

Carnegie Mellon University

Forbes Avenue Bridge Sidewalk Improvements

Community Listening Session

November 6, 2023



Existing Conditions

Discussion

- Main concerns with bridge
 - Narrow sidewalks
 - Deteriorated fencing
 - Inadequate lighting



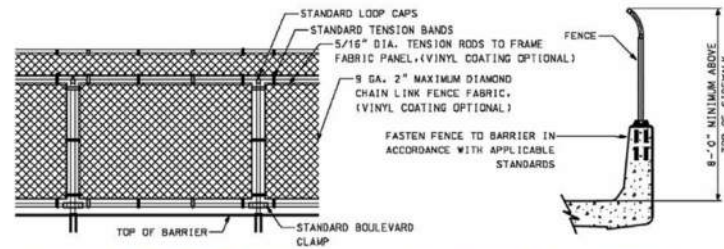
Design Constraints

- Bridge condition
- Right-of-way
- Railroad regulations
- Crash proof barrier

V. PROTECTIVE FENCING:

All highway structures including controlled access highways shall have a protective barrier fence to extend at least 8'-0" from the top of the sidewalk or driving surface adjacent to the barrier wall. The fence may be placed on top of the barrier wall. The fence shall be capable of preventing pedestrians from dropping debris onto CSX's right-of-way, and in particular, passing trains.

Openings in the fence shall not exceed 2" x 2". Fencing should also include anti-climbshields or be of a configuration to minimize the likelihood of climbing on the outside of the protective fencing. A chain link fence option is shown below:



Inspections

Inspection Date
1/1/22

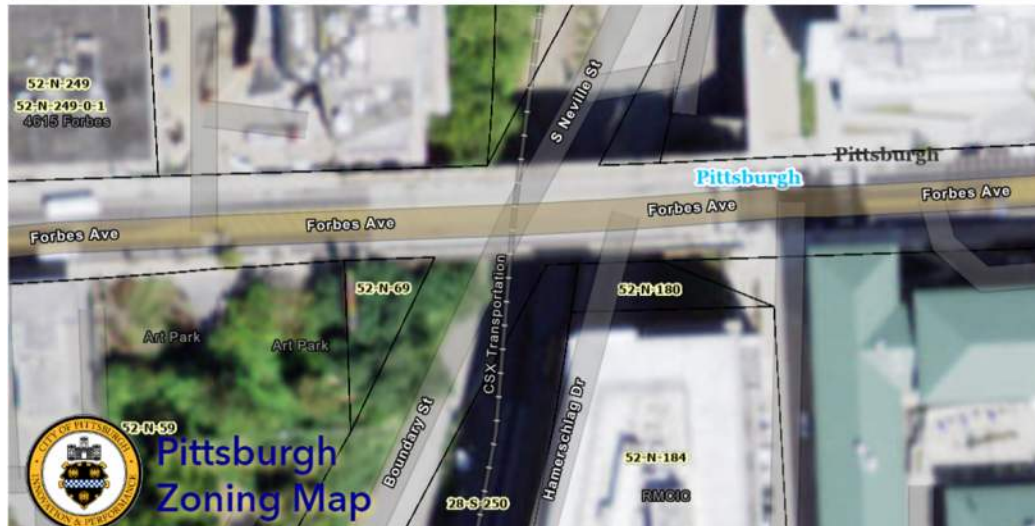
Deck
Satisfactory

Substructure
Good

Overall Condition
Fair

Superstructure
Good

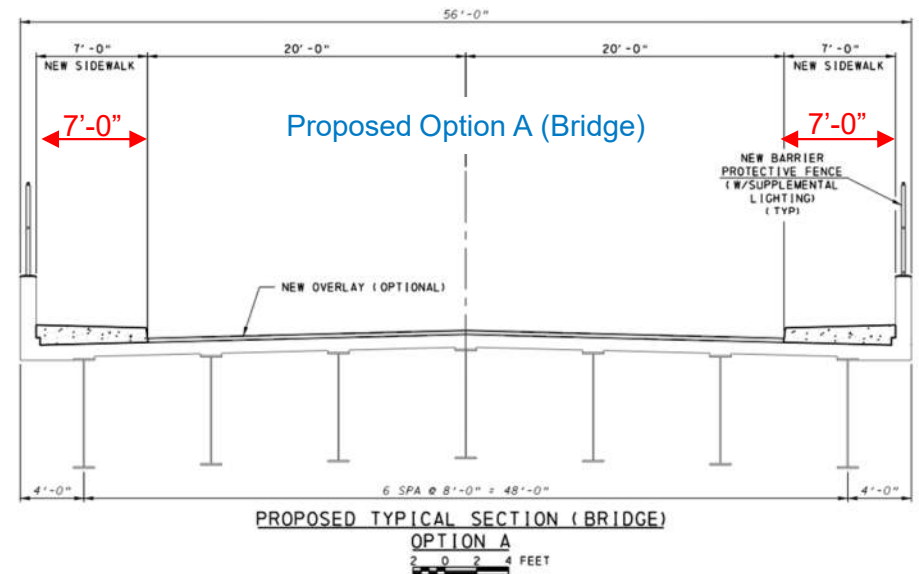
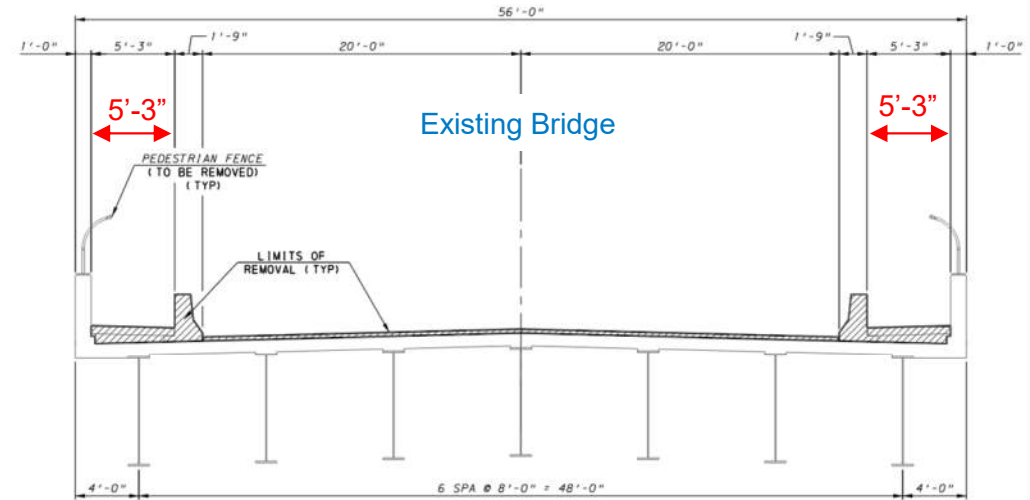
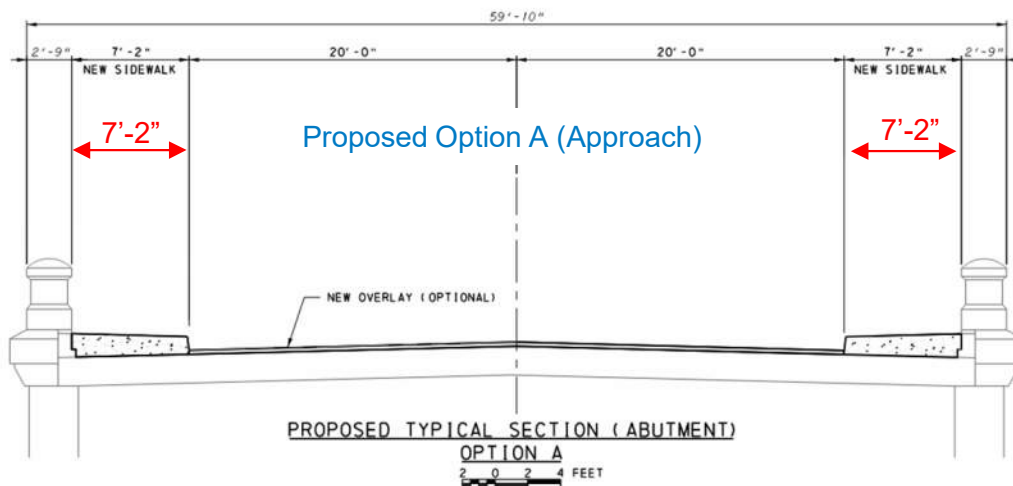
Rating
94.9



Sidewalk Option A

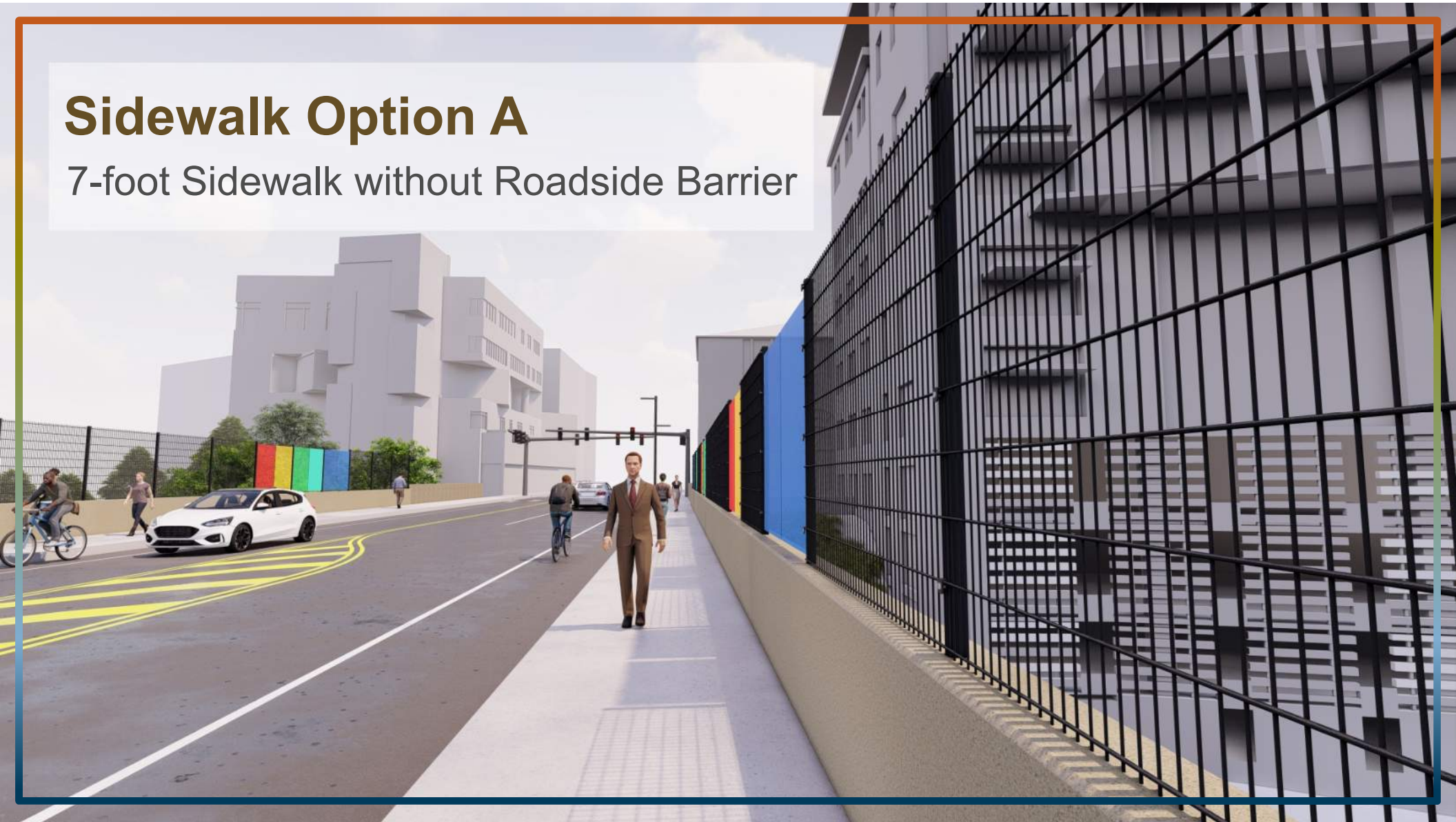
7-foot Sidewalk without Roadside Barrier

- Remove concrete barriers along sidewalks
- Replace with sidewalk extension
- Replace fencing
- Improve lighting
- Shorter-term, lower cost option



Sidewalk Option A

7-foot Sidewalk without Roadside Barrier



Sidewalk Option A

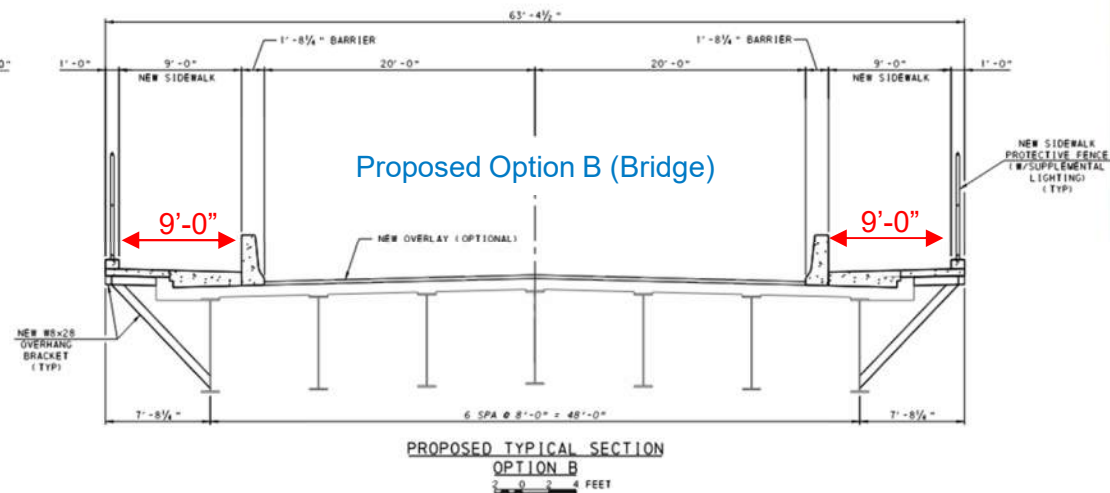
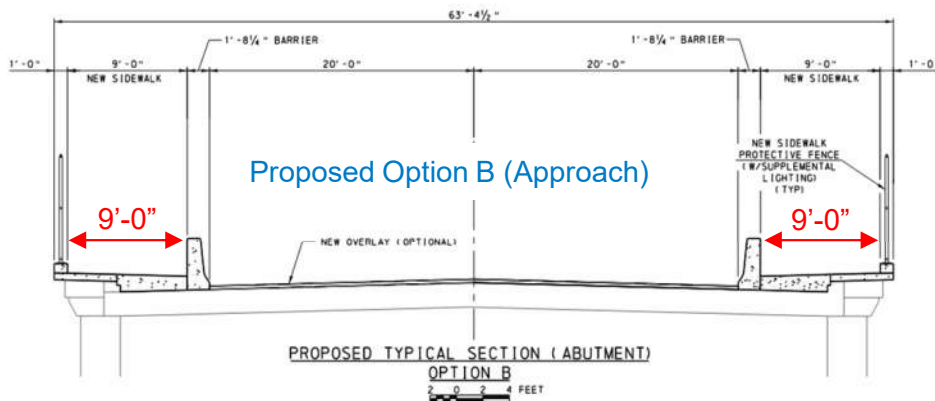
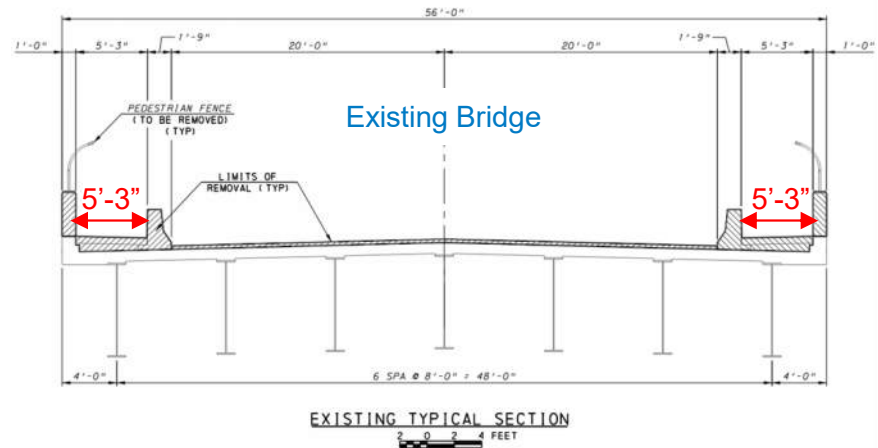
7-foot Sidewalk without Roadside Barrier



Sidewalk Option B

9-foot Sidewalk with Roadside Barrier & Outriggers

- Install outriggers to widen sidewalk
- Replace existing concrete barrier in kind
- Replace fencing
- Improve lighting
- Longer-term, higher-cost option



Sidewalk Option B

9-foot Sidewalk with Roadside Barrier & Outriggers



Sidewalk Option B

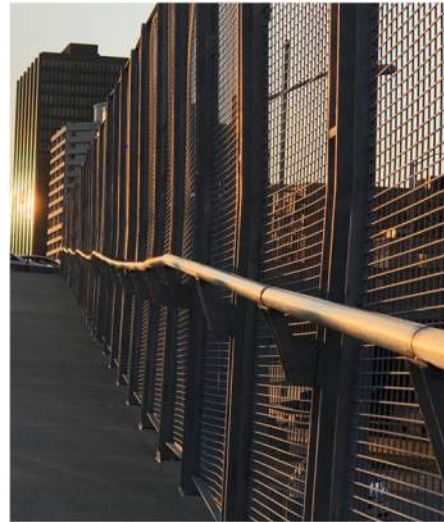
9-foot Sidewalk with Roadside Barrier & Outriggers



Fencing Options

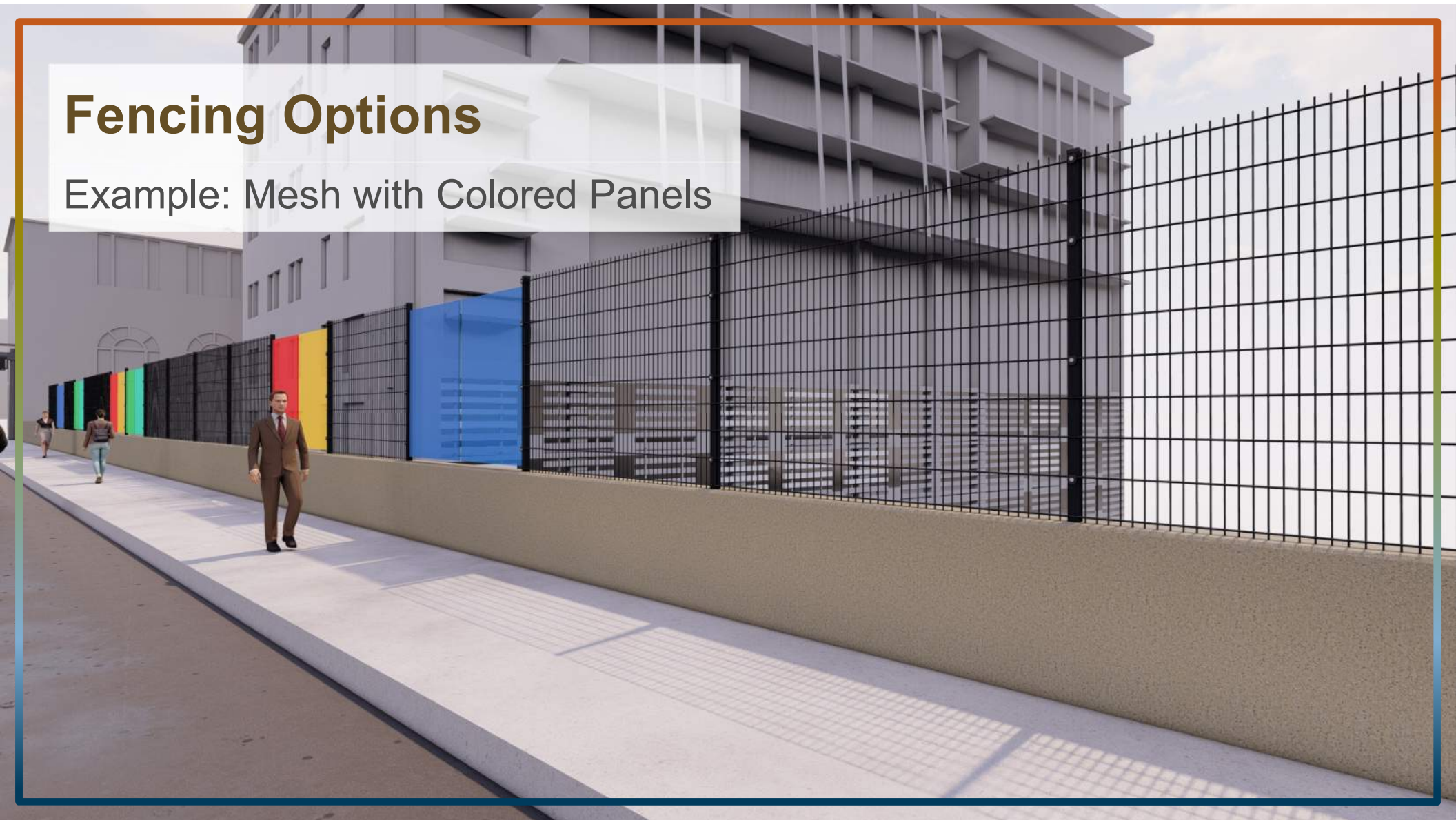
Traditional Mesh

- More attractive than chain link
- Straightforward design used elsewhere in Pittsburgh
- Colored or stamped plexiglass panels could add more interest
- Lighting elements can be added to fenceposts



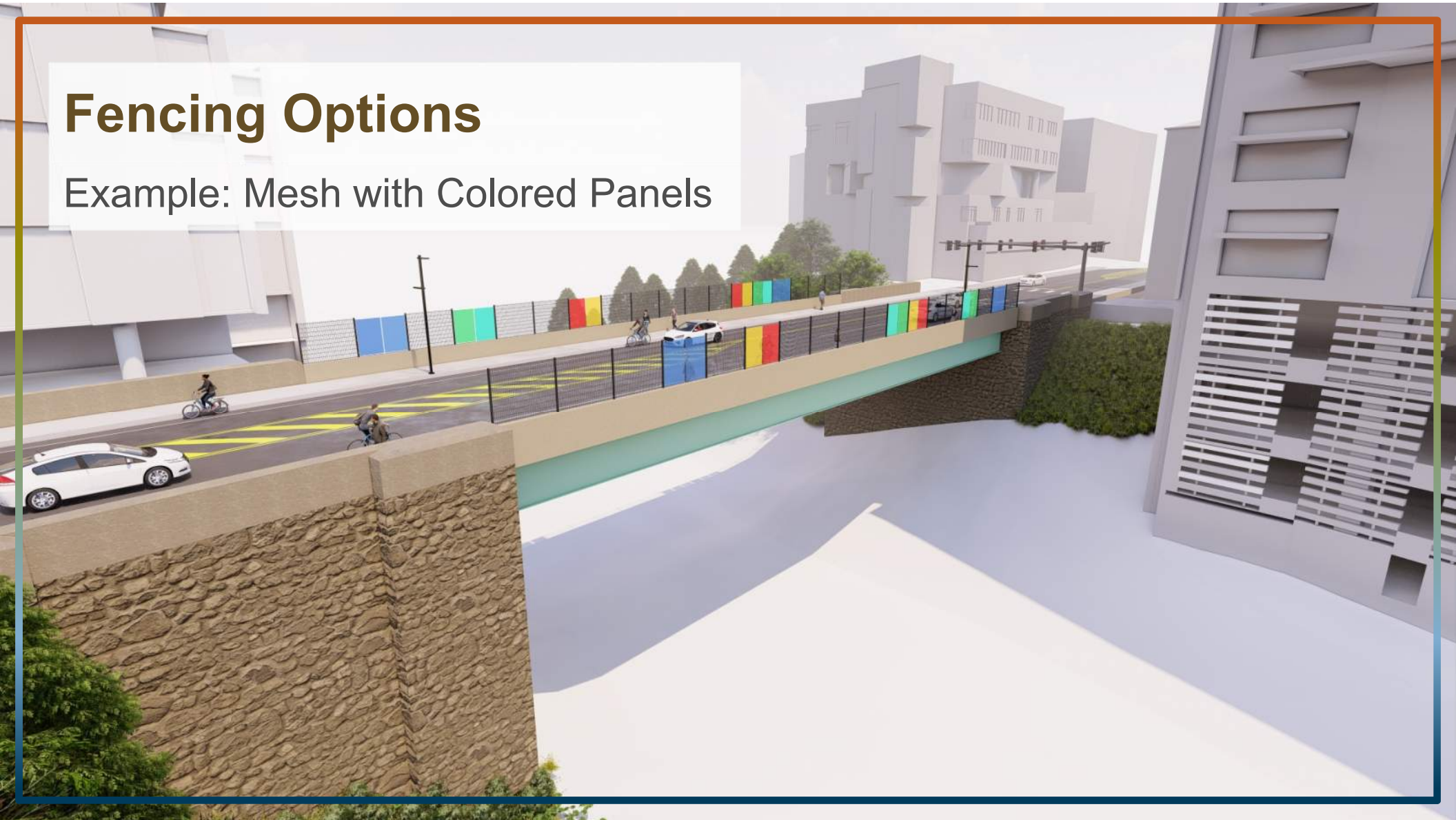
Fencing Options

Example: Mesh with Colored Panels



Fencing Options

Example: Mesh with Colored Panels



Fencing Options

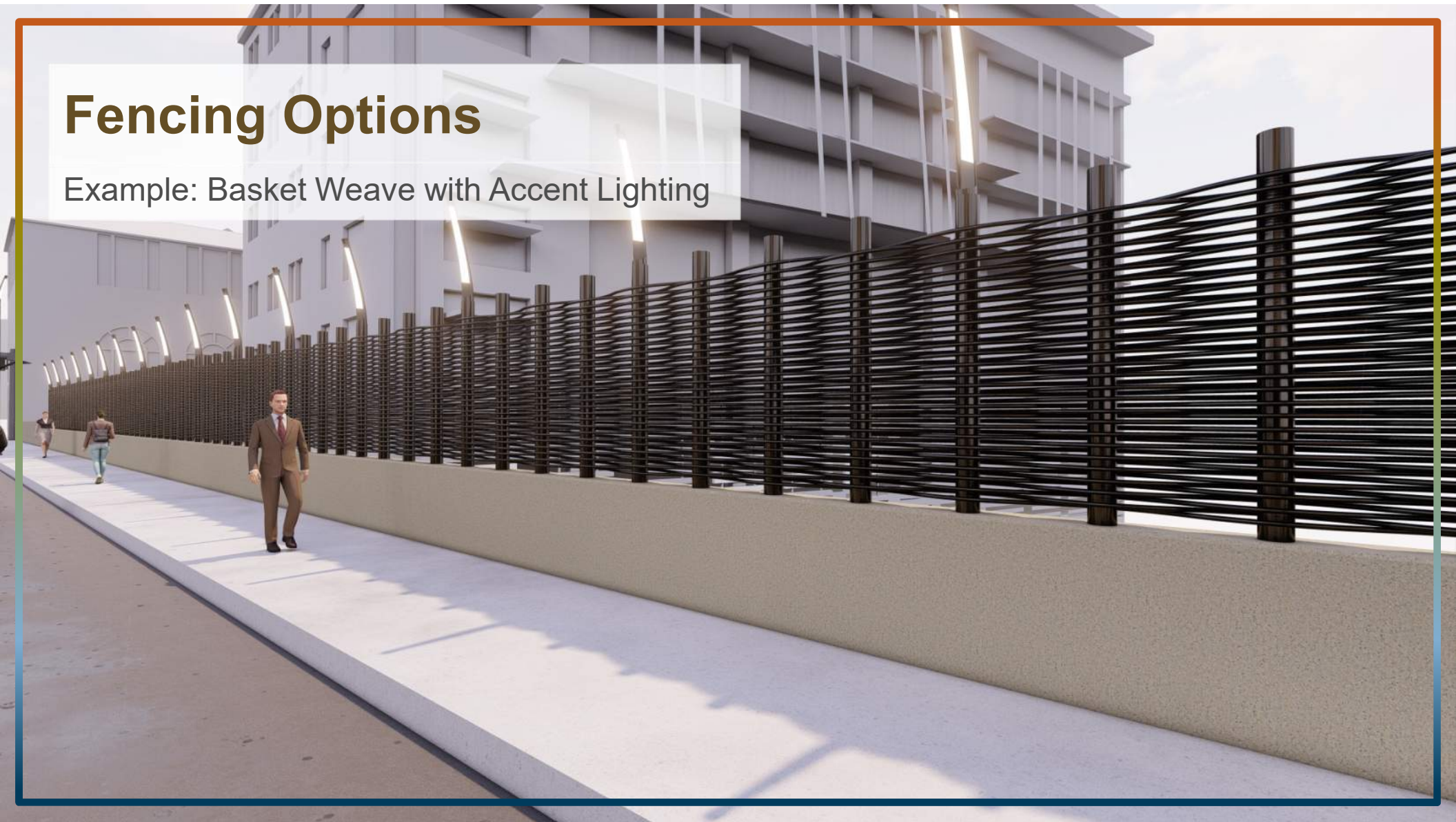
Decorative Mesh

- Aesthetic mesh patterns
- 2"x2" maximum opening limits possibilities
- Unique design opportunities
- Lighting elements can be added



Fencing Options

Example: Basket Weave with Accent Lighting



Fencing Options

Example: Basket Weave with Accent Lighting



Fencing Options

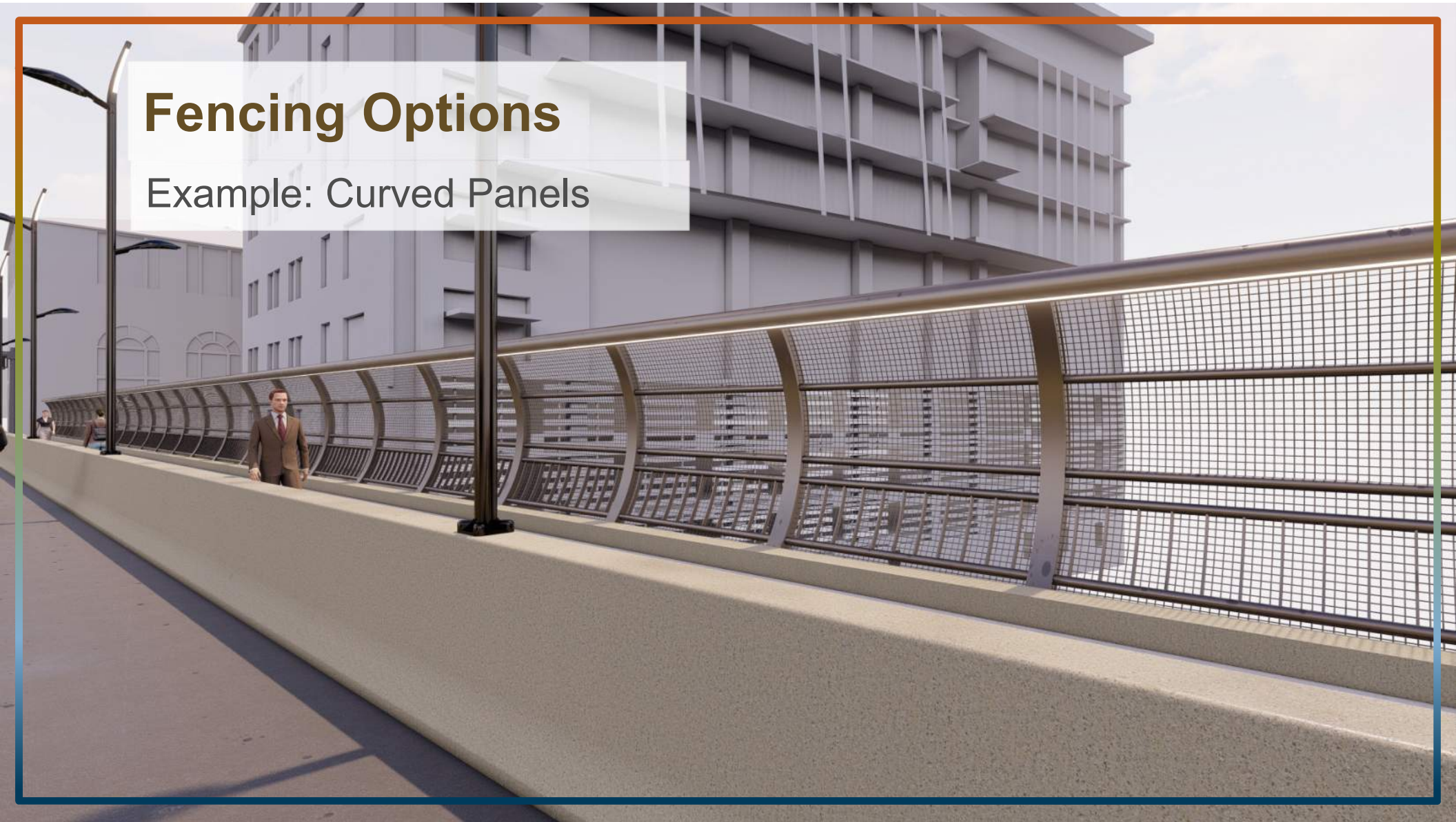
Curved Panels

- Curved fencing increases pedestrian shoulder room
- Lighting elements can be recessed into fencing
- Possible right-of-way and railroad limitations



Fencing Options

Example: Curved Panels



Fencing Options

Example: Curved Panels



Anticipated Schedule

- November 10th – Last day for public survey
<https://www.cmu.edu/cdfd/buildings/forbes-bridge/index.html>
- Winter 2024 – Refine conceptual design from public involvement
- 2025 – Engineering design (if funded)
- 2025 – Set schedule based on coordination with other projects
- 2026-27 – Earliest construction timeframe (if funded)



Discussion

<https://www.cmu.edu/cdfd/buildings/forbes-bridge/index.html>

