

Welcome!

Gainesville RTS Rapid Transit Study



AGENDA: PMT 8-31-09

- Overview of Technical Memorandum #1
- Overview of Phase II and schedule
- Relationship of Feasibility Study to Systems Plans
- BRT Configuration Exercise
- Next Meet Sept. 30th @ 11:00 AM

Study Objectives

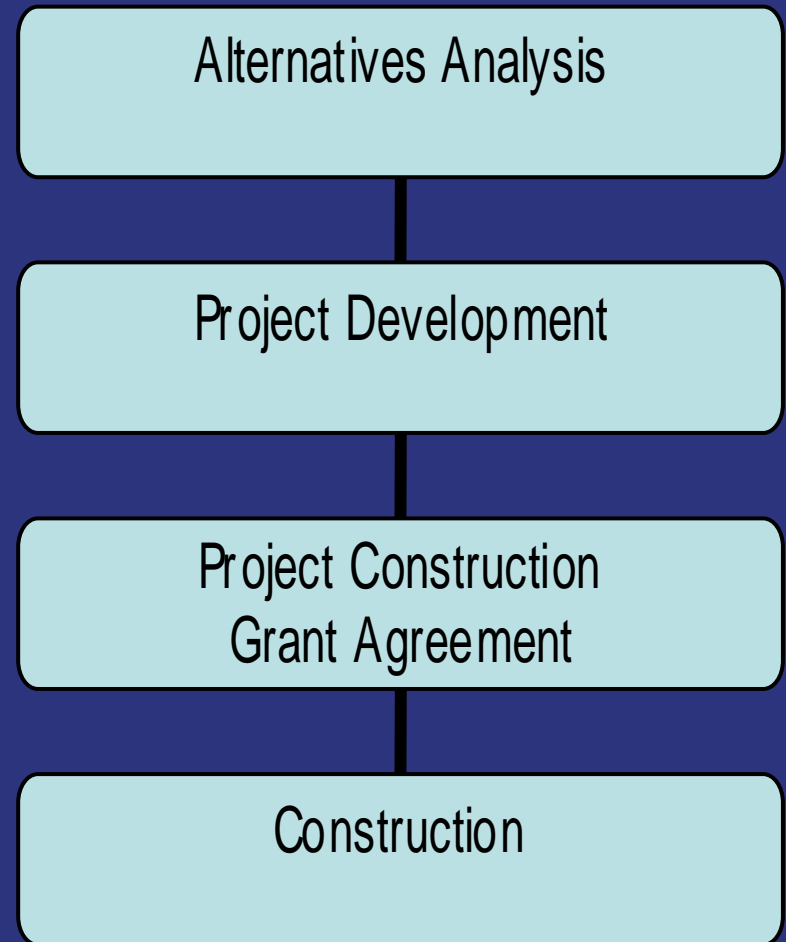
- Determine the **feasibility** of Bus Rapid Transit improvements on a **locally preferred corridor** for eligibility in Federal **Small Starts** and **Very Small Starts** program
- Implement a **public involvement plan** that incorporates public involvement activities designed to **educate residents about BRT** and **obtain public opinions** and feedback.
- Assess the **potential application** of bus service enhancements, BRT transit technologies, and specific premium transit elements to the study corridors.

Study Objectives

- Conduct a **corridor assessment and prioritization analysis** to determine the best corridors for near term BRT application.
- Ensure **consistency with the 2025 LRTP** in regard to improving mobility and alleviating traffic congestion in the Gainesville area.
- Provide an **environmentally-friendly alternative transportation choice** for Gainesville.

FTA Small Starts Program

- New program introduced in SAFETEA-LU in 2005
- \$200M annually authorized, not fully funded to date
- Congressional intent to *simplify* requirements and *speed-up* project delivery
- Fixed guideways, or Corridor bus projects are eligible
- Total cost under \$250 M and Small Starts share under \$75 M



Small Starts Must:

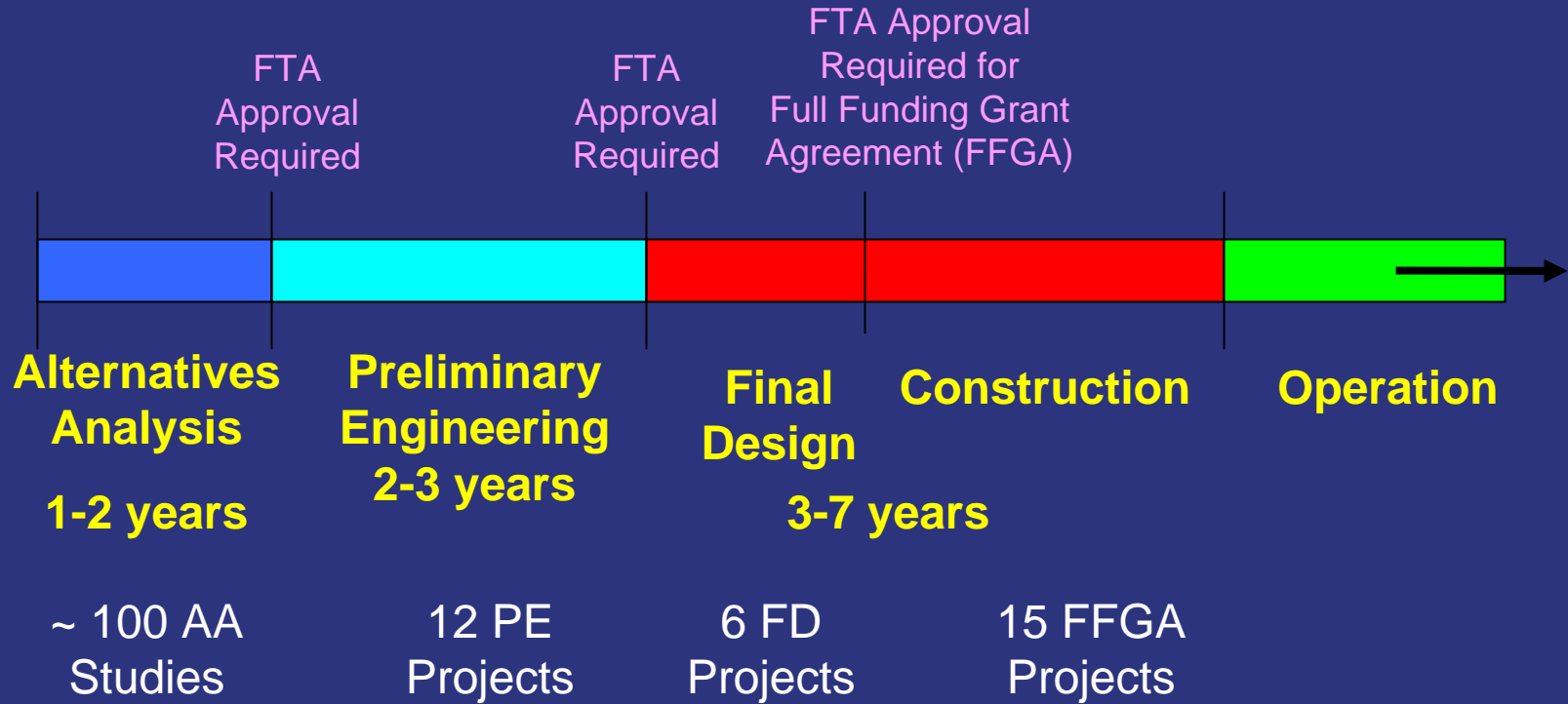
- Be new corridor-based bus project with all of the following minimum elements:
 - *Substantial transit stations,*
 - *Traffic signal priority/pre-emption,*
 - *Low-floor vehicles* or level boarding,
 - *Branding* of the proposed service, and
 - *10 minute peak/15 minute off peak headways* or better while operating at least *14 hours per weekday.*

Very Small Starts Must Have:

- Substantial transit stations,
- Traffic signal priority/pre-emption
- Low-floor vehicles or level boarding,
- Branding of the proposed service,
- 10 minute peak/15 minute off peak headways or better while operating at least 14 hours per weekday,
- Are in corridors with existing riders that exceed 3,000 per average weekday

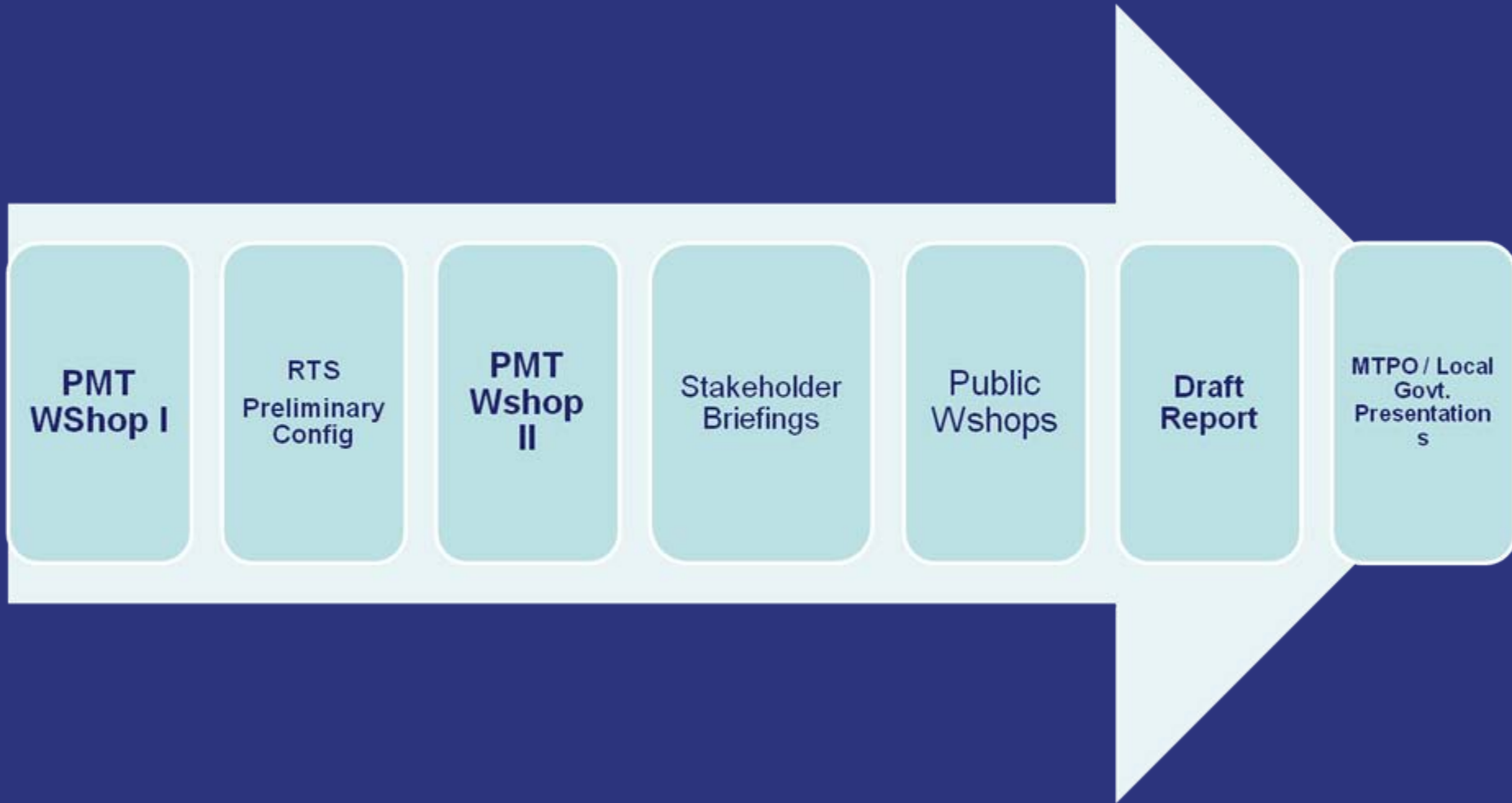
New Starts Project Development Process

Project Development: Typically 6-12 Years



FY 2008/09 Projects

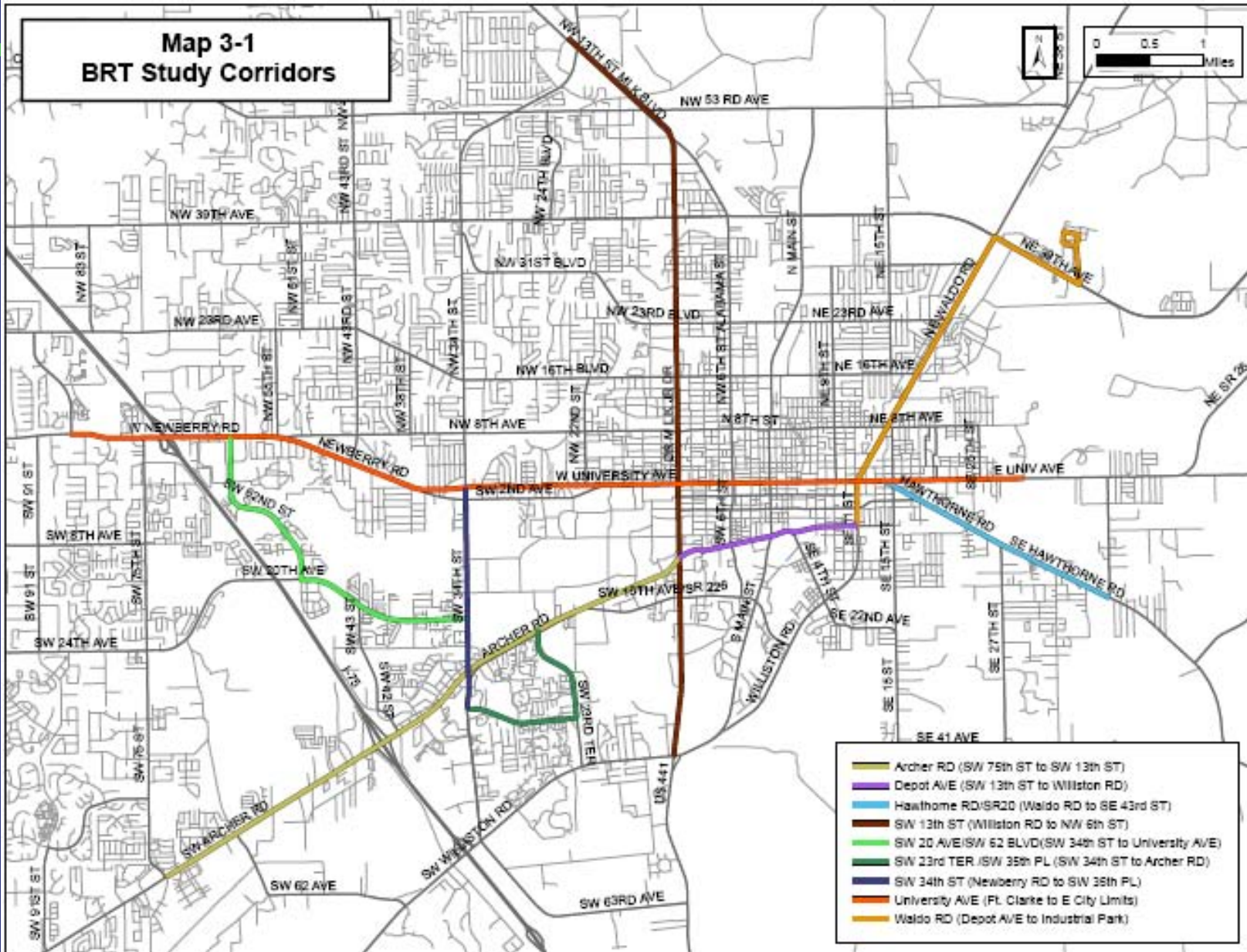
Next Study Steps



Tech Report I

DISCUSSION

Potential BRT Corridors



Evaluation Tool

- Purpose: Identify data and measures that could be applied to all eight corridors equitably
- Potentially weight criteria and measures to emphasize importance
- Four Criteria Categories:
 - Market Potential
 - Travel Flows/Patterns
 - Roadway/Intersection Improvements
 - Accessibility/Compatibility

Initial Scores – With Weights

Corridor	Criteria
	Total Score
Archer RD (SW 75th ST to SW 13th ST)	89
Depot AVE (SW 13th ST to Williston RD)	77
Hawthorne RD/SR20 (Waldo RD to SE 43rd ST)	51
SW 13th ST (Williston RD to NW 6th ST)	41
SW 20 AVE/SW 62 BLVD(SW 34th ST to University AVE)	81
SW 23rd TER /SW 35th PL (SW 34th ST to Archer RD)	95
SW 34th ST (Newberry RD to SW 35th PL)	97
University AVE (Ft. Clarke to E City Limits)	41
Waldo RD (Depot AVE to Industrial Park)	55

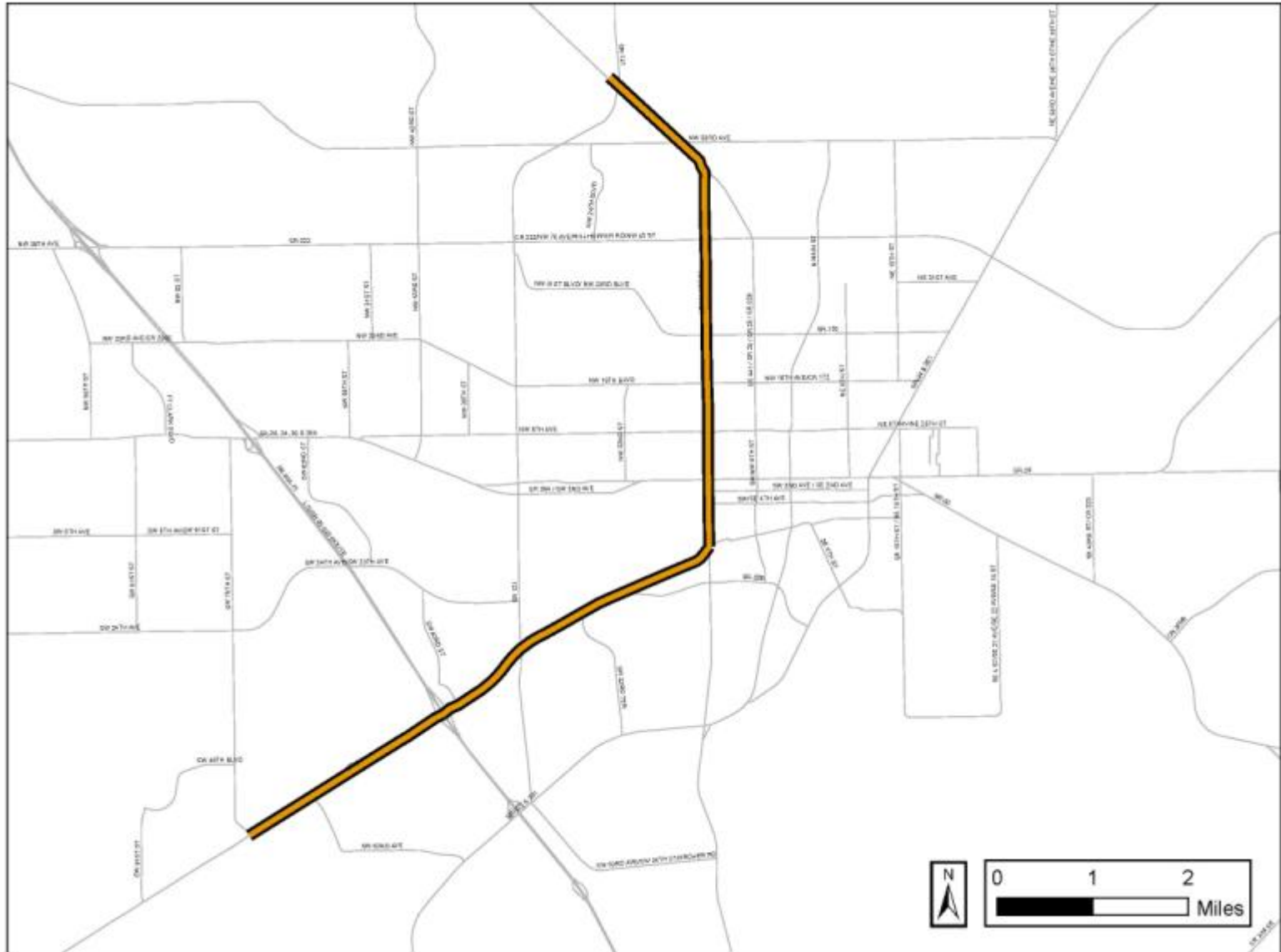
Initial Scores – No weights

Corridor	Criteria
	Total Score
Archer RD (SW 75th ST to SW 13th ST)	51
Depot AVE (SW 13th ST to Williston RD)	43
Hawthorne RD/SR20 (Waldo RD to SE 43rd ST)	29
SW 13th ST (Williston RD to NW 6th ST)	23
SW 20 AVE/SW 62 BLVD(SW 34th ST to University AVE)	45
SW 23rd TER /SW 35th PL (SW 34th ST to Archer RD)	47
SW 34th ST (Newberry RD to SW 35th PL)	53
University AVE (Ft. Clarke to E City Limits)	27
Waldo RD (Depot AVE to Industrial Park)	33

New Configurations

- Proposed Configurations
- Evaluation
- Exercise

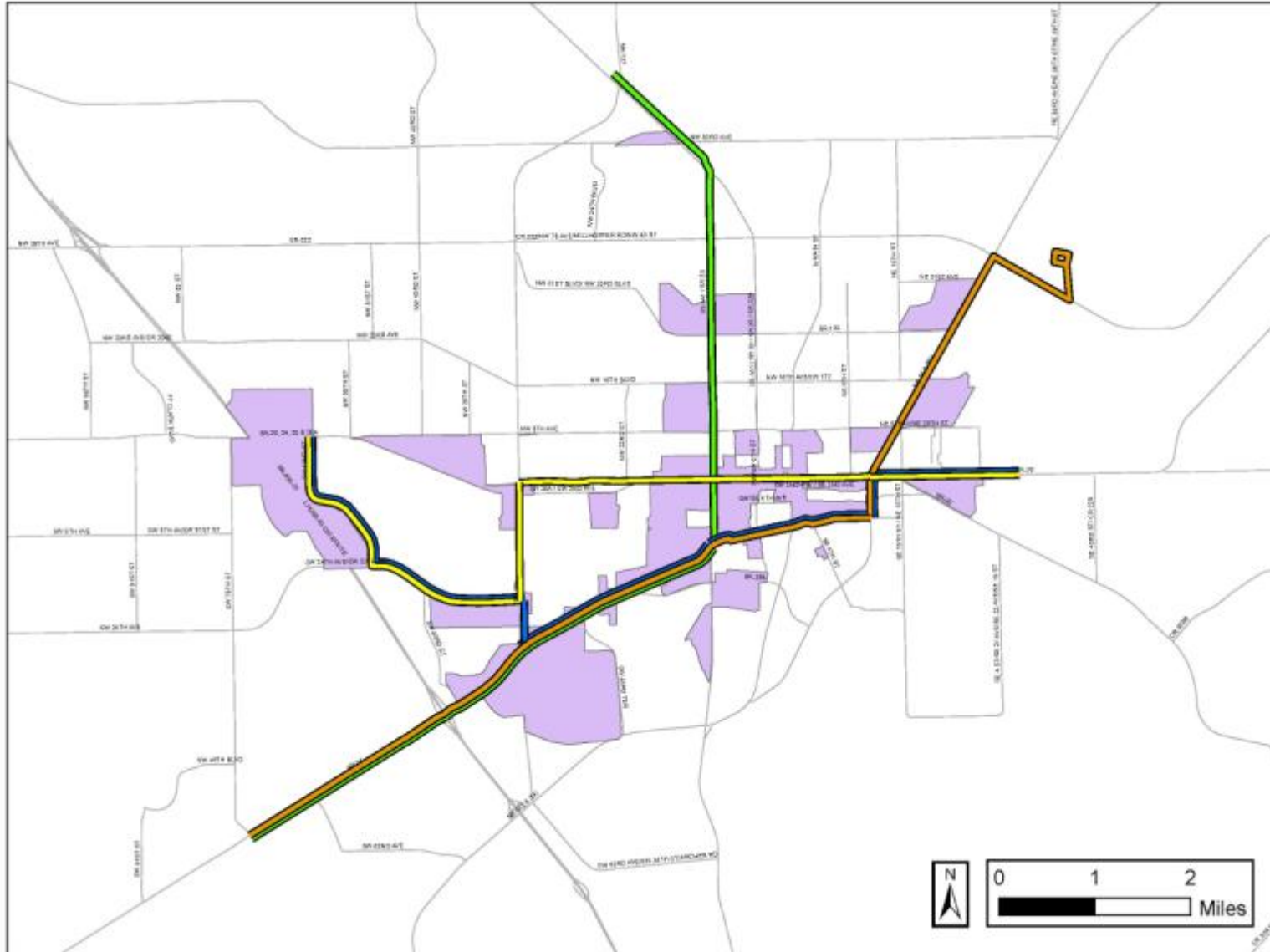
Configuration 4



Evaluation

- Six Variable Matrix
 - Existing Ridership
 - 2007 Density Threshold Analysis
 - Transit Dependency (TOI)
 - University Context Area (Student Population > 30%)
 - University Ridership
 - Environmental Justice

Example: Density Threshold



RTS
Rapid Transit Study

Legend

Configuration 1

Configuration 2

Configuration 3

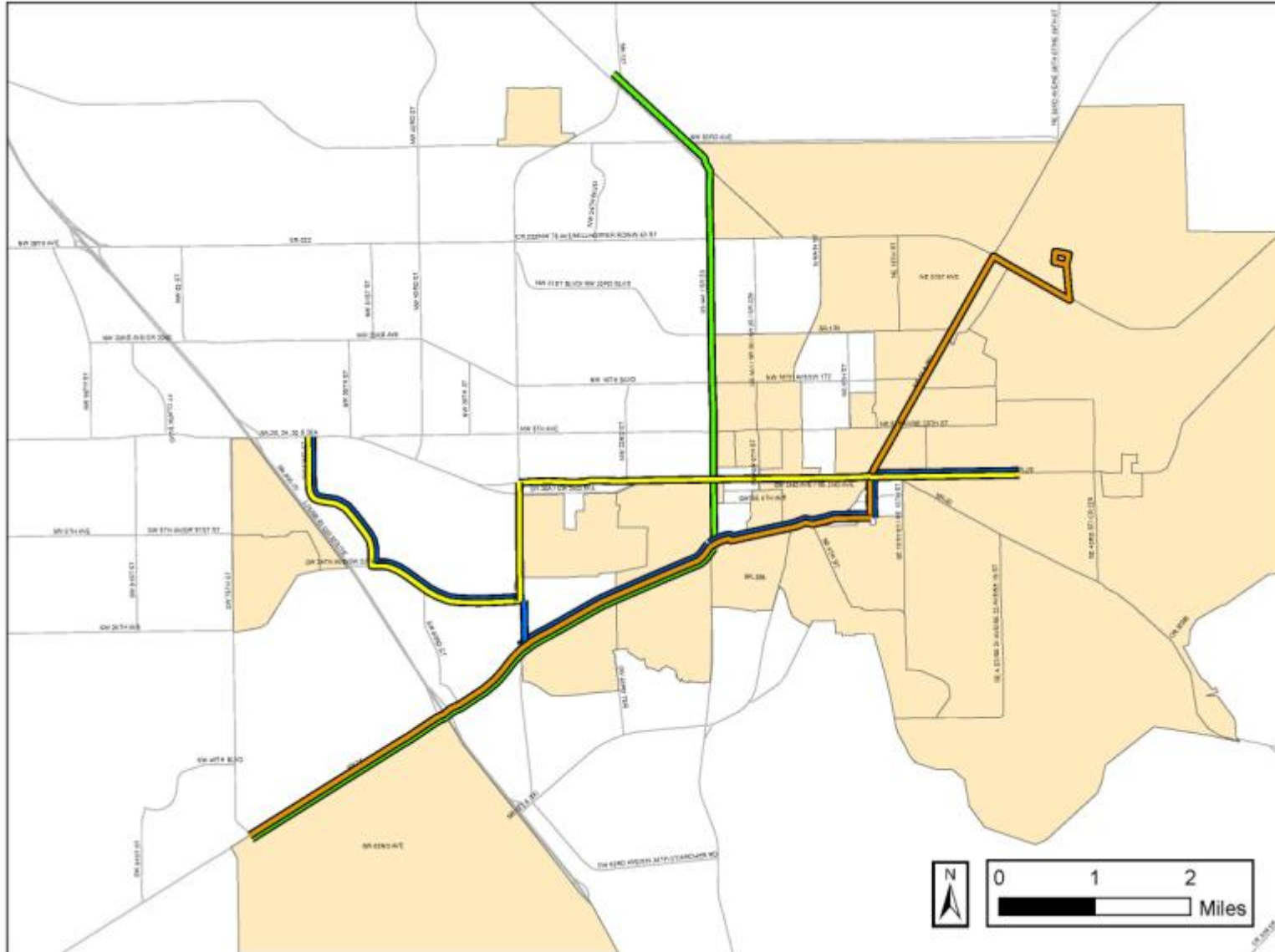
Configuration 4

2007 Density Threshold



Configuration Evaluation

Example: Environmental Justice



RTS
Rapid Transit Study

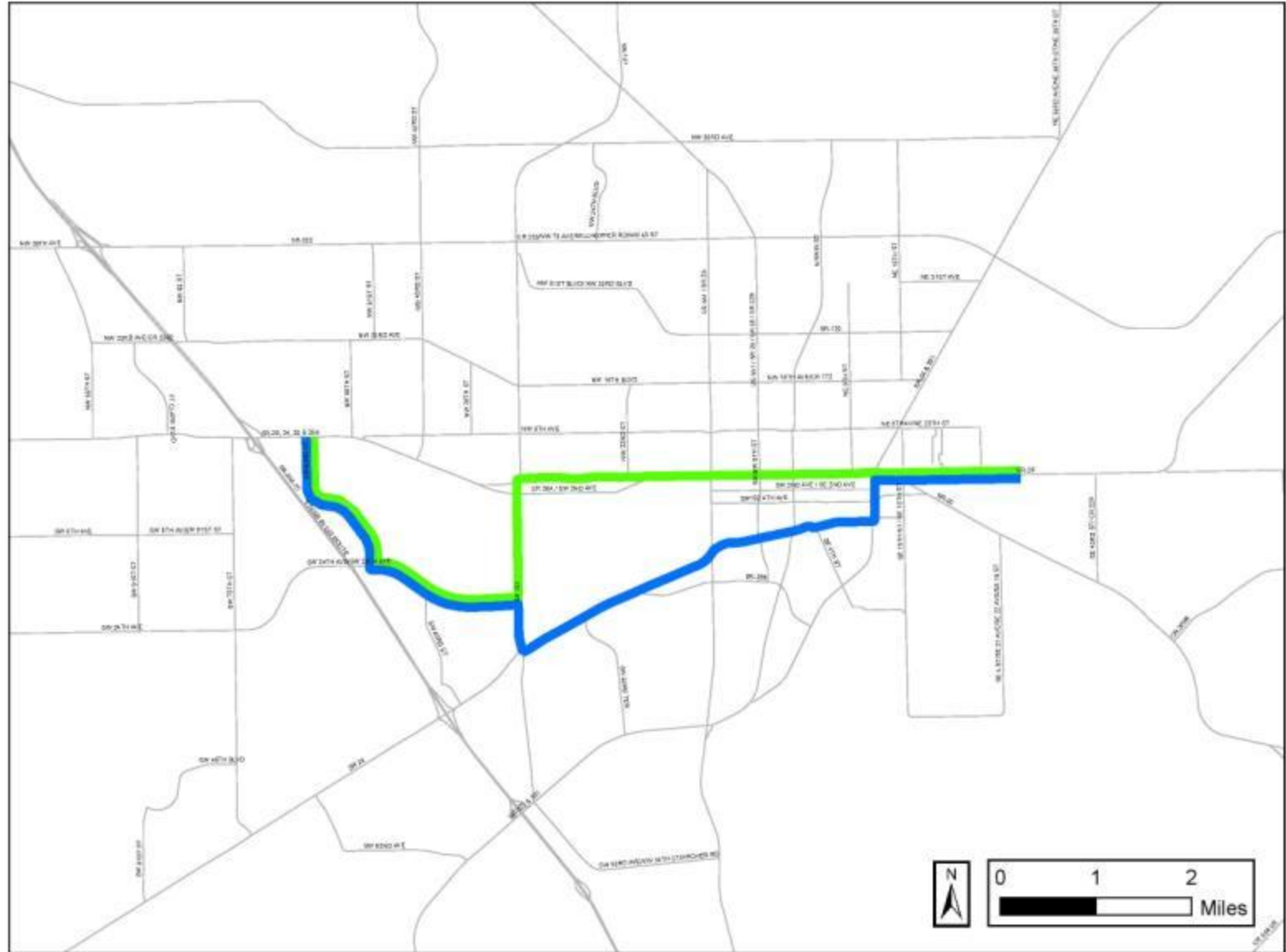
- Legend**
- Configuration 1
 - Configuration 2
 - Configuration 3
 - Configuration 4
 - Environmental Justice

Configuration Evaluation

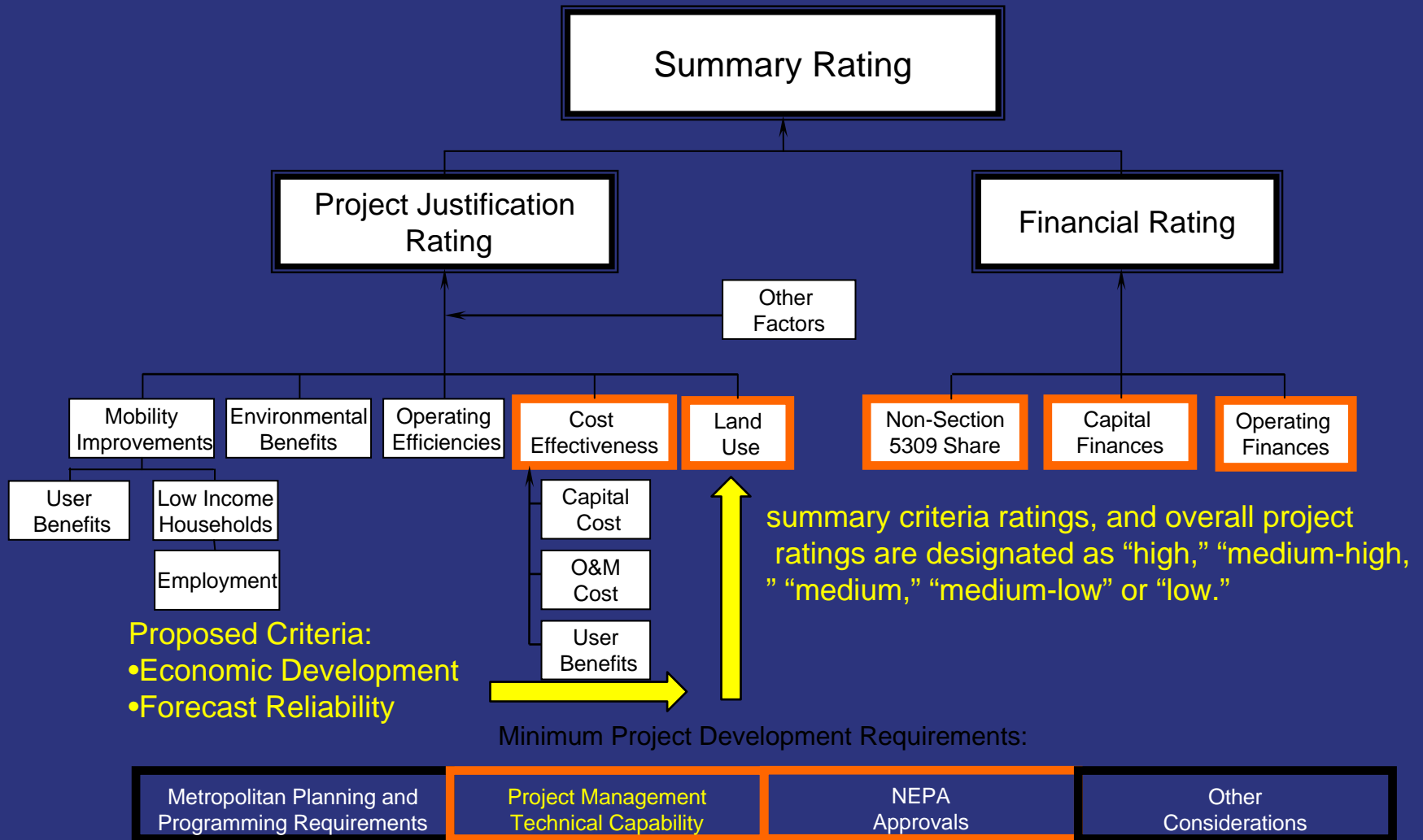
Evaluation Result

Criteria	Configuration			
	1	2	3	4
Existing Ridership	3	1	4	2
2007 DTA	3	1	4	2
Transit Dependency	3	2	4	1
University Context Area	4	1	3	2
University Ridership	4	1	3	2
Environmental Justice	2	4	3	1
Total	19	10	21	10
Rank	2	3	1	3

Evaluation Result



FTA Ratings: New Starts



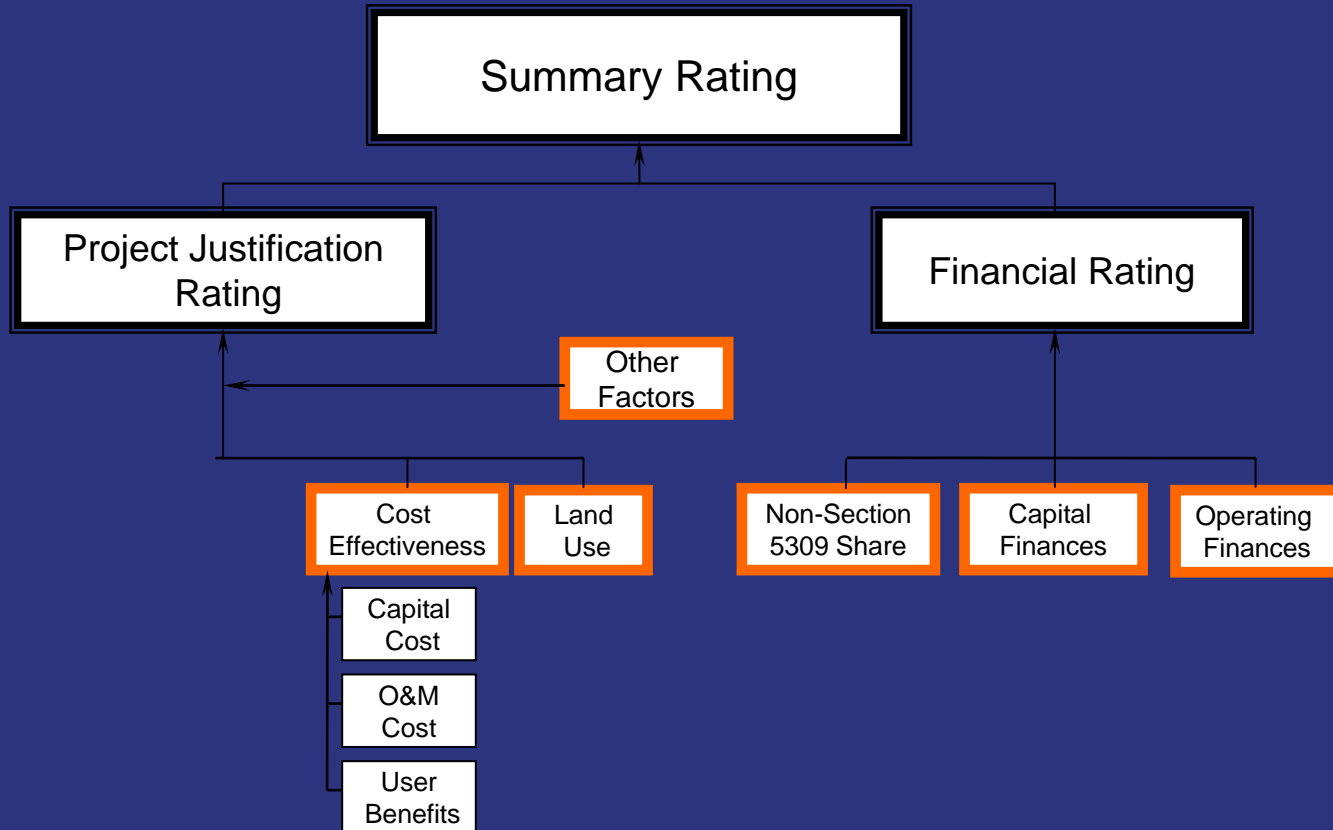
Proposed Criteria:
 •Economic Development
 •Forecast Reliability

summary criteria ratings, and overall project ratings are designated as "high," "medium-high," "medium," "medium-low" or "low."

Minimum Project Development Requirements:

Metropolitan Planning and Programming Requirements	Project Management Technical Capability	NEPA Approvals	Other Considerations
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FTA Ratings: Small Starts



Minimum Project Development Requirements:

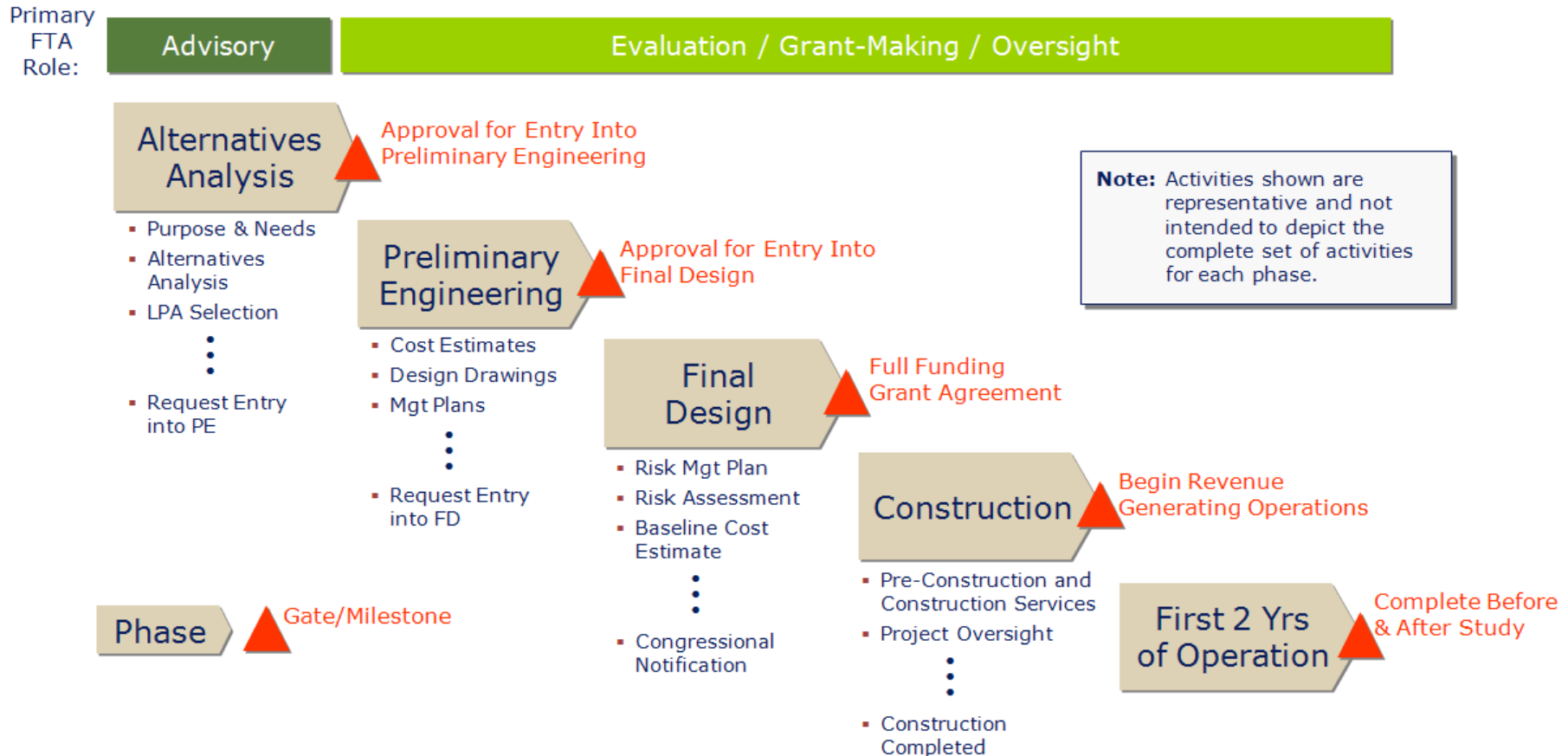
Metropolitan Planning and Programming Requirements	Project Management Technical Capability	NEPA Approvals	Other Considerations
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Very Small Starts

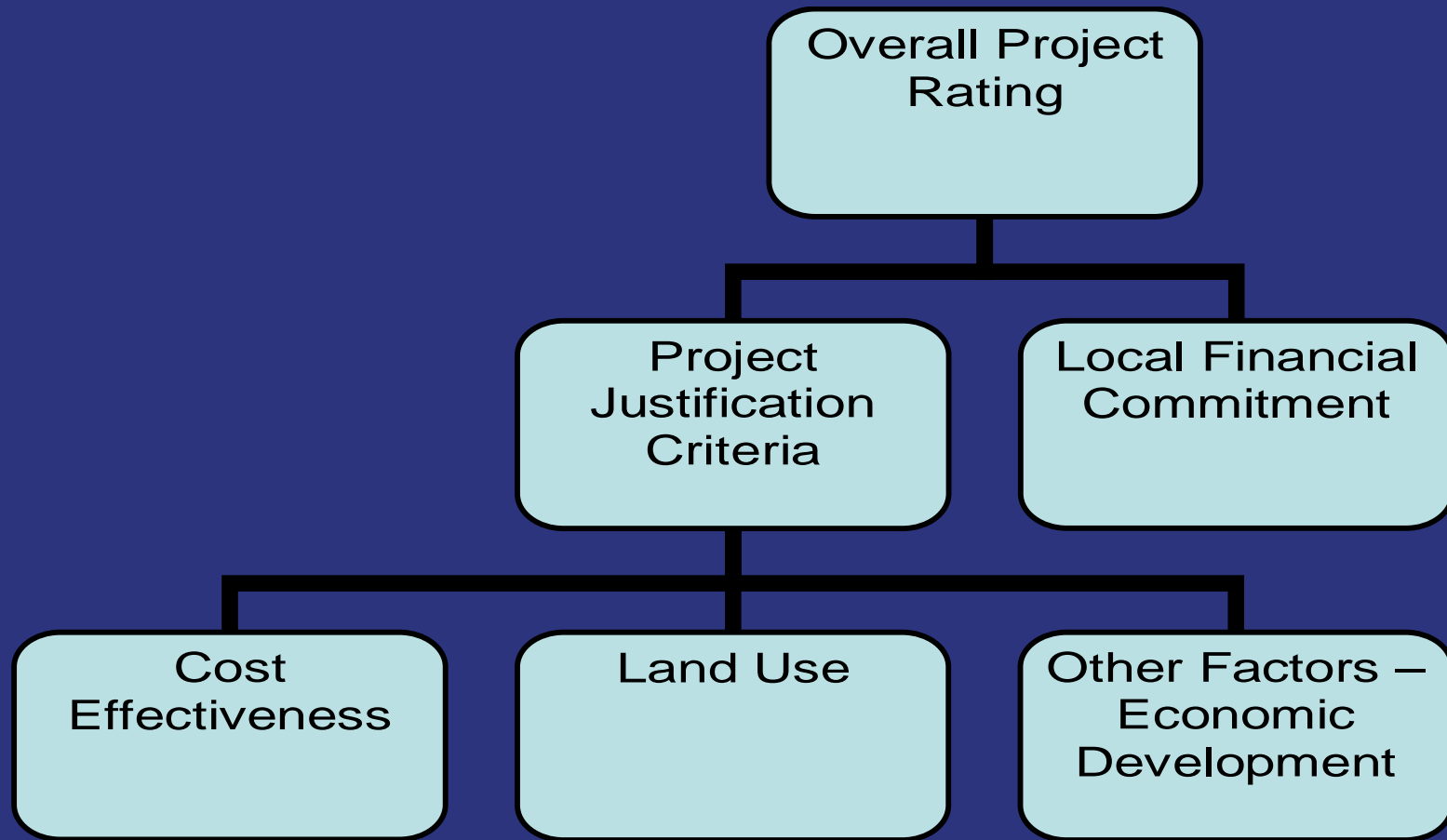
- FTA staff created streamlined process for simple, low-cost projects
- Very Small Starts eligibility criteria:
 - Operate on existing guideway
 - Existing daily riders over 3,000 in corridor
 - Total project cost under \$50 million
 - Cost under \$3 million per mile, excluding rolling stock



What Happens When?

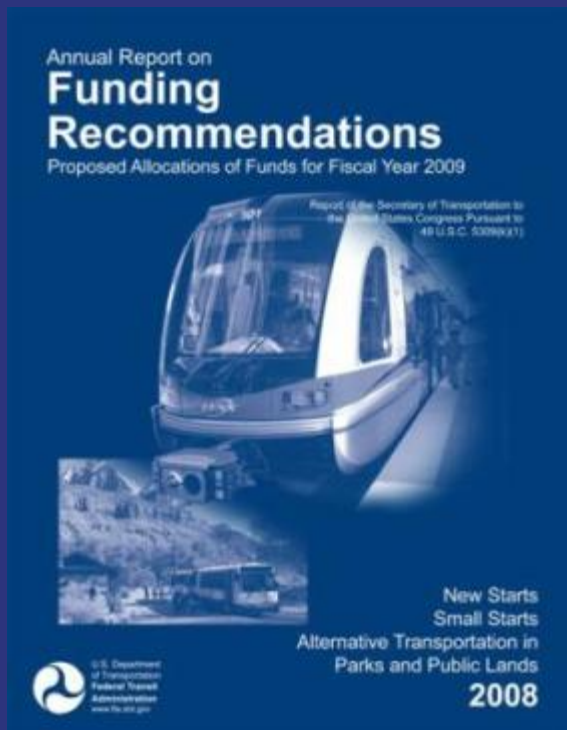


Small Starts Project Ratings



BRT NEW START EXAMPLES

FY2010 New Starts and Small Starts Funding Recommendations



FY2010 New Starts

18 FFGAs and 5 new FFGAs recommended, no BRT

FY2010 Small Starts

1 Pending BRT PCGA

BRT - 14 of 16 Small Starts projects recommended for funding

Pioneer Parkway EmX BRT

Springfield, Oregon

(November 2008)

The Lane Transit District (LTD) is constructing and will operate a 7.8-mile extension of the Franklin corridor “EmX” “Green Line” Bus Rapid Transit (BRT) currently under construction in Springfield, Oregon. The Pioneer Parkway EmX BRT project extends service from the eastern terminus of the Franklin corridor route north along the Pioneer Parkway to existing and new residential and employment areas in Springfield. The project includes 14 new stations, traffic signal priority, and the purchase of five low-floor, branded, hybrid-electric vehicles. The proposed service would operate at-grade, with 10-minute headways during weekday peak- and off-peak periods.

The primary employment center in the Eugene-Springfield region is downtown Eugene, with employment of approximately 15,000. While downtown Eugene is not part of the Pioneer Parkway corridor, it will be served with a direct connection to transit service via the Franklin corridor BRT. The Franklin BRT line will also serve the 295-acre campus of the University of Oregon and its total enrollment of just over 20,000 students. Major employment centers along the Pioneer Parkway BRT route include Symantec, Royal Caribbean, PeaceHealth, and the North Gateway Mall. Total employment within one-half mile of the BRT route is expected to be 15,500 jobs by 2010, over 10 percent of the metropolitan area’s total forecasted employment. The project is expected to serve approximately 3,700 average weekday boardings by 2010.

The total project cost under the Project Construction Grant Agreement (PCGA) is \$41.29 million. The Section 5309 Small Starts funding share is \$32.54 million.

Status

A study of the feasibility of urban rail in the Eugene-Springfield area conducted in 1995 concluded that projected ridership in the region over a 20-year period was too low to be competitive for New Starts funding. Instead, the study identified BRT as a less capital-intensive way to provide efficient transit service for the region. In 2001, BRT was identified as a strategy to combat congestion in the adopted *Eugene-Springfield Regional Transportation Plan*. In this plan, the initial Franklin Boulevard BRT route was identified as the first phase of a potential 61-mile regional BRT system. BRT service in the Franklin corridor commenced in January 2007.

LTD completed an environmental assessment on the Pioneer Parkway EmX BRT project in November 2006. A Finding of No Significant Impact was issued in December 2006. FTA approved the project into project development in December 2006. LTD and FTA entered into a PCGA in December 2008, with revenue operations scheduled for December 2010.

SAFETEA-LU Section 3043(d)(17) authorized the Pioneer Parkway EmX BRT. Through FY 2008, Congress has appropriated \$29.30 million for the Pioneer Parkway EmX BRT project.

EmX Project Funding

Pioneer Parkway EmX BRT

Springfield, Oregon

Reported in Year of Expenditure Dollars

<u>Source of Funds</u>	<u>Total Funding (\$million)</u>	<u>Appropriations to Date</u>
Federal: Section 5309 Small Starts PCGA Commitment	\$32.54	\$29.30 million appropriated through FY 2008
Flexible Funds (STP)	\$0.49	
State: ConnectOregon – Lottery Bond	\$5.40	
Local: LTD Capital Fund	\$2.86	
TOTAL	\$41.29	

NOTE: The sum of the figures may differ from the total as listed due to rounding.

Flagstaff BRT

Mountain Links BRT

Flagstaff, Arizona

(November 2007)

The Northern Arizona Intergovernmental Public Transportation Authority (NAIPTA) is proposing to construct and operate a 5.8-mile bus rapid transit (BRT) line serving the campus of Northern Arizona University (NAU), nearby shopping centers, and downtown Flagstaff. The proposed line will combine two existing local bus routes as well as an on-campus shuttle system and would feature 1.3 miles of dedicated guideway. In addition, through an intergovernmental service agreement with NAU, the proposed on-campus service will be combined with existing NAIPTA service and operated throughout Flagstaff as "Mountain Links." The proposed BRT project extends from a local shopping and residential center located southwest of NAU's campus onto the campus itself, continuing north into downtown Flagstaff. The project includes 24 new stations, signal prioritization, and the purchase of eight electric-hybrid vehicles. The proposed service would operate with 10-minute headways during the peak-period and 15-minute headways during the weekday off-peak.

Summary Description	
Proposed Project:	Bus Rapid Transit
	5.8 Miles
	24 Stations
Total Capital Cost (SYOE):	\$10.41 Million (includes \$0.5 million in financing charges)
Section 5309 Small Starts Share (SYOE):	\$6.24 Million (59.9%)
Annual Operating Cost (SYOE):	\$0.79 Million
Opening Year Ridership Forecast (2010):	4,150 Average Weekday Boardings
	500 Daily New Riders
FY 2009 Local Financial Commitment Rating:	Medium
FY 2009 Project Justification Rating:	Medium
FY 2009 Overall Project Rating:	Medium

Project Development History and Current Status

The proposed project is the result of an alternatives analysis undertaken for campus transportation as part of the NAU Campus Plan planning effort in 2004. The analysis considered a range of options for improving existing transit service through campus. A "modified spine" option, which is the core of the Mountain Links BRT alignment, was found to offer a major improvement over current conditions and was selected as the locally preferred alternative (LPA) in 2005. The LPA was adopted into the region's financially constrained long range plan in June of 2006. FTA approved the project into Small Starts project development in December 2007. The project rating included in this profile is based on conditions as of November 2007.

Flagstaff BRT

Project Justification Rating: Medium

The project is rated *Medium* for project justification based on a *Medium* rating for cost effectiveness and a *Medium* rating for transit-supportive land use. The rating for the project's *Making the Case* document was not factored into the project justification rating for FY 2009.

Making the Case

The Mountain Links BRT project is intended to provide more direct and frequent transit service within NAU, as well as between NAU and downtown Flagstaff at a modest cost. While the project is anticipated to result in improved travel times, the "case" for the project did not articulate a significant mobility problem that better service planning and more frequent transit service levels could not address. Rather, the project presents an opportunity to improve coordination between campus- and NAIPTA-provided transit systems. The "case" identified a number of affected travel markets which would be impacted by the project but did not specify in any analytical detail how these markets would benefit.

Cost Effectiveness Rating: Medium

The Mountain Links BRT project qualifies as a Very Small Start. The project includes low-cost elements such as service branding, low-floor buses operating at improved frequencies, substantial transit stations, and traffic signal priority to speed service, all of which FTA has determined to be cost-effective by their very nature, and therefore, the project receives a *Medium* rating for cost effectiveness.

Transit-Supportive Land Use Rating: Medium

FTA considers Very Small Starts projects that meet the minimum existing ridership threshold of 3,000 daily boardings/benefiting riders to be, by definition, in corridors with transit-supportive land use appropriate to the proposed level of investment; and therefore, FTA has assigned these projects a *Medium* rating for transit-supportive land use plans and policies.

Local Financial Commitment Rating: Medium

The project is rated *Medium* for local financial commitment. Because project operating costs exceed the five percent of the system-wide operating and maintenance cost threshold for qualifying for a streamlined financial review, FTA required NAIPTA to provide additional documentation to demonstrate the local commitment to meet capital and operating requirements of the proposed system. In October 2007, NAIPTA submitted the required financial plan, as well as a signed funding agreement with NAU. FTA's review of the financial plan determined that all local capital and operating funding is committed and available and there is sufficient local financial commitment to warrant the *Medium* rating.

Locally Proposed Financial Plan

<u>Source of Funds</u>	<u>Total Funds (\$million)</u>	<u>Percent of Total</u>
Federal:		
Section 5309 Small Starts	\$6.24	59.9%
Section 5307 Formula Funds	\$1.10	10.6%
Section 5309 Bus Discretionary	\$0.55	5.3%
FHWA Flexible Funds	\$0.25	2.3%
State:		
Local Transportation Assistance Act Fund II	\$0.18	1.7%
Local:		
Dedicated Transit Tax	\$1.05	10.1%
Northern Arizona University	\$1.05	10.1%
Total:	\$10.41	100.0%

NOTE: The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of figures may differ from total as listed due to rounding.

Livermore CA. BRT

Livermore - Amador Route 10 BRT

Livermore, California

(November 2007)

The Livermore Amador Valley Transit Authority (LAVTA) is proposing to construct and operate a 12-mile arterial and highway-running bus rapid transit (BRT) line serving the communities of Livermore and Dublin. The proposed alignment generally traverses an existing local bus route, but would create limited-stop operations intended to remove traffic impediments and improve travel time. The project includes 34 new stations, signal prioritization, roadway improvements, and branding. The proposed service would operate with 10-minute headways during the peak-period and 15-minute headways during the weekday off-peak.

Summary Description

Proposed Project:	Bus Rapid Transit
	12.0 Miles
	34 Stations
Total Capital Cost (SYOE):	\$21.66 Million
Section 5309 Small Starts Share (SYOE):	\$10.93 Million (50.5%)
Annual Operating Cost (SYOE):	\$1.24 Million
Opening Year Ridership Forecast (2008):	4,500 Average Weekday Boardings
	900 Daily New Riders
FY 2009 Local Financial Commitment Rating:	Medium
FY 2009 Project Justification Rating:	Medium
FY 2009 Overall Project Rating:	Medium

Project Development History and Current Status

In October 2004, LAVTA and Bay Area Rapid Transit (BART) completed the Interstate 580 (I-580) Corridor Study alternatives analysis. This study evaluated several alternatives to improve transit service between Livermore, Dublin, and Pleasanton, including an extension of BART heavy rail, BRT service on I-580, and BRT service along the existing Route 10 corridor, which has the highest bus ridership in the LAVTA system. In January 2005, the LAVTA Board of Directors selected the Route 10 BRT as the locally preferred alternative (LPA). Since then, LAVTA has been further identifying station locations, working with local stakeholders to refine the project, and developing a financial plan. In May 2007, the LAVTA Board re-confirmed the proposed Livermore-Amador Route 10 BRT project as the LPA. FTA approved the Livermore-Amador Route 10 BRT project into Small Starts project development in December 2007.

Since the FY 2009 Annual Report, LAVTA has changed the project alignment and length to better serve the primary travel markets in the corridor. These changes are a result of public comments received during the Environmental Assessment process. Sufficient information is not yet available on the revised project for FTA to re-rate the project. Hence, the project rating included in this profile is based on conditions as of November 2007.

Streetcar Loop

Portland, Oregon

(April 2009)

The City of Portland, Oregon, in conjunction with the Tri-County Metropolitan Transportation District (TriMet), is proposing to construct a 3.3-mile extension to its existing "Westside" streetcar line. The project would result in a new streetcar line originating at the existing streetcar station at 10th Street and Lovejoy in the Pearl District northwest of downtown Portland, running east across the Willamette River to the City's Lloyd District, and then south along Martin Luther King (MLK) Jr. Boulevard and Grand Avenue, terminating near the Oregon Museum of Science and Industry (OMSI). This "Eastside" alignment includes 18 new stations and significant capital improvements to the Broadway Bridge to accommodate streetcar operations. The project would require seven new vehicles, all of which are being procured outside of the scope of the proposed Small Start. Service would operate at 12-minute headways during weekday peak periods in the opening year of 2011; future streetcar operations would result in "through" service (i.e. not requiring a transfer) between the Westside and Eastside alignments. In addition, later phases of rail project development in the region are proposed to include a new crossing over the Willamette River to the south and west of OMSI, resulting in a direct connection to the southern end of the Westside streetcar alignment to create a continuous central city "streetcar loop."

Summary Description

Proposed Project:	Modern Streetcar 3.3 Miles 18 Stations
Total Capital Cost (SYOE):	\$126.92 Million (Includes \$5 million in finance charges)
Section 5309 Small Starts Share (SYOE):	\$75.00 Million (59.1%)
Annual Operating Cost (SYOE):	\$3.70 Million
Opening Year Ridership Forecast (2011):	8,700 Average Weekday Boardings
FY 2010 Local Financial Commitment Rating:	Medium
FY 2010 Project Justification Rating:	Medium
FY 2010 Overall Project Rating:	Medium

Project Development History and Current Status

The City of Portland formed an Eastside Corridor Steering Committee in 2003 to explore opportunities for extending the existing Westside Portland Streetcar to the Lloyd District and Central Eastside area. Based upon this work, Metro, the metropolitan planning organization for the Portland region, initiated an alternatives analysis study in July 2005, evaluating the costs and benefits of various streetcar alignments and bus service in the Eastside corridor. In July 2006, local stakeholders selected a streetcar alignment running north-south along MLK Boulevard and Grand Avenue terminating at OMSI as the initial construction segment. TriMet submitted a complete request for entry into Small Starts project development for this alignment in March 2007; the request was approved by FTA the following month. TriMet completed an Environmental Assessment for the project on January 29, 2008. FTA issued a Finding of No Significant Impact on July 2, 2008.

The team assembled to implement the project has significant experience in the design and construction of modern streetcar systems. TriMet has a strong track record for constructing major transit capital investments on time and within budget.

Modern Streetcar Project

Tucson, Arizona

(April 2009)

The City of Tucson Department of Transportation (TDOT) proposes to build a Modern Streetcar Project in the downtown Tucson Urban Corridor. The corridor includes many of Tucson's major activity centers including downtown Tucson, the Rio Nuevo master plan development area, the University of Arizona Tucson campus, the 4th Avenue and University Main Gate business district, and the Arizona Health Sciences Center. The Tucson Modern Streetcar will serve 19 stations along a 3.9-mile double track route. Streetcars will operate at grade—in most locations on surface streets in mixed traffic with some reserved right-of-way, where available. Track placement will primarily be in the center of shared travel lanes with stations located either in the roadway median or on the outside of roadways. Station platforms will be designed so that they can be used by buses as well as by streetcars, where possible. Streetcars will operate with 10-minute frequency during peak periods and 20-minute frequency during off-peak periods and on weekends. The project will require seven modern streetcar vehicles.

The total capital cost of the Tucson Modern Streetcar Project is estimated to be \$150.06 million, with a proposed Section 5309 New Starts share of \$24.99 million. *Because the proposed New Starts share is less than \$25 million, the project is exempt from the New Starts criteria and is thus not subject to FTA's evaluation and rating (49 USC 5309(e)(1)(B)).*

Summary Description	
Proposed Project:	Modern Streetcar 3.9 Route Miles 19 Stations
Total Capital Cost (SYOE):	\$150.06 Million
Section 5309 New Starts Share (SYOE):	\$24.99 Million (16.7 %)
Ridership Forecast (2011):	3,600 Average Weekday Boardings

Project Development History and Current Status

TDOT conducted a Tucson Urban Corridor Alternatives Analysis in August 2004 to identify potential transit alternatives connecting major activity centers in the Tucson central core. A Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) was published in January 2005. Based on the results of the AA, the Tucson mayor and city council adopted the Modern Streetcar Project as the Locally Preferred Alternative (LPA) for the Tucson Urban Corridor in January 2006. The LPA was adopted in the Pima, Arizona Association of Governments' (PAG) 2030 Regional Transportation Plan in June 2006. The LPA was also included in the adopted 2009-2013 PAG Transportation Improvement Program. Local funding for the Tucson Modern Streetcar was a component of the Regional Transportation Authority Plan that was adopted by Pima County voters in May 2006.

Although FTA had issued a NOI to prepare an EIS in 2005, during scoping it was discovered that the project was unlikely to have significant environmental impacts. Accordingly, in March 2007, FTA determined that an Environmental Assessment (EA) would suffice. A draft EA was submitted to FTA in January 2008, and a Final EA was completed in February 2008. FTA issued a Finding of No Significant Impact (FONSI) in January 2009. FTA approved the project into preliminary engineering in December 2008. Approval of the project into final design is expected in 2009.]

Project Development For Very Small Starts projects, preliminary engineering and final design work is combined into one phase referred to as Project Development. Below are the criteria that must be met for approval into Project Development:

- For Very Small Starts projects, preliminary engineering and final design work is combined into one phase referred to as Project Development. Below are the criteria that must be met for approval into Project Development:
- *Project Development Approval Criteria*
- Complete Alternatives Analysis
- Adopt Locally Preferred Alternative (LPA)
- LPA included within the MPO's long range plan
- Complete NEPA scoping
- Receive a "Medium" rating or better from FTA
- In addition, a project sponsor must develop an acceptable Project Management Plan, including a fair and reasonable project budget and schedule.

How is a Very Small Starts project recommended for funding?

Very Small Starts projects that meet the following conditions may be recommended for funding in the President's budget, subject to funding availability:

- The project must have been approved to enter into project development;
- The project must be “ready” to be implemented; and
- The project must be rated at least “medium.”