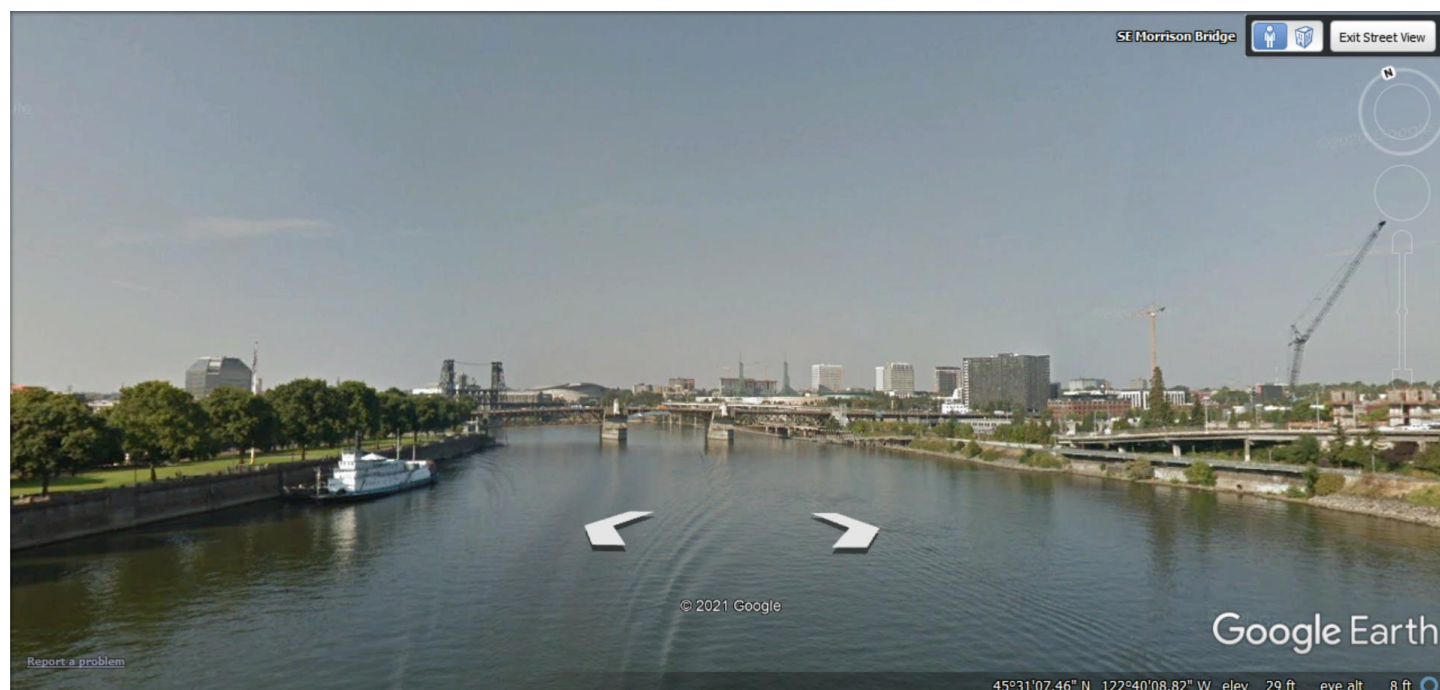
Cable Stayed with Lift



Bridge Views

Existing Views

View 10: *Northerly from Morrison Bridge (From deck level)*



Movable Span Bridge Type

View 10: Looking North from Morrison Bridge



Tied Arch with Bascule



Movable Span Bridge Type

View 10: Looking North from Morrison Bridge



Movable Span Bridge Type

View 10: Looking North from Morrison Bridge



Cable Stayed with Bascule



Movable Span Bridge Type

View 10: Looking North from Morrison Bridge



Cable Stayed with Lift





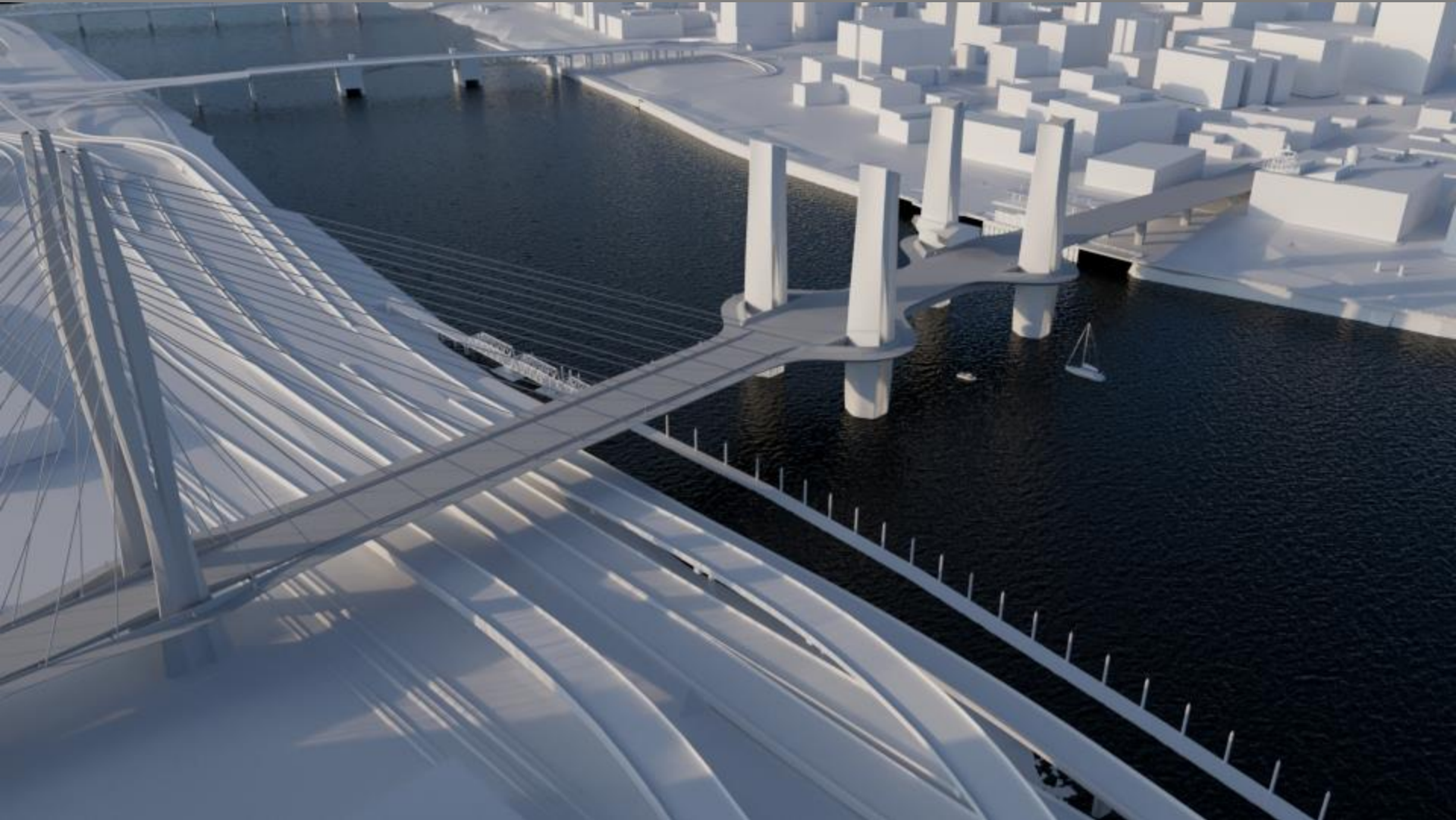
Enhanced Form Bridge Views:

Cable Stayed + Lift



Movable Span Bridge Type

Enhanced Cable Stayed + Lift



Movable Span Bridge Type

Enhanced Cable Stayed + Lift



Movable Span Bridge Type

Enhanced Cable Stayed + Lift



Movable Span Bridge Type

Enhanced Cable Stayed + Lift



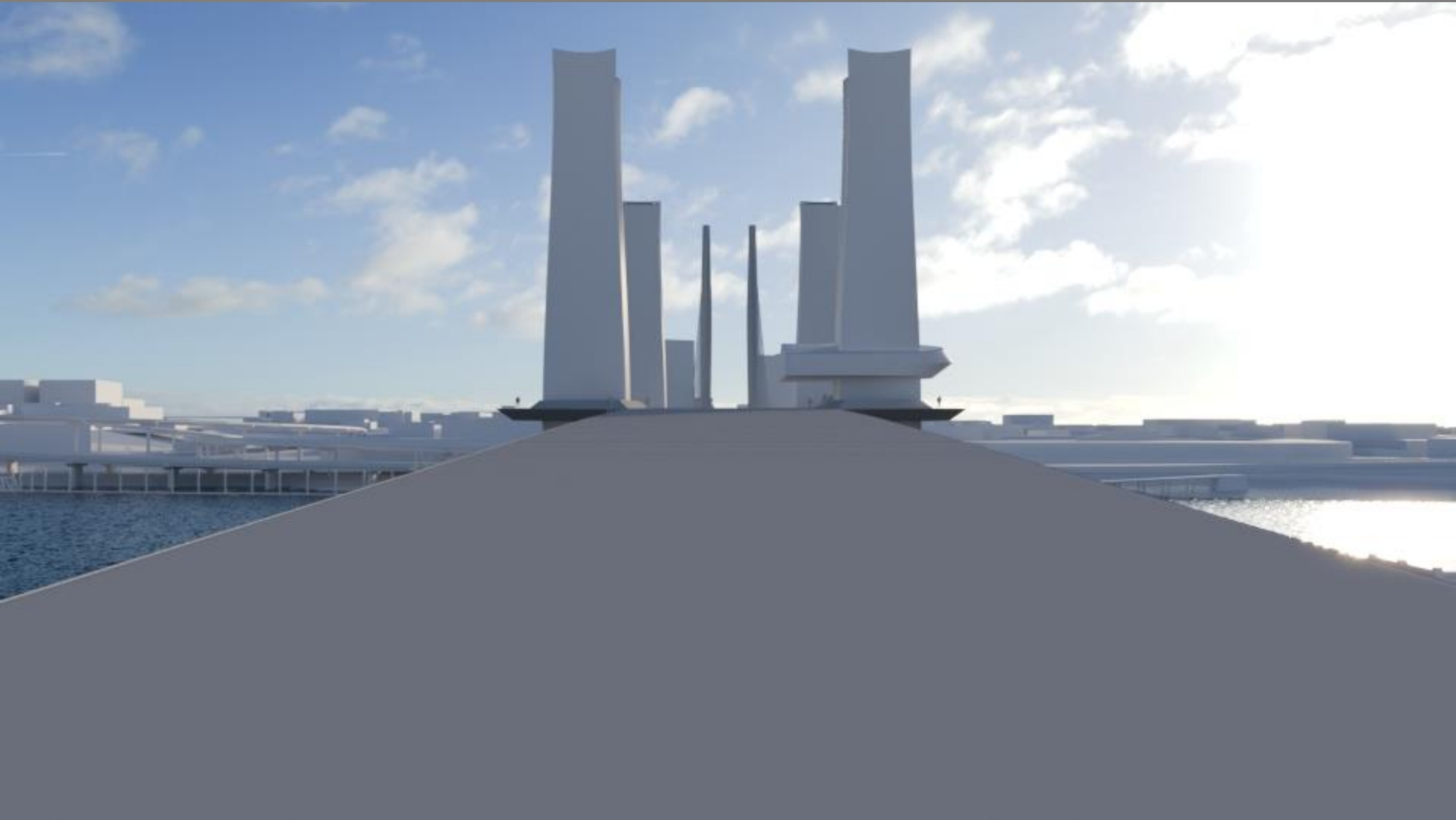
Movable Span Bridge Type

Enhanced Cable Stayed + Lift



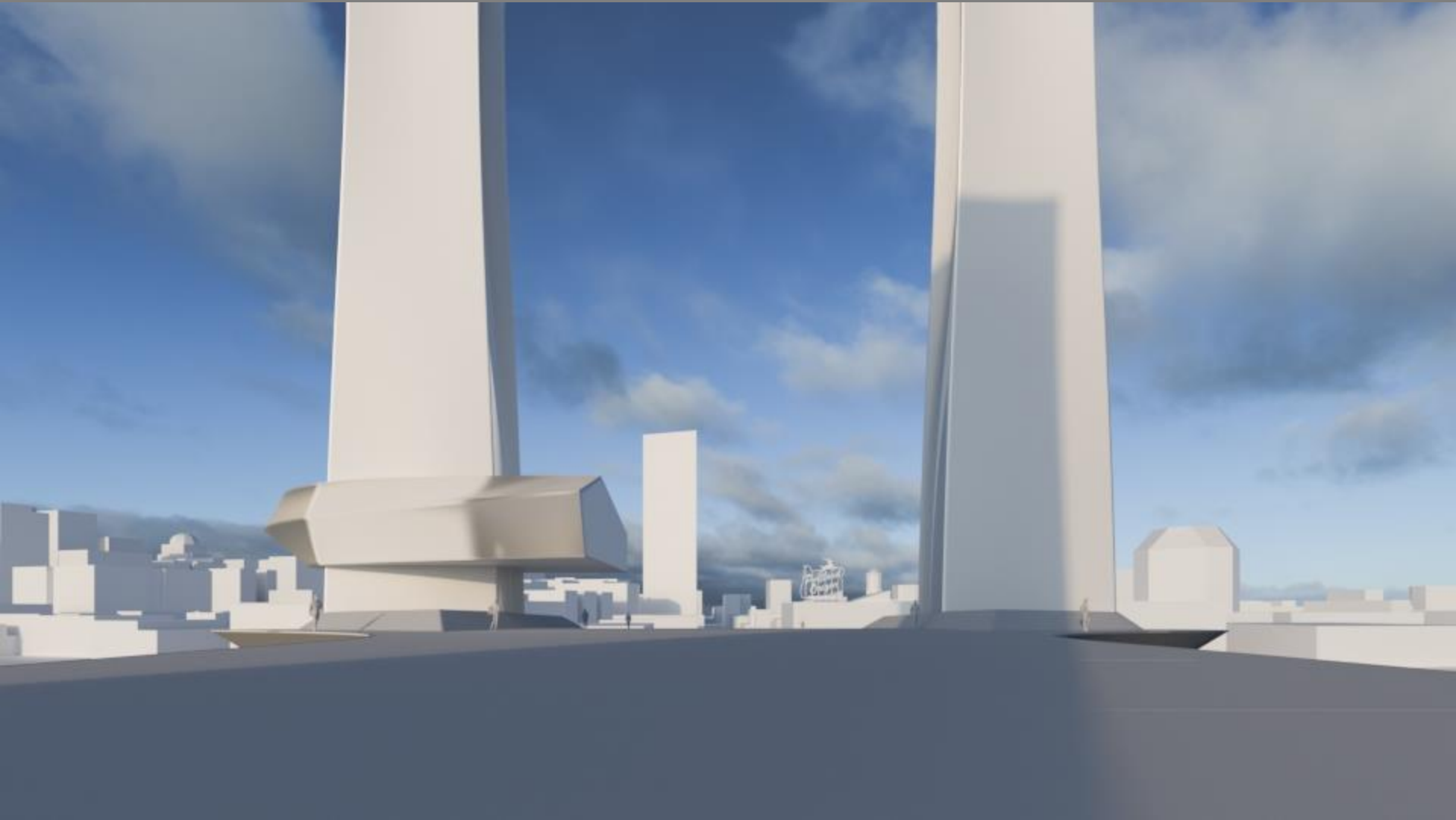
Movable Span Bridge Type

Enhanced Cable Stayed + Lift



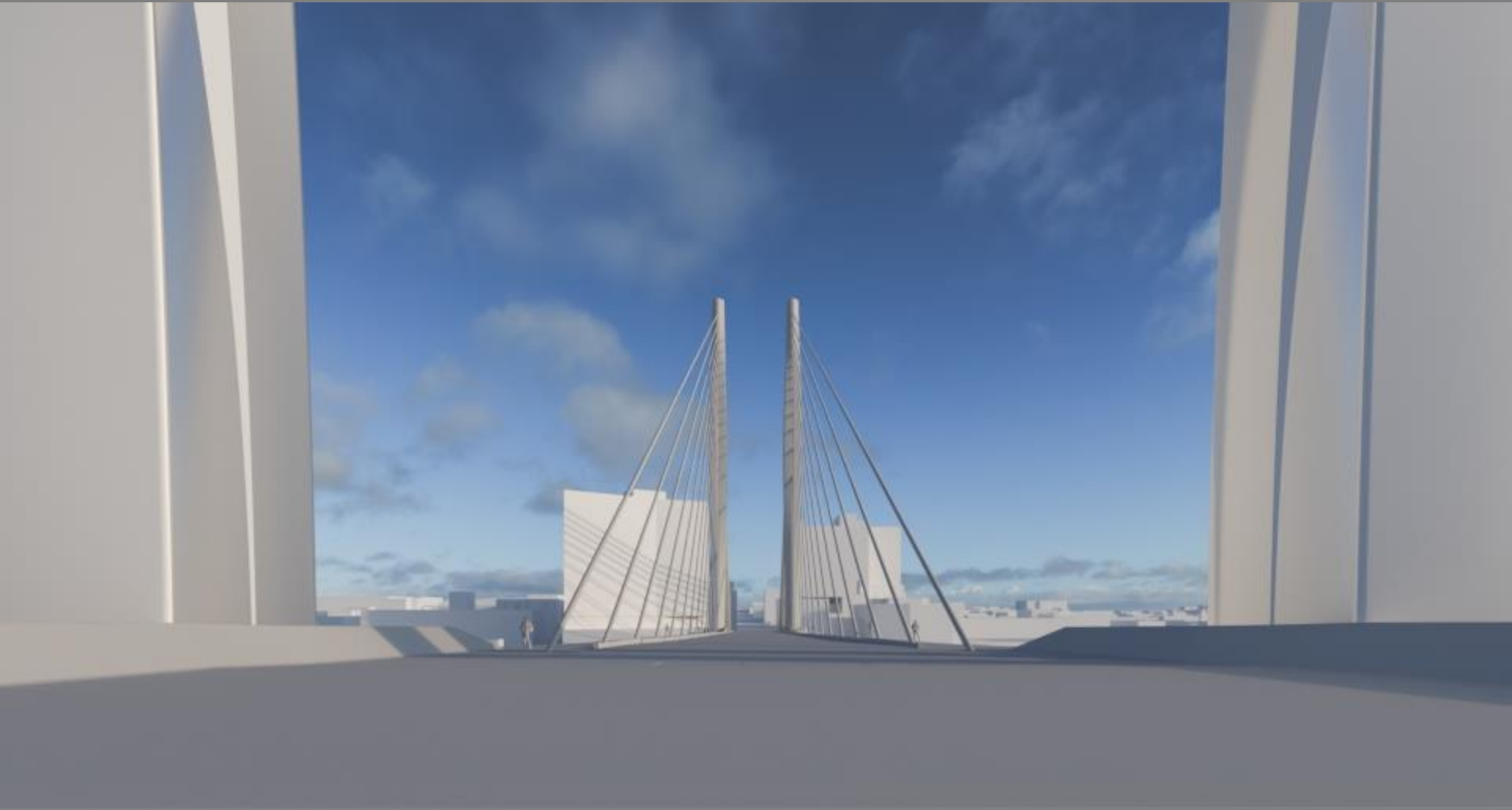
Movable Span Bridge Type

Enhanced Cable Stayed + Lift



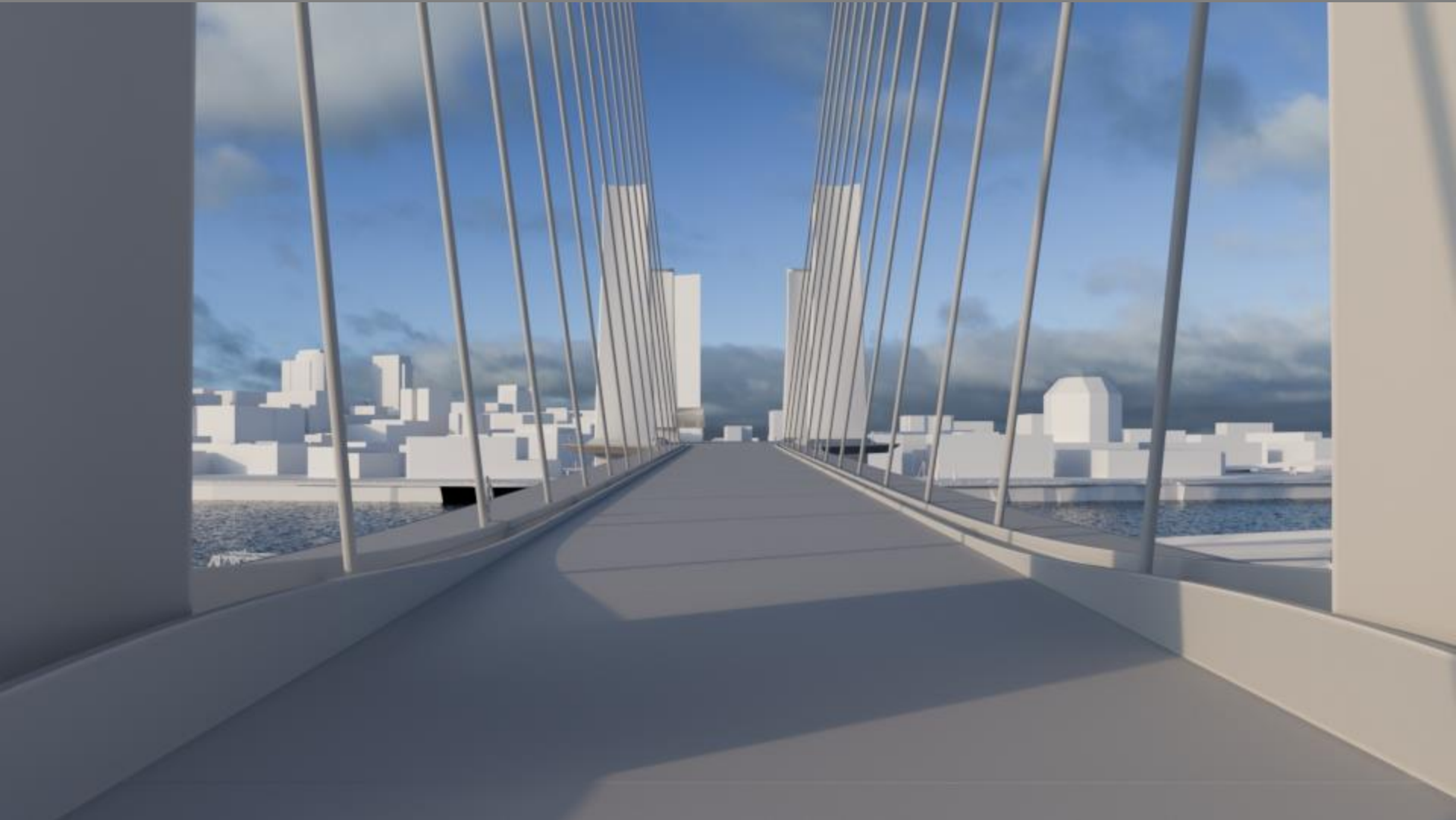
Movable Span Bridge Type

Enhanced Cable Stayed + Lift



Movable Span Bridge Type

Enhanced Cable Stayed + Lift



Movable Span Bridge Type

Enhanced Cable Stayed + Lift



Movable Span Bridge Type

Enhanced Cable Stayed + Lift



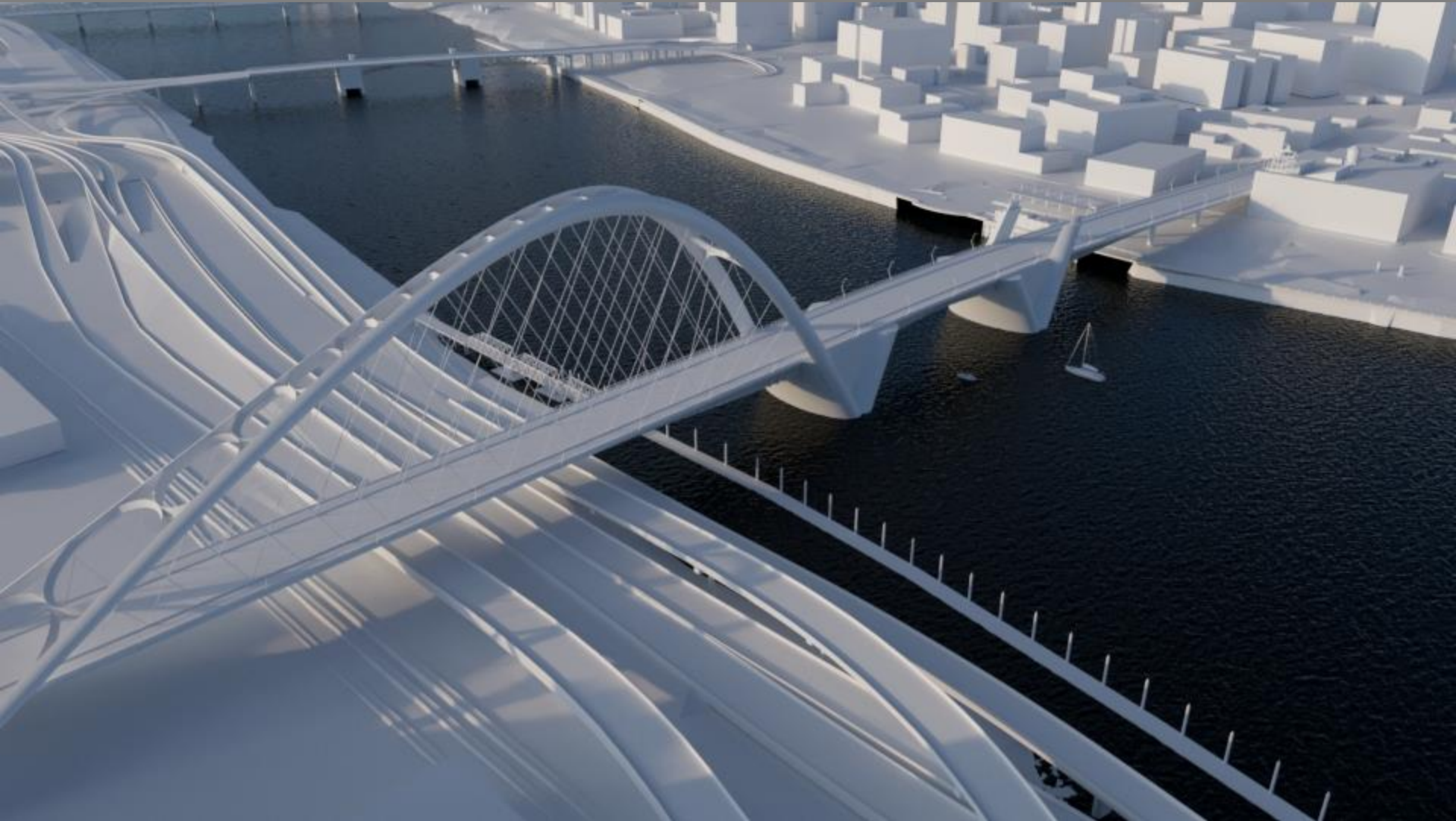


Enhanced Form Bridge Views: *Tied Arch + Bascule*



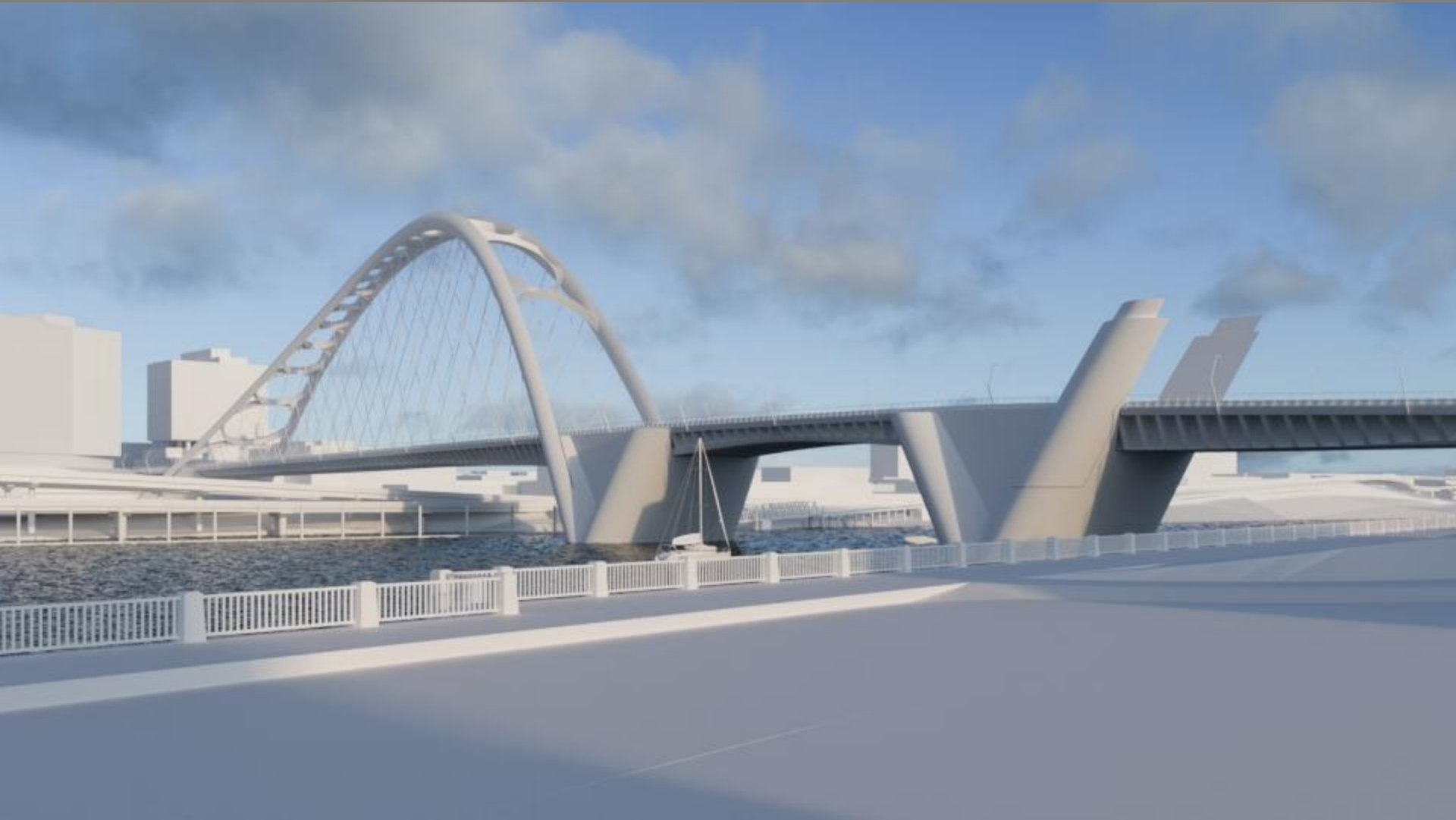
Movable Span Bridge Type

Enhanced Tied Arch + Bascule



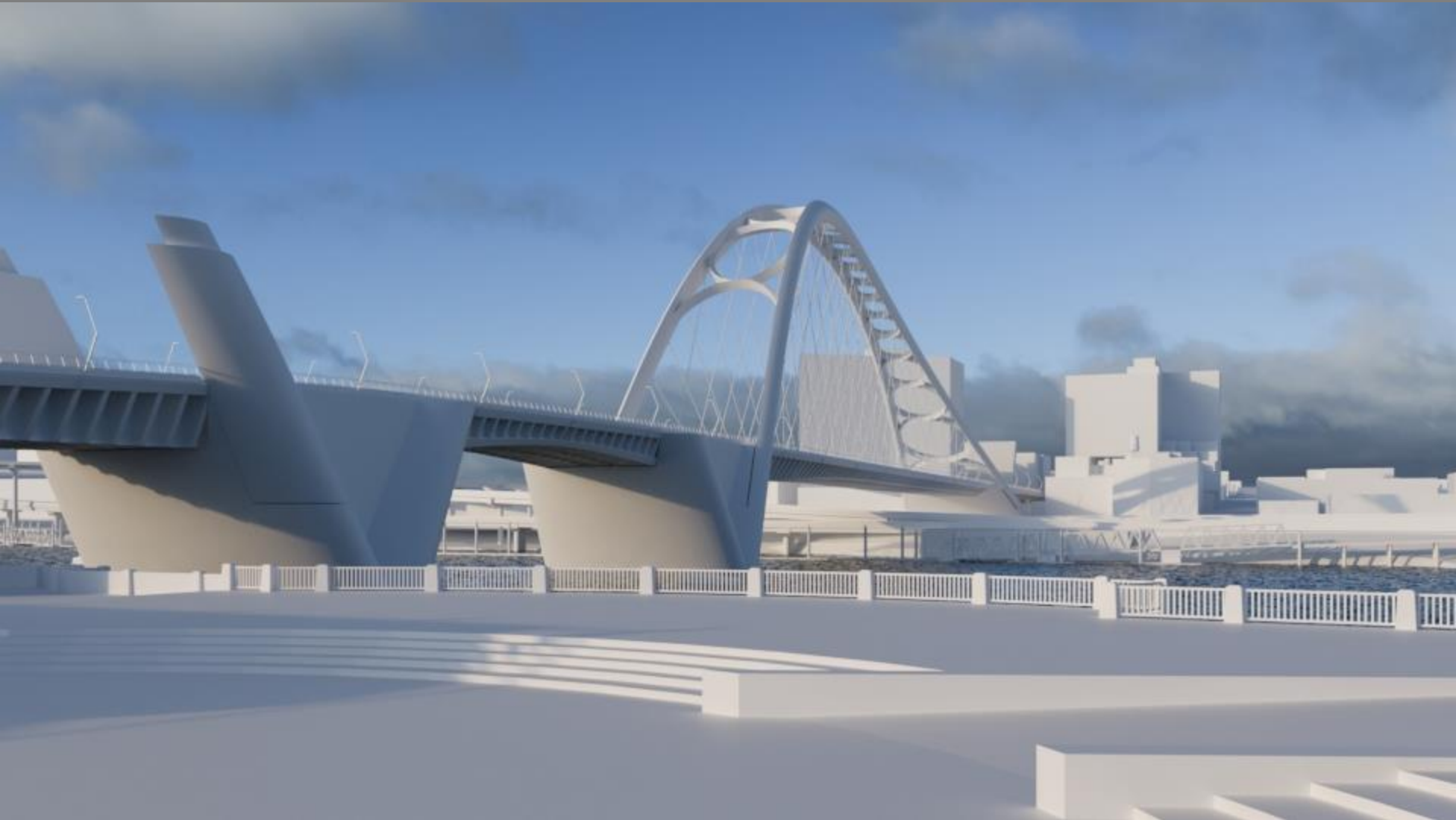
Movable Span Bridge Type

Enhanced Tied Arch + Bascule



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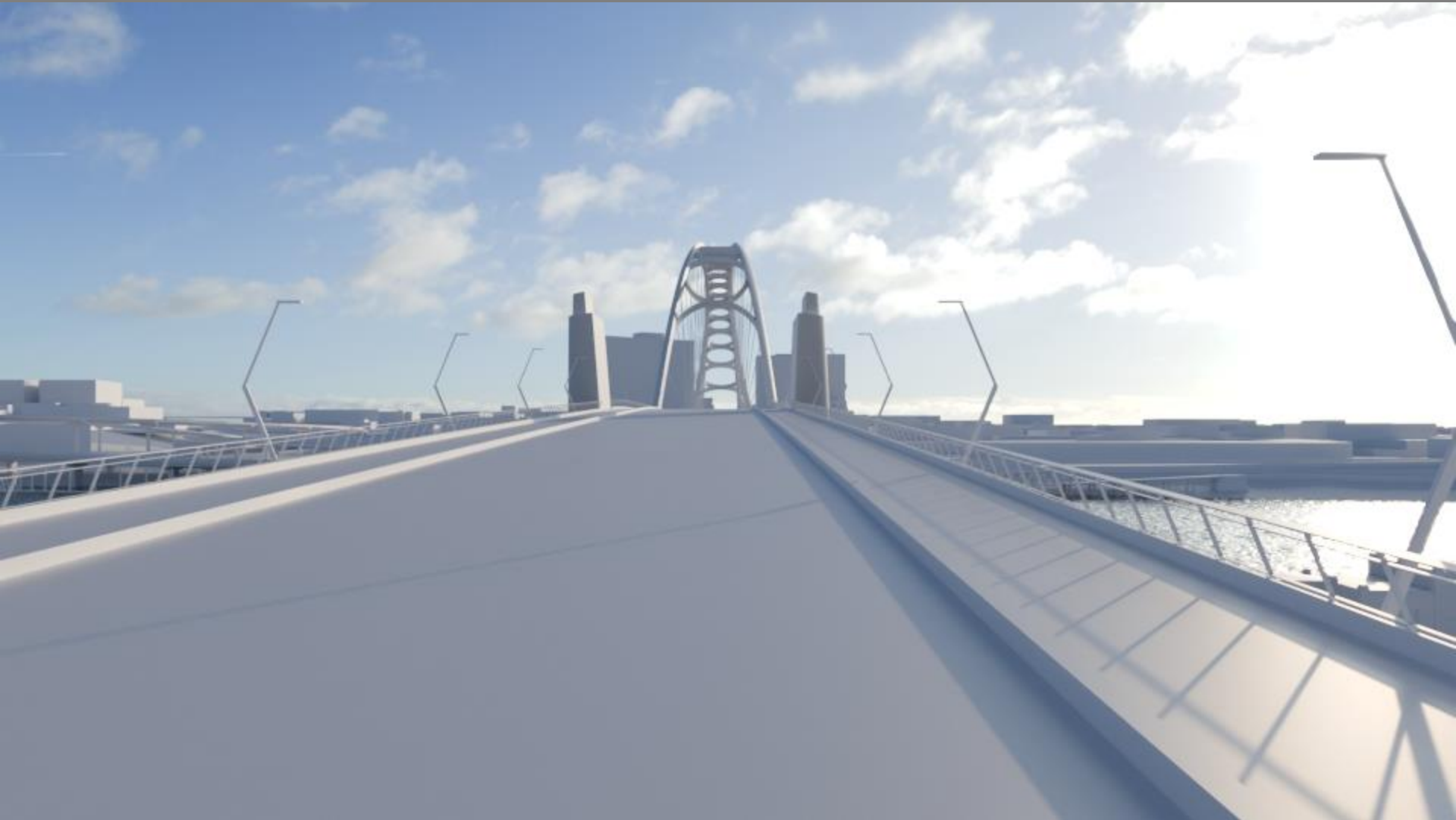
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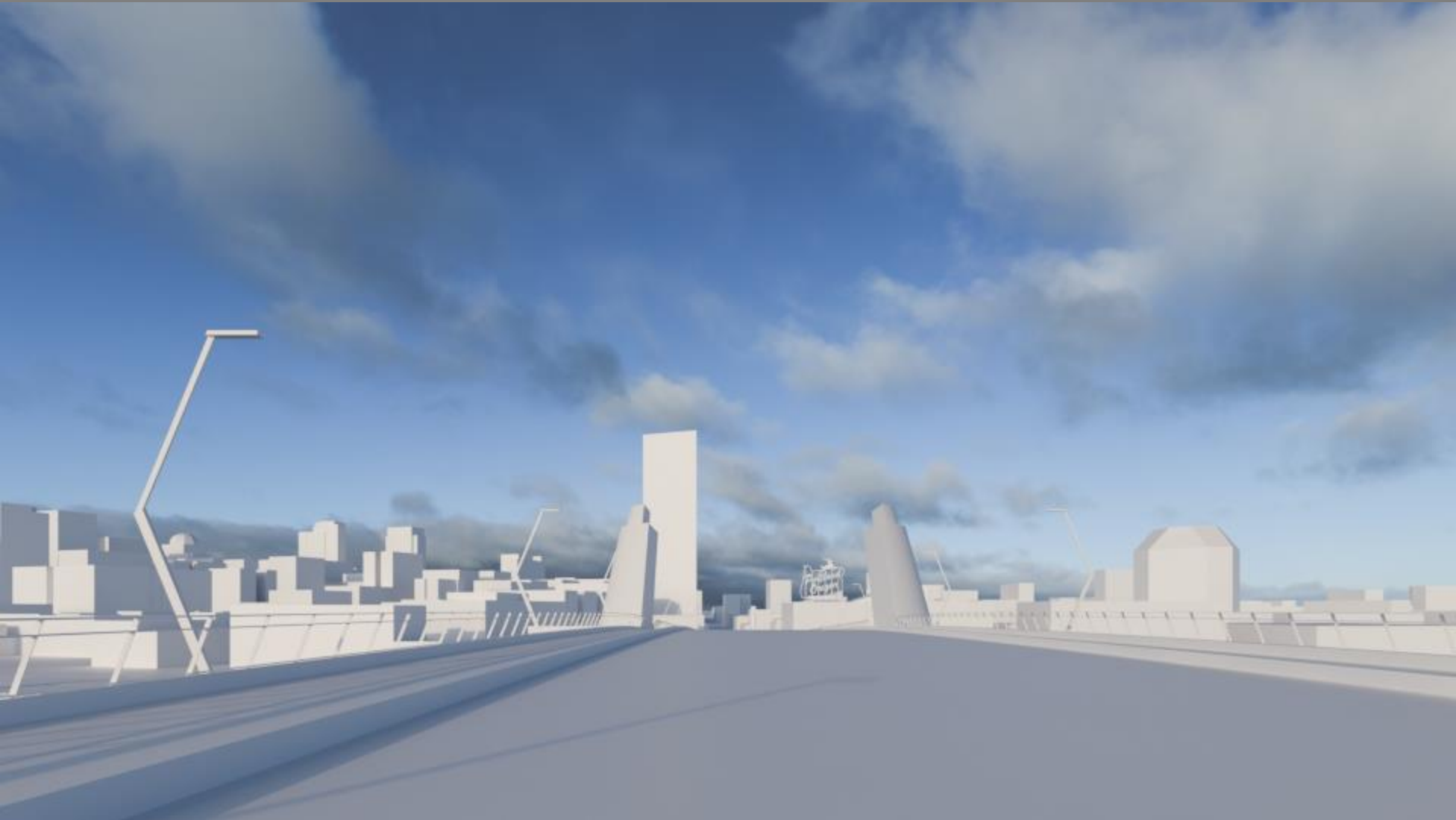
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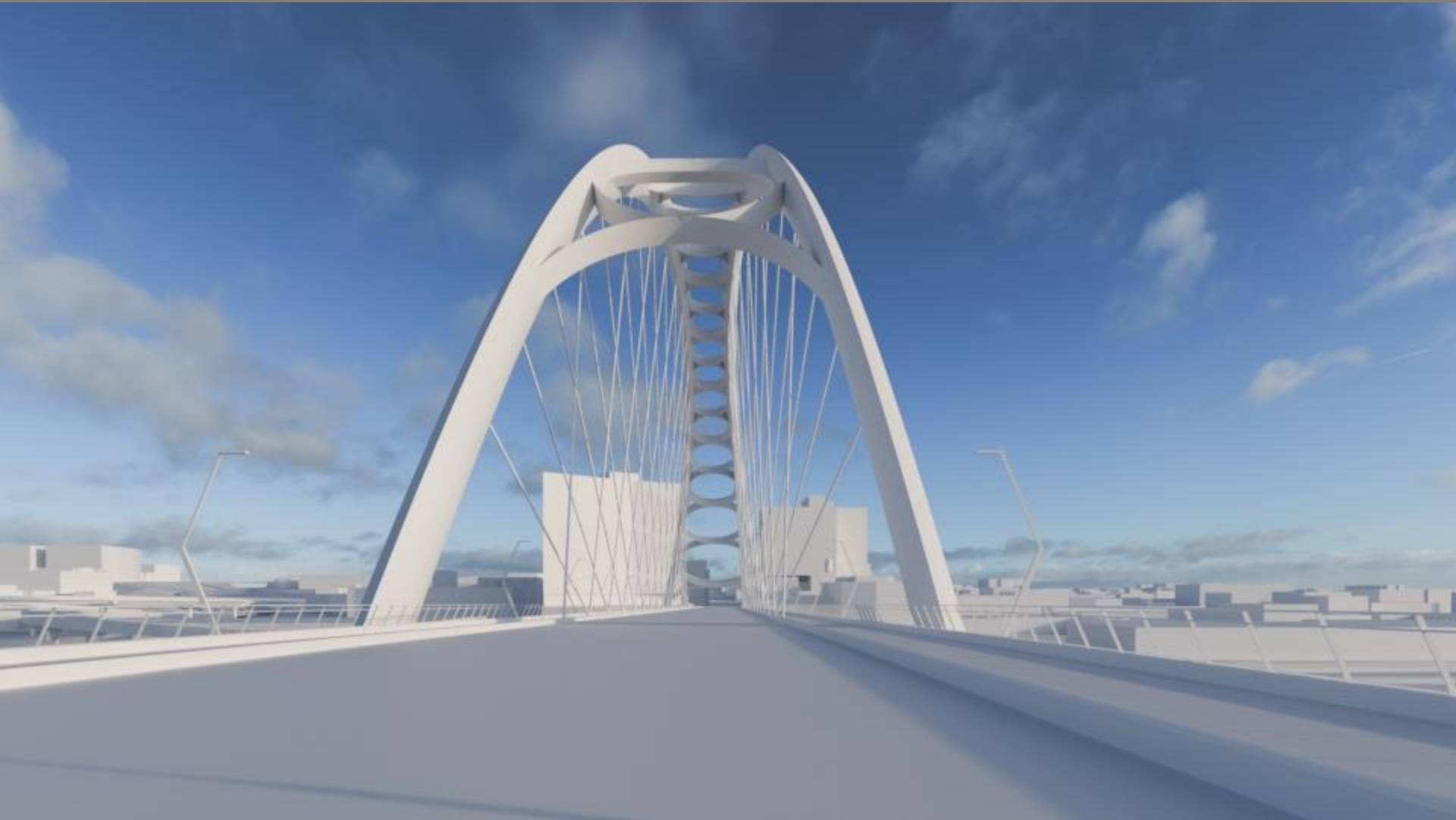
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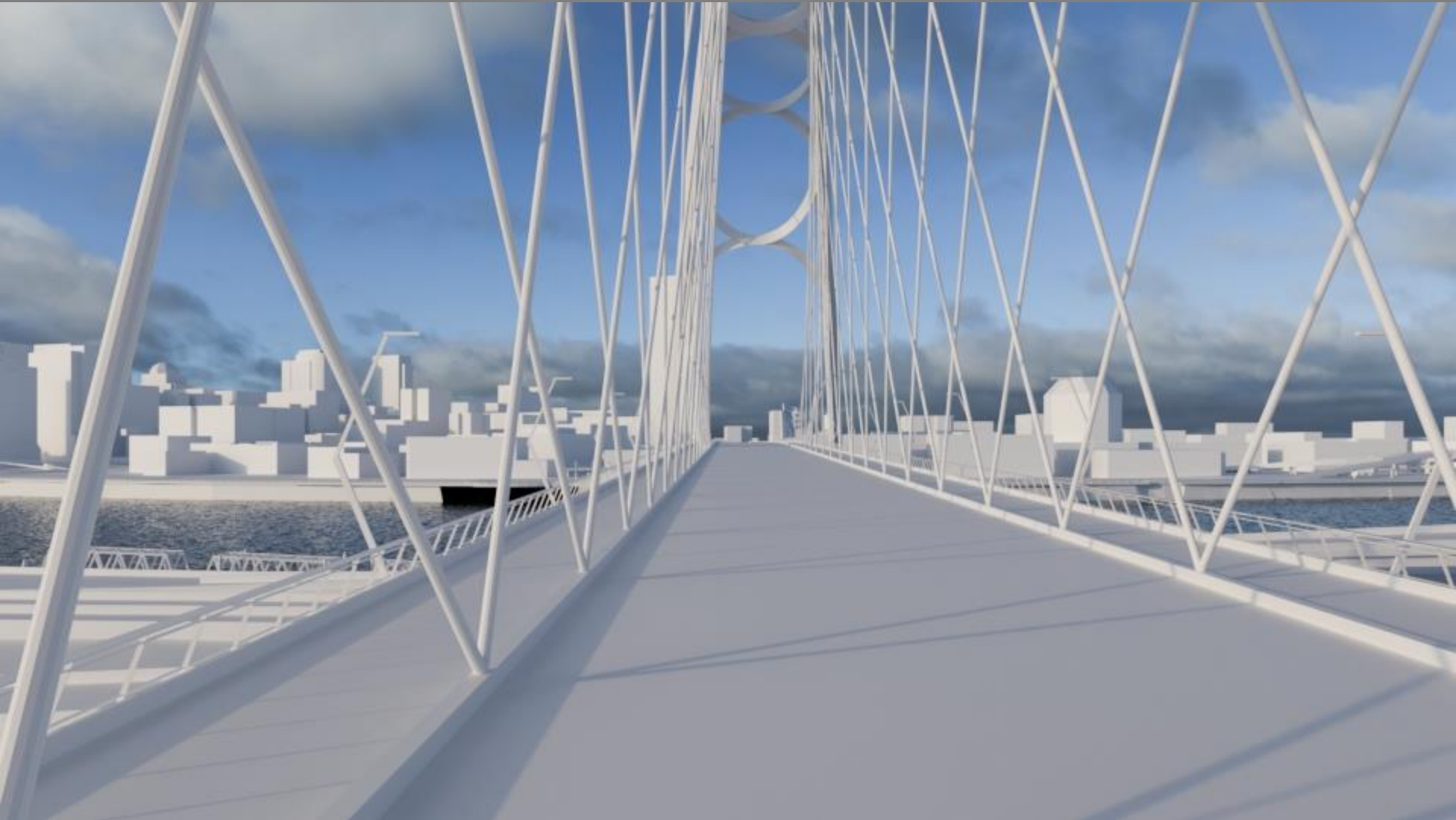
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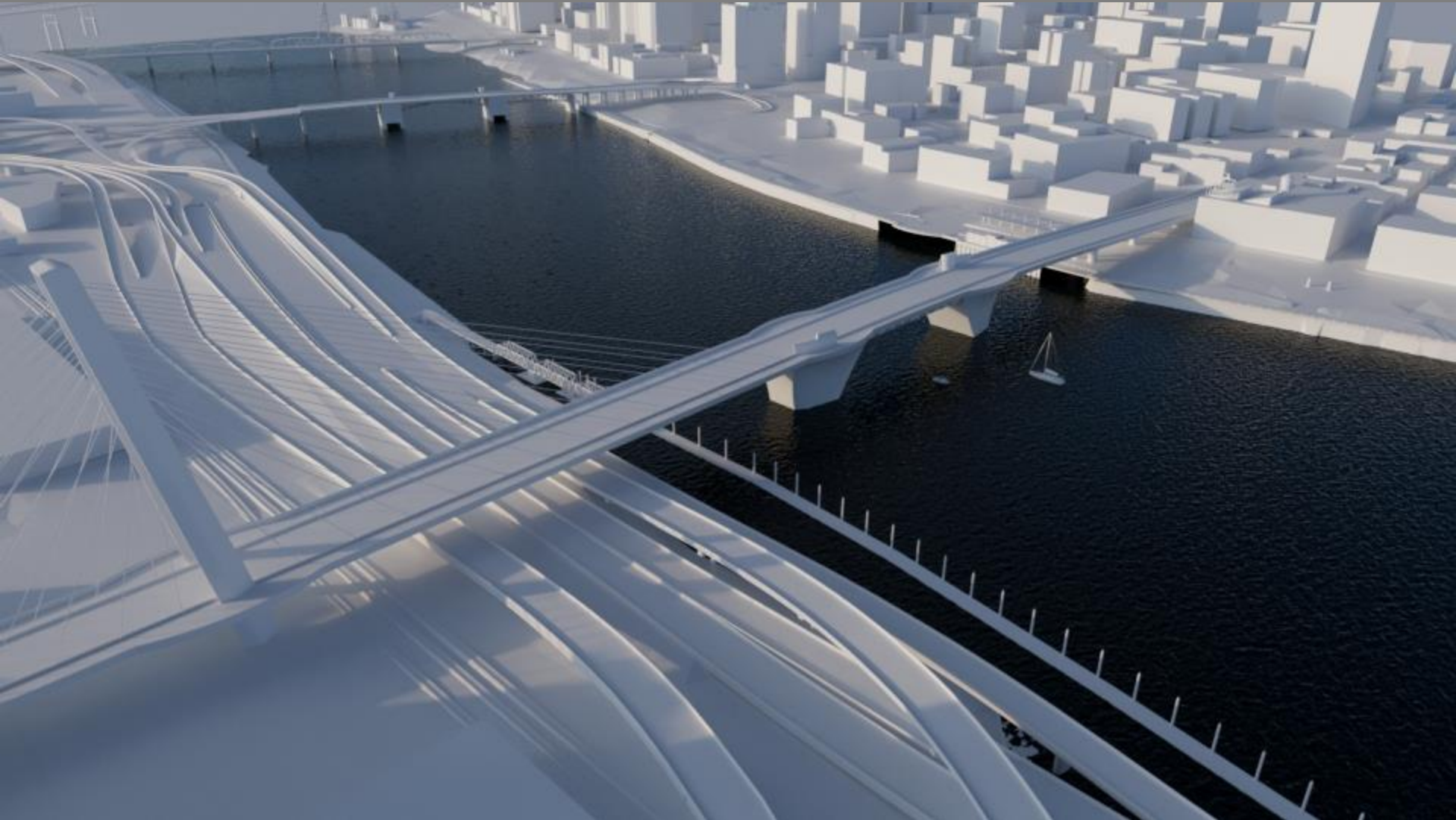
Bridge Views

Enhanced Form: Cable Stayed + Bascule



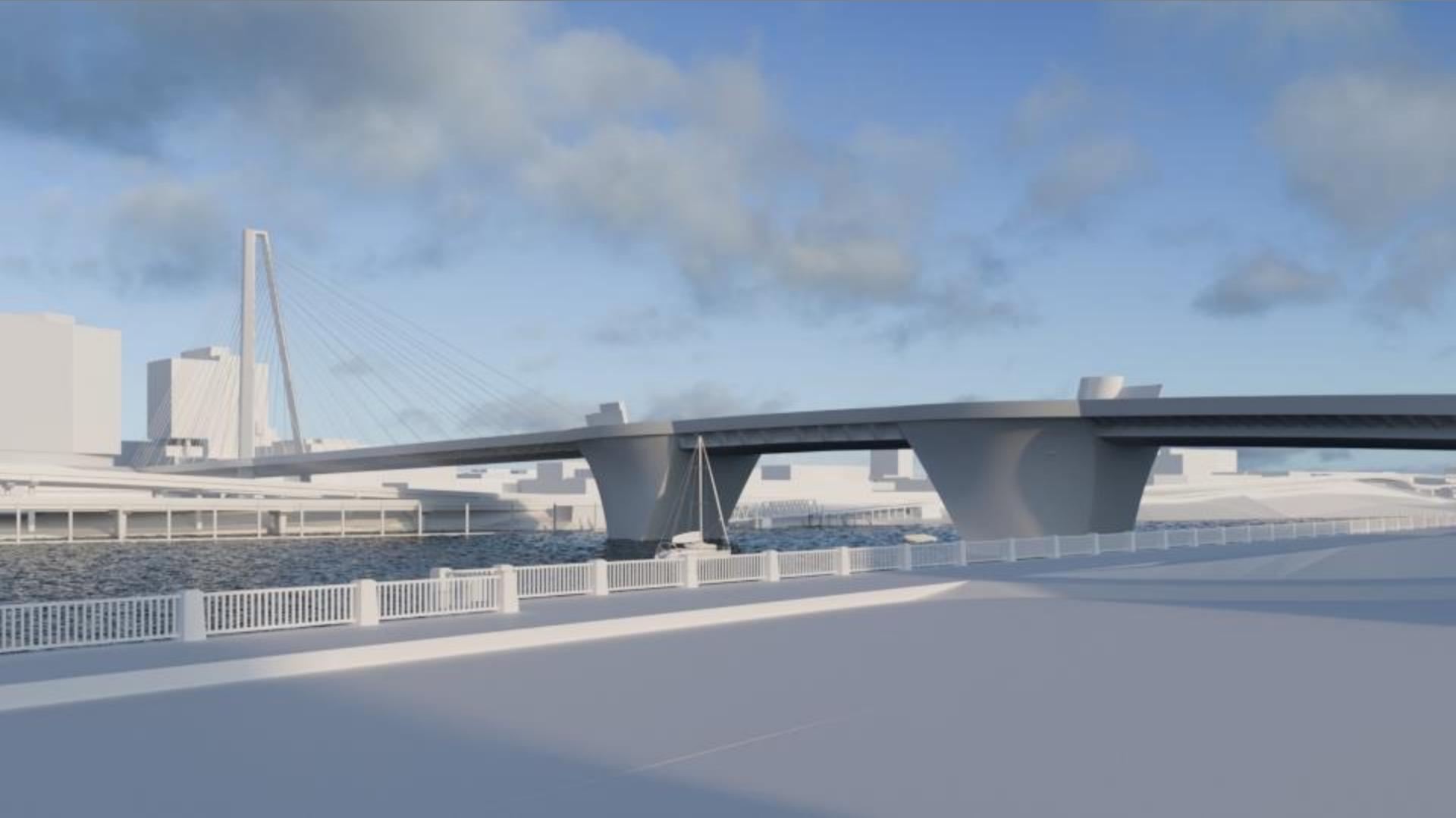
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Enhanced Cable Stayed + Bascule



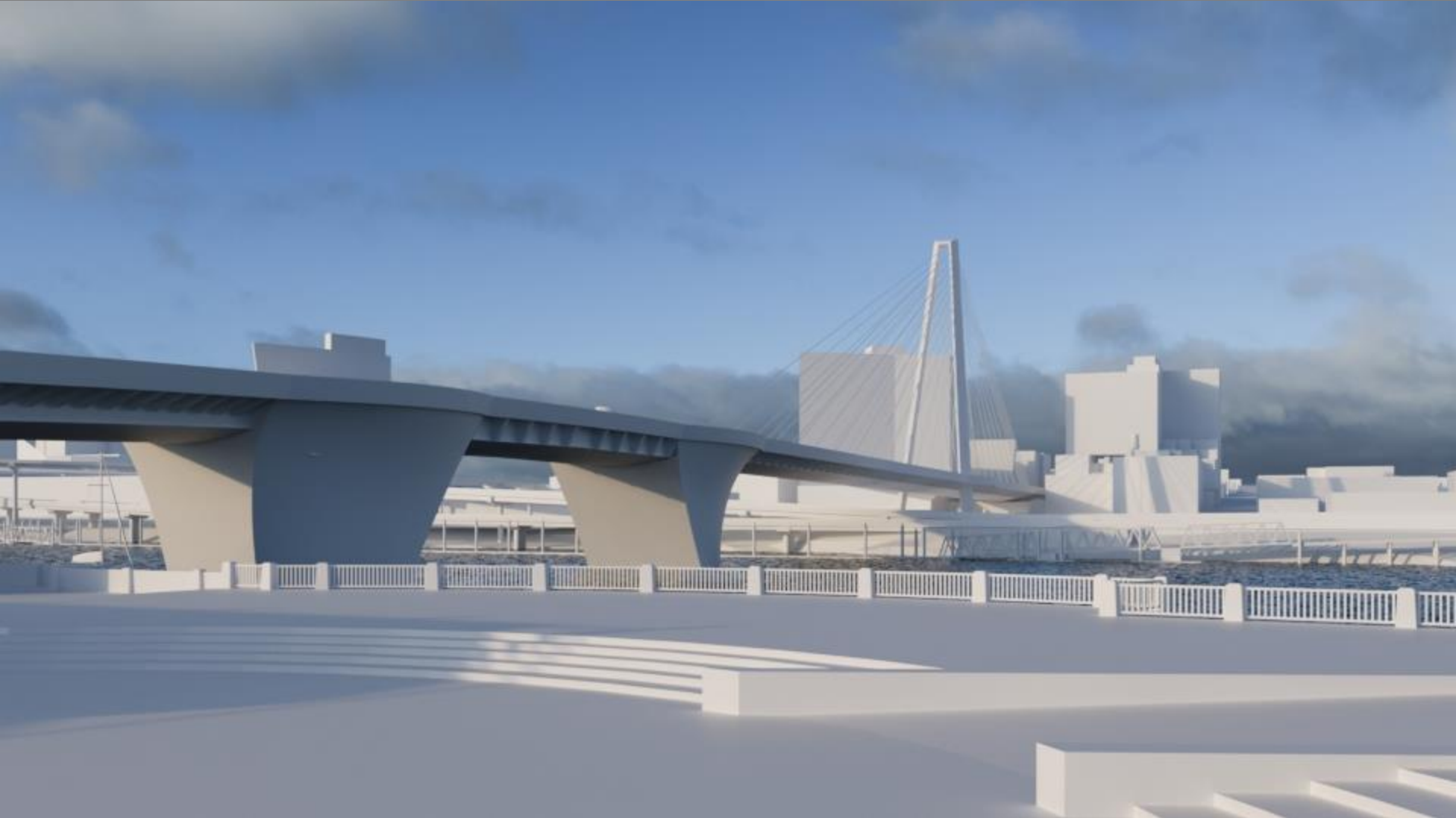
Movable Span Bridge Type

Enhanced Cable Stayed + Bascule



Movable Span Bridge Type

Enhanced Cable Stayed + Bascule



Movable Span Bridge Type

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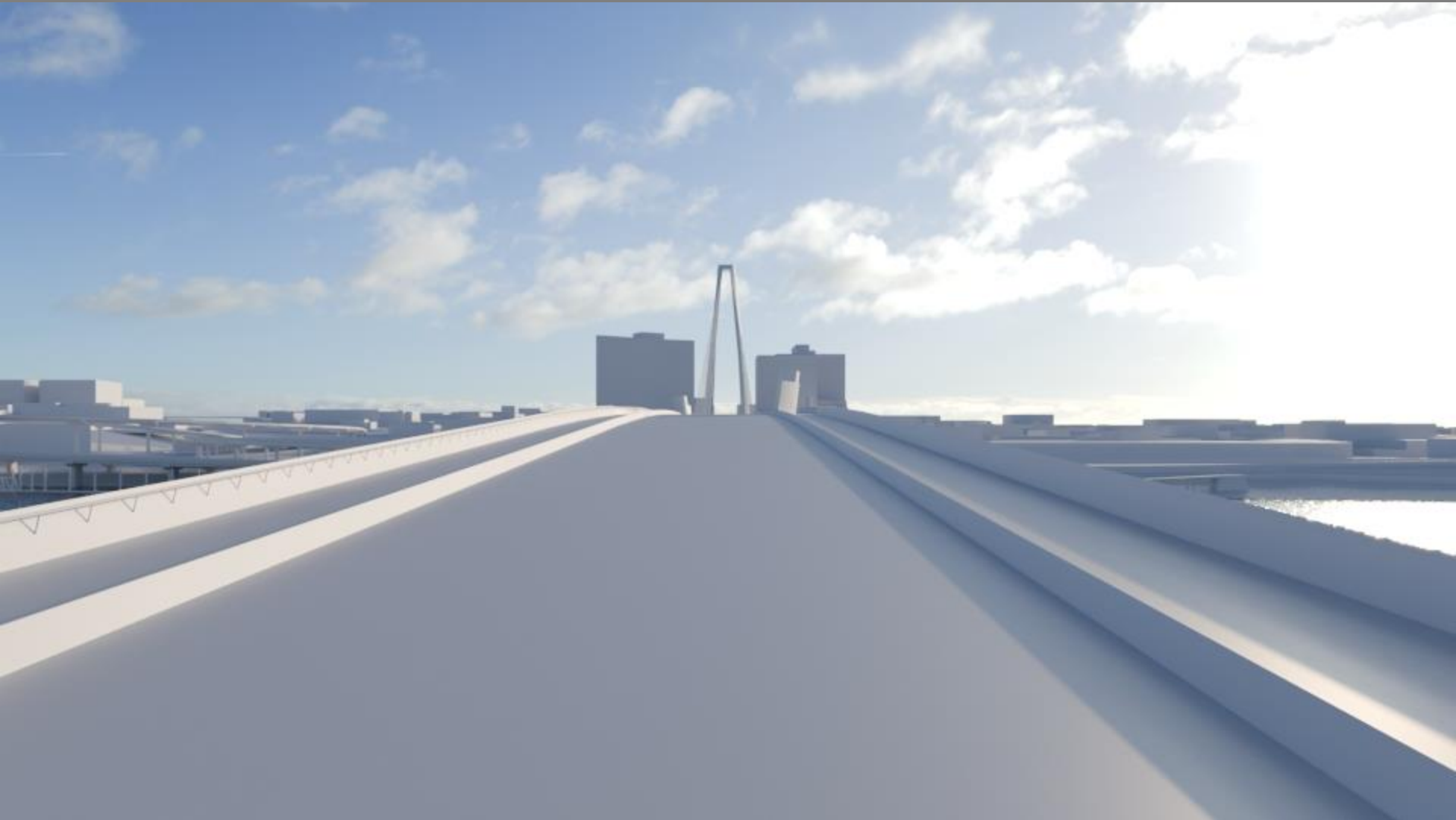
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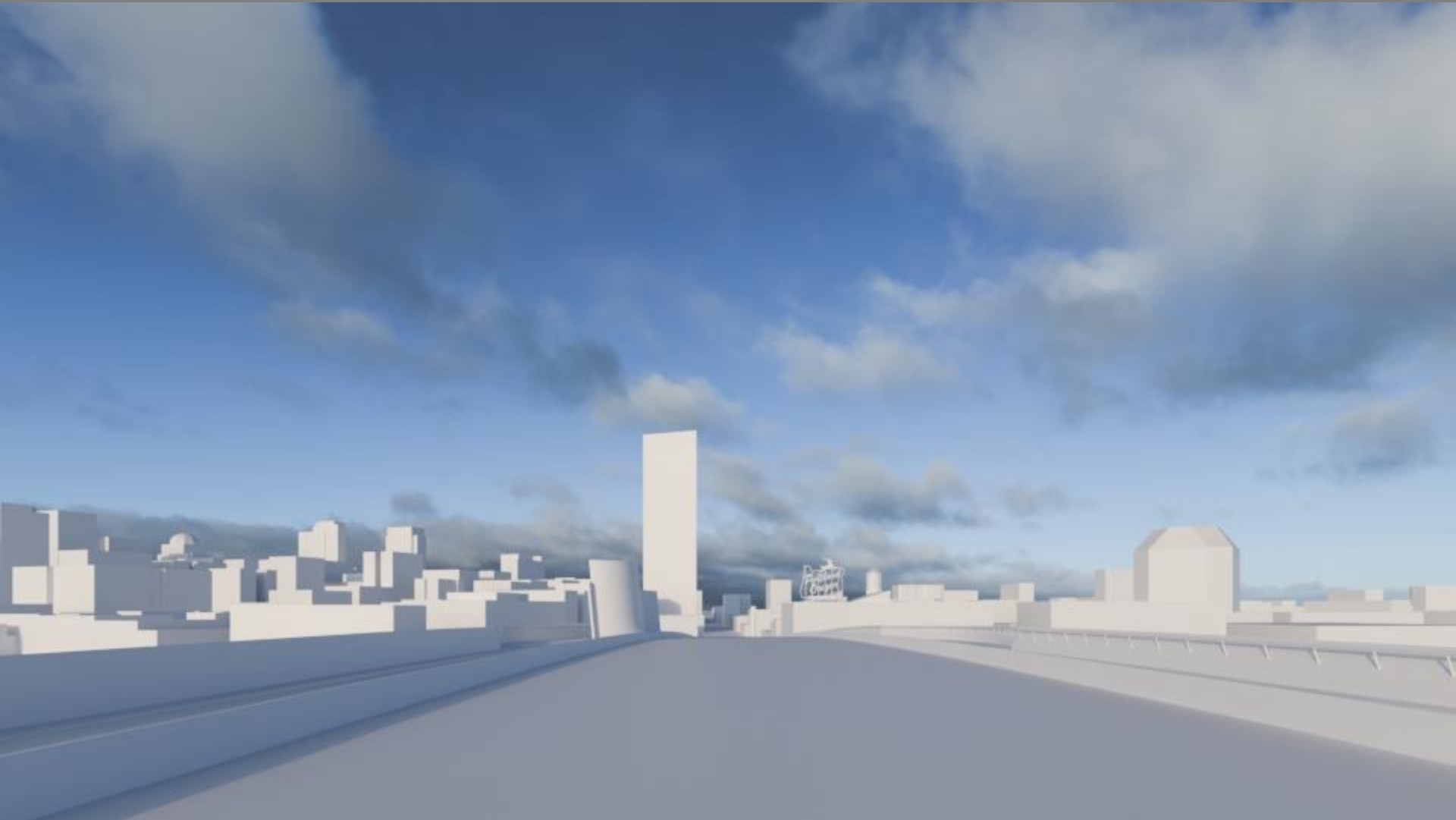
Movable Span Bridge Type

Enhanced Cable Stayed + Bascule



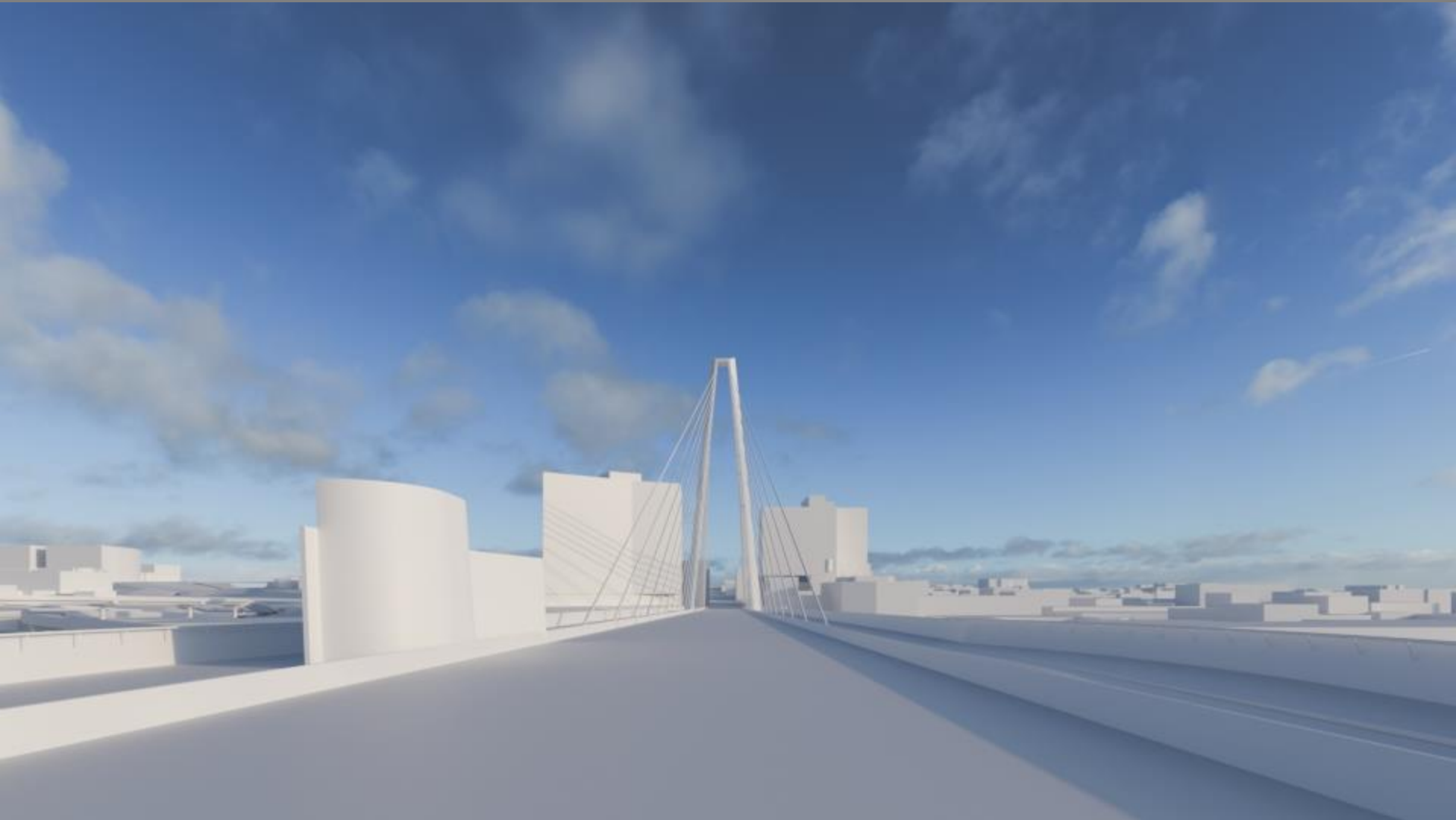
Movable Span Bridge Type

Enhanced Cable Stayed + Bascule



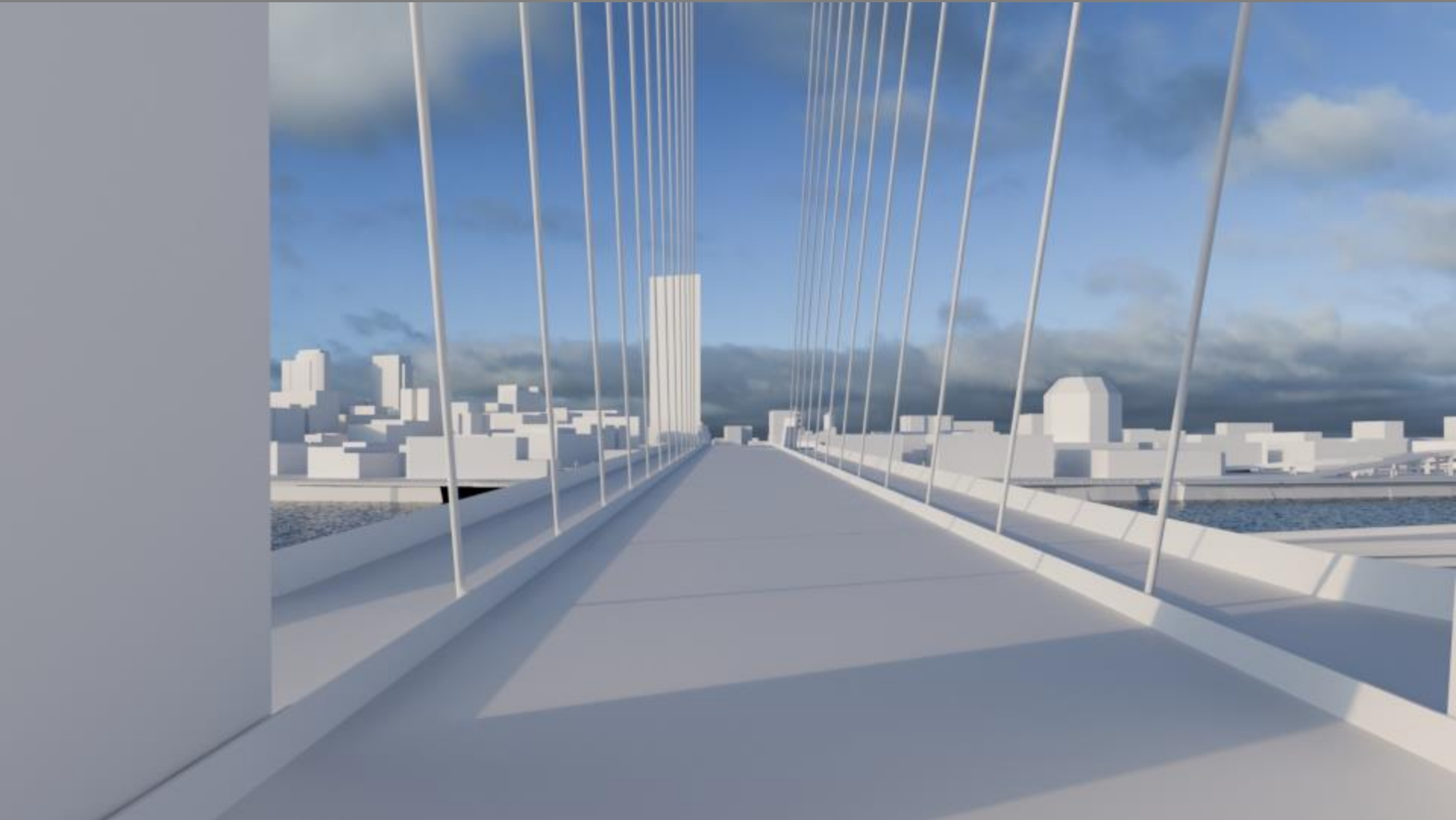
Movable Span Bridge Type

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Enhanced Cable Stayed + Bascule



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Discussion



Movable Span Bridge Type

What movable bridge type input do you have for the CTF?



Mid-2022: Next UDAWG Meeting possibly the last one for the NEPA Phase



Thank you!

