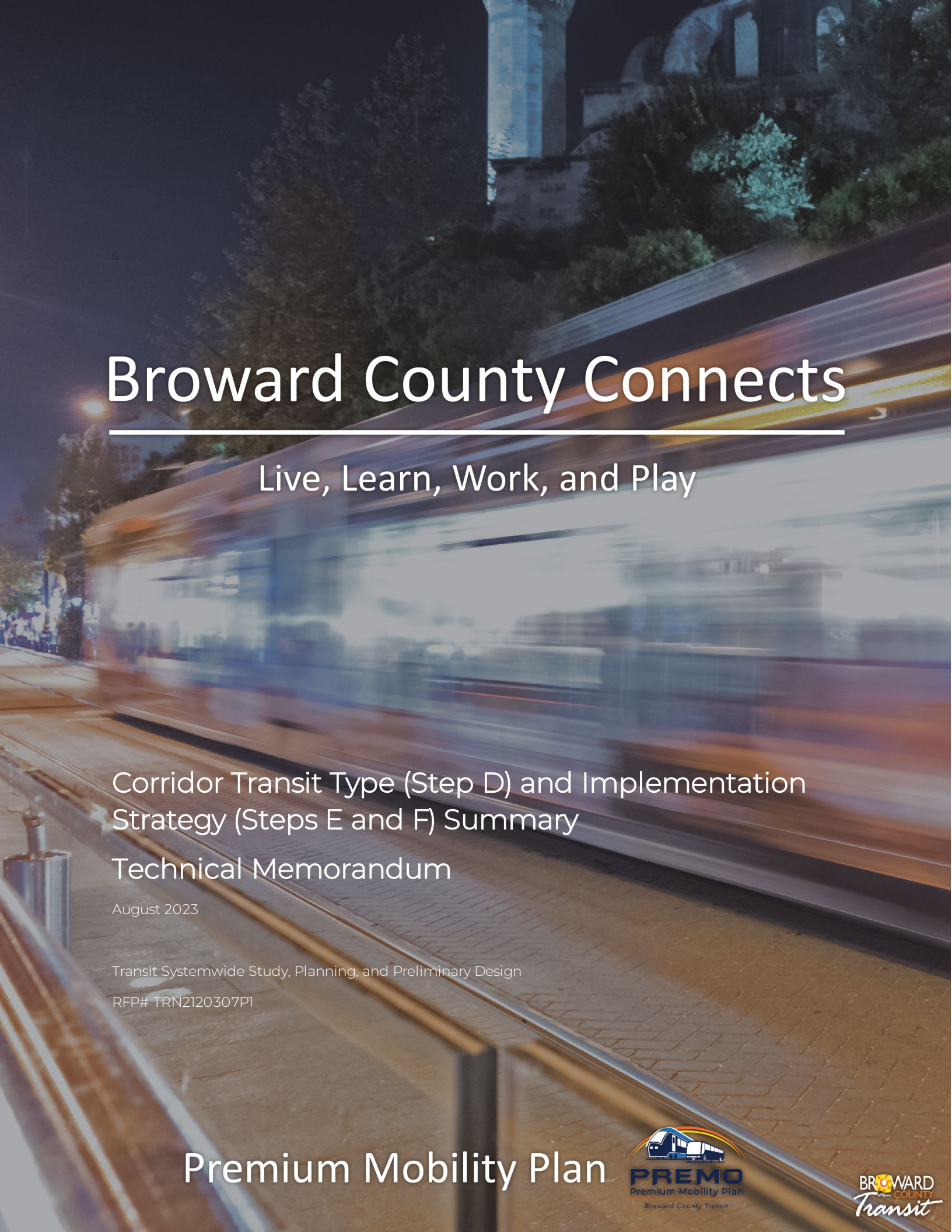

Broward County Connects

Live, Learn, Work, and Play

Corridor Transit Type (Step D) and Implementation Strategy (Steps E and F) Summary

Technical Memorandum

August 2023

Transit Systemwide Study, Planning, and Preliminary Design

RFP# TRN2120307P1

Premium Mobility Plan

PREMO
Premium Mobility Plan
Broward County Transit

BROWARD COUNTY Transit

Name:	Broward County Transit Systemwide Study, Planning, and Preliminary Design
RFP Contract Number:	TRN2120307P1
Project Limits:	Broward County (Entire County)
Proposed Activity:	Provide a transit systemwide study including planning and preliminary designs resulting in the Premium Mobility Plan (PREMO)
Document Purpose:	Description and documentation of BCT Premium Mobility Plan's Step D, E and F approach, methodology, coordination, and results.

Prepared for
Broward County

Prepared by
WSP

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Acronyms and Abbreviations

BCT	Broward County Transit
CIG	Capital Investment Grant
CTPP	Census Transportation Planning Package
FDCA	Florida Department of Community Affairs
FDOR	Florida Department of Revenue
FDOT	Florida Department of Transportation
FG	Fixed Guideway
FLL	Ft. Lauderdale-Hollywood International Airport
FLU	Future Land Use
FTA	Federal Transit Administration
GIS	Geographic Information System
JTW	Journey to Work
KNR	Kiss-n-Ride
LEHD	Longitudinal Employer-Household Dynamics
LPA	Locally Preferred Alternative
MAP Broward	Mobility Advancement Program
OD	Origin-Destination
PAG	Project Advisory Group
PNR	Park-n-Ride
PREMO	Broward County Transit Premium Mobility Plan
SMART	Strategic Miami Area Rapid Transit
STOPS	Simplified Trips on Project Software
TAZ	Traffic Analysis Zone
TDP	Transit Development Plan
TOD	Transit Oriented Development
TSP	Transit Signal Priority
VMT	Vehicle Miles Traveled

1. Introduction

PREMO incorporates the goals of the Penny for Transportation Surtax Program. This program, referred to as the Broward Mobility Advancement Program (MAP Broward), provides funding support for improving transit service, enhancing multimodal options, and ensuring economic development and benefits. The Transportation Surtax took effect on January 1, 2019.

This document outlines Step D of PREMO to identify the appropriate modes of transit for the recommended PREMO network. This document also outlines Steps D, E, and F of PREMO to identify the appropriate PREMO implementation strategy.

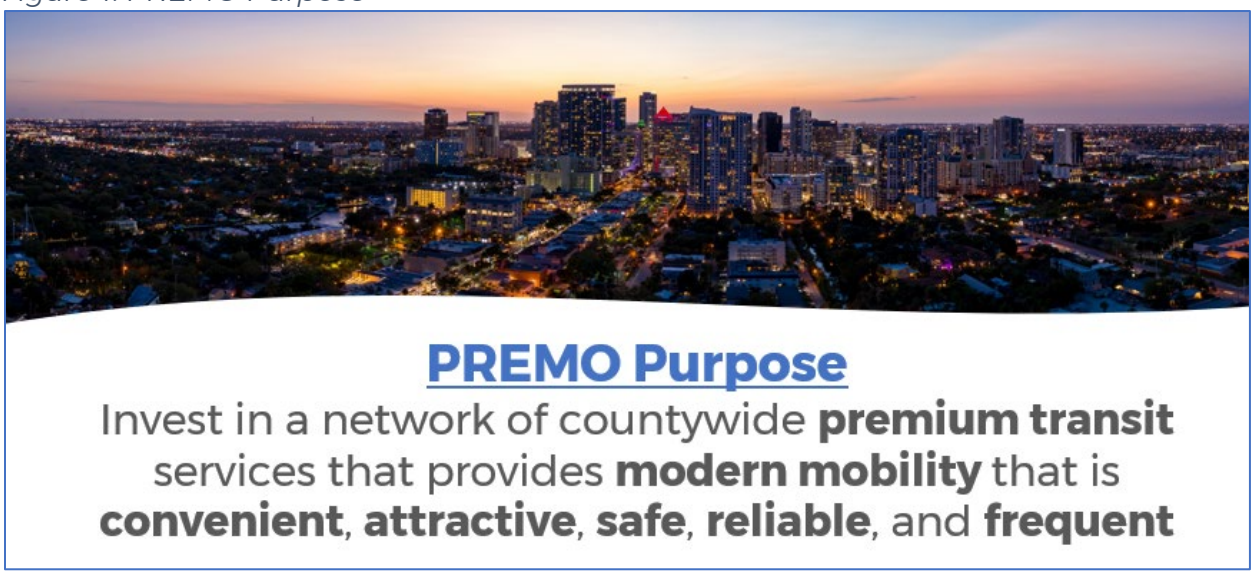
1.1 PREMO Purpose

PREMO will define a vision for a world-class premium transit network in Broward County. To achieve this vision, PREMO strategically identifies a program of projects that sequences the implementation of premium transit services —connecting local Broward County Transit (BCT) routes to regional services.

Premium transit is an expression that describes high-capacity transit projects that are modern, convenient, attractive, safe, and reliable. Premium transit can also include investments that give preferential treatment to transit in the form of exclusive or shared transit lanes and the use of technologies that give transit a priority at signalized intersections.

PREMO will closely follow Federal Transit Administration (FTA) Capital Investment Grant (CIG) guidelines, while coordinating closely with the Florida Department of Transportation (FDOT), the Broward County Public Works Department, municipal partners, and other stakeholders.

Figure 1: PREMO Purpose



1.2 PREMO Goals

PREMO will evaluate and recommend the location and mode of various premium transit service investments in Broward County. The goals of PREMO include:

- Improve Mobility For All: ensure mobility improvements for all who live, work, and travel in Broward County through implementing a reliable, premium transit service
- Implement Equitable Transit Solutions: ensure that transit improvements provide access to jobs, services, and destinations from all communities throughout Broward County, with a focus on equitable connections for transit dependent populations and underrepresented communities
- Improve Safety and Security, and Ensure Environmental Stewardship: provide safe mobility options that minimize impacts to the environment and ensure that customers and communities are safe and secure
- Enhance Economic Development and Ensure Financial Sustainability: implement cost-effective transit solutions to encourage transit-supportive development while providing improved access and connectivity to employment areas and population centers
- Integrate and Serve Communities: implement transit investments with connections to multimodal hubs, employment centers, and activity centers to connect with existing and future development that is oriented for transit

1.3 PREMO Process

PREMO follows a tiered technical evaluation process, with each tier addressing a single key question. The answer to each question facilitates the development of the PREMO Plan, serves County needs, and meets established goals. Figure 2 illustrates the PREMO process starting with the identification of a premium transit network (Step A) and resulting in a sequenced program of projects (Step F) for implementation.

Figure 2: PREMO Evaluation Process

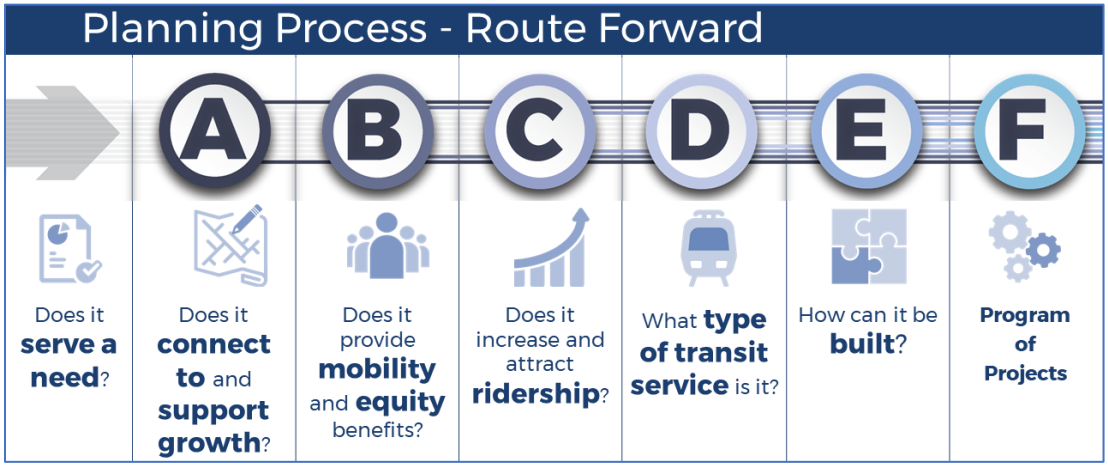


Table 1 provides a detailed summary of the PREMO process. PREMO will be directed by the outcomes of technical analyses, stakeholder direction, and public opinion.

Table 1: PREMO Process Steps

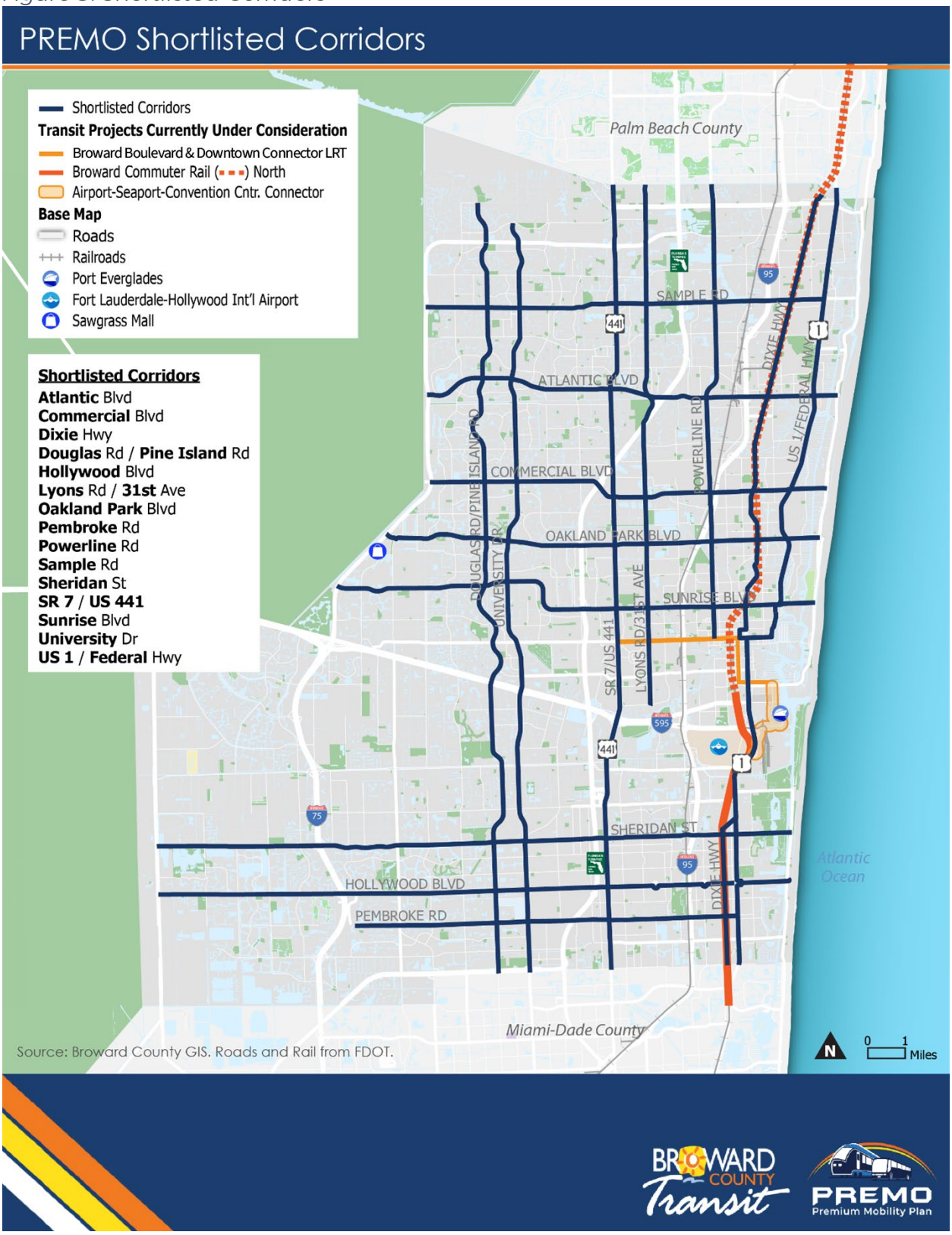
Step	Key Question to be Addressed	Anticipated Outcome
Initial	Does the proposed PREMO corridor address a County mobility need?	**Initial Network:** List of initial candidate corridors to be considered for premium transit
A	Does the proposed PREMO corridor connect to and support County growth?	**Initial Corridors:** Approximately 20 top performing corridors to be considered for a premium transit investment
B	Does the proposed PREMO corridor provide mobility and equity benefits?	**Shortlisted Corridors**: Approximately 10 top performing corridors to be considered for a premium transit investment
C	Does the proposed PREMO corridor increase and attract transit ridership?	**Demand for Ridership**: Evaluate ridership demand and match appropriate transit types for each Shortlisted Corridor
D	What type of transit service best serves the proposed PREMO corridors?	**Define the Preferred Transit Type**: Validated and defined the recommend transit type for each Shortlisted Corridor
E & F	How can the proposed PREMO projects best be built?	**Implementation Strategy:** A sequenced program of projects and each project's proposed implementation strategy

1.4 Summary of Prior Step Results

As we began to develop PREMO, the Initial Network consisted of the major north-south and east-west roads within Broward County that have the potential to serve both existing and future mobility needs. Leading up to Steps D and E, the PREMO technical screening Steps A, B, and C identified top performing corridors for a potential premium transit investment, or the Shortlisted Corridors are shown on **Figure 3**. These Shortlisted Corridors include:

- Atlantic Boulevard
- Commercial Boulevard
- Dixie Highway
- Douglas Road/Pine Island Road
- Hollywood Boulevard
- Lyons Road / 31st Avenue
- Oakland Park Boulevard
- Pembroke Road
- Powerline Road
- Sample Road
- Sheridan Street
- SR 7 / US 441
- Sunrise Boulevard
- University Drive
- US-1 / Federal Highway

Figure 3: Shortlisted Corridors



1.4.1 Broward County Transit Projects Currently Under Consideration

PREMO recognizes the importance of projects currently being considered by Broward County. While these efforts are being discussed or studied under separate but parallel efforts, they are part of the broader Broward County premium transit network and meet the goals of PREMO. These projects include Broward Commuter Rail, the Airport-Seaport-Convention Center Connector Downtown Connector, and Broward Boulevard,.

Broward Commuter Rail – South

Broward Commuter Rail South (Figure 4) is a proposed 11.5-mile commuter service operating together with Brightline on the FEC line and connecting to the south with Aventura and Miami, with proposed future northern extension to Palm Beach County. Three new Broward County stations are proposed:

- SW 15th St/SW 17th St. (near Broward Health Medical Center) – Ft. Lauderdale
- Ft. Lauderdale/Hollywood International Airport
- Tyler Street/Taylor Street – Hollywood

The project goals are to enhance regional mobility, provide congestion relief on roadways, and foster economic growth. The Broward County Board of County Commissioners selected an LPA in August 2022, and the FTA subsequently approved project development in December 2022. With total project capital expenses estimated at $297 million, 50% of needed funding is anticipated from the FTA's Small Starts grant program.

Figure 4: Broward Commuter Rail Project Map

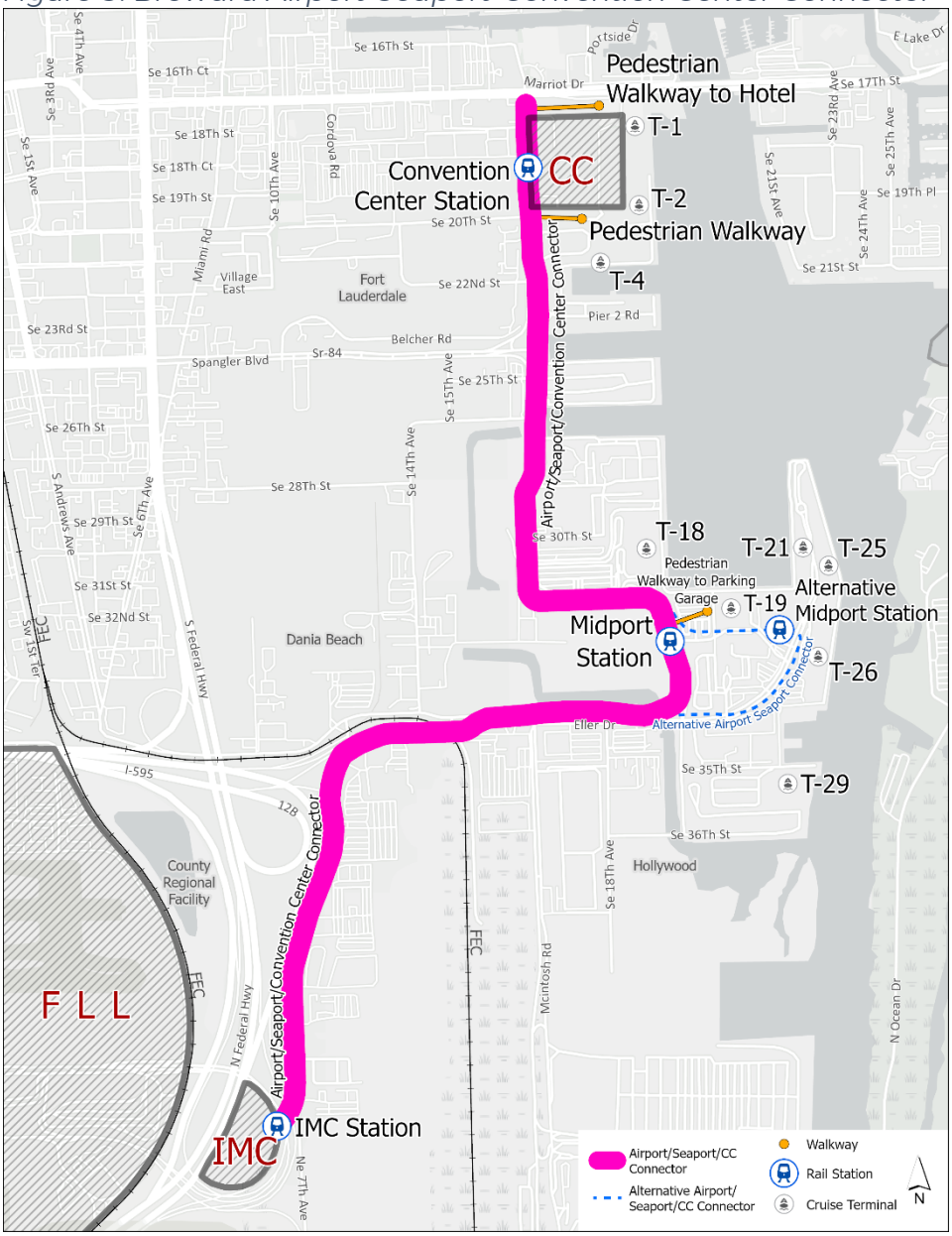
Airport-Seaport-Convention Center Connector LRT

Broward County will study light rail transit (LRT) connecting Ft. Lauderdale-Hollywood International Airport (FLL), Port Everglades, and the Broward County Convention Center (Figure 5). BCT advanced the project by including capital planning budget funding of $81.7 million in FY25 for planning, design, and project management and $202.5 in FY27 for construction, anticipating FTA New Starts support for 50% of the total program cost.

The Airport-Seaport-Convention Center Connector is planned to be 3.5 miles with 3 stations:

- Intermodal Center (at FLL)
- Midport (Port Everglades)
- Convention Center

Figure 5: Broward Airport-Seaport-Convention Center Connector

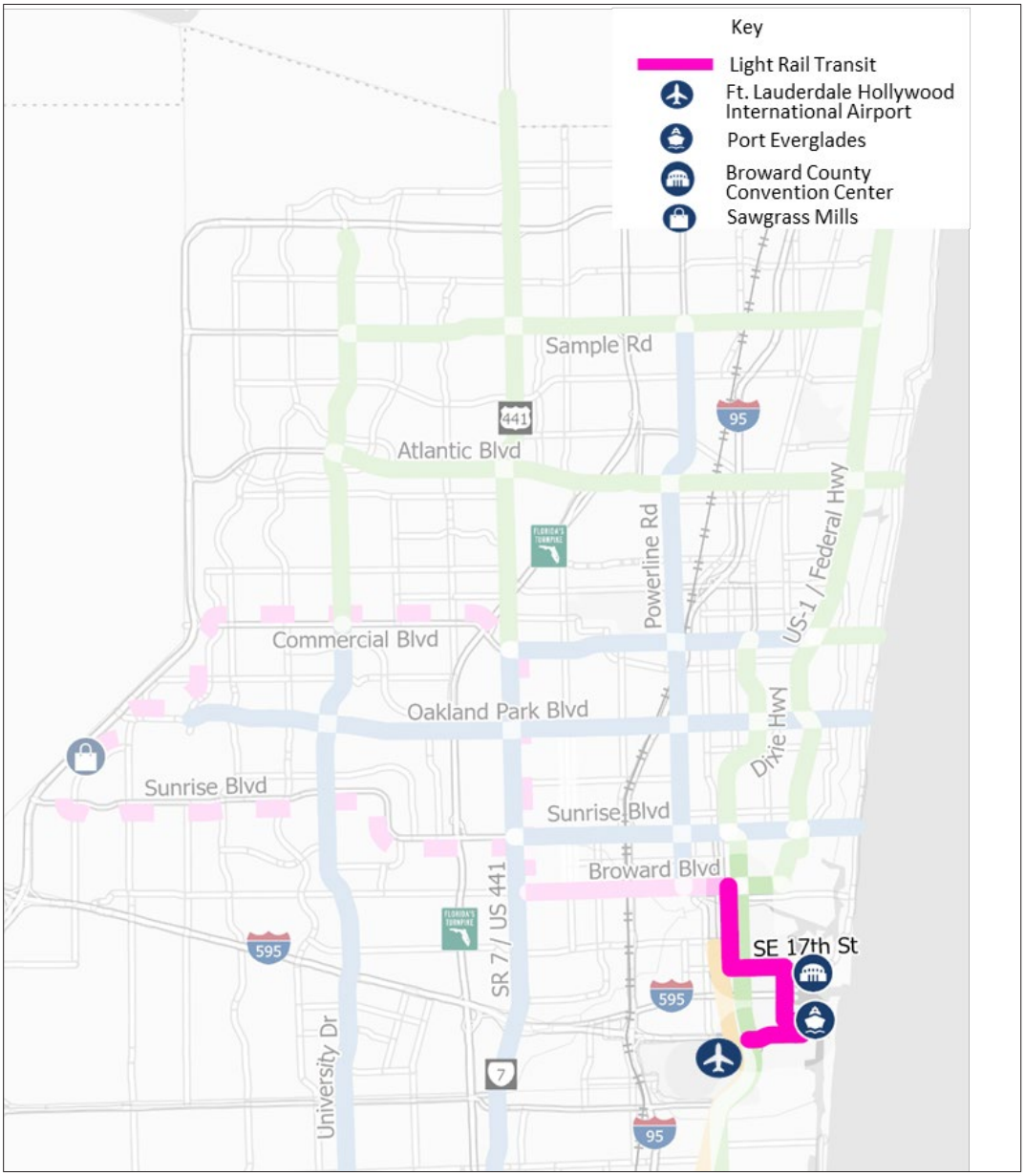


Downtown Connector LRT

The Downtown Connection LRT is a logical extension from the Convention Center to Downtown Fort Lauderdale (Figure 6). The project will add 4 miles of light rail west along SE 17th Street and north to downtown, passing near the Broward Health Medical Center and the Broward County Courthouse complex and connecting these locations with the seaport and airport.

Alignment and station locations are to be finalized; projected opening is 2035

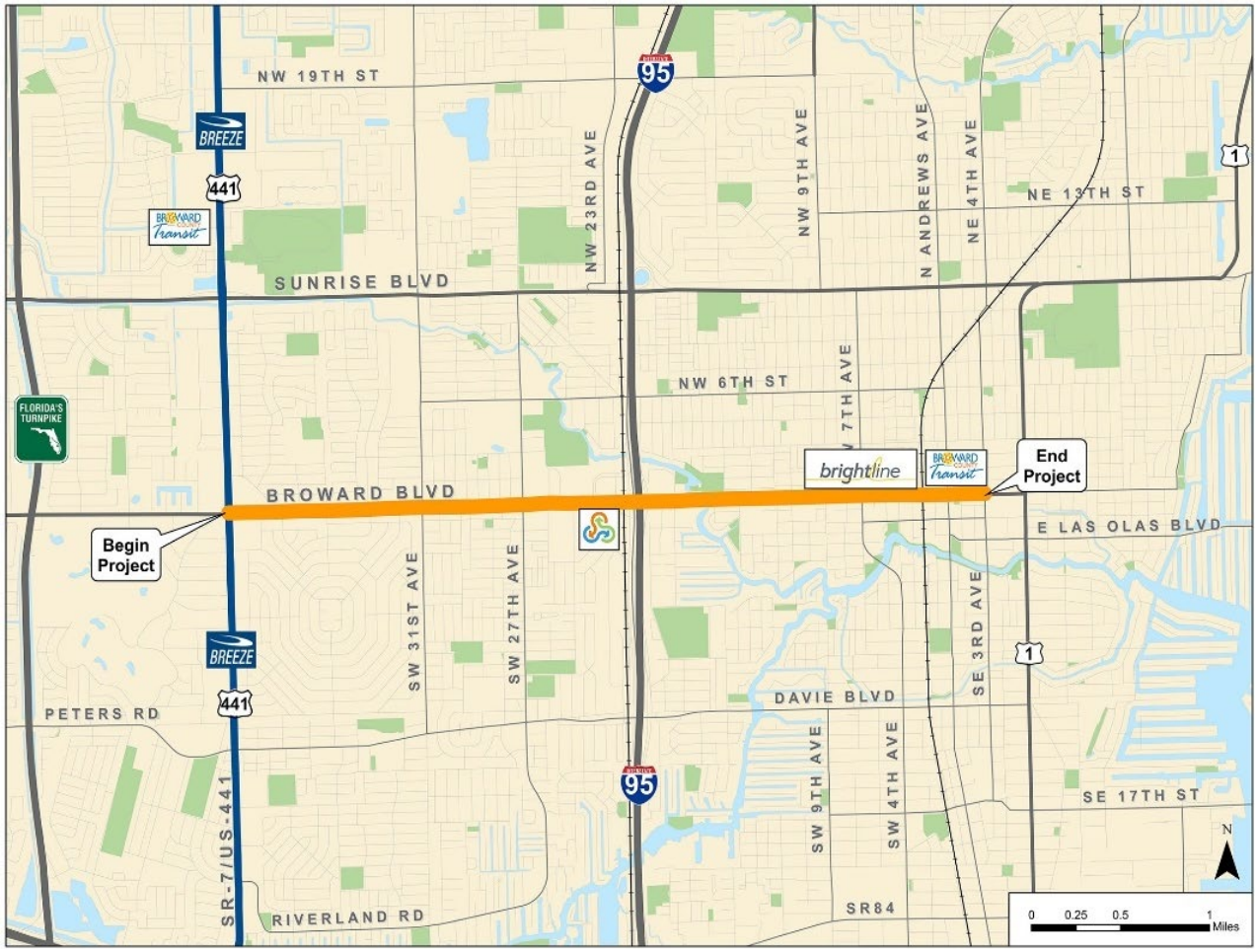
Figure 6: Downtown Connector LRT



Broward Boulevard LRT

Broward County and FDOT D4 have initiated the Broward Boulevard Premium Transit (BBPT) Study (Figure 7), which includes a technical evaluation of a premium east-west transit service along the segment of Broward Boulevard from approximately SR 7/US 441 in the City of Lauderhill to approximately East 3rd Avenue in Downtown Fort Lauderdale. The purpose of this project is to provide mobility options and make important transit connections within the study area, including SR 7/US 441 Breeze and local service, the 95 Express Bus and Tri-Rail station at Broward Boulevard and I-95, and with the Brightline Station and Broward County Transit (BCT) Central Terminal in Downtown Fort Lauderdale.

Figure 7: Broward Boulevard Study Map



1.4.2 Transit Suitability and Ridership Demand

PREMO Step C technical screening evaluated which transit types are best suited to meet the goals of PREMO and best serve the forecasted ridership demand along each Recommended Corridor. This PREMO Step C evaluation included the following:

- Considered transit types such as, Bus Rapid Transit (BRT), Commuter Rail, Heavy Rail, Light Rail Transit (LRT), and High Frequency Bus (refer to *PREMO Step C Technical Memorandum*). It was determined that BRT, LRT, and High Frequency Bus best met the PREMO goals.
- Determined Recommended Corridors' potential forecasted ridership demand using the FTA's Simplified Trips on Projects Software (STOPS) model. This forecasted ridership data identified the logical termini for the Step C corridors.
- Used the FTA Capital Investment Grant guidelines for cost effectiveness, to determine whether BRT, LRT, or both were the most effective transit type for each corridor as summarized in Table 2.

Table 2: Step C Recommended Corridors and Suitable Transit Type

Step C Recommended Transit Type and Termini			
Step C Recommend Corridor	Does BRT Serve the Corridor's Ridership Demand?	Does LRT Serve the Corridor's Ridership Demand?	Recommended Corridor Termini
Atlantic Blvd	Consider High Frequency Bus		SR 869 to A1A
Commercial Blvd	Yes	Evaluate high performing segments	SR 869 to A1A
Dixie Hwy	Yes	Yes	Hollywood Blvd to Sample Rd
Douglas Rd/Pine Island Rd	Consider High Frequency Bus		Miramar Pkwy to Hollywood Blvd and Griffin Rd to Sample Rd
Hollywood Blvd	Consider High Frequency Bus		I-95/Tri-Rail to US 1
Lyons Rd/31st Ave	Yes		Davie Blvd. to SR 869
Pembroke Rd	Consider High Frequency Bus		University Dr to U.S. 1
Powerline Rd	Yes		Broward Blvd to Sample Rd.
Sample Rd	Consider High Frequency Bus		Pine Island Rd to U.S. 1
Sheridan St	Consider High Frequency Bus		University Dr to A1A
SR 7/US 441	Yes	Evaluate high performing segments	Countyline Rd to Sample Rd
Sunrise Blvd	Yes		SR 869 to A1A
University Dr	Yes	Evaluate high performing segments	Miramar Pkwy to Sample Rd
US-1 – Federal Hwy	Yes	Evaluate high performing segments	Hallandale Beach Blvd to Copans Rd

2. Step D Approach

The purpose of PREMO Step D shifts the PREMO analysis away from corridor comparisons toward identifying premium transit project opportunities. This was accomplished by validating the transit type that effectively serves each Recommended Corridor, validating logical termini, and identifying preliminary station locations. Key Step D analyses included:

- Conducting detailed FTA STOPS ridership forecasting with the assigned transit type recommended in Step C
- Validating transit type recommendations for each corridor based on its ability to meet project rating guidelines as defined by the FTA Capital Investment Grant (CIG) program

2.1 Step D Ridership Forecasting

STOPS predicts the trips-on-project measures and the change in automobile vehicle miles traveled (VMT), a calculation needed for the environmental measure in the FTA CIG application. STOPS applies a set of travel models to predict detailed transit travel patterns, quantify transit ridership, and compute the change in automobile VMT based on the change in overall transit ridership between the two scenarios. STOPS has been calibrated and validated against current ridership on 24 fixed-guideway systems in 15 metropolitan areas in the United States. Consequently, STOPS is based on travel behaviors in a broad range of contexts – in contrast to the conventional calibration of regional travel models only for individual metropolitan areas where they are applied. When it is applied in a specific metropolitan area, STOPS makes adjustments to its basic calibration using (1) the current total number of system-wide transit boardings, (2) the share of CTPP (U.S. Census Transportation Data) worker flows to jobs in each subarea that is captured by transit, and (3) the daily number of boardings at individual stations on any existing fixed-guideway facilities. More information on STOPS can be found on FTA's website[1].

STOPS has been calibrated using rider-survey datasets from six metropolitan areas with fixed-guideway systems:

- Atlanta: heavy rail
- Charlotte: light rail
- Denver: light rail
- Phoenix: light rail
- San Diego: light rail (2), commuter rail
- Salt Lake City: light rail, commuter rail, bus rapid transit

STOPS has also been validated against station-specific counts of trips in nine other metropolitan areas that have fixed-guideway systems:

[1] Source: Federal Transit Administration: https://www.transit.dot.gov/funding/grant-programs/capital-investments/overview-stops

- Kansas City: bus rapid transit
- Houston: light rail
- Minneapolis: light rail, commuter rail
- Nashville: commuter rail
- Norfolk: light rail
- Portland: light rail, commuter rail, streetcar
- San Jose: light rail
- Seattle: light rail, commuter rail, streetcar
- St. Louis: light rail

The STOPS model used for PREMO was customized for the southeast region of Florida, and was originally developed to support ongoing planning, development, and funding applications for Miami-Dade County's Strategic Miami Area Rapid Transit (SMART) plan. The model was adjusted and refined for transit ridership estimation in Broward County. Broward County-specific ridership forecasting uses adopted Broward MPO population and employment forecasts.

2.1.1 District System

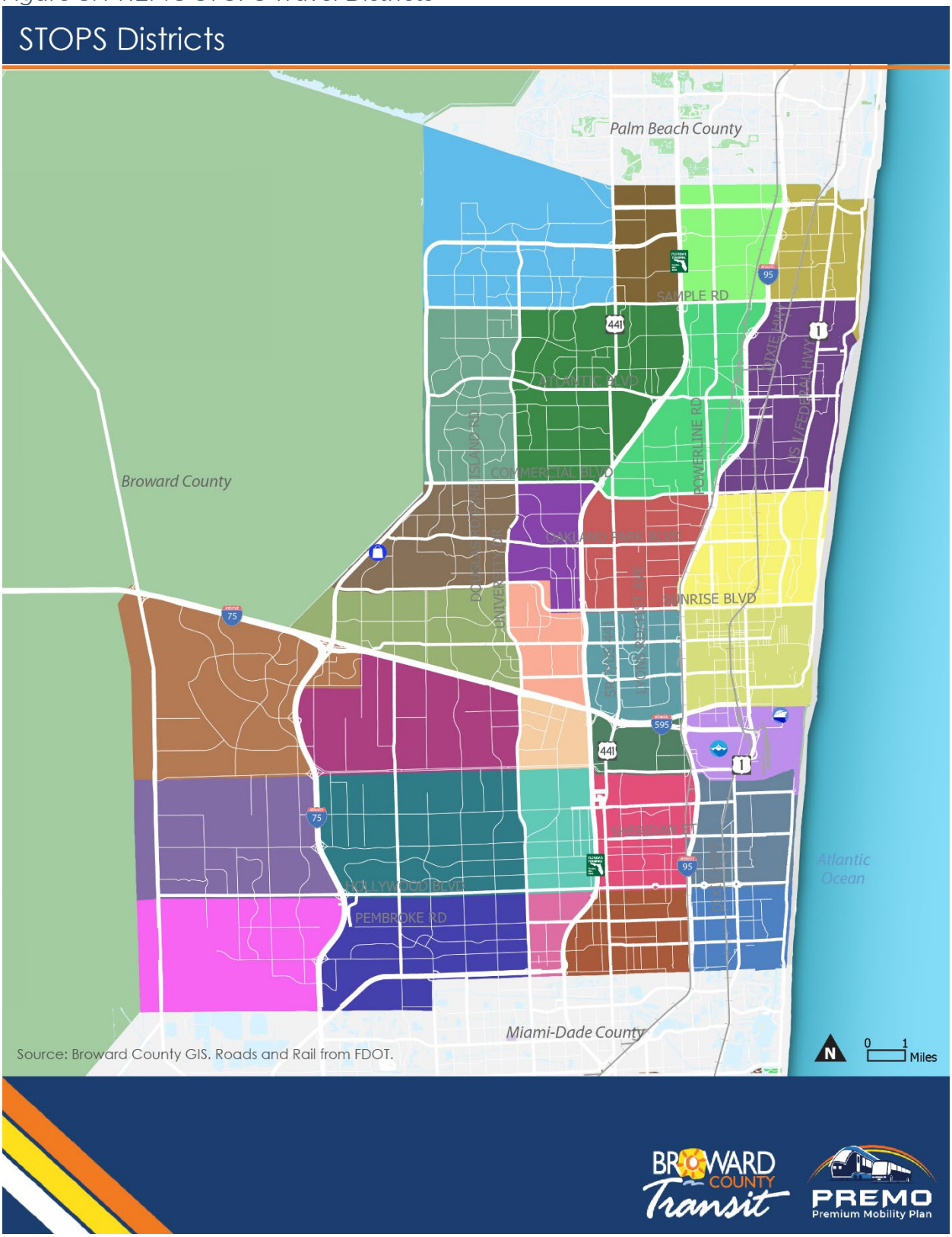
STOPS uses districts to define a logical grouping of Traffic Analysis Zones (TAZs), or special areas delineated by transportation officials for tabulating traffic-related data, both within transportation corridors and throughout the region. Districts are used by STOPS to scale the Census Transportation Planning Package (CTPP) Journey to Work (JTW) trips to the MPO population and employment forecasts and for reporting STOPS outputs within a logical and concise framework.

The modeling team defined districts both within the existing transit corridors and throughout the region. Smaller districts were specified in areas with high transit ridership such as downtown areas. A total of 31 districts were used for Broward County. Figure 8 shows a map of the districts used for analysis.

2.1.2 Outputs

During Step D, the Step C recommended transit types of either BRT or LRT (or both) for each corridor were modeled using STOPS to validate the effectiveness of the proposed transit type for inclusion within the PREMO Network and Program of Projects.

Figure 8: PREMO STOPS Travel Districts



2.1.3 Modeling Methodology

STOPS has three approaches that can be used to develop ridership forecasts: "Synthetic," "Synthetic with Special Markets," and "Incremental." The "Synthetic" approach relies on the Census Transportation Planning Package (CTPP) data and demographic data from the regional travel model to estimate transit trips. In this approach, the model self-calibrates to local conditions using user-provided aggregated data, transit network information, and roadway network information. The "Synthetic" approach is used to forecast ridership for PREMO.

STOPS provides the option of reading station/stop or route level count data and using this information to refine the model calibration. PREMO STOPS modeling adjusts the person(s) origin-destination (OD) trip table based on a comparison of modeled and observed route-level ridership. This option results in an almost identical match between modeled and observed route-level ridership.

2.1.4 Step D Station and Operating Assumptions

PREMO Step D ridership forecasting assumed service hours between 6:00 AM and 10:00 PM with a frequency or headway of 15 minutes all day. The following lists additional assumptions used as a basis for PREMO Step D STOPS ridership forecasting:

- An average transit speed of 25mph for BRT and 35mph for LRT (based on national best practices)
- Fixed guideway setting of 0.3 for BRT and 1.0 for LRT (referencing FTA STOPS guidelines)
- Transit signal priority (TSP) at major intersections
- Opportunities for transfers between the proposed project and the existing BCT local fixed-route bus network

2.1.5 Preliminary Stop Locations for Ridership Forecasting

The stop locations used during Step C were refined for Step D. As described in Section 3.2.1 of the Step C document, PREMO first evaluated corridors with stations/stops placed half a mile apart and located at or near existing BCT stop locations.

Step C preliminary station locations with less than 50 daily boardings and land use access barriers were removed. In addition, the termini of the alternatives were modified based on ridership productivity. Park and Ride (PNR) facilities were assigned only to the stations with a high forecasted PNR demand – i.e. assuming large numbers of riders would drive from their neighborhood and park to take transit to their destination.

2.2 Performance Measures

PREMO evaluated candidate premium transit corridors to determine how well each recommendation satisfies the identified PREMO goals. In doing so, performance measures are aligned with PREMO goals and objectives. These performance measures were refined as PREMO steps were completed to capture and react to new information derived from the analyses.

As with prior PREMO Steps, a corridor or a potential project's performance against a performance measure is carried forward throughout the PREMO Plan Development. Table 3 describes the performance measures used for Step D.

2.2.6 FTA Capital Investment Grant Project Rating Guidelines

During Step D detailed ridership forecasts derived from the STOPS model were used to replicate the FTA CIG Project Rating Guidelines. The US Department of Transportation and FTA published the Final Interim Policy Guidance for the CIG Program in 2016, which can be found on FTA's website (www.transit.dot.gov). These guidelines govern how FTA evaluates and rates the projects seeking funding under the CIG program authorized by Section 5309 of Title 49, U.S. Code.[2]

When possible, FTA established the breakpoints for ratings based on available research. When such research was not available for a particular criterion or measure, FTA established an initial set of breakpoints based on the performance measures available from projects previously and currently in the program. During Step D, PREMO used FTA rating guidance for mobility improvements, congestion relief, and environmental benefits to rank potential premium transit projects, as illustrated in Table 4. These ratings use FTA guidance but did not consult FTA for an FTA-approved project rating.

[2] FTA Final Interim Policy Guidance, Capital Investment Grant Program, June 2016

Table 3: Step D Performance Measures

<table>
<tr><th>PREMO Goal</th><th>Evaluation Criteria</th><th>Measure of Effectiveness</th><th>Data Source/Analysis Tool</th><th>Measurement Thresholds</th><th>Scoring Methodology</th></tr>
<tr><td rowspan="4">Improve Mobility for All</td><td>Bicycle Connections</td><td>Miles of bicycle and trail facilities within a 1/2-mile buffer of the top 20 corridors. Calculated as a per corridor mile average.</td><td>Broward County and Municipal GIS Data/ Tool: GIS</td><td rowspan="4">Range of Data Results (Corridors Evaluated Against Each Other) Divided into Percentiles.</td><td rowspan="4">Range of Data Results (Corridors Evaluated Against Each Other) Divided into Percentiles. With the Highest Percentile Scored as 5.0 points or listed as “High”. As follows:

<table><tr><th>Score</th><th>Rating</th><th>Description</th></tr><tr><td>5</td><td>High</td><td>Top Performing Percentile Rank</td></tr><tr><td>4</td><td>Medium High</td><td>Second Best Performing Percentile Rank</td></tr><tr><td>3</td><td>Medium</td><td>Third Best Performing Percentile Rank</td></tr><tr><td>2</td><td>Medium Low</td><td>Fourth Best Performing Percentile Rank</td></tr><tr><td>1</td><td>Low</td><td>Fifth Best Performing Percentile Rank</td></tr></table></td></tr>
<tr><td rowspan="2">Pedestrians Connections</td><td>Street block densities within a 1/2-mile buffer of the top 20 corridors. Calculated as a per corridor mile average.</td><td>Broward County and Municipal GIS Data/ Tool: GIS</td></tr>
<tr><td>Sidewalk facilities within a 1/2-mile buffer of the top 20 corridors. Calculated as a per corridor mile average.</td><td>Broward County and Municipal GIS Data/ Tool: GIS</td></tr>
<tr><td>Existing Corridor Capacity and Congestion</td><td>Corridor volume to capacity (v/c) ratio and level of service of the top 20 corridors. With greater levels of congestion providing the best opportunity for premium transit to provide mobility benefits.</td><td>Most Recent Traffic Counts, Broward County and Municipal GIS Data/ Tool: FDOT Traffic On-line Portal and Spreadsheet Analyses</td></tr>
<tr><td>Future Corridor Capacity and Congestion</td><td>Corridor v/c ratio and level of service of the top 20 corridors. With greater levels of congestion providing the best opportunity for premium transit to provide mobility benefits.</td><td>SERPM8 Future Data, Broward County and Municipal GIS Data/ Tool: SERPM8</td></tr>
<tr><td rowspan="3">Providing Access to Jobs, Affordable Housing, and Activity Centers</td><td>Access to Jobs</td><td>Number of existing jobs within a 30-minute transit trip. Isochrone analysis using existing BCT network and premium transit corridor (1/2-mile job buffer from Isochrone). Calculated as a per corridor mile average.</td><td>Broward County and Municipal GIS Data / Tool: TransCAD</td><td rowspan="3">Range of Data Results (Corridors Evaluated Against Each Other) Divided into Percentiles.</td></tr>
<tr><td>Access to Activity Centers</td><td>Number of activity centers within a 30-minute transit trip. Isochrone analysis using existing BCT network and premium transit corridor (1/2-mile activity centers buffer from Isochrone).</td><td>Broward County FLUM and Municipal GIS Data/ Tool: TransCAD</td></tr>
<tr><td>Access to Affordable Housing</td><td>Number of affordable housing units within a 30-minute transit trip. Isochrone analysis using existing BCT network and premium transit corridor (1/2-mile existing affordable housing buffer from Isochrone).</td><td>Broward County and Municipal GIS Data/ Tool: TransCAD</td></tr>
</table>

Table 3 Continued

PREMO Goal	Evaluation Criteria	Measure of Effectiveness	Data Source/Analysis Tool	Measurement Thresholds	Scoring Methodology
Implement Equitable Transit Solutions	Access to Affordable Housing	Number of publicly assisted housing units within a ½mile network buffer	Shimberg Center for Housing Studies 2018, Assisted Housing Inventory	Range of Data Results (Corridors Evaluated Against Each Other) Divided into Percentiles.	Range of Data Results (Corridors Evaluated Against Each Other) Divided into Percentiles. With the Highest Percentile Scored as 5.0 points or listed as "High". As follows:
	Equity and Transit Dependent Populations	Existing transit dependent populations and populations below poverty, racial minority, ethnic minority, youth (10 -17 years) and older adults (65 year and older), Limited English Proficiency (LEP), zero-car households, and disabled within a 1/2-mile buffer of the top 20 corridors. Calculated as a per corridor mile average.	SERPM8 Data and/or US Census; American Community Survey/ Tool: GIS		
Mobility for Existing Riders	Existing Transit Ridership	Number of transit trips on existing BCT routes/existing mode share	FY 2021-2022 Annual BCT Ridership Data, Replica Data		
Integrate with and Serve Communities (land use)	Population (Existing and Future)	Average population density (persons per square mile) for the years of 2015 and 2045 within a ½ mile network buffer	Broward County's Population Forecast and Allocation Model; SERPM 8 base year with conservative growth rate	Federal Transit Administration (FTA) Capital Investment Grant (CIG) Project Rating Guidance (New Starts, Small Starts Guidance)	
	Employment (Existing and Future)	Average employment density (jobs per square mile) for the years of 2015 and 2045 within a ½ mile network buffer	Broward County's Population Forecast and Allocation Model; SERPM 8 base year with conservative growth rate		
	Connection to Services (Existing)	Number of schools, medical uses (hospitals), public facilities (libraries) and airports within a ½mile network buffer	Broward County and Municipal GIS Data		
Enhance Economic Development and Ensure Financial Sustainability	Potential to Increase Affordable Housing	Assessment of existing affordable housing policy by jurisdiction	Jurisdictional Code of Ordinances		
	Future Redevelopment and Infill Potential	Analyze the redevelopment potential for parcels within a ½mile buffer of each corridor. considers land use and vacancy	Broward County and Municipal Data and Plans, Florida Department of Revenue (FDOR) parcel data publications (2021)	Range of Data Results (Corridors Evaluated Against Each Other) Divided into Percentiles.	
	Suitability for Transit-Oriented Development (TOD) and Redevelopment	Analyze the readiness of an area (within a ½ mile buffer of each corridor) for TOD	American Community Survey (2019), LEHD Origin-Destination Employment Statistics (2018), FDOT, Florida Department of Community Affairs (FDCA), and FDOR parcel data (2021)		
	Transit Supportive Policies	Assessment of existing TOD policy by jurisdiction	Jurisdictional Code of Ordinances		

Score	Rating	Description
5	High	Top Performing Percentile Rank
4	Medium High	Second Best Performing Percentile Rank
3	Medium	Third Best Performing Percentile Rank
2	Medium Low	Fourth Best Performing Percentile Rank
1	Low	Fifth Best Performing Percentile Rank

Table 4: FTA CIG Project Rating Guidance (Mobility Improvements, Congestion Relief, and Environmental Benefits)

FTA Project Rating Guidance	Measure of Effectiveness	Measurement Thresholds	FTA Rating
Mobility Improvements	Mobility Improvements: Estimated Annual Trips (Trips by Non-Transit Dependent Persons plus Trips by Transit Dependent Persons multiplied by 2)	> 30 million	High (Score of 5)
		15 million – 29.9 million	Medium-High (Score of 4)
		5 million – 14.9 million	Medium (Score of 3)
		2.5 million – 4.9 million	Medium-Low (Score of 2)
		< 2.5 million	Low (Score of 1)
Congestion Relief	New Weekday Linked Transit Trips	≥ 18,000	High (Score of 5)
		10,000 – 17,999	Medium-High (Score of 4)
		2,500 – 9,999	Medium (Score of 3)
		500 – 2,499	Medium-Low (Score of 2)
		< 500	Low (Score of 1)
Environmental Benefits	The environmental benefits measure is the sum of the monetized value of the benefits resulting from the changes in air quality and GHG emissions, energy use, and safety divided by the same annualized capital and operating cost of the project as used in the cost effectiveness measure. FTA multiplies the resulting ratio by 100 and expresses the environmental benefit measure as a percentage.	> 10%	High (Score of 5)
		5 – 10%	Medium-High (Score of 4)
		0 – 5%	Medium (Score of 3)
		-10 – 0%	Medium-Low (Score of 2)
		< -10%	Low (Score of 1)

Source: Federal Transit Administration

2.3 Validating Transit Type

Step D validated the effectiveness of the proposed transit type for inclusion within the PREMO Network and Program of Projects. The basis for this evaluation is the Step C recommended transit types (BRT or LRT). A transit type's effectiveness was determined using the FTA CIG Cost Effectiveness Project Rating Guidelines and the results of the Step D ridership forecasts using the STOPS model. Table 5 illustrates the FTA Cost Effectiveness project rating guidance. FTA was not consulted for an FTA-approved project rating.

The cost effectiveness measure is computed as the annualized capital cost plus annual operating and maintenance (O&M) cost of the project divided by the annual number of forecasted trips on the project.[3] PREMO proposed projects that have a sketch-level capital cost estimate over $400 million were assumed to seek FTA "New Starts" CIG funding, whereas proposed projects with sketch-level capital cost estimates below $400 million were assumed to seek FTA "Small Starts" CIG funding.

Table 5: FTA CIG Project Rating Guidance (Cost Effectiveness)

FTA Project Rating Guidance	Measure of Effectiveness	Measurement Thresholds	FTA Rating
New Starts Cost Effectiveness	FTA Cost Effectiveness Breakpoints	< $4.00	High (Score of 5)
		$4.00 – $5.99	Medium-High (Score of 4)
		$6.00 – $9.99	Medium (Score of 3)
		$10.00 – $14.99	Medium-Low (Score of 2)
		> $15.00	Low (Score of 1)
Small Starts Cost Effectiveness	FTA Cost Effectiveness Breakpoints	< $4.00	High (Score of 5)
		$4.00 – $5.99	Medium-High (Score of 4)
		$6.00 – $9.99	Medium (Score of 3)
		$10.00 – $14.99	Medium-Low (Score of 2)
		> $15.00	Low (Score of 1)
Source: Federal Transit Administration			

2.3.7 Capital Cost Assumptions

Development of the PREMO Program of Projects is a countywide premium transit planning effort and does not include detailed design, which is required to develop project capital costs for construction. PREMO used recent FTA CIG Project Profiles for the year 2021 to develop sketch-level capital cost estimates for the purpose of validating proposed transit types in Step D using the FTA Cost Effectiveness project rating guidelines described above. FTA Project Profiles describe high-level project cost estimates for those projects seeking federal funding.

[3] FTA Final Interim Policy Guidance, Capital Investment Grant Program, June 2016

The range of national project cost estimates was used to develop a per mile capital cost estimate for the purposes of Step D evaluations. National project examples that include major structural requirements like tunneling were removed from consideration. Tables 6 and 7 summarize the national transit project profiles used to develop the Step D preliminary per mile cost estimates for BRT and LRT.

Table 6: FTA National BRT Project Profile Examples

Project Name	Date of Cost Estimate	Total Project Capital Cost Estimate (Inflated to 2022$)	Project Length (miles)	Average Cost per Mile
ART N/S Corridor Project, San Antonio, TX	2021	$397,960,070	11.7	$34,013,681
IndyGo Blue Line Rapid Transit, Indianapolis, IN	2019	$239,800,000	24	$9,991,667
Rochester Rapid Transit, Rochester, MN	2020	$121,412,400	2.6	$46,697,077
METRO Gold Line, St. Paul, MN	2021	$547,836,400	10.3	$53,188,000
ART E/W Corridor Project, San Antonio, TX	2021	$329,600,000	11.7	$28,170,940
East-West Corridor Rapid Transit Project, Miami, FL	2021	$309,000,000	13.5	$22,888,889
Flagler St., Miami, FL*	2021	$492,340,000	17.5	$28,133,714
Miami South Corridor Rapid Transit Project, Miami, FL*	2021	$290,763,574	20	$14,538,179
Memphis Innovation Corridor, Memphis, TN	2021	$75,541,230	9	$9,442,654
Atlanta Clayton Southlake BRT Project, Atlanta, GA	2022	$338,100,000	10	$21,812,903
Average BRT Capital Cost Per Mile (Using Above Project Profile Examples)				$26,887,770
Maximum BRT Capital Cost Per Mile (Using Above Project Profile Examples)				$53,188,000
Minimum BRT Capital Cost Per Mile (Using Above Project Profile Examples				$9,442,653
PREMO Step D Capital Cost Assumptions for BRT				$10 M - $50 M per mile
Source: FTA Project Profiles *Note: Project Cost Estimates				

Table 7: FTA National LRT Project Profile Examples

Project Name	Date of Cost Estimate	Total Project Capital Cost Estimate (Inflated to 2022$)	Project Length (miles)	Average Cost per Mile
NW Phase 2 LRT Extension, Phoenix, AZ (includes structures)	2021	$413,359,600	1.6	$258,349,750
South Central Light Rail Extension, Phoenix, AZ	2021	$1,385,442,700	5.5	$251,898,673
Mid-Coast Corridor Project, San Diego, CA (includes structures)	2021	$2,236,336,000	10.92	$204,792,674
Center City Connector, Seattle, WA	2019	$311,205,900	1.3	$239,389,154
Durham Orange Light Rail, Durham, NC	2018	$2,773,456,000	17.8	$155,812,135
Minneapolis Southwest LRT, MN	2021	$2,063,244,500	14.5	$142,292,724
Southwest Corridor LRT, Portland OR	2019	$2,884,000,000	12	$240,333,333
Blue Line LRT, Austin, TX	2021	$2,060,000,000	8.2	$251,219,512
Orange Line LRT, Austin, TX	2021	$3,914,000,000	12	$326,166,667
Average LRT Capital Cost Per Mile (Using Above Project Profile Examples)				$230,028,291
Maximum LRT Capital Cost Per Mile (Using Above Project Profile Examples)				$326,166,666
Minimum LRT Capital Cost Per Mile (Using Above Project Profile Examples				$142,292,724
PREMO Step D Capital Cost Assumptions for LRT				$150 M – $300 M per mile
Source: FTA Project Profiles				

2.3.8 Operating Cost Assumptions

Development of the PREMO Program of Projects is a countywide premium transit planning effort and does not include a detailed concept of operations required to implement transit service. PREMO used recent National Transit Database (NTD) reporting data to develop sketch-level operating cost estimates for the purpose of validating proposed transit types in Step D. PREMO used NTD passenger revenue mile cost examples for BRT and LRT. PREMO then assumed a 16-hour service day with a frequency of 15 minutes to develop an annual per mile operating cost estimate and assumption. This operating cost assumption does not include maintenance costs.

- PREMO Step D assumes a BRT per mile cost to operate between $245,500 and $320,000 annually.
- PREMO Step D assumes an LRT per mile cost to operate between $490,000 and $635,000 annually.

3. Step D Results

3.1 Performance Based on PREMO Goals

During Step D all PREMO shortlisted corridors were scored based on their ability to meet each individual PREMO Goal. The result of this scoring is presented in Table 8.

3.2 Transit Type

Using the Step C recommended transit types, detailed STOPS modeling, and the FTA Cost Effectiveness project rating guidelines, Step D assessed the effectiveness of each proposed transit type along the entire length of the Recommended Corridor. This assessment did not segment Recommended Corridors. The results of this assessment are summarized in Table 9. Broward County transit projects currently under consideration are not included within this assessment, specifically Broward Boulevard, Broward Commuter Rail, Downtown Connector, and Airport-Seaport-Convention Center Connector.

3.3 Step D Recommendations

In coordination with BCT, the following actions were taken based on PREMO Step D analysis results:

- Atlantic Boulevard, Hollywood Boulevard, and Sample Boulevard were recommended to advance to Step E as High Frequency Bus corridors given their lower forecasted ridership activity.
- Dixie Highway and US 1/Federal Highway North and South were recommended to advance to Step E as a High Frequency Bus corridors given their limited right-of-way availability and existing traffic congestion.
- Pembroke Road and Douglas Road/Pine Island Road were removed from inclusion within the PREMO Network given their relatively low forecasted ridership activity and low-cost effectiveness.
- Lyons Road/31st Avenue was removed from consideration given its proximity to the SR 7/US 441 corridor.
- BRT investments along all other Shortlisted Corridors were determined to be effective.
- An LRT investment along the entire length of US 441/SR 7 was determined not to be cost effective. As a result, Step E will consider high ridership segments along this corridor to determine the potential for an LRT investment and an opportunity to connect to the Sawgrass Mills Mall and Broward County regional activity center.

Table 8: Step D Performance Based on PREMO Goals and FTA Guidance

Corridor Name	Improve Mobility for All	Providing Access to Jobs, Affordable Housing, and Activity Centers	Equitable Transit Solutions	Mobility for Existing Riders	Integrate with Communities (land use)	Economic Development	Ridership Demand	FTA Mobility Improvements	FTA Congestion Relief	FTA Environmental Benefits	Average PREMO Score
	Desc.: Bicycle, pedestrian, regional transit and connections; existing and future roadway capacity	Desc.: Access to jobs, Regional Activity Centers, and affordable housing with a 30-minute trip	Desc.: Serves zero car, poverty, minority, youth, older adults, limited English, and ADA households	Desc.: Corridors with high existing ridership	Desc.: Connects to County services (schools, libraries, medical, etc..), activity centers, population density, and employment	Desc.: Potential to increase future affordable housing, encourage redevelopment, and create transit-oriented development	Desc.: Annual ridership projection using FTA STOPS modeling (mode neutral assumption)	Desc.: total daily choice riders, total daily transit dependent riders, annual total trips	Desc.: New daily transit riders	Desc.: Reduction in VMT, emissions, and crashes	
Atlantic Blvd	3.50	1.33	4.13	5.00	2.67	3.00	1.00	1.00	2.00	2.00	2.56
Commercial Blvd	3.33	4.33	2.25	2.00	2.50	3.25	1.00	1.00	2.00	2.00	2.37
Dixie Hwy	3.00	2.33	3.13	3.00	3.50	3.25	4.00	3.00	3.00	4.00	3.22
Hollywood Blvd	3.33	1.00	3.63	3.00	2.83	4.00	1.00	1.00	2.00	2.00	2.38
Oakland Park Blvd	2.83	4.33	4.50	5.00	3.00	4.50	3.00	2.00	4.00	5.00	3.82
Powerline Rd	3.00	4.33	3.50	3.00	2.50	3.75	2.00	2.00	3.00	5.00	3.21
Sample Rd	2.83	2.33	4.38	3.00	2.33	3.75	1.00	1.00	2.00	2.00	2.46
Sheridan St	2.00	1.00	1.88	2.00	1.83	2.75	1.00	1.00	2.00	4.00	1.95
SR 7/US 441	3.50	3.33	3.63	5.00	3.33	2.50	4.00	3.00	3.00	5.00	3.63
Sunrise Blvd	3.00	3.33	3.50	4.00	3.17	2.75	3.00	2.00	3.00	5.00	3.28
University Dr	3.50	2.00	2.88	5.00	2.67	4.50	3.00	3.00	3.00	5.00	3.46
US-1/Federal Hwy	3.50	2.33	2.13	5.00	3.67	2.00	5.00	3.00	3.00	5.00	3.46

Table 9: Step D Transit Type Validation

Corridor Name	Length	Transit Type	Termini	2019 STOPS Ridership Forecasts					2045 STOPS Ridership Forecasts					Step D Recommended Action
				2019 Annual Linked Trips	Annual Cost Per Trip ($2022)		FTA Cost Effectiveness Project Rating Assumption		2045 Annual Linked Trips	Annual Cost Per Trip ($2022)		FTA Cost Effectiveness Project Rating Assumption		
					Low	High	Low	High		Low	High	Low	High	
Atlantic Blvd	12.79	BRT	SR 869 to A1A	926,400	$7.78	$27.14	MEDIUM	LOW	1,201,800	$8.45	$24.11	MEDIUM	LOW	Advance as High Frequency Bus
Commercial Blvd	12.08	BRT	SR 869 to A1A	1,214,700	$5.61	$19.55	MEDIUM HIGH	LOW	1,494,300	$6.42	$18.32	MEDIUM	LOW	Advance as BRT and evaluate opportunities for future LRT
Dixie Hwy	25.40	BRT	Hollywood Blvd.to Sample Rd	4,499,700	$3.18	$11.10	HIGH	MEDIUM LOW	6,187,200	$3.26	$9.30	HIGH	MEDIUM	Advance as High Frequency Bus *(physically constrained corridor)*
	25.40	LRT		9,539,400	$14.34	$27.96	MEDIUM LOW	LOW	12,919,200	$11.30	$21.58	MEDIUM LOW	LOW	
Douglas Rd/Pine Island Rd	19.91	BRT	Miramar Pkwy to Sample Rd	1,230,600	$9.12	$31.81	MEDIUM	LOW	1,472,400	$10.74	$30.64	MEDIUM LOW	LOW	Remove from consideration
Hollywood Blvd	14.86	BRT	I-95/Tri-Rail to US 1	1,188,300	$7.05	$24.59	MEDIUM	LOW	1,506,300	$7.84	$22.36	MEDIUM	LOW	Advance as High Frequency Bus
Lyons Rd / 31st Ave	14.80	BRT	Davie Blvd to SR 869	2,077,500	$4.02	$14.01	MEDIUM HIGH	MEDIUM LOW	2,507,400	$4.69	$13.38	MEDIUM HIGH	MEDIUM LOW	Remove from consideration *(proximity to US 441 / SR 7)*
Pembroke Rd	7.00	BRT	University Dr to US 1	385,800	$10.22	$35.66	LOW	LOW	516,000	$10.77	$30.72	MEDIUM LOW	LOW	Remove from consideration
Powerline Rd	10.52	BRT	Broward Blvd to Sample Rd	2,451,600	$2.42	$8.43	HIGH	MEDIUM	3,397,800	$2.46	$7.01	HIGH	MEDIUM	Advance as BRT
Sample Rd	12.06	BRT	Douglas Rd/Pine Island Rd.to US 1	721,500	$9.42	$32.86	MEDIUM	LOW	850,500	$11.26	$32.12	MEDIUM LOW	LOW	Advance as High Frequency Bus
Sheridan St	8.29	BRT	University Dr to A1A	1,211,100	$3.86	$13.45	HIGH	MEDIUM LOW	1,578,300	$4.17	$11.90	MEDIUM HIGH	MEDIUM LOW	Advance as High Frequency Bus
US 441 / SR 7	24.63	BRT	SW 41st St to Sample Rd	4,920,000	$2.82	$9.84	HIGH	MEDIUM	6,392,400	$3.06	$8.73	HIGH	MEDIUM	Advance as BRT and evaluate opportunities for future LRT
	24.63	LRT		11,397,000	$11.64	$22.69	MEDIUM LOW	LOW	14,787,600	$9.58	$18.28	MEDIUM	LOW	
Sunrise Blvd	15.32	BRT	SR 869 to A1A	3,497,100	$2.47	$8.61	HIGH	MEDIUM	4,570,200	$2.66	$7.59	HIGH	MEDIUM	Advance as BRT and evaluate opportunities for future LRT
University Dr	21.03	BRT	Miramar Pkwy to Sample Rd	4,025,700	$2.95	$10.27	HIGH	MEDIUM LOW	4,866,600	$3.43	$9.79	HIGH	MEDIUM	Advance as BRT
US-1 / Federal Hwy	25.77	BRT	Hallandale Beach Blvd to Copans Rd	6,233,100	$2.33	$8.13	HIGH	MEDIUM	8,553,600	$2.39	$6.83	HIGH	MEDIUM	Advance as High Frequency Bus *(physically constrained corridor)*
	25.77	LRT		7,968,600	$17.41	$33.96	LOW	LOW	10,864,500	$13.64	$26.03	MEDIUM LOW	LOW	

Note: All cost estimates are presented as per mile planning costs based on national examples. These estimates are subject to change and not intended for construction purposes. All FTA project ratings are developed using FTA CIG guidelines, but FTA has not been consulted or asked to approve these ratings.

4. Step E Approach

The purpose of Step E is to define project recommendations for implementation. A project recommendation is the combination of a top performing corridor combined with a premium transit type. Step E builds upon the findings of Steps A-D. Key analyses include:

- Identification of viable alignment options for each shortlisted corridor and recommended transit type
- Validation of the project recommendations by evaluating the forecasted top performing ridership segments
- Validation of alignment concepts by reviewing the feasibility to construct the alignment concept
- Refinement of project sketch-level cost estimates based on the preferred project concept and its performance against FTA CIG guidelines

4.1 Project Concepts

4.1.1 Alignment Options Considered

Building upon the validation of transit type in PREMO Step D, alignment options were identified for each Shortlisted Corridor. An alignment option is defined as the physical placement of the transit service within the urban fabric of Broward County. Alignment options vary from operating in mixed traffic within the same lane as automobiles, to separated guideways which make use of an exclusive infrastructure or right-of-way. Alignment options considered for each transit type are defined below.

Commuter Rail Alignment Options

Commuter rail is a passenger train service which operates between a central city and outlying areas using electric or diesel locomotives. An example of commuter rail in South Florida is Tri-Rail which operates a variety of locomotive types that pull passenger coaches. Given the safety considerations due to the size and weight of commuter rail, the following alignment options are considered for implementation:

- Within existing freight rail corridors
- Within an exclusive right-of-way, either at-grade or elevated

As described, PREMO recognizes the importance of projects currently being considered by Broward County, such as the Broward Commuter Rail project. The Broward County Commission approved the locally preferred alternative in August 2022 which recommends commuter service along the FEC railway corridor between Miami-Dade County and South Fort Lauderdale near the Broward Health Medical Center[4]. As such, the Broward Commuter Rail South project has been included within the PREMO Plan by reference.

[4] Source: Florida Department of Transportation, https://www.fdot.gov/projects/broward-commuter-rail-south/home

Light Rail Alignment Options

Light rail is an urban transit type that provides service within more densely populated areas given its flexibility and maneuverability as compared to the heavier commuter rail type. It is not able to operate along the same rail line as commuter rail or freight rail. The following alignment options are considered for implementation:

- Mixed with traffic (operating on and within existing roadways) at-grade
- In an exclusive guideway (dedicated right-of-way) at-grade
- In an exclusive guideway above-grade (on structure)

Bus Rapid Transit (BRT) Alignment Options

BRT is premium bus service with characteristics of urban rail. BRT achieves these urban rail-like characteristics by investing in technology and/or infrastructure improvements. The following alignment options are considered for implementation:

- Mixed with traffic (at-grade) making use of advanced traffic signal technologies that give preferential treatment to BRT and, where applicable, also may invest in queue jump lanes at intersections.
  Queue jump lanes are short, dedicated transit lanes at an intersection that allow BRT service to bypass automobile queues and position the BRT vehicle in a priority position. Queue jump lanes can reduce BRT delays considerably, resulting in time savings and increased reliability.
- In an exclusive guideway (dedicated right-of-way) at-grade
- In an exclusive guideway above-grade (on structure)

High Frequency Bus Alignment Options

High Frequency Bus is an investment in frequent local fixed-route bus services that experience or are forecasted to experience higher ridership. PREMO recognizes that several of the PREMO shortlisted corridors are currently physically constrained and cannot accommodate any new investments in infrastructure for either BRT or LRT. High Frequency Bus service therefore recommends an investment in more vehicles and more frequency to provide enhanced and reliable bus service. The following alignment options are considered for implementation:

- Mixed with traffic (at-grade)

4.1.2 Top Performing Segments

A vital aspect in defining PREMO project concepts for implementation is understanding forecasted ridership activity, specifically along individual segments of a corridor. Higher levels of forecasted ridership may justify greater levels of infrastructure investments to serve the rider market. Using annual station/stop rider boarding activity as forecasted by the FTA STOPS model, corridor segments were developed based on the existing roadway network and natural breaks in ridership boarding activity. Tables 10 through 15 summarize the ridership activity of the top performing segments. The next step in project implementation will include additional detailed ridership forecasts before a locally preferred alternative can be identified for final design and construction.

Table 10: Step E Top Performing Segments — Commercial Boulevard

Length (miles)	Description	Termini	Termini	Present Day Ridership (Annual Boardings)	Average Boardings Per Mile
12.1	Full Corridor	Hiatus Rd	US 1	1,215,300	100,604
3.5	Segment	US 441 / SR 7	Andrews Ave	607,500	173,571
2.0	Segment	Andrews Ave	US 1	302,100	151,050

Table 11: Step E Top Performing Segments — Oakland Park Boulevard

Length (miles)	Description	Termini	Termini	Present Day Ridership (Annual Boardings)	Average Boardings Per Mile
15.0	Full Corridor	NW 136th Ave	A1A	3,191,100	212,740
7.7	Segment	NW 136th Ave	US 441 / SR 7	1,528,200	198,468
5.4	Segment	US 441 / SR 7	US 1	2,076,900	384,611

Table 12: Step E Top Performing Segments — Powerline Road

Length (miles)	Description	Termini	Termini	Present Day Ridership (Annual Boardings)	Average Boardings Per Mile
10.5	Full Corridor	Sample Rd	Broward Blvd	2,452,200	233,099
4.6	Segment	Commercial Blvd	Broward Blvd	1,528,200	332,217

Table 13: Step E Top Performing Segments — SR 7/US 441

Length (miles)	Description	Termini	Termini	Present Day Ridership (Annual Boardings)	Average Boardings Per Mile
20.1	Full Corridor	Range Line Rd	SW 41st St	3,191,100	212,740
2.5	Segment	Hollywood Blvd	SW 41st St	546,000	218,400
4.8	Segment	Copans Rd	Commercial Blvd	1,145,100	238,563

Table 14: Step E Top Performing Segments — Sunrise Boulevard

Length (miles)	Description	Termini	Termini	Present Day Ridership (Annual Boardings)	Average Boardings Per Mile
15.3	Full Corridor	N. Flamingo Rd	A1A	3,497,100	228,270
4.0	Segment	University Dr	US 441 / SR 7	1,198,800	299,700
5.0	Segment	US 441 / SR 7	US 1	1,357,800	271,560

Table 15: Step E Top Performing Segments — University Drive

Length (miles)	Description	Termini	Termini	Present Day Ridership (Annual Boardings)	Average Boardings Per Mile
21.0	Full Corridor	Sample Rd	Countyline Rd	4,025,400	191,412
9.2	Segment	Peters Rd/SW 12th St	Countyline Rd	1,417,500	154,076
6.3	Segment	Commercial Blvd	Peters Rd/SW 12th St	1,568,400	248,952

4.1.3 Feasibility to Construct

To identify the alignment concepts that could be reasonably accommodated by the PREMO Shortlisted Corridors, the following assessment evaluates the physical characteristics of each corridor. PREMO Step E, using readily available information from FDOT, evaluates the approximate existing right-of-way cross-section of each PREMO Shortlisted Corridor. The existing right-of-way cross-section is defined as the roadway typical section. By evaluating the existing typical section, a recommendation of both transit type and recommended alignment option can be defined for implementation. It should be noted that the next step in project implementation will include detailed design which will evaluate alignment options in detail before a locally preferred alternative can be identified for final design and construction.

Tables 16, 17, and 18 summarize the widths required to accommodate eight, six, and four lane arterial roadway facilities and then the additional width required to accommodate a dedicated transit lane. This width is then compared to each Shortlisted Corridor's existing physical widths to determine which transit alignment concept could easily be accommodated along the corridor without restructuring the existing automobile roadway facilities. Tables 19 through 24, provide a summary of where a dedicated transit facility could be accommodated within each corridor.

Table 16: Generalized Eight Lane Roadway Widths – With and Without a Dedicated Transit Lane

Roadway Feature	General Typical for 6 Lane Arterial			General Typical for 6 Lane Arterial with a Dedicated Transit Lane		
	Width (ft)	Quantity	Subtotal Width (ft)	Width	Quantity	Subtotal Width (ft)
Lanes	12	8	96	12	8	96
Median	10	1	10	10	1	10
Inside Shoulder with Curb and Gutter	2	1	2	2	1	2
Outside Shoulder with Curb and Gutter	2	1	2	2	1	2
Sidewalk	6	2	12	6	2	12
Transit Lane	12	0	0	12	2	24
Total Width			**122 ft**			**> 146 ft**
Note: Does not include roadway widths at intersections						

Table 17: Generalized Six Lane Roadway Widths – With and Without a Dedicated Transit Lane

Roadway Feature	General Typical for 6 Lane Arterial			General Typical for 6 Lane Arterial with a Dedicated Transit Lane		
	Width (ft)	Quantity	Subtotal Width (ft)	Width	Quantity	Subtotal Width (ft)
Lanes	12	6	72	12	6	72
Median	10	1	10	10	1	10
Inside Shoulder with Curb and Gutter	2	1	2	2	1	2
Outside Shoulder with Curb and Gutter	2	1	2	2	1	2
Sidewalk	6	2	12	6	2	12
Transit Lane	12	0	0	12	2	24
Total Width			**98 ft**			**> 122 ft**
Note: Does not include roadway widths at intersections						

Table 18: Generalized Four Lane Roadway Widths – With and Without a Dedicated Transit Lane

Roadway Feature	General Typical for 4 Lane Arterial			General Typical for 4 Lane Arterial with a Dedicated Transit Lane		
	Width (ft)	Quantity	Subtotal Width (ft)	Width	Quantity	Subtotal Width (ft)
Lanes	12	4	48	12	4	48
Median	10	1	10	10	1	10
Inside Shoulder with Curb and Gutter	2	1	2	2	1	2
Outside Shoulder with Curb and Gutter	2	1	2	2	1	2
Sidewalk	6	2	12	6	2	12
Transit Lane	12	0	0	12	2	24
Total Width			**74 ft**			**> 98 ft**
Note: Does not include roadway widths at intersections						

Table 19: Generalized Existing Typical Section – Commercial Boulevard

Commercial Boulevard		Existing Number of Lanes	Posted Speed (mph)	Existing AADT* (2021)	Existing Right-of-Way*** (ft)	Feasibility of Widening to accommodate transit lanes without ROW acquisition (Y/N)
From	To					
Hiatus Rd	Nob Hill Rd	6	45	27,000	130	Yes
Nob Hill Rd	N Pine Island Rd	6	45	31,000	120	No
N Pine Island Rd	N University Dr	6	45	32,000	120	No
N University Dr	NW 64th Ave	6	45	53,000	122	No
NW 64th Ave	Rock Island Rd	6	45	52,000	114	No
Rock Island Rd	SR 7/US 441	6	45	78,000	122	No
SR 7 / US 441	W Prospect Rd	6	45	50,500	110	No
W Prospect Rd	NW 9th Ave	6	45	55,500	118	No
NW 9th Ave	I-95	6	45	66,000	122	No
I-95	N Dixie Hwy	6	45	69,000	104	No
N Dixie Hwy	NE 18th Ave	6	35	52,500	100	No
NE 18th Ave	US 1 /Federal Hwy	6	35	33,500	100	No
US 1 /Federal Hwy	N Ocean Dr / A1A	4	30	40,500	86	No

*Note: Annual Average Daily Traffic (AADT) data provided by FDOT
**Note: Traffic Level of Service (LOS) provided by FDOT
***Note: Approximate right-of-way width in feet from edges of pavement, detailed survey required to define actual width

Table 20: Generalized Existing Typical Section – Oakland Park Boulevard

Oakland Park Boulevard		Existing Number of Lanes	Posted Speed (mph)	Existing AADT* (2021)	Existing Right-of-Way*** (ft)	Feasibility of Widening to accommodate transit lanes without ROW acquisition (Y/N)
From	To					
Sawgrass Expy	NW 115th Terrace	6	35	12,900	170	Yes
NW 115th Terrace	Hiatus Rd	6	35	33,000	204	Yes
Hiatus Rd	Nob Hill Rd	6	35	30,000	195	Yes
Nob Hill Rd	N Pines Island Rd	6	45	29,500	180	Yes
N Pines Island Rd	N University Dr	6	45	31,500	200	Yes
N University Dr	Inverrary Blvd W	6	45	38,500	192	Yes
Inverrary Blvd W	Inverrary Blvd/NW 56th Ave	6	45	49,000	192	Yes
Inverrary Blvd/NW 56th Ave	Access Road	6	45	71,000	133	Yes
Access Road	US 441/SR 7	6	45	56,000	133	Yes
US 441/SR 7	NW 31st Ave/M.L.K. Jr Ave	6	45	57,500	112	No
NW 31st Ave/M.L.K. Jr Ave	NW 27th Ave	6	45	51,000	114	No
NW 27th Ave	I-95 Ramp	6	45	53,000	106	No
I-95 Ramp	NW 9th Ave/Powerline Rd	6	45	54,000	120	No
NW 9th Ave/Powerline Rd	Andrews Ave	6	35	56,500	101	No
Andrews Ave	NE 6th Ave	6	35	48,500	100	No
NE 6th Ave	SR 811/Dixie Hwy	6	35	39,500	100	No
SR 811/Dixie Hwy	US 1/SR 5/N Federal Hwy	6	35	34,000	100	No
US 1/SR 5/N Federal Hwy	Bayview Dr	6	35	28,500	94	No
Bayview Dr	SR A1A/Ocean Dr	4	35	24,000	56	No

*Note: Annual Average Daily Traffic (AADT) data provided by FDOT
**Note: Traffic Level of Service (LOS) provided by FDOT
***Note: Approximate right-of-way width in feet from edges of pavement, detailed survey required to define actual width

Table 21: Generalized Existing Typical Section – Powerline Road

Powerline Road		Existing Number of Lanes	Posted Speed (mph)	Existing AADT* (2021)	Existing Right-of-Way*** (ft)	Feasibility of Widening to accommodate transit lanes without ROW acquisition (Y/N)
From	To					
W Sample Rd	W Copans Rd	6	45	30,500	106	N
W Copans Rd	W Atlantic Blvd	6	45	32,000	112	N
W Atlantic Blvd	W McNab Rd	6	45	42,000	132	Y
W McNab Rd	NW 62rd St	6	45	32,500	102	N
NW 62rd St	E Commercial Blvd	6	40	30,500	102	N
E Commercial Blvd	NW 38st St	6	40	28,000	100	N
NW 38st St	W Oakland Park Blvd	4	40	24,500	102	N
W Oakland Park Blvd	NW 19th St	4	35	23,000	102	N
NW 19th St	W Sunrise Blvd	4	40	22,000	102	N
W Sunrise Blvd	NW 6th St	2	30	6,800	70	N
NW 6th St	W Broward Blvd	2	25	3,400	40	N

*Note: Annual Average Daily Traffic (AADT) data provided by FDOT
**Note: Traffic Level of Service (LOS) provided by FDOT
***Note: Approximate right-of-way width in feet from edges of pavement, detailed survey required to define actual width

Table 22: Generalized Existing Typical Section – SR 7 / US 441

SR 7 / US 441		Existing Number of Lanes	Posted Speed (mph)	Existing AADT* (2021)	Existing Right-of-Way*** (ft)	Feasibility of Widening to accommodate transit lanes without ROW acquisition (Y/N)
From	To					
Hillsboro Canal	W Hillsboro Blvd	6	45	54,000	140	Y
W Hillsboro Blvd	Sawgrass Expy	6	45	61,500	172	Y
Sawgrass Expy	Wilds Rd	6	45	52,000	168	Y
Wilds Rd	W Sample Rd	6	45	33,500	183	Y
W Sample Rd	NW 31 St	6	45	53,500	198	Y
NW 31 St	W Copans Rd / Royal Palm Blvd	6	45	53,500	168	Y
W Copans Rd / Royal Palm Blvd	Coconut Creek Pky	6	45	52,500	143	Y
Coconut Creek Pky	W Atlantic Blvd	6	45	52,500	101	N
W Atlantic Blvd	Southgate Blvd	6	45	53,500	101	N
Southgate Blvd	Kimberly Blvd	6	45	47,500	123	Y
Kimberly Blvd	Bailey Rd	6	45	44,500	138	Y
Bailey Rd	W Prospect Rd	6	45	50,000	133	Y
W Prospect Rd	W Commercial Blvd	6	45	40,000	149	Y
W Commercial Blvd	W Oakland Park Blvd	6	40	49,000	154	Y
W Oakland Park Blvd	NW 19th St	6	40	55,000	101	N
NW 19th St	W Sunrise Blvd	6	40	50,000	101	N
W Sunrise Blvd	W Broward Blvd	6	40	42,500	102	N
W Broward Blvd	Davie Blvd	6	45	44,000	120	N
Davie Blvd	I-595 / SR 84	6	45	50,500	120	N
I-595 / SR 84	SW 45th St	6	45	49,500	118	N
SW 45th St	Griffin Rd	6	45	56,500	118	N
Griffin Rd	Stirling Rd	6	45	57,500	124	N
Stirling Rd	Sheridan St	4	45	45,500	118	N
Sheridan St	Johnson St	4	40	34,500	118	N
Johnson St	Hollywood Blvd	6	40	34,500	124	Y
Hollywood Blvd	Pembroke Rd	6	40	33,000	128	Y
Pembroke Rd	W Hallandale Beach Blvd	6	45	33,000	120	N
W Hallandale Beach Blvd	SW 41st St	6	40	48,500	116	N

*Note: Annual Average Daily Traffic (AADT) data provided by FDOT
**Note: Traffic Level of Service (LOS) provided by FDOT
***Note: Approximate right-of-way width in feet from edges of pavement, detailed survey required to define actual width

Table 23: Generalized Existing Typical Section – Sunrise Boulevard

Sunrise Boulevard		Existing Number of Lanes	Posted Speed (mph)	Existing AADT* (2021)	Existing Right-of-Way*** (ft)	Feasibility of Widening to accommodate transit lanes without ROW acquisition (Y/N)
From	To					
Sawgrass Expy	NW 136th Ave	6	45	27,000	150	Y
NW 136th Ave	N Flamingo Rd	6	45	33,000	140	Y
N Flamingo Rd	N Hiatus Rd	6	45	33,500	136	Y
N Hiatus Rd	N Nob Hill Rd	6	45	30,000	130	Y
N Nob Hill Rd	N Pines Island Blvd	6	45	26,000	130	Y
N Pines Island Blvd	N University Dr	6	45	30,000	120	Y
N University Dr	NW 70th Ave	6	45	39,000	110	N
NW 70th Ave	NW 65th Ave	6	45	29,000	104	N
NW 65th Ave	NW 56th Ave	6	45	46,000	96	N
NW 56th Ave	Turnpike Ramp	6	45	64,000	108	N
Turnpike Ramp	SR 7/US 441	6	45	46,500	107	N
SR 7/US 441	NW 31st Ave/M.L.K. Jr Ave	6	45	53,500	100	N
NW 31st Ave/M.L.K. Jr Ave	I-95 Ramp	6	45	48,500	100	N
I-95 Ramp	NW 9th Ave/Powerline Rd	6	40	58,000	100	N
NW 9th Ave/Powerline Rd	Andrews Ave	6	35	45,000	100	N
Andrews Ave	US 1/N Federal Hwy	6	35	41,000	102	N
US 1/N Federal Hwy	NE 15th Ave	6	35	58,500	100	N
NE 15th Ave	US 1/N Federal Hwy	6	35	49,000	108	N
US 1/N Federal Hwy	Bayview Dr	6	35	31,500	102	N
Bayview Dr	NE 26th Ave	6	35	28,000	150	Y
NE 26th Ave	SR A1A/FTL Beach Blvd	6	35	21,500	140	Y

*Note: Annual Average Daily Traffic (AADT) data provided by FDOT
**Note: Traffic Level of Service (LOS) provided by FDOT
***Note: Approximate right-of-way width in feet from edges of pavement, detailed survey required to define actual width

Table 24: Generalized Existing Typical Section – University Drive

University Drive		Existing Number of Lanes	Posted Speed (mph)	Existing AADT* (2021)	Existing Right-of-Way*** (ft)	Feasibility of Widening to accommodate transit lanes without ROW acquisition (Y/N)
From	To					
W Sample Rd	Royal Palm Blvd	6	40	46,500	106	N
Royal Palm Blvd	Ramblewood Dr	6	45	55,000	114	N
Ramblewood Dr	W Atlantic Blvd	6	45	56,500	128	Y
W Atlantic Blvd	Southgate Blvd	6	45	49,000	106	N
Southgate Blvd	W McNab Rd	6	45	43,000	160	Y
W McNab Rd	W Commercial Blvd	6	45	53,000	164	Y
W Commercial Blvd	NW 44th St	6	45	61,000	160	Y
NW 44th St	W Oakland Park Blvd	6	45	57,500	120	N
W Oakland Park Blvd	W Sunrise Blvd	6	45	55,500	120	N
W Sunrise Blvd	Cleary Blvd	6	45	58,500	120	N
Cleary Blvd	W Broward Blvd	6	45	53,500	112	N
W Broward Blvd	Peters Rd	6	45	53,500	156	Y
Peters Rd	I-595 / Port Everglades Expy	6	45	67,500	140	Y
I-595 / Port Everglades Expy	Nova Dr	6	45	66,000	200	Y
Nova Dr	SW 30th St	6	45	53,000	153	Y
SW 30th St	Griffin Rd / SW 45th St	6	45	42,000	134	Y
Griffin Rd / SW 45th St	Stirling Rd	6	45	47,500	200	Y
Stirling Rd	Sheridan St	6	45	38,500	120	N
Sheridan St	Taft St	6	45	41,000	106	N
Taft St	Pines Blvd	6	45	50,500	115	N
Pines Blvd	Pembroke Rd	6	45	50,000	103	N
Pembroke Rd	Miramar Pkwy	6	45	48,000	155	Y
Miramar Pkwy	SW 41 St	6	45	55,500	103	N

*Note: Annual Average Daily Traffic (AADT) data provided by FDOT
**Note: Traffic Level of Service (LOS) provided by FDOT
***Note: Approximate right-of-way width in feet from edges of pavement, detailed survey required to define actual width

Lane Repurposing

The next step in project implementation will include detailed design and traffic engineering. Only after detailed traffic engineering is completed will consideration be given to repurposing an existing vehicle lane within a corridor. Lane repurposing may consider converting an existing lane to the following:

- Vehicle turn-lanes repurposed for a transit queue jump lane at appropriate intersections
- A vehicle lane repurposed for a continuous vehicle turn-lane and through transit lane; also known as the Business Access and Transit (BAT) Lane for BRT service
- A vehicle lane repurposed for a transit lane only

Detailed design and traffic engineering will at a minimum define the impact to vehicle capacity and congestion along the corridor in question, as well as parallel facilities, before lane repurposing for transit is recommended. It is recommended that coordination with FDOT occur as it relates to a lane repurposing recommendation, referencing the State guidelines for conducting a lane repurposing study. The benefits to transit service and effect to traffic congestions will be documented in detail before a locally preferred alternative can be recommended for final design and construction.

4.1.4 Refined Costs

In coordination with BCT, the per mile capital cost estimates assumed in Step D were further refined in Step E. This refinement was based on additional review of actual project construction costs as summarized in Tables 25 and 26. The source of this cost information is from the FTA Capital Cost Database which documents "as-built" costs for sample projects completed within the last 40 years. For more information, please refer to https://www.transit.dot.gov/capital-cost-database.

Table 25: FTA BRT "As Built" Capital Costs

Project Name	Opening Year	"As Built" Capital Costs (Inflated to $2022)	Project Length	Average Cost Per Mile
Euclid Avenue BRT - Cleveland, OH	2008	$391,712,000	9.4	$41,671,489
Hartford New Britain Busway - Hartford, CT	2015	$828,809,000	9.4	$88,171,170
Mason Corridor Fort Collins, CO	2014	$140,207,000	5	$28,041,400
Pittsburgh Airport Busway	2000	$529,948,000	5	$105,989,600
Average BRT Capital Cost Per Mile (Using Above Project Examples)				$65,968,415
Maximum BRT Capital Cost Per Mile (Using Above Project Examples)				$105,989,600
Minimum BRT Capital Cost Per Mile (Using Above Project Examples)				$28,041,400
Source: FTA Capital Cost Database				
PREMO Step E Capital Cost Assumptions				**Per Mile**
BRT in Mixed Traffic				$10 M
BRT in Mixed Traffic and in Transit Lanes where available				$30 M
BRT in an Exclusive Lane				$50 M

Table 26: FTA LRT "As Built" Capital Costs

Project Name	Opening Year	"As Built" Capital Costs (Inflated to $2022)	Project Length	Average Cost Per Mile
Charlotte South Light Rail Line	2007	$1,201,216,000.00	9.6	$125,126,666.67
Minneapolis Hiawatha Corridor	2004	$1,627,032,000.00	11.6	$140,261,379.31
Phoenix Central Phoenix/East Valley	2008	$2,882,195,000.00	19.7	$146,304,314.72
Southeast Houston Light Rail	2015	$1,409,185,000.00	6.6	$214,814,786.59
Portland South Corridor/Portland Mall	2009	$1,139,826,000.00	8.4	$136,178,695.75
Portland Westside/Hillsboro MAX	1998	$2,949,003,000.00	17.7	$166,337,808.11
Santa Clara VTA - Tasman West	2001	$893,504,000.00	7.5	$119,738,607.11
Los Angeles - East Side Extension	2009	$1,513,749,000.00	6.0	$252,291,500.00
Average Light Rail Capital Cost Per Mile (Using Above Project Examples)				$162,631,719.78
Maximum Light Rail Capital Cost Per Mile (Using Above Project Examples)				$252,291,500.00
Minimum Light Rail Capital Cost Per Mile (Using Above Project Examples)				$119,738,607.11
Source: FTA Capital Cost Database				
PREMO Step E Capital Cost Assumptions				**Per Mile**
Light Rail At-grade				$120 M
Light Rail Elevated				$250 M

4.1.5 Results of Step E – Project Concepts & Recommended Network

In coordination with BCT, project concepts were assigned to each corridor and the Recommended PREMO Network was defined. These actions are based on all of the analyses completed for PREMO during Steps A through E.

Figure 9 shows the PREMO Recommended Network which defines the project concepts for each corridor. Table 27 summarizes the PREMO Recommended Network by transit type of mode.

Figure 9: PREMO Recommended Network

Table 27: PREMO Recommended Network by Transit Mode

PREMO Recommended Network	Number of Miles	Corridors Included	Estimated Capital Investment* (in millions)
Commuter Rail	11.5	Broward Commuter Rail South	$297
Proposed Future Commuter Rail Extension	TBD	Broward Commuter Rail North	TBD
Light Rail	23.3	Airport-Seaport-Convention Center, Downtown Connection, and Broward Boulevard	$2,620
Future Light Rail Extension Options	TBD	SR 7 / US 441, Commercial Boulevard, or Sunrise Boulevard	TBD
Bus Rapid Transit	76	Oakland Park Boulevard, SR 7 / US 441, Powerline Road, University Drive, Commercial Boulevard, and Sunrise Boulevard	$1,332
High Frequency Bus	100	Sample Road, Hollywood Boulevard, US 1 / Federal Highway (North and South), Atlantic Boulevard, Sheridan Street, and Dixie Highway	$125
PREMO Recommended Network	**More than 200 Miles**		**$4,374**

Notes: Capital estimates are presented in year of expenditure

* Does not include:

- Unknown commercial fees for track access
- Light Rail west extension or permanent maintenance facility/property acquisition costs
- Operations and maintenance costs

5. Step F Program of Projects

5.1 Project Profiles

The following figures provide a detailed description of each individual project in PREMO.

Figure 10: PREMO Project Profile – Broward Commuter Rail

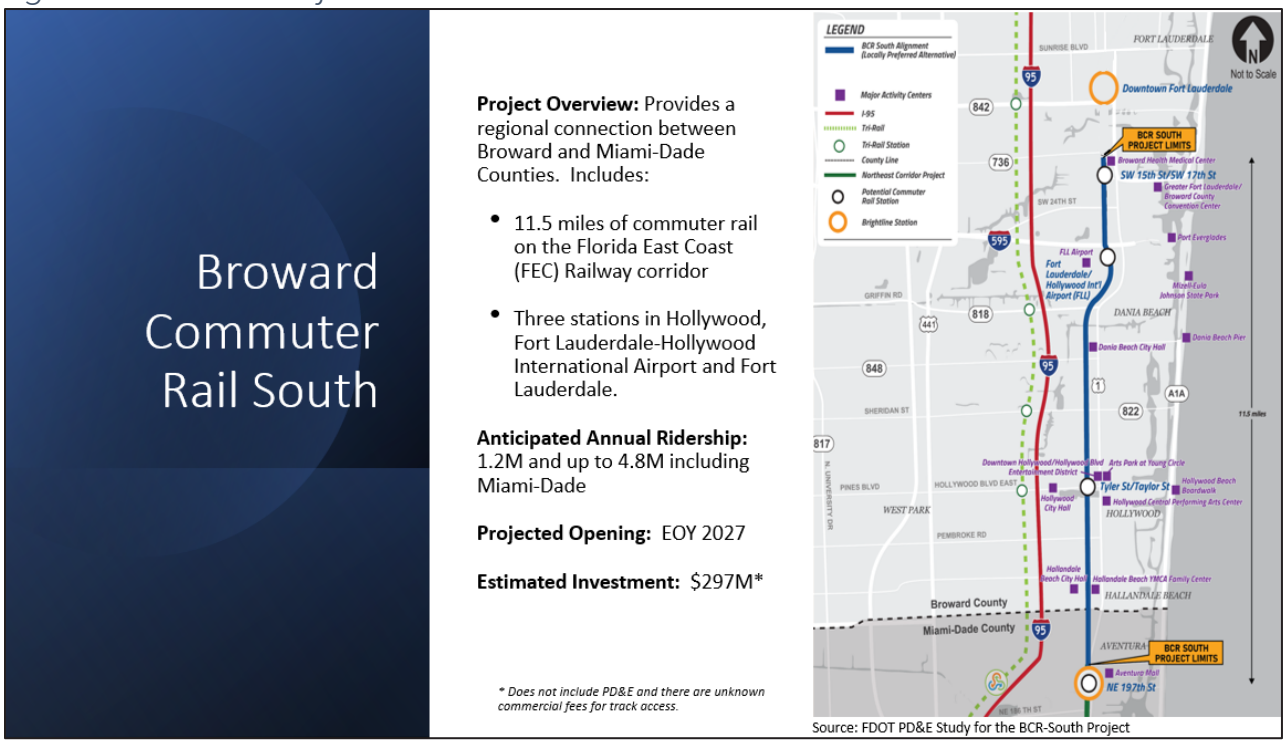


Figure 11: PREMO Project Profile – Airport-Seaport-Convention Center

Airport-Seaport-Conv. Center LRT

Project Overview: Initial segment connects the Fort Lauderdale-Hollywood International Airport, Port Everglades, and the Broward County Convention Center. Includes:

- 3.5 miles of Light Rail Transit (LRT)
- Three stations
- Elevated guideway primarily on Broward County property
- Maintenance facilities location to be determined
- Consideration for future extensions along Broward Boulevard, State Road 7 with east-west connections along Sunrise or Commercial Boulevards, after future performance and studies validate needs

Anticipated Annual Ridership:
130K - 665K

Projected Opening: EOY 2028

Estimated Investment: $1.25B*

** Does not include permanent light rail maintenance facility/property acquisition costs.*

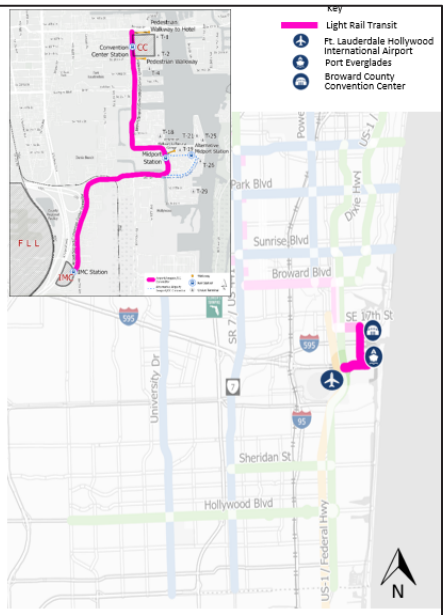


Figure 12: PREMO Project Profile – Downtown Connection

Downtown Connection LRT

Project Overview: Segment connects the Fort Lauderdale-Hollywood International Airport, Port Everglades, the Broward County Convention Center along SE 17th Street and then north to Downtown Fort Lauderdale. Includes:

- 3 additional miles of Light Rail Transit (LRT)
- Tracks and stations at street level
- Consideration for future extensions along Broward Boulevard, State Road 7 with east-west connections along Sunrise or Commercial Boulevards, after future performance and studies validate needs

Anticipated Annual Ridership:
1.7M - 2.7M

Projected Opening: EOY 2031

Estimated Investment: $442M*

** Does not include permanent light rail maintenance facility/property acquisition costs.*

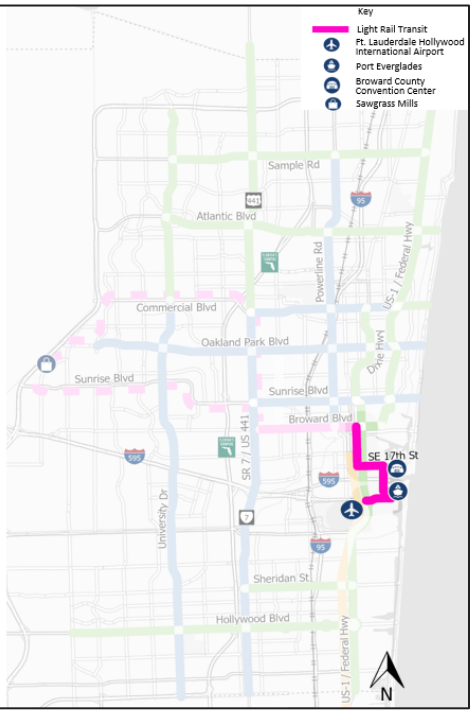


Figure 13: PREMO Project Profile – Broward Boulevard

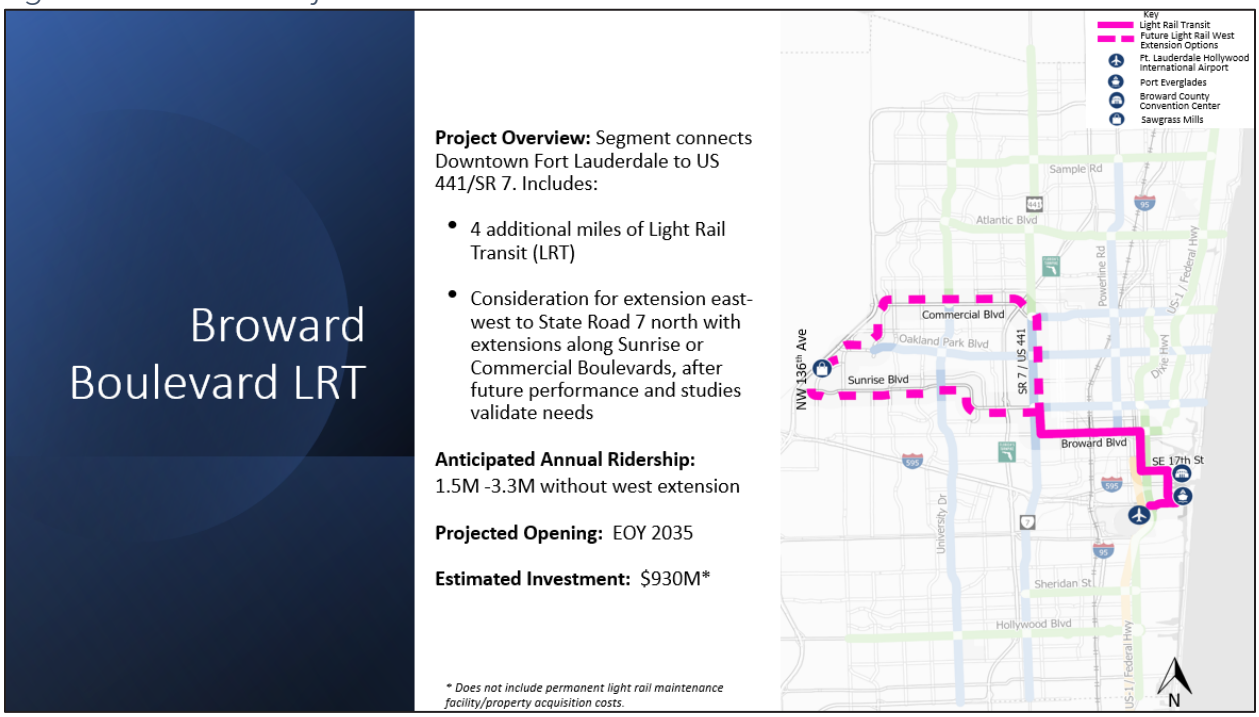


Figure 14: PREMO Project Profile – Oakland Park Boulevard

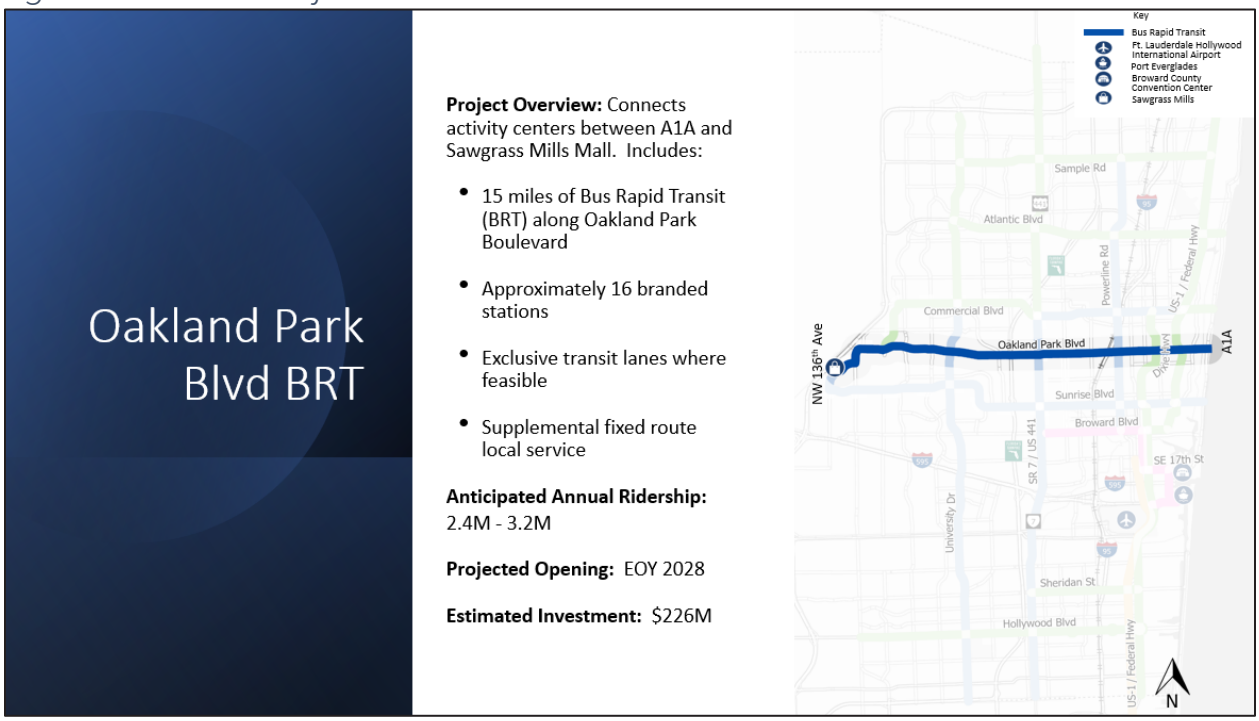


Figure 15: PREMO Project Profile – US 441 / SR 7

US441/SR 7 BRT

Project Overview: Connects activity centers between Commercial Boulevard and County Line Road. Includes:

- 15 miles of Bus Rapid Transit (BRT) along US441/SR 7 from Commercial Boulevard to County Line Road
- Supplemental High Frequency service from Sample Road to Commercial Boulevard
- Approximately 16 branded stations
- Exclusive transit lanes where feasible
- Potential Light Rail connections

Anticipated Annual Ridership: 1.6M - 3M

Projected Opening: EOY 2030

Estimated Investment: $221M

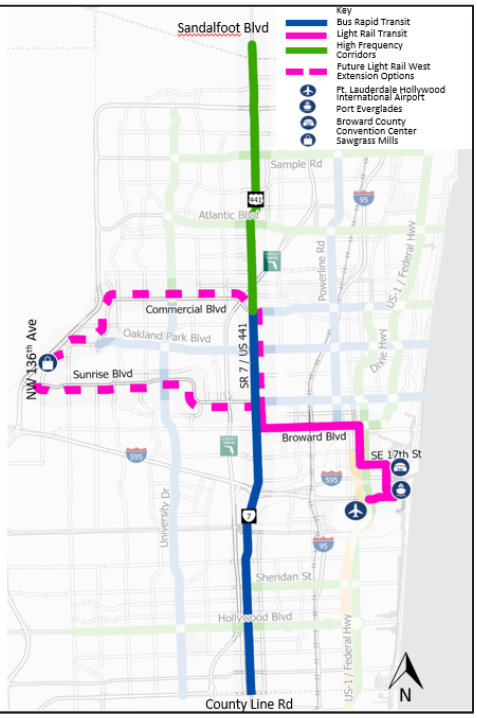


Figure 16: PREMO Project Profile – Powerline Road

Powerline Road BRT

Project Overview: Connects activity centers between Broward Boulevard and Sample Road. Includes:

- 10.5 miles of Bus Rapid Transit (BRT) along Powerline Road
- Approximately 10 branded stations
- Exclusive transit lanes where feasible
- Supplemental fixed route local service

Anticipated Annual Ridership: 1.4M - 2.5M

Projected Opening: Early 2033

Estimated Investment: $198M

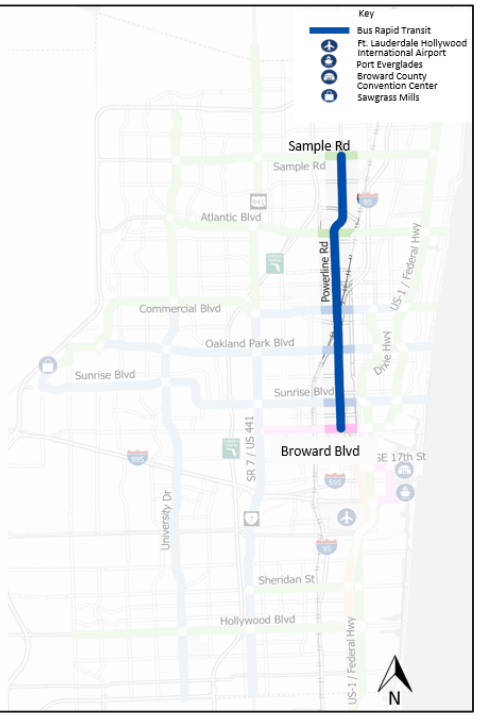


Figure 17: PREMO Project Profile – University Drive

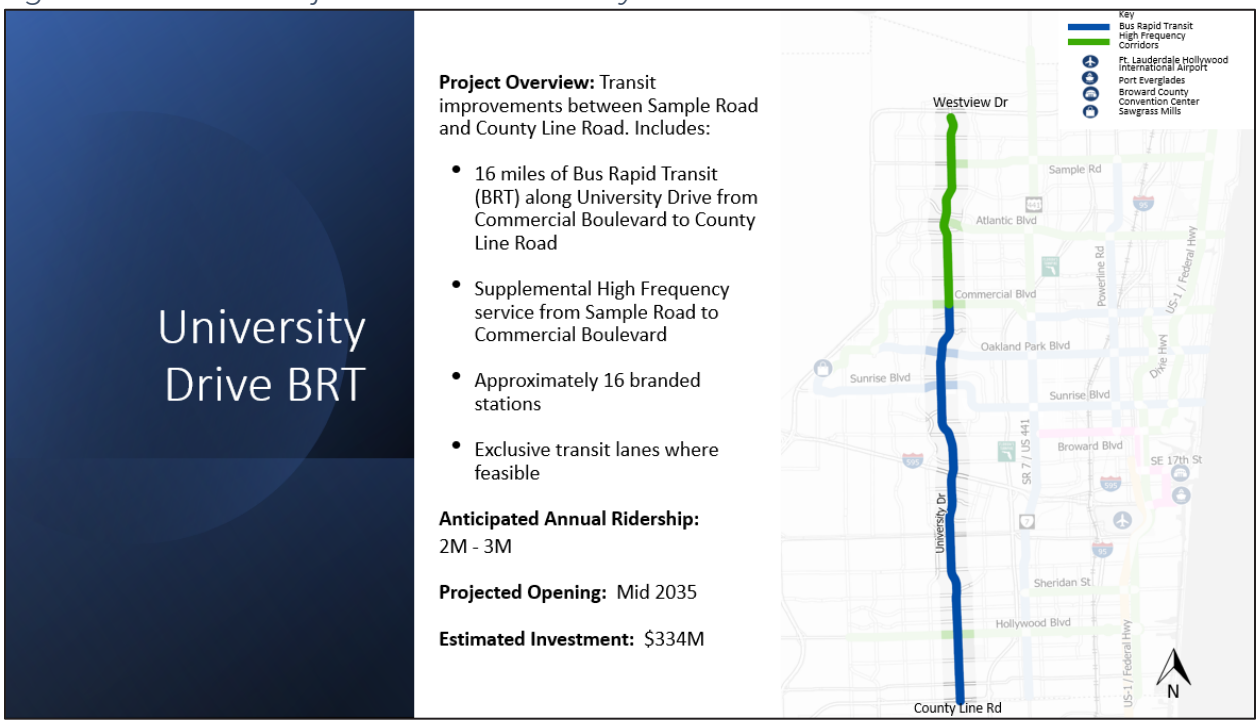
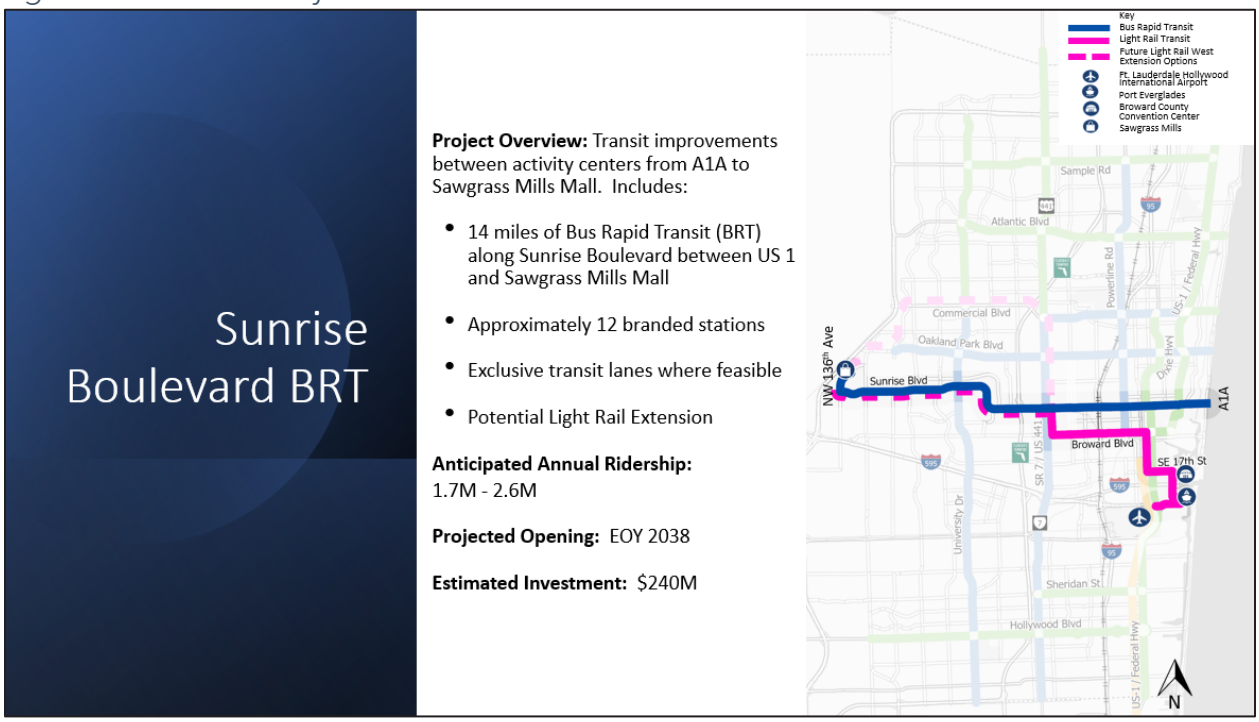


Figure 18: PREMO Project Profile – Commercial Boulevard

Figure 19: PREMO Project Profile – Sunrise Boulevard



5.2 Program of Projects

In coordination with BCT, considering agency initiatives, Table 28 summarizes how PREMO projects will be implemented by year.

Table 28: PREMO Program of Projects

Corridor and/or Project	Service	Schedule																		Project Duration	Current Status	Target Revenue Service
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040			
Broward Commuter Rail	Commuter Rail																			2023-2027	Conceptual Design	2027
Oakland Park Boulevard	BRT																			2023-2028	Conceptual Design*	2028
Airport-Seaport-Convention Center	LRT																			2023-2028	Conceptual Design	2028
Downtown Connection	LRT																			2023-2031	Planning	2031
Broward Boulevard	LRT																			2023-2035	Conceptual Design	2035
SR 7 / US 441	BRT																			2024-2030	Planning	2030
Powerline Road	BRT																			2026-2033	Planning	2033
University Drive	BRT																			2027-2035	Planning	2035
Commercial Boulevard	BRT																			2028-2036	Planning	2036
Sunrise Boulevard	BRT																			2030-2038	Planning	2038
Sample Road	High Frequency Bus																			-	-	2026
Hollywood Boulevard																				-	-	2026
US 1 / Federal Highway South																				-	-	2027
US 1 / Federal Highway North																				-	-	2027
Atlantic Boulevard																				-	-	2028
Sheridan Street																				-	-	2028
Dixie Highway																				-	-	2029

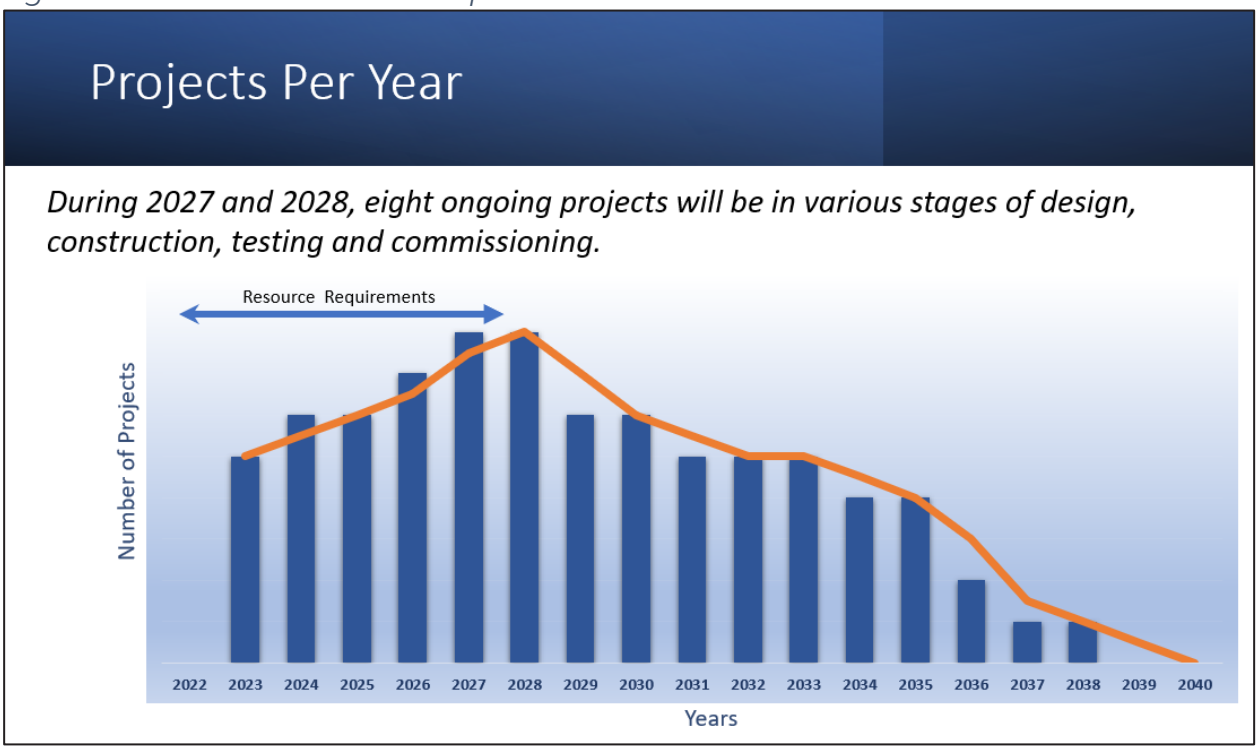
*Pending Notice to Proceed
High Frequency Bus may not apply to the entire length of the corridor. Actual limits to be determined through future analysis.

5.3 Program Implementation and Risks

Figure 20 outlines resource requirements by project year. BCT intends to implement the PREMO Plan by:

- Leveraging internal and external resources in cooperation with countywide stakeholders
- Pursuing alternative project delivery strategies such as Design Build, Progressive Design Build, Construction Manager at Risk, and/or Design Build Operate and Manage (DBOM)
- Fast-tracking procurements
- Seeking and securing alternative funding sources, such as private/public partnerships, joint development opportunities, and traditional federal and state grants

Figure 20: PREMO Resource Requirements



The following is a list of potential program risks when implementing the PREMO Plan:

- Market Pricing Volatility
- Schedule Uncertainty
  - Material and Equipment Availability
  - Consensus Building
  - Federal and State Reviews
- Project Delivery Adoption
- Major Third-Party Agreements (Commercial Terms)
- Regulatory Risk
  - Environmental Reviews

  - Funding Requirements
- Property Availability and Acquisition
- Workforce Readiness and Agency Organizational Maturity
- Public Expectations

5.4 Broward County Resolution

On June 13, 2023, the Broward County Commission voted unanimously to approve the PREMO Plan. The County Commission motion to approve the PREMO Plan passed 9 votes to 0. Commissioner discussion of the plan included the following:

- A desire to ensure premium transit services connect to and serve the South Florida Education Center – potentially with light rail service. Specifically, a light rail investment on either Griffin Road, I-595 access road, or along University Drive.
- A desire to ensure that premium transit investments do not have an adverse impact on traffic congestion. Specifically, concerns related to reducing vehicle travel lanes on Broward Boulevard.
- Satisfaction and support that both the Broward Commuter Rail South and North are included in the PREMO Plan.
- A desire to keep evaluating new opportunities for premium transit investments in all areas of Broward County.
- Request to ensure that premium transit investments consider connections to all Broward County regional activity centers.
- Interest in ensuring that local Broward County funding is leveraged to compete and secure federal and state grant opportunities.
- A desire to ensure that premium transit investments continue to look for east-west mobility within Broward County.