



BROWARD COMMUTER RAIL (BCR)
PROJECT DEVELOPMENT & ENVIRONMENT (PD&E) STUDY



FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT), DISTRICT 4
BROWARD COUNTY, FLORIDA • FPID: 448942-1

Project Update for:
Tarpon River Civic Association
Project Update
February 24, 2022



- ❑ **Project Background and Overview**
- ❑ **Locally Preferred Alternative (LPA) considerations and process**
- ❑ **New River Crossing Alternatives**
- ❑ **Project Costs and Funding**
- ❑ **Next Steps**





MOBILITY – More and enhanced Transit options can increase transit use, improve travel times and provide congestion relief on roadways



ENHANCE QUALITY OF LIFE - Enhances quality of life by increasing mobility, transportation choices, and access to jobs and services



ECONOMIC & RESIDENTIAL GROWTH - Economic development increases tax base, affordable/workforce housing incentives, and funding and use of overall transit facilities



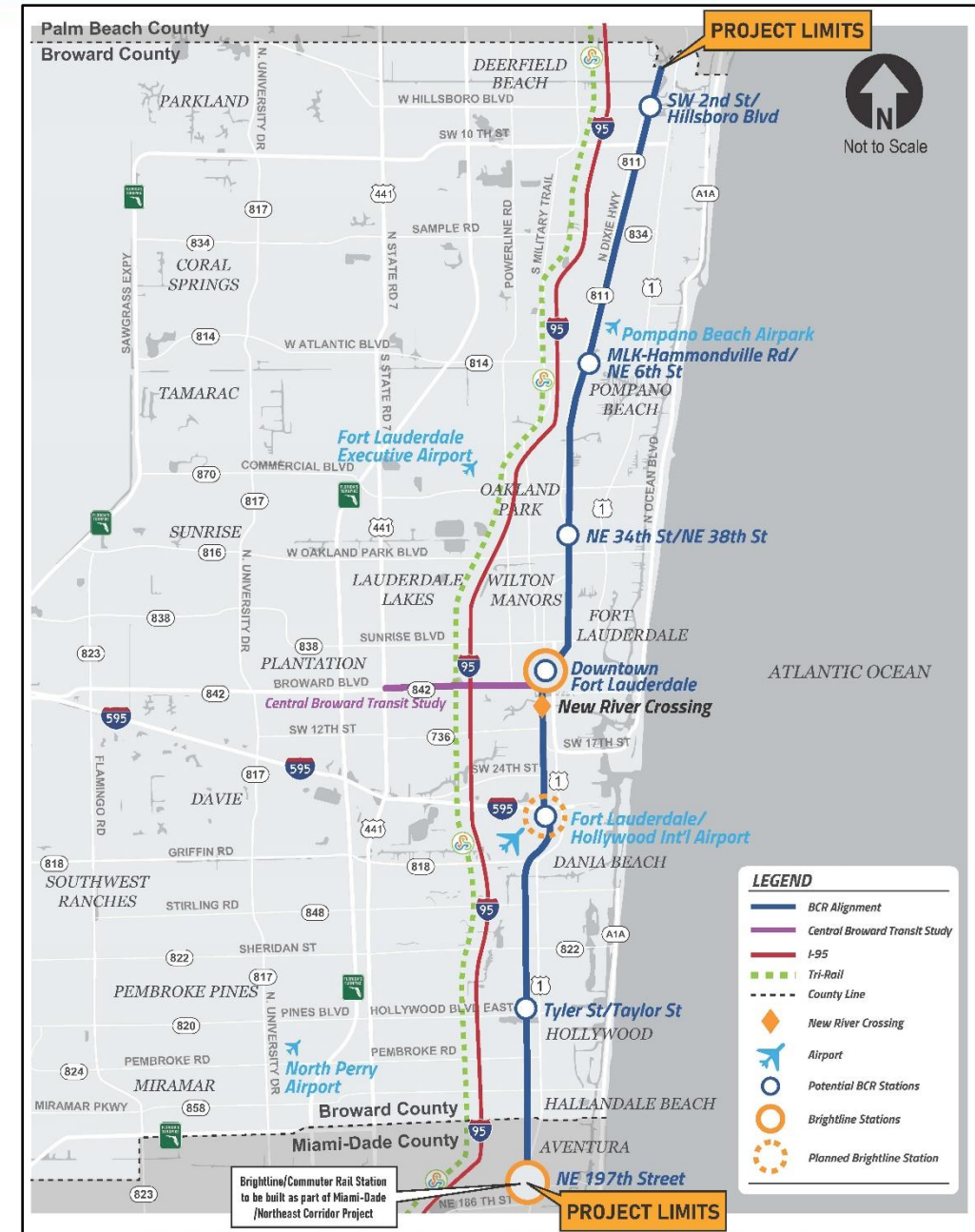
COMMUTER RAIL BENEFITS FOR EMPLOYERS - Employer benefits include access to a wider talent pool and enhanced productivity



ENVIRONMENTAL - Environmental benefits include sustainability, reduced vehicle emissions, and cleaner air

Overview of Project

- ❑ Broward MPO endorsed Tri-Rail Coastal Link (TRCL) LPA in 2010 and is unfunded in needs plan (MTP)
- ❑ Miami-Dade has advanced the NE Corridor Project from Aventura to Downtown Miami with FTA
- ❑ Per Memorandum of Understanding (MOU)
 - FDOT will lead the environmental study and technical analysis
 - Broward County is responsible for the access fee, maintenance, operations, the Finance Plan and Consensus Building
- ❑ Aventura to Deerfield Beach (27 miles of the FEC corridor)
- ❑ Technical recommendations have been made for 6 station locations (general) in Broward
- ❑ Coordination with Brightline, FECR, USCG, FTA, MPO, municipalities, Broward and Miami-Dade Counties
- ❑ Stakeholder meetings and workshop focused on the New River Crossing



- ❑ Study is being conducted in coordination with many parties that have an interest in the FEC railroad corridor
- ❑ Shared-use corridor with FEC freight trains and intercity (Brightline) passenger trains
- ❑ Florida East Coast Railway, L.L.C. owns the FECR right of way and operates freight service
- ❑ Brightline operates inter-city passenger rail trains via a passenger easement in the corridor



- ❑ LPA must be approved by Broward County Commission and also approved by Broward MPO prior to entering the FTA Project Development and NEPA process
- ❑ Approval of an LPA is not a commitment to fund and build the project
- ❑ Primary LPA components include:
 - Mode – Commuter Rail Transit
 - Technology – Push-pull locomotive
 - Alignment – Florida East Coast Railroad Corridor, utilizing Brightline passenger rail easement and crossing of the New River
 - Recommended Station Locations
 - Deerfield Beach (south of Hillsboro Blvd.)
 - Pompano Beach (north of Atlantic Blvd.)
 - Oakland Park (north of Oakland Park Blvd.)
 - Ft. Lauderdale (Downtown Brightline Station)
 - Airport Station (joint station with Brightline)
 - Hollywood (north of Hollywood Blvd.)
 - Selection of an alternative to cross the New River
 - Low-Level Bascule Bridge
 - Mid-Level Bascule Bridge
 - High-Level Fixed Bridge
 - Tunnel

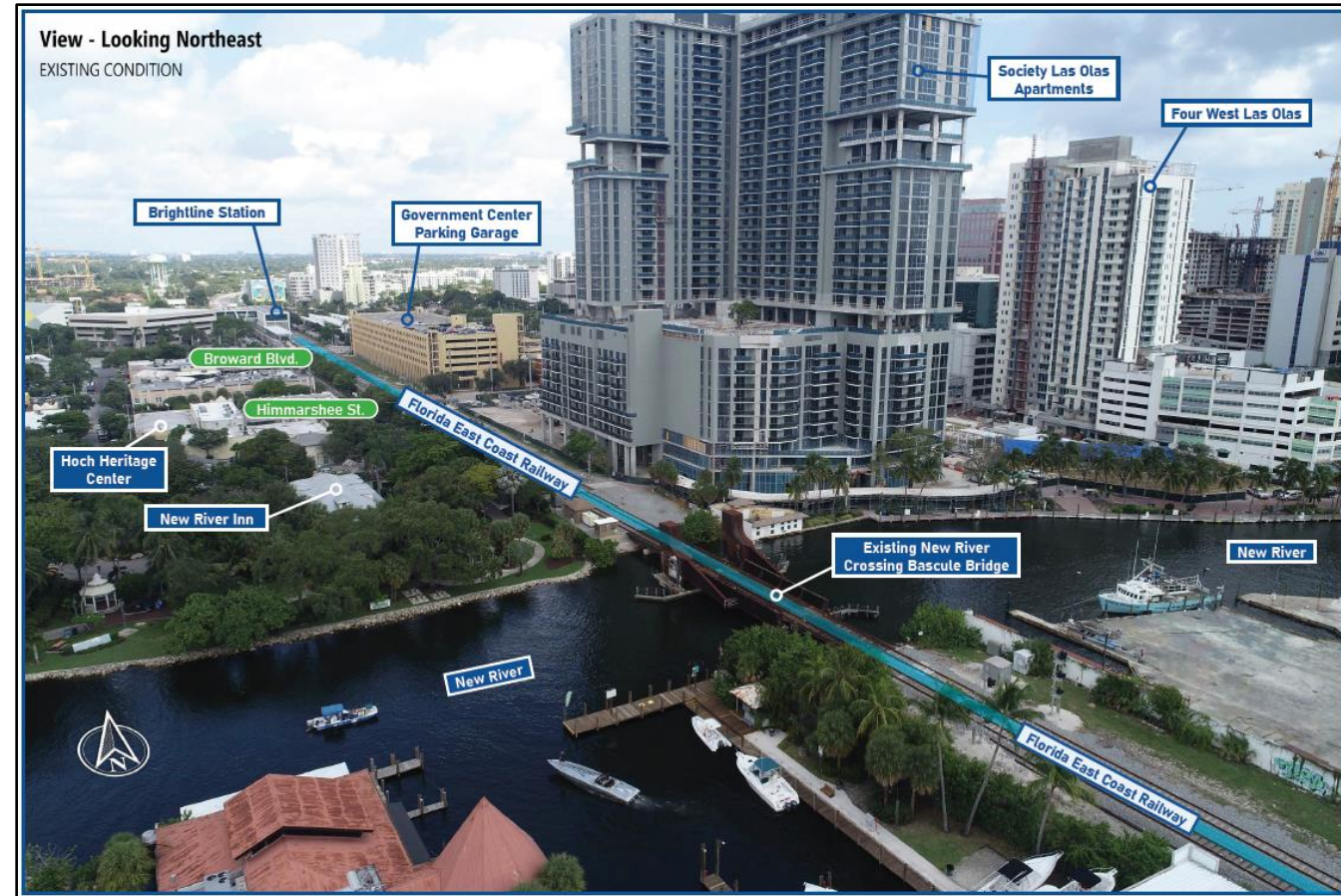
Note: Significant opposition to selected/approved LPA could cause delays and/or result in the project not being allowed into FTA's Project Development or requiring a more significant environmental document (EIS).

❑ Considerations

- Navigation
- Freight and Brightline operations
- Downtown Station (existing Brightline Station) and access to it
- Historic District
- Numerous communities in downtown area (RW, Noise, Visual, other)
- Connectivity of neighborhoods (bike, ped, vehicle)
- Vehicle Traffic Operations

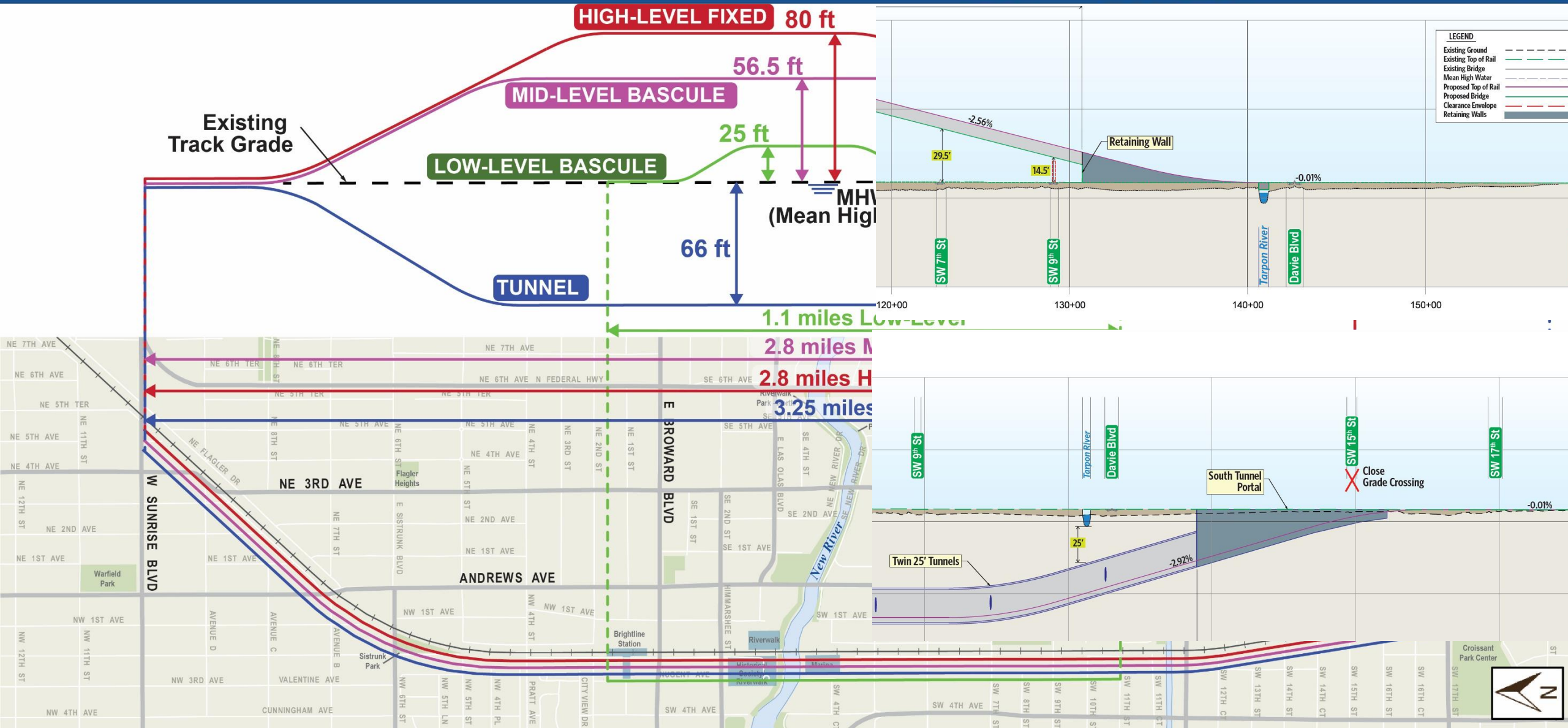
❑ Four Crossing Alternatives

- Low-Level Bascule Bridge: \$240* Million
- Mid-Level Bascule Bridge: \$444* Million
- High-Level Fixed Bridge: \$452* Million
- Tunnel: \$1.82* Billion



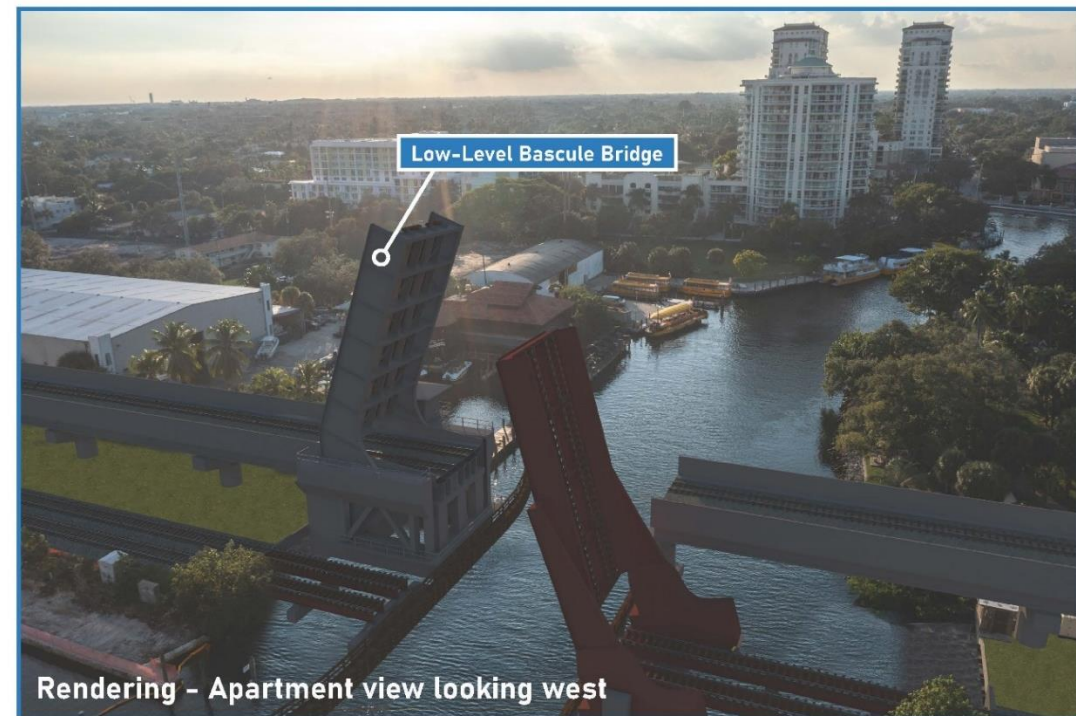
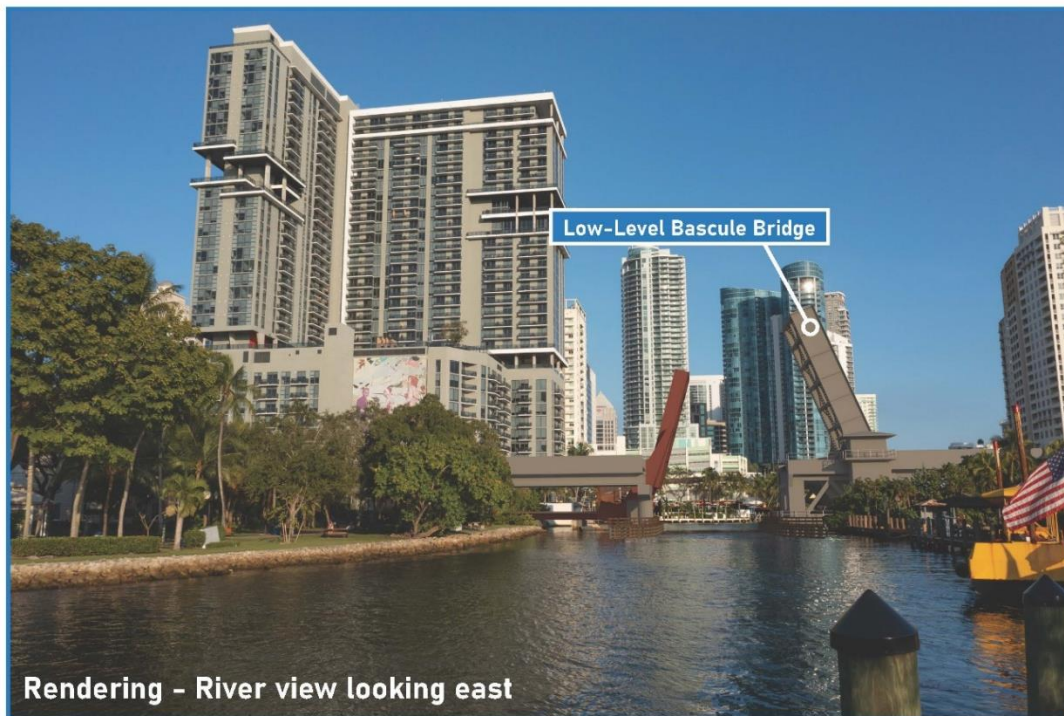
*Note: Preliminary construction cost estimates shown, do not include RW costs.

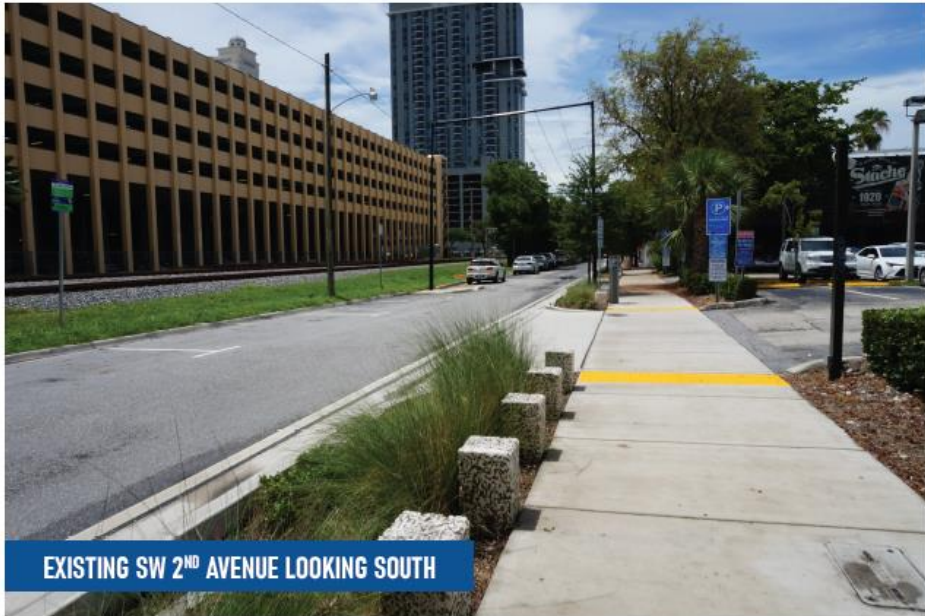
Alternatives Overview



Note: The lengths shown above includes the crossing alternative length plus necessary rail track work associated with each alternative.

- ❑ Freight Trains remain on existing tracks and will continue to use existing bridge that will be shifted east
- ❑ \$240 M for Construction and no private Right-of-Way required
- ❑ No bridge throughout the downtown area
- ❑ Closes Grade Crossing at SW 5th Street
- ❑ Does not By-Pass the Broward Boulevard (a separate road project could be evaluated to place Broward Blvd under the tracks and potentially re-purpose some of the area above)
- ❑ Does accommodate 90% of Navigation and will most likely operate on a schedule that will reduce boat congestion at the crossing and provide for a known bridge operating schedule

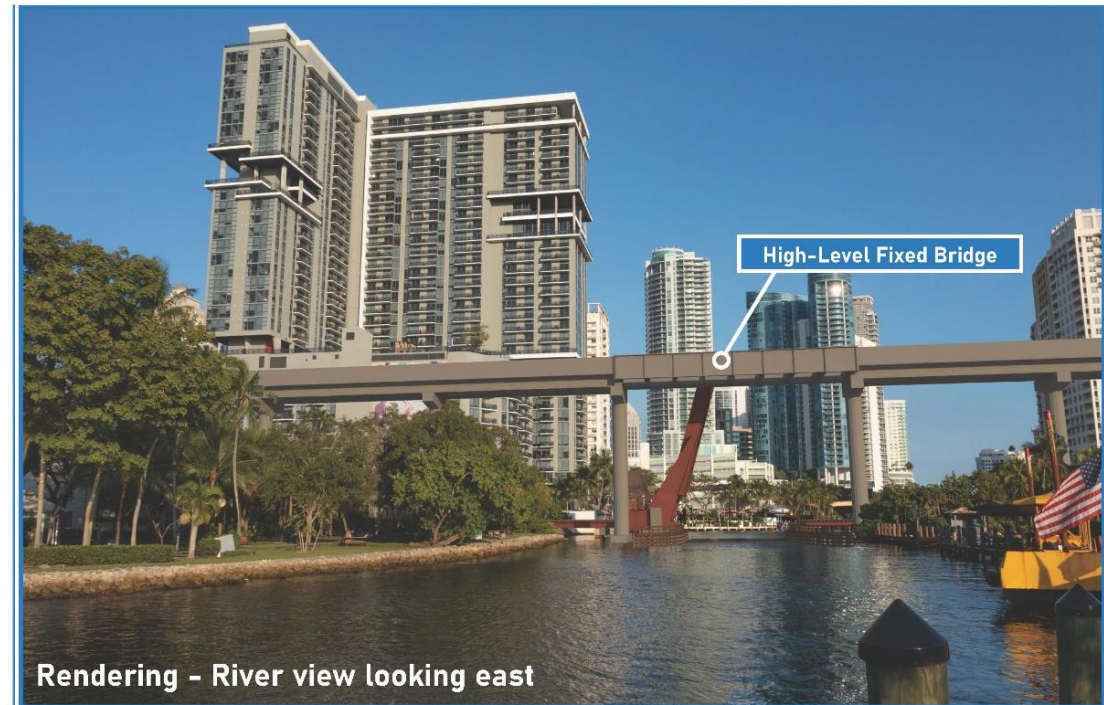
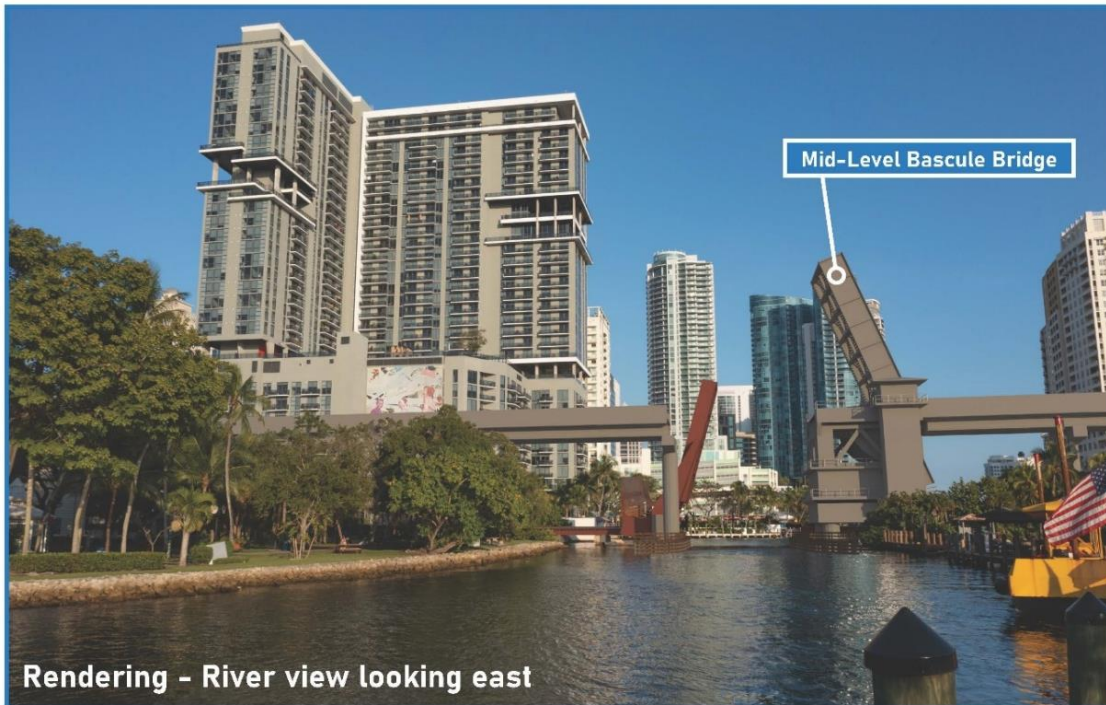




DESIGN FEATURES CAN ACTIVATE SPACES AND PROTECT NEIGHBORHOOD CHARACTER AND CONTEXT:

- Pavers can help convert a one-way street into a shared street or temporary plaza
- Landscaping can soften structures by adding nature in contrast to hardscape
- Public art on a retaining wall helps create a sense of place and can correspond with neighborhoods and history as well as other local art
- Lighting can be multi-colored and provide enhanced night-time aesthetics

- ❑ Freight Trains remain on existing tracks and will continue to use existing bridge that will be shifted east Mid-Level and High-Level Bridges By-Pass Broward Boulevard
- ❑ Mid and High Level require bridge structure throughout the downtown area (charettes and aesthetic design of structures most likely will be required if these alternatives move forward)
- ❑ Mid and High Level do not close any grade crossings
- ❑ Mid Level will have a large bascule pier and requires additional maintenance and a full-time bridge tender
- ❑ Has full support of the Marina community with the Mid-Level accommodating 99% of boats when closed
- ❑ \$444M for construction of the Mid-Level and \$452M for the High-Level and both require \$98M in Right of Way





Infrastructure introduced as design feature with additional streetscape to preserve openness and access:

- Aesthetic treatments for column and sound barrier designs
- Aesthetic closed-bottom box
- Pavers add color and texture and visual separation
- Crosswalks delineate safe area for crossing



EXISTING HIMMARSHEE/SW 2ND AVENUE LOOKING SOUTH



ARTISTIC RENDERING OF INTERSECTION OF HIMMARSHEE AND SW 2ND AVENUE LOOKING SOUTH



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- Aesthetic treatments for column and sound barrier designs
- Aesthetic closed-bottom box
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EXISTING SW 9TH STREET LOOKING WEST



ARTISTIC RENDERING AT SW 9TH STREET SOUTH OF RIVER LOOKING WEST

DESIGN ENHANCES CONNECTIVITY AND IS CONSISTENT WITH NEIGHBORHOOD SCALE:

- Steel bridge and simple artistic columns
- Access to Lauderdale is easy to see, safe and attractive
- Landscaping and crosswalks help to define spaces for trail users



SISTRUNK BOULEVARD LOOKING EAST

Design preserves openness and accessibility and neighborhood character of Flagler Arts and Technology (FAT) Village:

- Artistic columns and decorative railing
- Column design allows for narrower columns to maintain visibility
- Pavers and landscaping soften the edges of the street

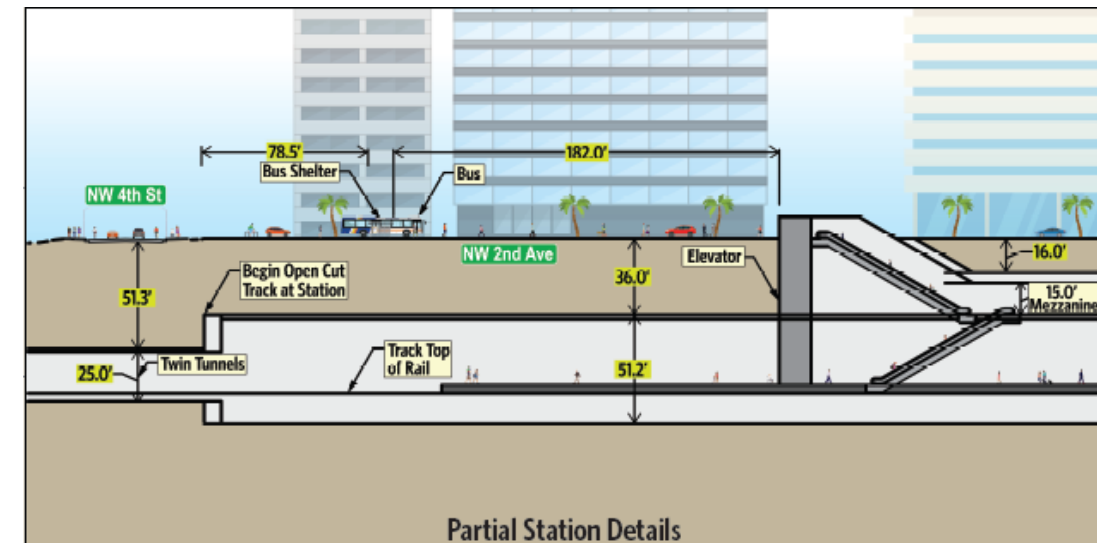


ARTISTIC RENDERING SISTRUNK BOULEVARD LOOKING EAST

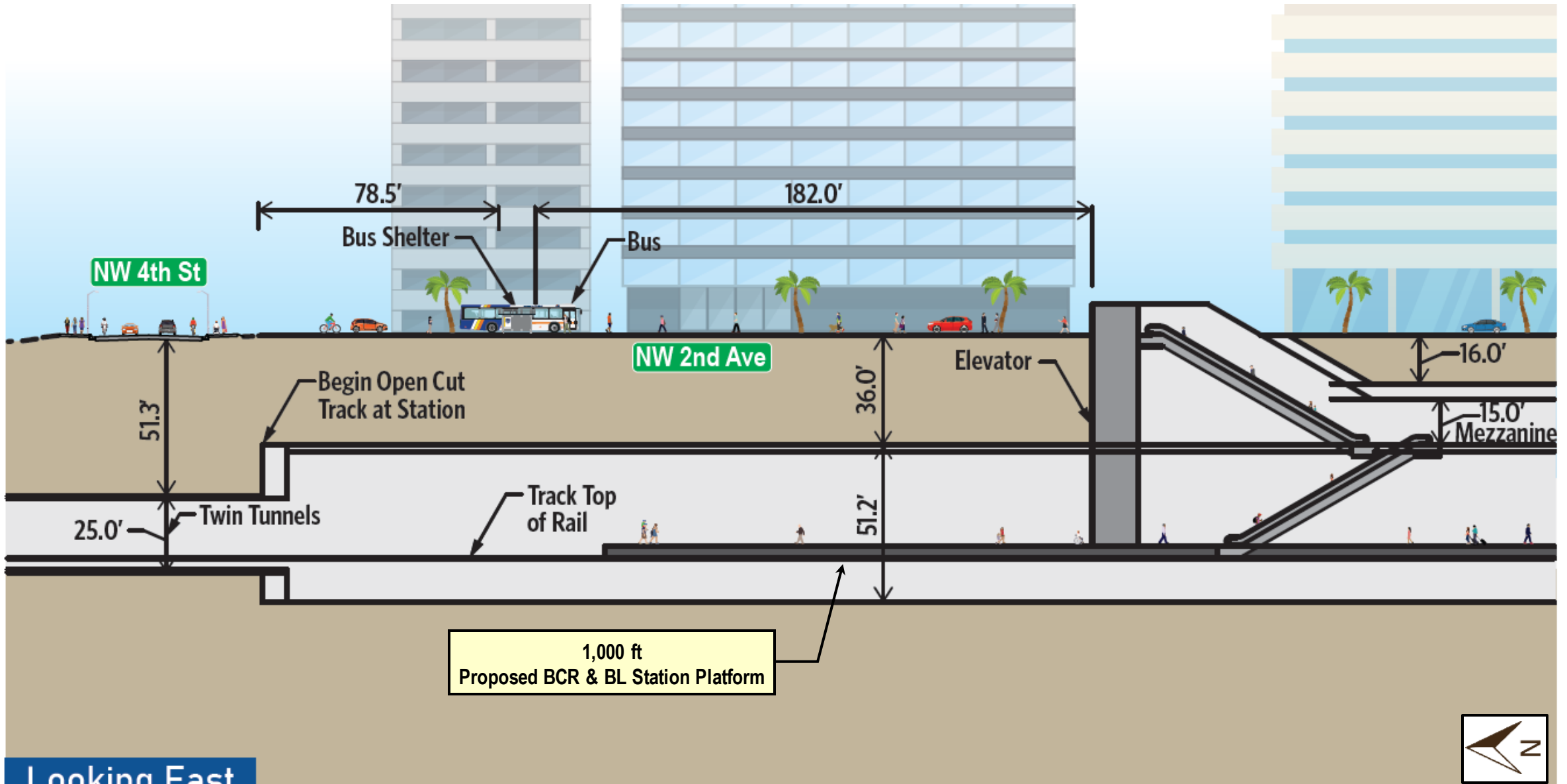
Examples of Bridges through Urban Areas



- ❑ Supported by many City of Fort Lauderdale stakeholders, including the city commission
- ❑ Will provide the best noise protection and least visual concerns in the areas between the portals
- ❑ Bypasses both Broward and Davie Boulevards with passenger rail
- ❑ \$1.8 Billion for construction and \$150M in Right of Way,
- ❑ Lengthy permitting and construction schedule
- ❑ Larger local disruptions for trucking of excavation and dewatering as well as concern for the protection of the existing structures in the area with the tunneling operations
- ❑ Higher risks for contamination, permitting, construction and resiliency than the other alternatives

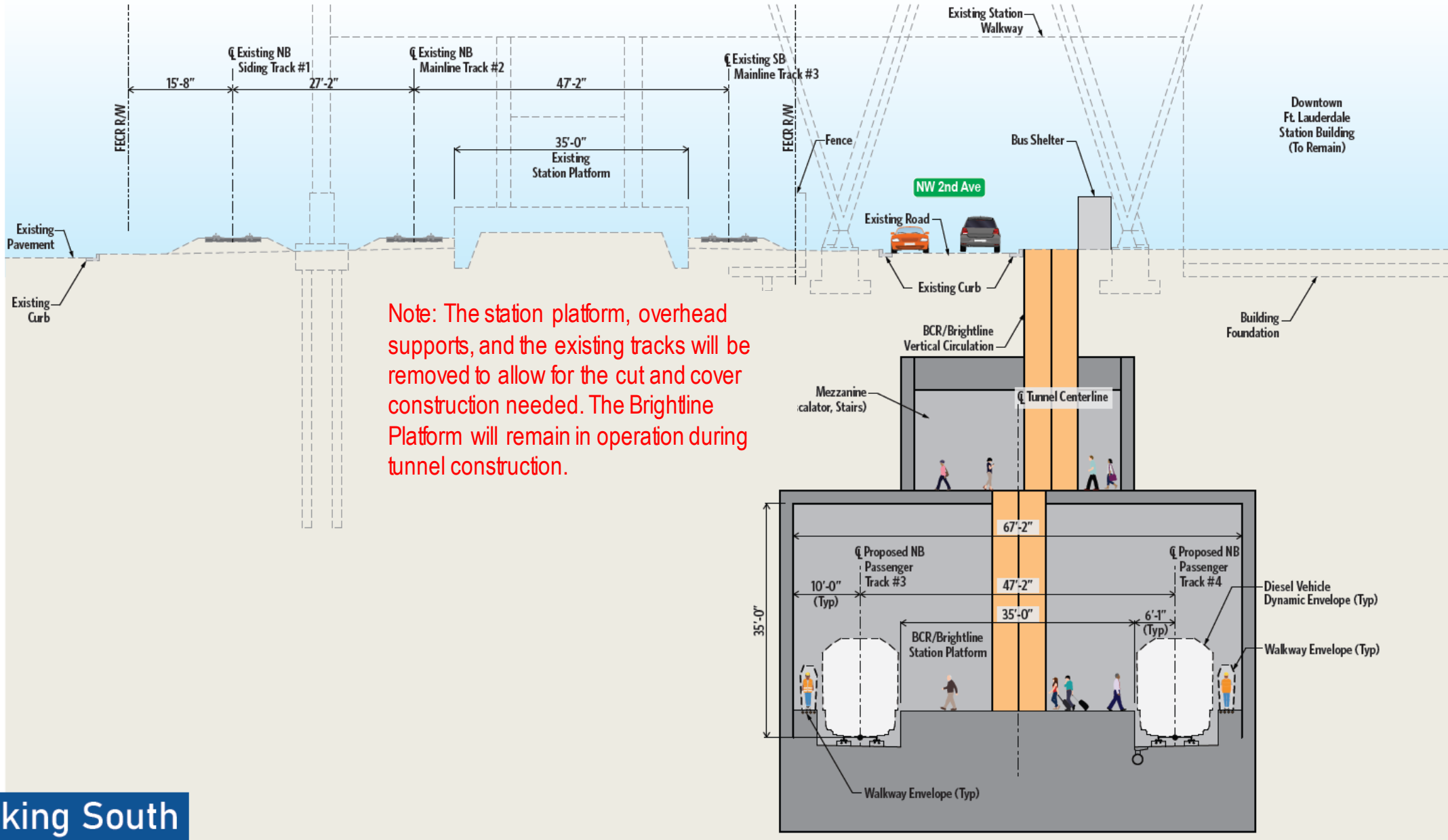


Tunnel Alternative: Underground Station Elevation View



Looking East

Tunnel Alternative: Underground Station Section View



Note: The station platform, overhead supports, and the existing tracks will be removed to allow for the cut and cover construction needed. The Brightline Platform will remain in operation during tunnel construction.

Looking South



PORT MIAMI TUNNEL



VENTILATION REQUIRED AT EITHER END OF UNDERGROUND STATION



PORT MIAMI TUNNEL BORING MACHINE

New River Crossing Alternative Cost Table (\$2021)

Alternative	Low-Level Bascule	Mid-Level Bascule	High-Level Fixed	Tunnel
New River Crossing	\$240 M	\$444 M	\$452 M	\$1.82 B ⁴
Right-of-Way (Private)	\$0	\$98 M	\$98 M	\$148 M
Operations & Maintenance¹	- Bridge Tender - Mechanical Systems	- Bridge Tender - Mechanical Systems	- Regular Maintenance	- Underground Station - Ventilation Systems

Corridor Cost Table (\$2021)

Corridor Capital Cost²	\$495 M			
Right-of-Way (Stations)	Under Analysis will be the same for each alternative			
Total Capital Cost	\$735 M	\$1.04 B	\$1.05 B	\$2.46 B

Other Project Cost Table (\$2021)

Operations & Maintenance¹	\$18 - \$28 M	\$18 - \$28 M	\$17 - \$27 M	\$18 - \$28 M
Access Fee and Agreements³	TBD			

¹ O&M costs are per year and are not calculated in the total cost. There are differences among the NRC alternatives , with the tunnel O&M costs expected to increase in the outer years.

² Capital Cost Includes Construction, Stations, Vehicles, Yards, Parking, etc. (Costs shown are in 2021 dollars and will need to be escalated for year of expenditure

³ Access Fee and Agreements - A negotiated fee to allow commuter trains to use the Brightline passenger easement on the FEC corridor, also may need to cover potential compensation for temporary and permanent operational impacts associated with the New River Crossing and station impacts

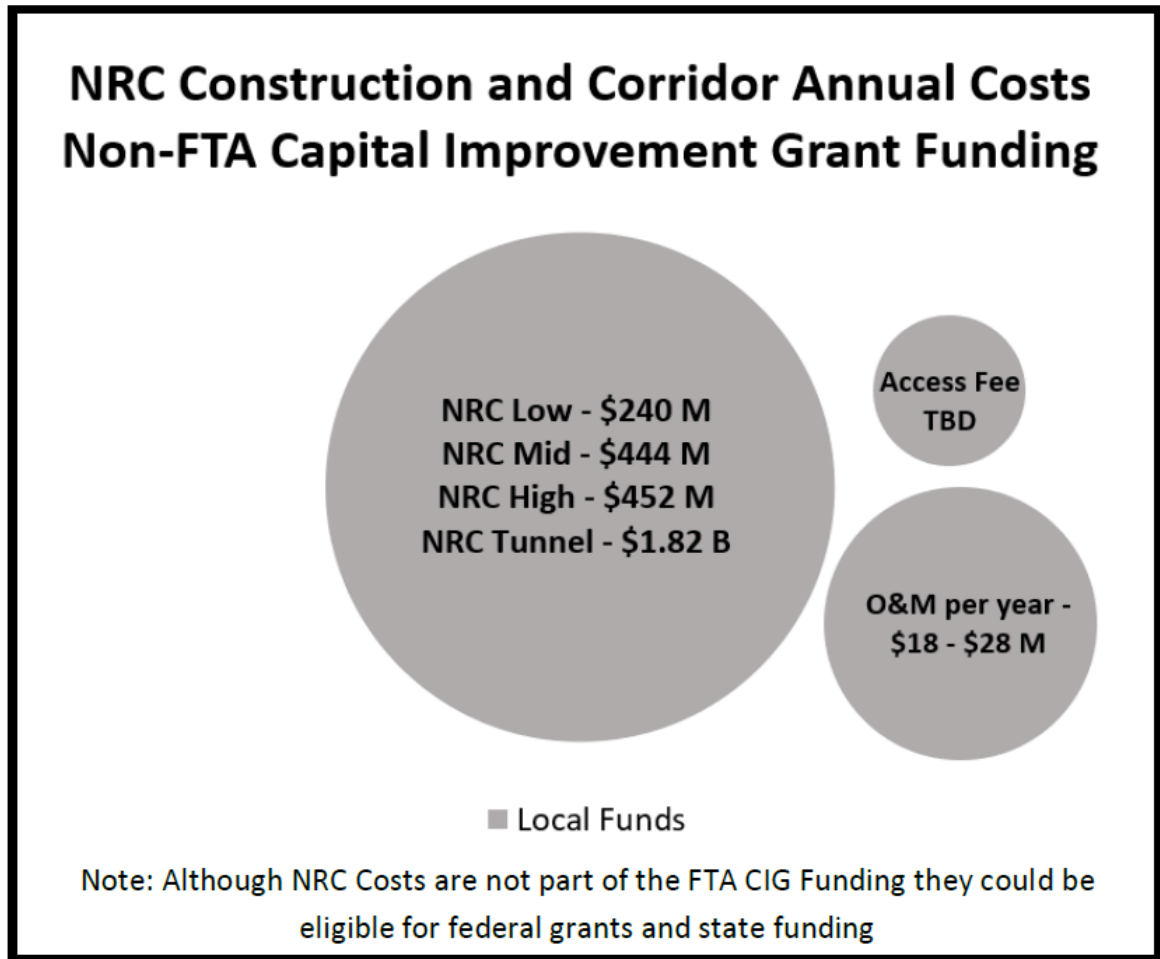
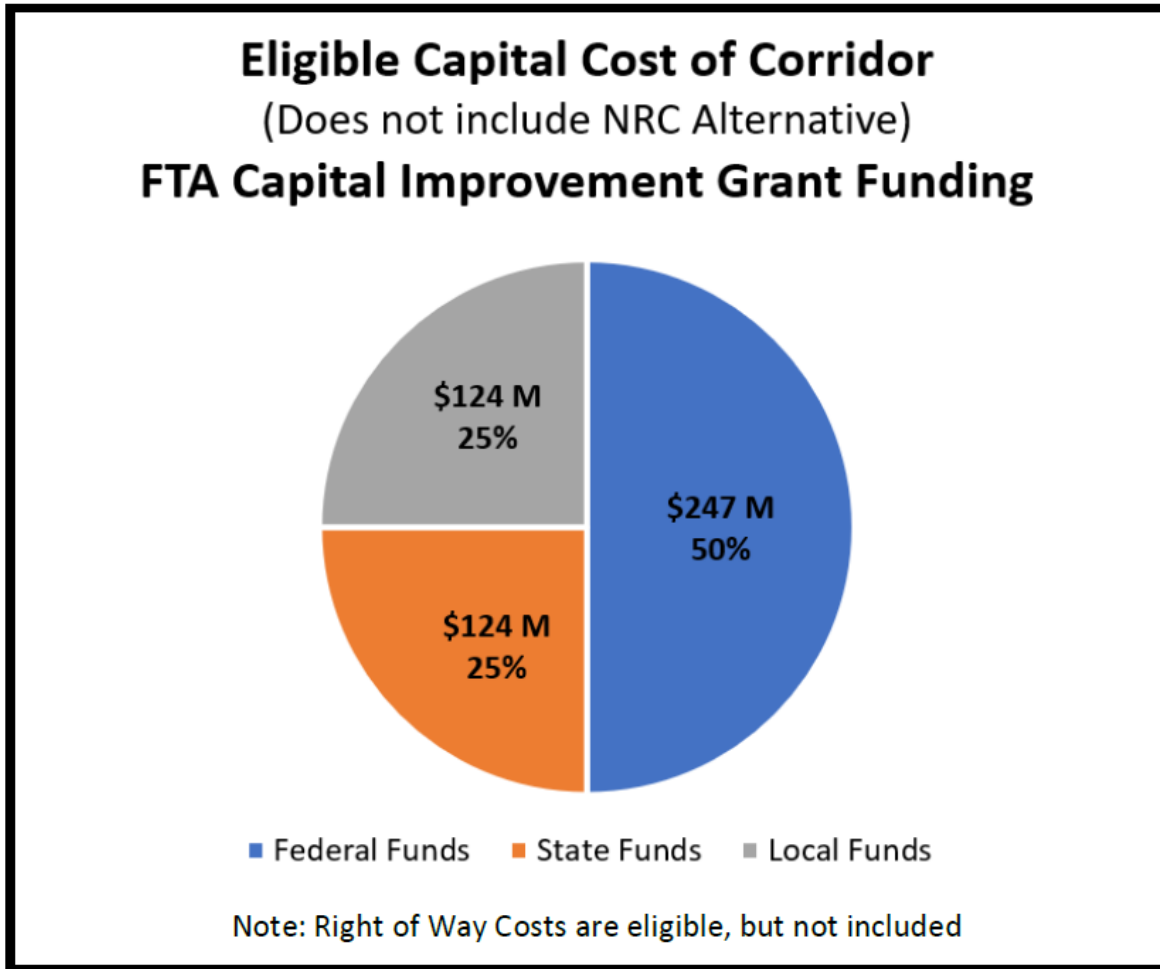
⁴ Tunnel construction cost does not address potential need for resiliency infrastructure that may be necessary, such as portal covers, additional pumps, salt water intrusion protection

- ❑ The LPA will be refined and evaluated against the No-Build Alternative during the NEPA environmental process.
- ❑ Subject to change: All categories will require further analysis as the project continues.

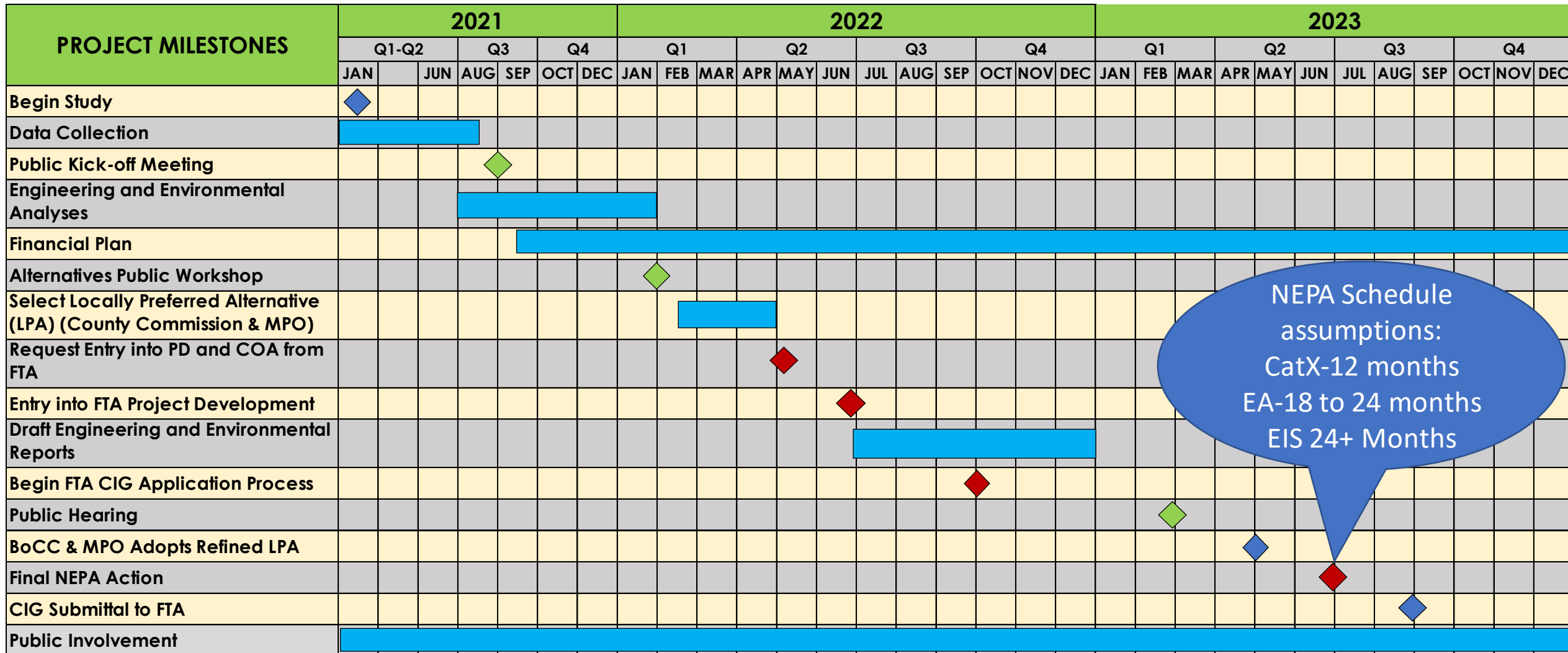
Evaluation Category	Low-Level Bascule	Mid-Level Bascule	High-Level Fixed	Tunnel
Navigational Accommodations	Orange	Yellow	Teal	Teal
Vehicular Traffic Operations	Orange	Yellow	Yellow	Teal
Socio-Cultural Resources (Historic)	Yellow	Yellow	Yellow	Teal
Contamination Risk	Teal	Yellow	Yellow	Orange
Resiliency	Yellow	Teal	Teal	Orange
Right-of-Way Impacts	Teal	Yellow	Yellow	Orange
Noise	Yellow	Yellow	Yellow	Teal
Neighborhood Connectivity - Bicycle/Pedestrian/ Vehicle Local Connections	Yellow	Teal	Teal	Orange
Operations and Maintenance Costs (O&M)	Yellow	Yellow	Teal	Orange
Capital Costs	See Cost Table on Slide 14			

Worst Better Best

- ❑ Capital Improvement Grant (CIG) funding is competitive, and the capital cost must meet FTA's cost effectiveness requirements.
- ❑ Corridor cost is split funded (per the graphs below) and the NRC Capital Cost, Corridor Access Fee, and Operations and Maintenance are local responsibilities.



PD&E Study Milestone Schedule



NEPA Schedule assumptions:
CatX-12 months
EA-18 to 24 months
EIS 24+ Months

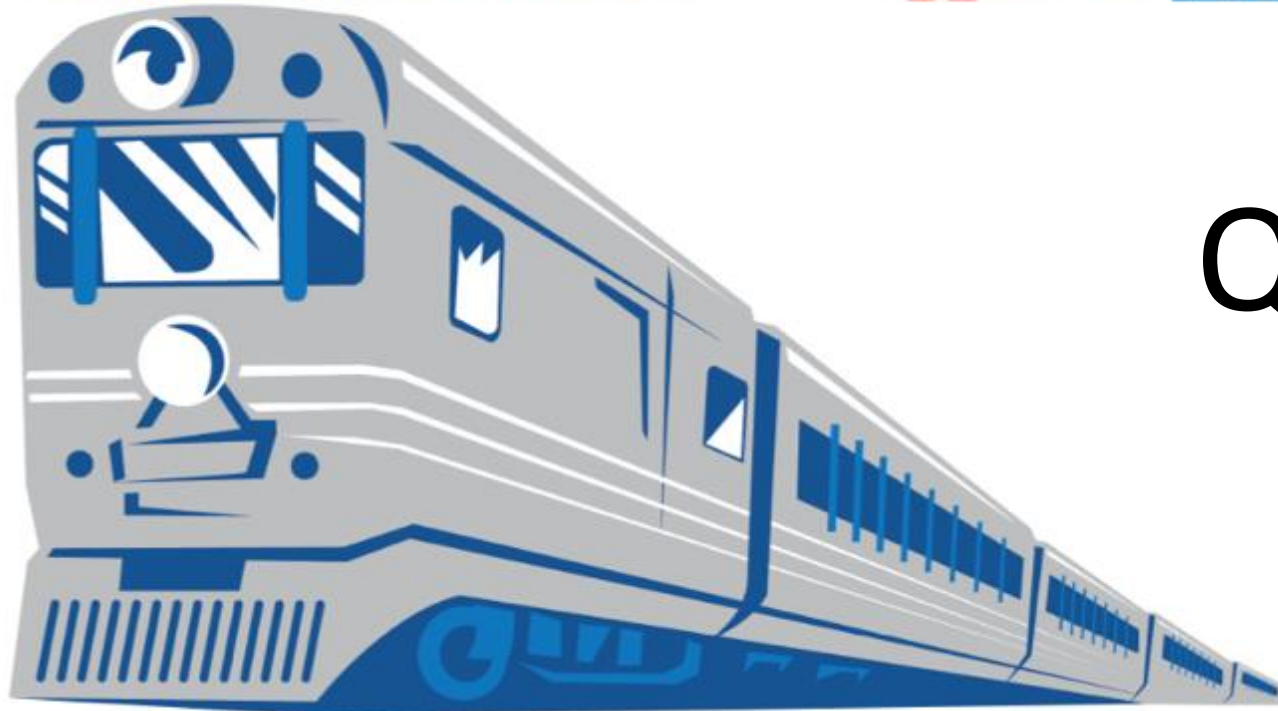
NOTE: Design can begin in 2023, with R/W acquisition and construction could begin in 2025 with initial operations potentially starting in 2028, depending upon adoption of the Refined LPA and associated access agreement, funding and implementation plans and FTA approvals.



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Questions???