Bay Link

Miami • Miami Beach Transportation Corridor Study

Supplemental Draft Environmental Impact Statement

February 2003

Locally Preferred Alternative Report

Prepared for:

Miami-Dade Metropolitan Planning Organization

Parsons Brinckerhoff Quade & Douglas, Inc.

MIAMI-MIAMI BEACH TRANSPORTATION CORRIDOR STUDY

Locally Preferred Alternative

Report

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1.0 Background

The purpose of this document is to assist decision makers in making a recommendation regarding the Locally Preferred Alternative (LPA) to be studied further in the Final Environmental Impact Statement (FEIS) for the Bay Link Project. The recommendation of each group will be forwarded on to the Governing Board of the Miami-Dade Metropolitan Planning Organization (MPO), who will make the final decision regarding the LPA.

The first decision that needs to made is which mode should be studied further – Bus Rapid Transit (BRT) or Light Rail Transit (LRT).

If the decision is made to support LRT, then decisions need to be made about which alignment is preferable in downtown Miami and in south Miami Beach.

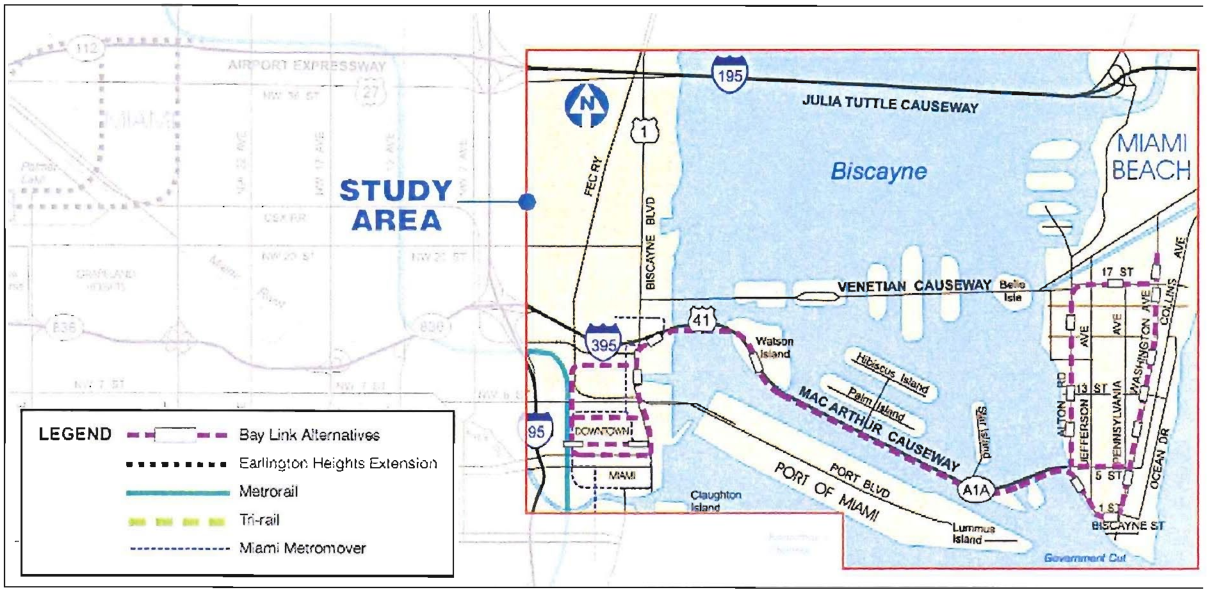
There is an opportunity to refine a number of the assumptions about the LRT alignments and operations during the FEIS stage. These will be discussed as the alternatives are presented.

Financial mechanism need not be decided upon at this stage.

2.0 Purpose of the Project

2.1 Study Area

The study corridor is that segment of the East-West Multimodal Corridor study that is bounded by I-95 on the west and the Atlantic Ocean on the east. To the south, the study corridor limits end at the Miami River in Miami and the South Pointe area on Miami Beach. The study area includes Watson Island, the MacArthur Causeway, Terminal Island and Star, Palm and Hibiscus islands. On the Miami side of Biscayne Bay, the northern limit of the study area is the vicinity of NW 29th Street. The northern limit on Miami Beach is I-195 and 41st Street. The following graphic reflects the study area.



Study area

2.2 Need for the Project

Both downtown and south Miami Beach are continuing to grow rapidly and experiencing heavy densification that has exceed earlier population and employment projections. This growth, when combined with the geographic constraints, relatively narrow streets, and a chronic lack of parking, results in congestion that makes access by private automobile extremely difficult. A high capacity alternative to the automobile is necessary to maintain mobility that is so essential to continued economic prosperity and the quality of life in the region.

Some relevant study area statistics include:

- Existing resident population of 62,000; increase to 80,000 by 2025;
- Approximately 98,000 jobs in the study area; increase to 121,000 by 2025;
- Approximately 4.7 million overnight visitors in the corridor per year;
- Over 500 Miami-Dade Transit (MDT) buses carrying over 8,000 riders per day between Miami and Miami Beach along the MacArthur Causeway.

The purpose of the project is to respond to the following pressing needs:

- Current level of service on roadways, congestion to increase over 24 percent in the next ten years;
- Benefit of huge public and private development will suffer without the addition of a safe and reliable transit service;
- Due to the natural features that limit roadway capacity, substantial growth would be difficult without added mobility offered by transit;
- An effective transit link is needed to tie the study area into the large transportation investments made in the region;
- Emergence of downtown Miami as a tourism destination and the location of an increasing number of special events will require greater accessibility;
- The Miami Beach concurrency limitations related to traffic generation and parking require a travel alternative other than the automobile;
- Good and reasonable access to jobs by transit is necessary to keep wages stable and competitive.

3.0 Initial Screening of Alternatives

3.1 Technology

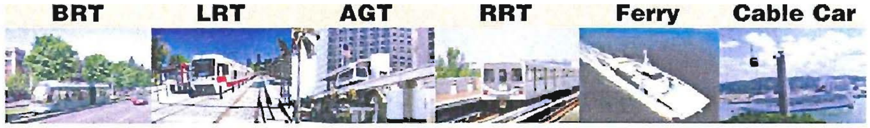
A technology assessment was prepared early in the Bay Link DEIS study process. The assessment defined general service needs, characteristics of the corridor and the evaluation methodology addressed;

- Bus Rapid Transit (BRT);
- Light Rail Transit (LRT);
- Rapid Rail Transit (Metrorail);
- Automated Guideway Transit (Metromover); and
- Monorail.

During the scoping process, the following additional technologies were identified:

- A ferry connection;
- A cable car (the Glide); and
- Extension of Metrorail or Metromover to 5th Street and Alton Road.

Technology Evaluation

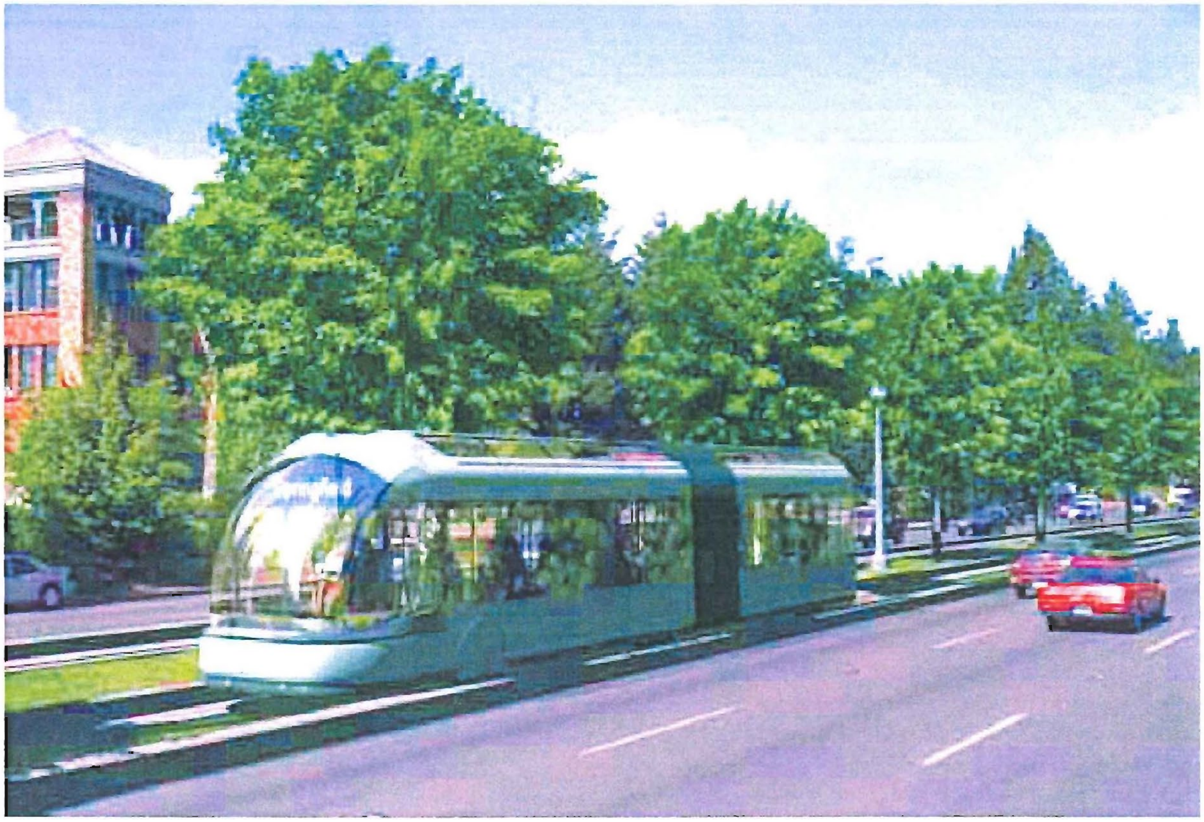


	BRT	LRT	AGT	RRT	Ferry	Cable Car
Operational Flexibility	●	◕	◑	◕	⊕	⊕
Future Expansion	●	◕	◔	◑	◔	⊕
Capital Cost	●	◕	◑	◑	◕	Unknown
O&M Cost	◕	◕	◑	●	◑	Unknown
Distribution	●	●	◔	◔	◔	◔
Right-of-Way	●	◕	◑	◑	◑	◑
Fixed Investment	◑	●	●	●	◑	◑
Image	◔	●	◑	◑	◕	◑
Environmental	◑	●	●	●	◑	◑
Urban Integration	◑	●	◑	◑	●	◕
Proprietary Technology	●	●	◑	●	●	⊕
Capacity	◕	●	●	●	◑	◕
Fire Life Safety	●	●	●	●	◑	⊕

● ◕ ◑ ◔ ⊕

Best Worst

3.1.1 Bus Rapid Transit



Bus Rapid Transit–Eugene, Oregon

The characteristics of BRT include:

- Flexible mode in terms of placement.
- Evolving, dynamic technology which meets EPA 2004 requirements and 2007 requirements (for certain technologies).
- Has the capability to operate at grade (i.e., street level) with motor vehicles and pedestrians crossing the right-of-way, made possible by the overhead distribution system or heavy-duty diesel electric motor or alternate (fuel cell etc.).
- Large, single or double articulated cars running on rubber tires.
- Manned Operation.
- Can operate up to 70 km/h; make short radius turns of 40 feet; and climb grades up to 13 percent.
- Vehicles/systems are somewhat proprietary, bid competition will not be limited, competitive pricing can be obtained if choice is similar to that of various other cities (economy of scale).
- Systems deployed in France and Italy and being seriously considered in various US cities.
- FTA approval and "Buy America" clause need to be addressed.
- The least costly of the modes being considered.

3.1.1 Light Rail Transit

Light Rail Transit–Portland, Oregon

The characteristics of LRT include:

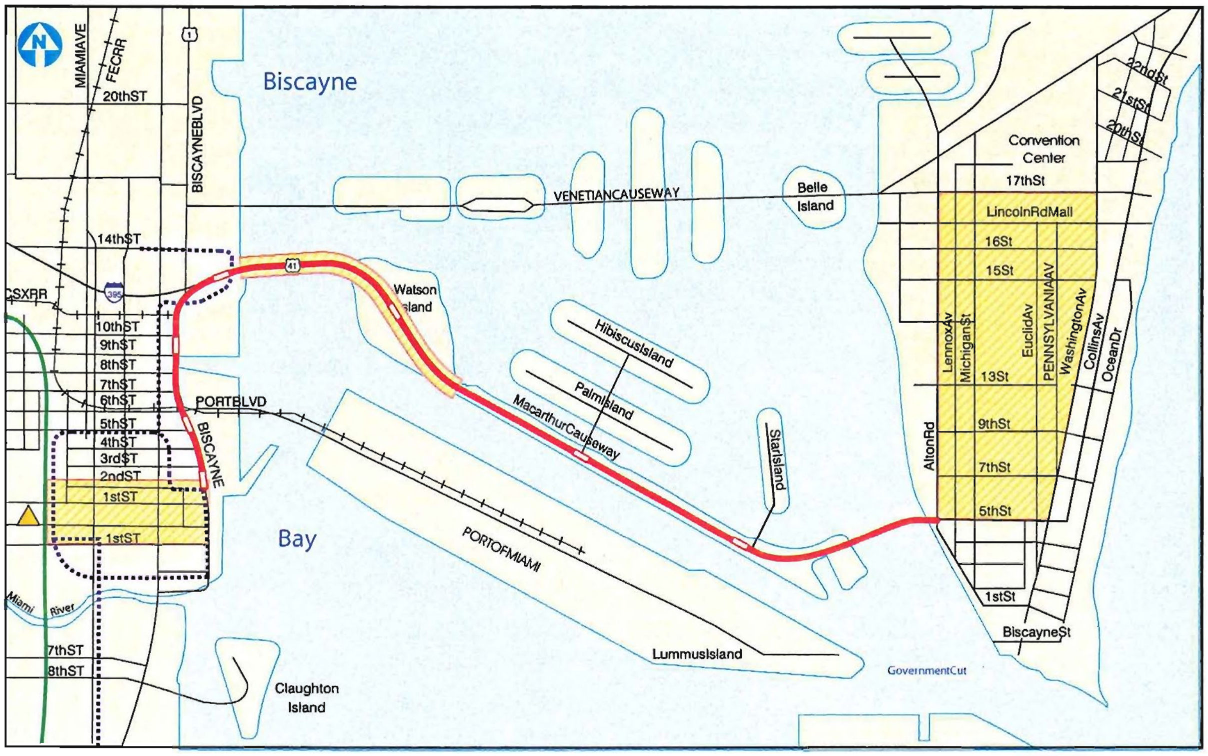
- Flexible mode in terms of placement.
- Has capability of operating at-grade (i.e., street level) with motor vehicles and pedestrians crossing the right-of-way, made possible by the overhead power distribution system.
- Large, single or articulated cars running on traditional rails for support and guidance, giving simple and fast switching capability.
- Manned operations, but with automatic train protection.
- Can operate up to 55 miles per hour; make short radius turns; and climb grades up to 7 percent.
- Vehicles are generic and generally non-proprietary in concept, thus attracting strong bid competition.
- Overhead power distribution system and support poles cause negative visual impact.
- Where at-grade, has negative impact on other traffic movements.

4.0 Description of the Alternatives

4.1 Alignment Descriptions

4.1.1 Bus Rapid Transit

The BRT Alternative provides exclusive bus lanes along Biscayne Boulevard and the MacArthur Causeway. The following graphic represents the BRT alignment.

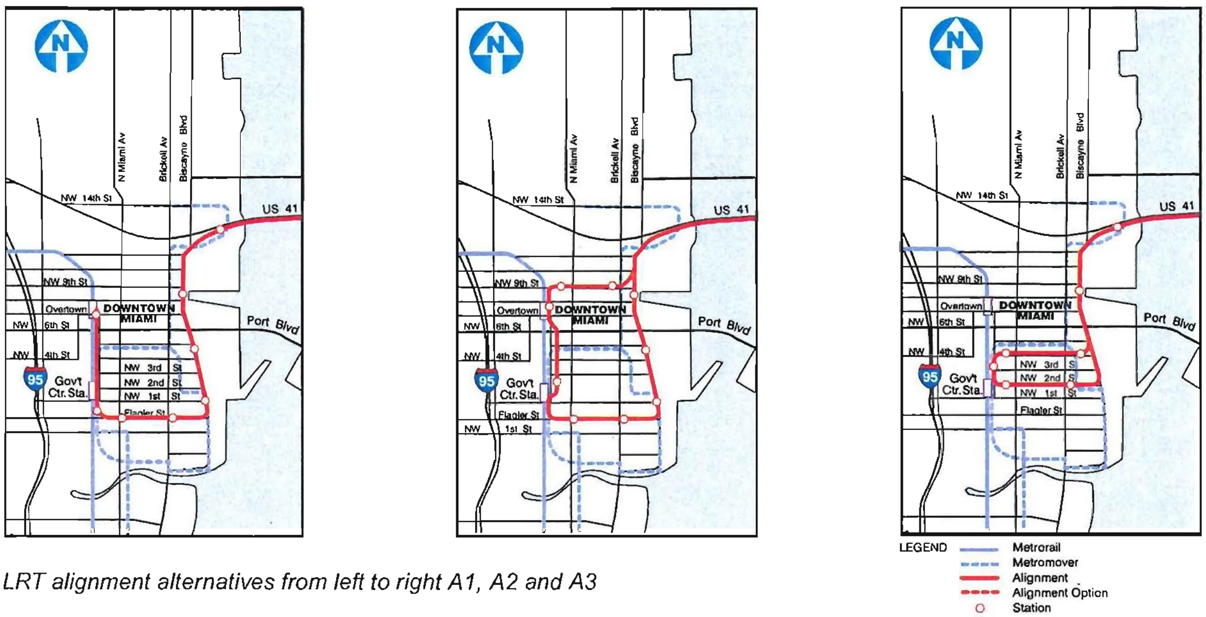


BRT alignment

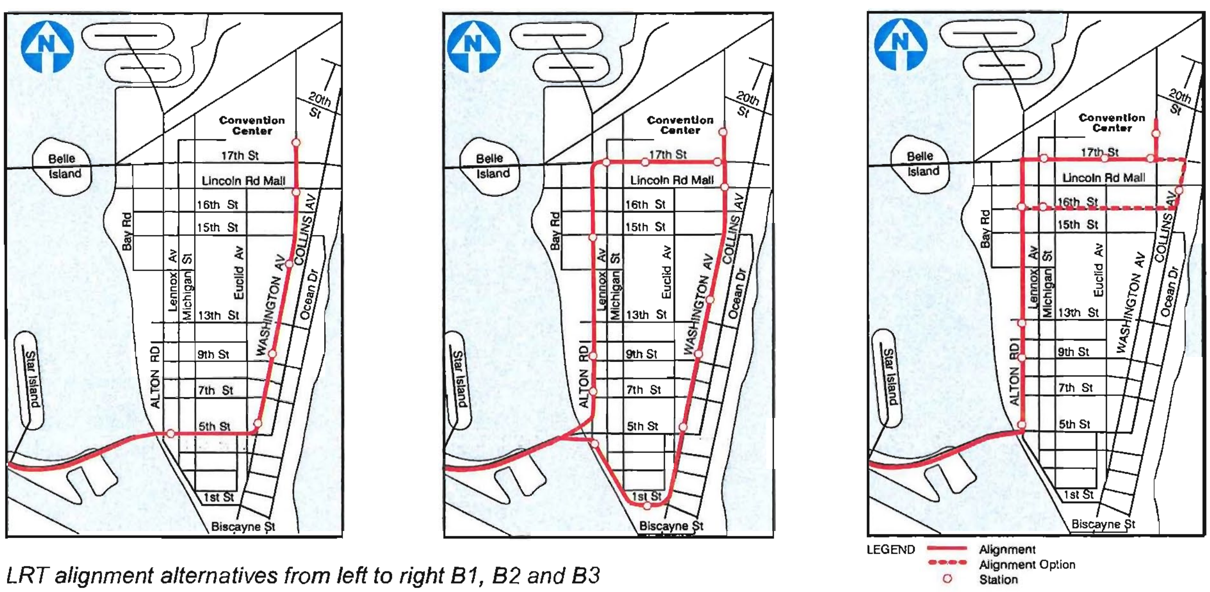
The BRT facilities would be constructed to allow operation of standard buses, buses utilizing over-head power distribution systems, heavy-duty diesel electric motors, or alternative fuels. Stations along the bus lanes would be designed so that they can accommodate standard buses as well as large articulated vehicles.

4.1.2 Light Rail Transit

The LRT alignments have been divided into six segments for analysis. Segments A1, A2, and A3 represent Miami alignment options and segments B1, B2, and B3 represent the Miami Beach alignment options. The segment from Bicentennial Park to Terminal Island is common to all alternatives. Following are graphic representations of the six initial light rail transit alternatives. All of the alternatives have been planned to operate in its own right-of-way, except for along Flagler Street. Any portion of an alternative can operate in mixed flow traffic.



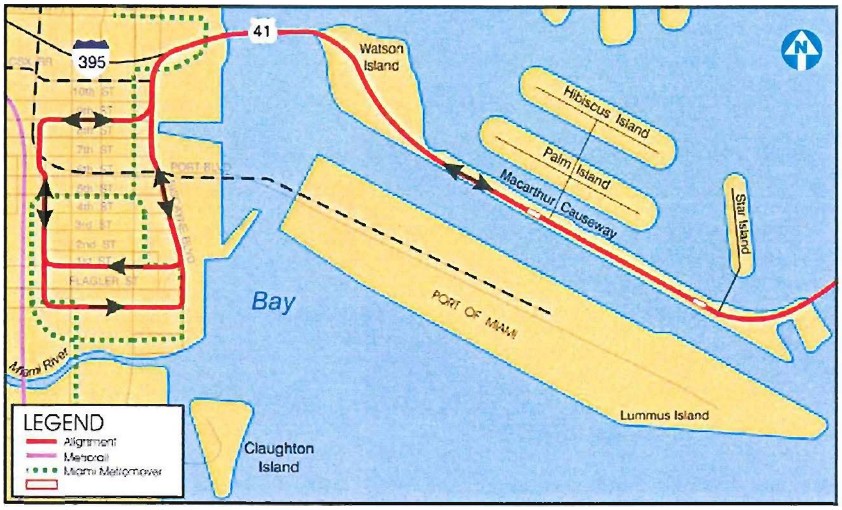
LRT alignment alternatives from left to right A1, A2 and A3



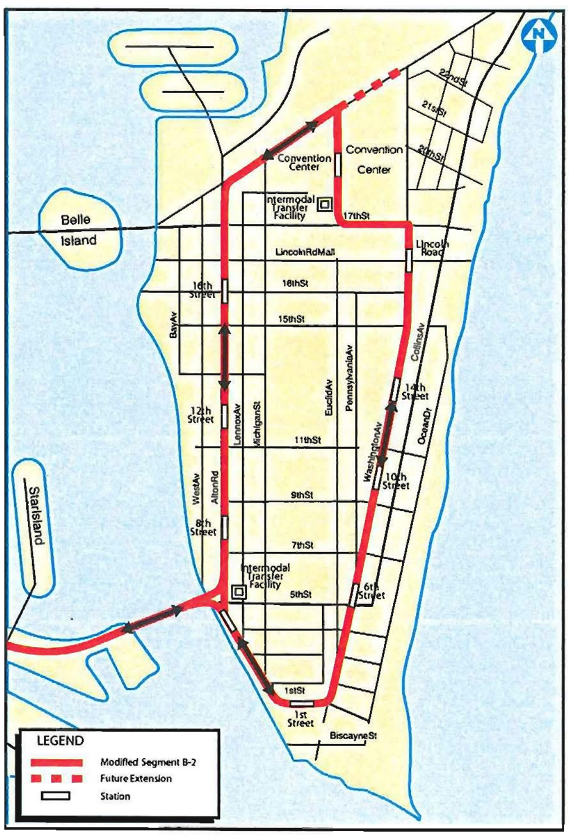
LRT alignment alternatives from left to right B1, B2 and B3

4.1.3 Modified LRT Alignments

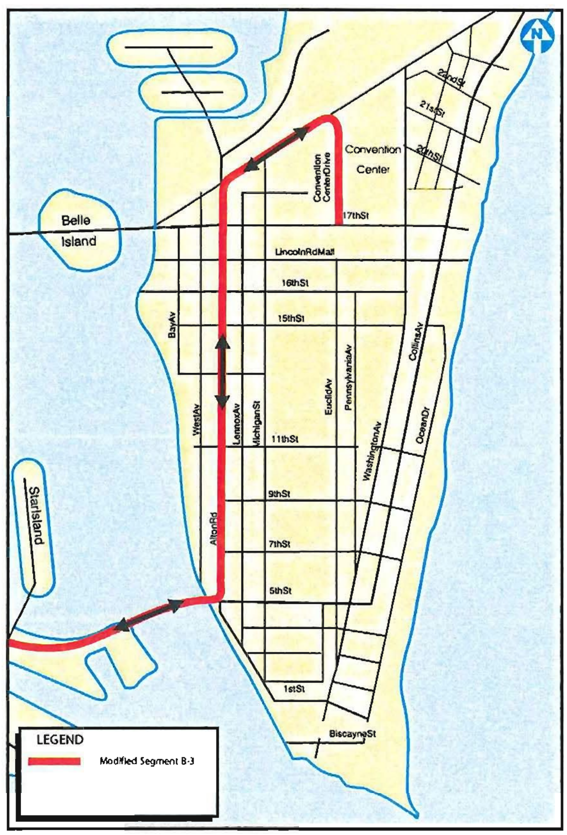
During the course of the study, 76 meetings were held thereby presenting an opportunity for the public to provide input on the project. As a result of this very intensive public involvement process, modifications were suggested for the downtown Miami A2 option as well as the Miami Beach B2 and B3 options. The following figures show the modified alignments.



Modified A2 alignment



Modified B2 alignment



Modified B3 alignment

Proposed modifications to the three alignment options include the following:

1. **Modified A2**
   - Bi-directional loop that operates in both directions
   - Operates on NE 1st and SE 1st Streets instead of Flagler
2. **Modified B2**
   - Single-track loop
   - Bi-directional operation (in both directions)
   - Provisions made for trains to pass at stations
   - Can operate on West Avenue or Alton Road
3. **Modified B3**
   - Extended northward to Dade Boulevard

4.2 Operations

General Characteristics of the LRT System Operations

Daily operation	20.5 hours
Service Frequencies	5 min– peak (5:30 AM to 6:30 PM) 15 min–off peak (6:30 PM to 2:00 AM)
LRT Train Length	2 cars–AM peak, midday and PM peak 1 car–off peak (evening and nights)
Station Dwell Time	20 seconds
Movement through Traffic	Utilizes signal prioritization
Average Speed	LRT–16 to 18 miles per hour BRT–12 to 13 miles per hour

The following table summarizes the general characteristics of the proposed system operation:

4.2.1 Light Rail Yard and Shop Facility

Sites for a maintenance facility were located for the Bay Link LRT system. Both locations meet the site requirements and are located north of the downtown LRT segment, between I-395 and I-195 and east of I-95.

The Yard and Shop layouts are similar and both include the following elements;

- Maintenance shop (approximately 48,500 square feet) with three through tracks
- Separate train wash facility on track adjacent to the maintenance building;
- Bypass track to the storage yard;
- Double loop configuration with special trackwork to allow ease of movement between maintenance shop/wash track and storage yard;
- Maintenance-of-way building;
- Storage ladder tracks for 21 vehicles plus provision for an additional six to 17 vehicles in the initial phase.

Alternative 1 branches from the Florida East Coast Railroad (FEC) rail corridor at NW 17th Street. The site covers approximately 13 acres and is bordered by the FEC on the west, NW 17th Street to the south, NW 2nd Avenue to the east and the Miami Cemetery on the north. Two signalized rail crossings are required on Miami Avenue just north of NW 17th Street. Slightly more than half of the existing properties are vacant with one, two and three story warehouse/ office buildings on the remainder of the site.

Alternative 2 branches from the FEC rail corridor just north of NW 29th Street and is located in the FEC railroad container storage property (Buena Vista yard) east of Miami Avenue. The site covers approximately 12 acres. The existing properties are either vacant or occupied by the storage yard. No roadways are affected by the layout. Miami Avenue would likely provide the ingress and egress for employees working at the facility. Right-of-way for site access would then be through the FEC property (not included in the acreage estimate). Alternative 2 evolved as the most feasible site for the yard and shop facilities.

4.3 Assumptions Regarding Traffic

The primary assumptions for design of the system from a traffic perspective are:

- Mixed-use areas of operation will be permitted unless no practical alternative exist;
- Where lost, on-street parking will be replaced by new local lots where necessary to use space for traffic lanes, where possible;
- Traffic controllers will be upgraded to permit the coordination and prioritization of traffic signals;
- In general, cross streets will need to be signalized;
- Left or right turning movements will be restricted where vehicular and train safety cannot be reasonably assured through other means;
- Bay Link movements will be controlled and facilitated by adding the necessary phases to existing or new traffic signals;
- Access to and from station platforms will be accomplished at intersections under the positive control or new or existing traffic signals.

5.0 Summary of Key Evaluation Factors

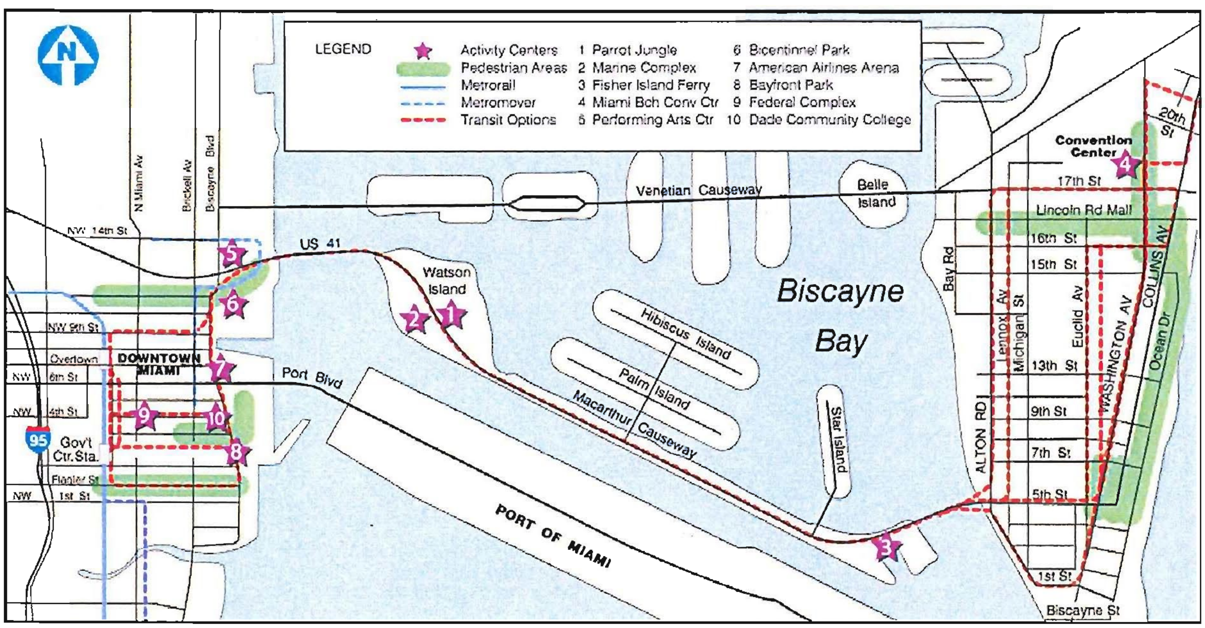
This section provides summary information about the more significant elements contributing to the formulation of an LPA decision. Factors addressed include: land use; ridership; parking impacts; an environmental summary; capital cost; operations and maintenance cost; farebox recovery; and cost-effectiveness.

Since the modified A2, B2 and B3 alignment were developed in the latter stages of the study, ridership and cost analyses were not conducted for these options. The evaluation factors presented herin includes analyses for the initial alignment alternatives only.

5.1.1 Land Use and Development

The Bay Link system would positively impact the following exisiting land uses and proposed developments.

- Miami Beach Convention Center
- Improved access to large blocks hotel rooms
- Add trains for "special events"
- Future extensions amplify benefit
- Cultural and Tourism
  - American Airlines Arena
  - Bayfront Park
  - Proposed Museum/Bicentennial Park
  - Performing Arts Center
  - Parrot Jungle/Marina



Support public investment

- Mitigate concurrency limitations
  - Strengthen tourist base will reduce dependency on automobile (traffic/parking)
  - Improve weekend access to beaches
  - Support sustainable growth
  - Provide alternative to auto based travel
- Easier to attract/retain employees
  - Better regional access
  - Wages stable and competitive

5.1.2 Ridership

The following table provides a summary of three Bay Link combined alternatives.

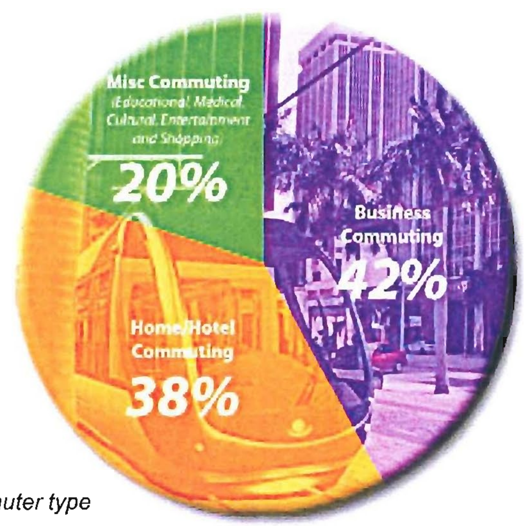
Boardings by Mode-Unlinked Trips

	A1B3	A2B2	A3B1	BRT	No Build
BRT	N/A	N/A	N/A	13,336	N/A
Beach LRT	17,375	15,632	15,445	N/A	N/A
Metrorail	70,806	71,188	71,593	70,094	70,389
Metromover	28,207	30,124	27,216	18,091	21,515
All Transit	448,200	448,164	446,175	439,702	444,203

Source: The Corradino Group

Based on the analyses conducted during the Bay Link study, the data indicates the following:

- 15,500 to 17,400 daily riders; 5.6 to 6.3 million annually
- Metrorail, Metromover and bus system ridership would increase with LRT
- BRT would attract less riders, Metrorail, Metromover and total system ridership would be less
- Ridership by trip purpose
  - 42% Commuting
  - 38% Non-work based trips
  - 20% Trips originating from work



Ridership by commuter type

5.1.3 Visual Impacts

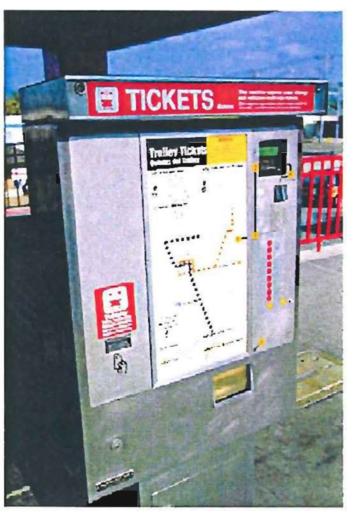
The photographs from other operating LRT systems, below and on the following page, are intended to provide you with a visual context for the Bay Link system.

Portland at-grade guideway

Portland's Tri-Met power substation structures

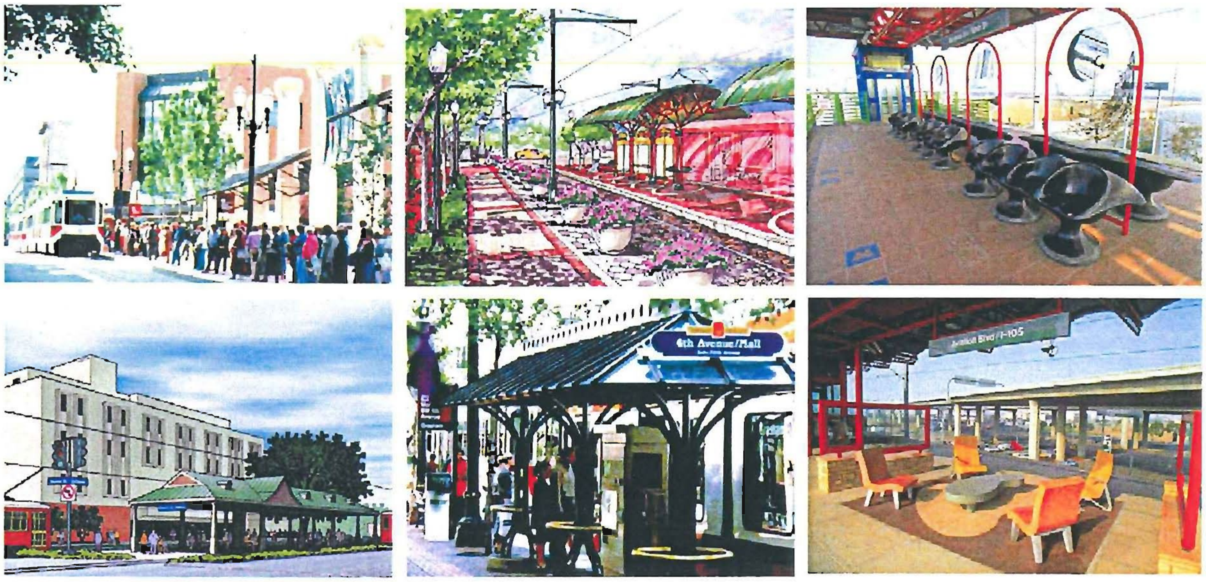
San Diego system aerial guideway

Portland's Tri-Met system employs visually interesting architectural treatments for power substation structures



Fare collection and ticket vending kiosks for San Diego's Santee Orange Line system

Overhead catenary system delivers electricity to power the Salt Lake City light rail transit line



A visually diverse variety of station area concepts and interior treatments clockwise from top left: Portland, Orlando, Los Angeles, New Orleans, Portland and Los Angeles

5.1.4 Mobility Benefits

The benefits include:

- Adds significantly to the Bay Link study area mobility
- Provides alternative to the automobile
- Adds greatly to core capacity
- Replaces 500 MDT buses with 176 trains along the corridor
- Improves effectiveness of Electrowave
- Upgrades signal system
- Removes 6,100 to 7,800 cars per day

5.1.5 Parking Impacts

Bay Link proposes to replace displaced spaces with off-street lots

Parking Impacts

Alternative	Off-Street Public Spaces	On-Site Space	Spaces Impacted	Percent Change
A1	4,903	391	-871	16
A2	6,063	431	-431	6
A3	5,584	227	-227	4
B1	1,889	282	-86	4
B2	4,741	636	-323	6
B3	3,140	226	+98	+3

5.1.6 Environmental Summary

- In general there are no environmental "Fatal Flaws" with any of the alternatives.
- The areas with the greatest challenges–crossing the waterways and MacArthur Causeway and the yard and shop site–are common to all LRT alternatives.
- The major environmental difference between alternatives may be the potential contamination along Alton Road affecting Alternatives B2 and B3.

5.1.7 Capital Cost

Capital Cost
(millions of 2001 $'s)

Alternative	Construction ROW	Vehicles	Maintenance Yard	Management/ Engineering	Total Cost
BRT	$59.4	$8.5	$7.9	$25.1	$100.9
A1/B1	$191.8	$41.6	$27.7	$94.1	$355.1
A1/B2	$232.0	$41.6	$27.7	$109.0	$410.2
A1/B3	$226.7	$41.6	$27.7	$101.0	$397.0
A2/B1	$178.9	$37.0	$27.7	$88.0	$331.5
A2/B2	$219.1	$37.0	$27.7	$102.9	$386.6
A2/B3	$213.8	$37.0	$27.7	$95.0	$373.4
A3/B1	$173.4	$37.0	$27.7	$86.0	$324.0
A3/B2	$213.6	$37.0	$27.7	$100.9	$379.1
A3/B3	$208.3	$37.0	$27.7	$92.9	$365.9

Bus costs and Metrorail costs are based upon the existing 2001 MDT operating and maintenance costs.

5.1.8 Operations and Maintenance Cost

Operating and maintenance costs are the costs that are required to be spent annually on keeping a transit system running.

Operating and Maintenance Cost
(millions of 2002 $'s)

Alternative	Bus Costs	Metrorail	LRT	Total
No Build	$160.4	$66.2	N/A	$226.6
BRT	$162.2	$66.2	N/A	$228.5
A1/B1	$155.1	$66.2	$10.0	$231.4
A1/B2	$155.1	$66.2	$11.1	$233.0
A1/B3	$155.1	$66.2	$9.8	$231.2
A2/B1	$155.1	$66.2	$8.7	$230.0
A2/B2	$155.1	$66.2	$9.6	$231.0
A2/B3	$155.1	$66.2	$8.5	$229.8
A3/B1	$155.1	$66.2	$8.4	$229.8
A3/B2	$155.1	$66.2	$9.4	$230.7
A3/B3	$155.1	$66.2	$8.3	$229.6

Bus costs and Metrorail costs are based upon the existing 2001 MDT O&M costs.

5.1.9 Farebox Recovery

The farebox recovery ratio (the annual O&M costs divided by the revenue collected by passengers) directly affects the amount of money the County must pay to subsidize transit operations. The farebox recovery for MDT is around 25 percent. The calculated farebox recovery ratio for the LRT alternatives ranges between 35 percent and 48 percent. The best farebox recovery is provided by the combination of alternatives A3 and B3.

Farebox Recovery
(millions of 2001 $'s)

Alterantive	Daily Riders	Annual Riders [1] (ooo)	Annual Revenue [2] ($000)	Annual O&M Cost ($000)	Farebox Recovery
A1/B1	15,587	4,832	$3,624	$10,000	36%
A1/B2	16,197	5,021	$3,766	$10,854	35%
A1/B3	17,375	5,386	$4,039	$9,841	41%
A2/B1	15,021	4,656	$3,492	$8,663	40%
A2/B2	15,631	4,846	$3,634	$9,516	38%
A2/B3	16,809	5,211	$3,908	$8,503	46%
A3/B1	15,447	4,789	$3,592	$8,414	43%
A3/B2	16,057	4,978	$3,733	$9,268	40%
A3/B3	17,235	5,343	$4,007	$8,254	48%

[1] Annual Riders equals daily riders * 310 days.
[2] Annual revenue equals annual riders * $.75 (MDT revenue per passenger counting all modes.)

5.1.10 Cost Effectiveness

Cost-Effectiveness relates the costs of the alternatives to specific measurable travel benefits. In particular, the capital and operating costs of the alternatives are related to new transit riders generated. This index produces ratios with units of "added cost per new rider", and reflects benefits to existing riders and savings in operating costs as well as the attraction of new riders. It can be interpreted to be the ratio between the necessary capital investment plus annual O&M costs and the return in transit ridership.

Cost Effectiveness
(Costs in 2001 $'s)

Alterantive	Annualized [1] Capital Cost	Change in O&M Cost [2]	Change in Transit Trips [3]	Cost Effectiveness Index [4]
BRT	$8,320,000	$1,848,000	1,395,310	$7.29
A1/B1	$27,150,000	$4,739,000	2,520,831	$12.65
A1/B2	$31,750,000	$5,785,000	2,608,216	$14.39
A1/B3	$30,650,000	$4,579,000	2,634,380	$13.37
A2/B1	$25,250,000	$3,402,000	2,482,099	$11.54
A2/B2	$29,850,000	$4,351,000	2,623,220	$13.03
A2/B3	$28,750,000	$3,242,000	2,596,407	$12.32
A3/B1	$24,650,000	$3,153,000	2,006,630	$13.85
A3/B2	$29,150,000	$4,103,000	2,549,172	$13.04
A3/B3	$28,050,000	$2,993,000	2,621,914	$11.83

[1] Annualized Cost is the capital cost spread out over the expected life of the project using standard FTA factors.
[2] This column is calculated by subtracting the No-Build O&M costs from the O&M cost of each Alternative.
[3] This column is obtained by subtracting the unlinked riders for the No-Build Alternative from each alternative.
[4] The index is obtained from the following formula

$$\text{Index} = \frac{\Delta\$CAP + \Delta\$O\&M}{\Delta RIDERS}$$

5.1.11 Summary of Goal Achievement

Goal Achievement Summary

Goal	BRT	A1/B1	A1/B2	A1/B3	A2/B1	A2/B2	A2/B3	A3/B1	A3/B2	A3/B3
1. Develop Multimodal Transportation System	◑	◕	◑	◕	◕	◑	◕	◕	◑	●
2. Improve efficiency and safety	◑	◕	◕	◕	◕	◕	◕	◕	◕	◕
3. Preserve Social Integrity of Urban Communities	◕	◕	●	●	◕	●	●	◕	◕	◕
4. Plan projects that enhance quality of life/environment	◑	◑	◕	●	●	◕	●	◑	◕	◕
5. Define a sound funding base	◑	◕	●	◕	◑	◕	◕	◑	◕	◕

● ◕ ◑ ◔ ○
Best — Worst

5.1.12 Evaluation Summary

The purpose of this section is to collect and summarize the data presented above to facilitate the review and decision process. Provided is a summary of major benefits and impacts.

Summary of Major Benefits/Impacts

Alternative	Benefit	Impact
No-Build	Does not cause short-term construction impacts.	Does not support goals of community. Does not supply an alternative to growing congestion.
BRT	Does not cause short-term construction impacts on Miami Beach.	Will require increase in transit vehicles on local streets to keep up with demand.
LRT A1	Carries highest projected ridership Serves densest commercial areas of downtown Works will with potential LRT extension to the north.	Impacts parking on both Biscayne Boulevard and along NW 1st Avenue Impacts traffic operations on Flagler Street Does not directly serve residential areas of downtown
LRT A2	Serves residential areas of downtown. Works will with potential LRT extension to the north. One-way loop minimizes roadway impacts.	One-way loop provides the least convenient service level in the downtown.

LRT A3	Provides direct service to MDCC. Provides most direct routing to Metrorail · Has lowest construction cost. Has the highest farebox recovery ratio Has the best cost-effectiveness ratio.	Does not serve the densest areas of downtown. NW 2nd Street is not transit oriented. Does not serve Overtown community.
LRT B1	Has the least parking impact on the beach. Serves the hotel, recreational and tourist trips. Has the lowest capital cost.	Has the lowest ridership projections. Takes a lane of traffic on Washington Provides least service to South Beach residents.
LRT B2	Services all areas of South Beach.	Has the highest cost. Has the lowest farebox recovery and highest cost per new rider.
LRT B3	Has the highest farebox recovery ratio. Has the highest ridership projections. Serves high density residential areas of South Beach.	Requires loss of all on-street parking on Alton Road. Requires minor right-of-way takes.

Evaluation Summary

Evaluation Factors	BRT	A1/B1	A1/B2	A1/B3	A2/B1	A2/B2	A2/B3	A3/B1	A3/B2	A3/B3
Achieve Goals	⊕	◑	◕	◕	◕	●	●	◔	◑	◑
Environmental	●	◑	◑	◑	◑	◑	◑	◑	◑	◑
Ridership	⊕	◔	◑	●	⊕	◔	◕	◔	◑	●
Capital Cost	●	◕	⊕	◔	◕	◔	◕	◕	◑	◑
O&M Cost	●	◔	⊕	◔	◑	⊕	◕	◕	◑	◕
Cost-Effectiveness	●	◑	⊕	◔	◕	⊕	◑	◔	◔	◕
Farebox Recovery	NA	⊕	⊕	◑	◑	◔	●	◕	◑	●

● ◕ ◑ ◔ ⊕

Best Worst

6.0 Decisions to be Made

The first decision that needs to be made is which of the following modes you would recommend for further study in the FEIS. It is important to note that the No-Build Alternative is automatically carried forward into the next phase of the planning work.

1. Bus Rapid Transit Improvements
2. Light Rail Transit

It must be noted that there have been no recommendations for the BRT. If the decision is made to support LRT, then there are two sections of the project that have been examined – Miami and Miami Beach. Because of the common rail leg along the MacArthur Causeway, any downtown Miami alternative can operate with any Miami Beach Alternative.

In downtown Miami, there were three initial alignment alternatives from which the preferred alignment was to be selected.

- Alternative A1(the Hook) has two-way operations along Biscayne Boulevard, Flagler Street and NW 1st Avenue.
- Modified Alternative A2 (the Big Loop) features a two-way loop along NW 9th Street, NW 1st Avenue, NE 1st Street, SE 1st Street, and Biscayne Boulevard.
- Alternative A3 features two-way operations on a part of Biscayne Boulevard with a one way loop on NW 4th Street, NW 1st Avenue, and NW 2nd Street.

The modified A2 alignment is also included as an alternative in downtown Miami.

- Modified Alternative A2 (the Big Loop) features a two–way bi-directional loop operation along NW 9th Street, NW 1st Avenue, NE 1st Street, SE 1st Street, and Biscayne Boulevard.

In Miami Beach there were also three alignment alternatives from which the preferred alignment was to be selected.

- Alternative B1 features two-way operation along 5th Street and Washington to the Convention Center.
- Alternative B2 has a loop operation along Alton Road, 1st Street, Washington Avenue, and 17th Street. The loop as it was evaluated provides two-way operations on Washington Avenue and one-way operation on Alton Road with trains running from the convention center to downtown Miami alternating on Alton Road and Washington Avenue.
- Alternative B3 has two-way operation on Alton Road and 17th Street to the Convention Center.

The modified B2 and B3 alignments have also been proposed as alternatives in Miami Beach.

- Modified Alternative B2 features a bi-directional loop operation along West Avenue/Alton Road, 1st Street, Washington Avenue and 17th Street. The loop is single-tracked with provisions for train passings at selected stations.
- Modified Alternative B3 features a two-way operation on Alton Road, Dade Boulevard to the Convention Center.

Finally, within the FEIS phase of the project, there will be an in-depth focus on a single alternative. Alternatives as they have been examined so far can be refined during the FEIS. Below are some of the modifications to the proposed alternatives that have been suggested. It is your prerogative to recommend a modification for the LPA.

Several of the alignment alternatives feature different loop configurations. It is important to note that full two-way loops can be developed for the future or a full one-way loop can be operated initially as a cost savings measure.

- The two-way loop would improve the transit level of service, but would have a greater impact on traffic lanes and parking lanes.
- A complete one-way loop would reduce the transit level of service and the impact on traffic and parking.

6.1 LPA Recommendations to Date

During the public involvement process, several recommendations were made for the preferred alignment. The following LPA recommendations were made by several Miami and Miami Beach groups.

City of Miami LPA Recommendations

Overtown Advisory Board	Modified A2
Downtown Development Authority	Modified A2
Miami Transportation Group	Modified A2
City of Miami Commission	Modified A2
Citizen's Advisory Committee	Modified A2/B3
Greater Miami Chamber of Commerce	Rail Connection
MPO CTAC	Modified A2/B3

The City of Miami unamimously supported the manager's recommendation, which was the modified A2 alignment.

City of Miami Beach LPA Recommendations

Miami Beach Chamber of Commerce	B3
Miami Design Preservation League	B3
Flamingo Park Neighborhood Assoc.	B3
South Beach Hispanic Chamber	B3
West Avenue Property Owners	B3
Transportation and Parking Committee	No Build
Palm/Hibiscus Islands HOA	No stations for islands
Planning Board	LRT extended to North Beach
Miami Beach Public Hearing	11 for LRT / 5 No Build

The LPA selection for the City of Miami Beach is emerging to be the modified B3 alignment. The MPO's selection of the LPA is scheduled for March 13, 2003.

6.2 Project Implementation Schedule

Once the LPA has been selected, the project will move forward into the preliminary engineering (PE)/FEIS stage. A Record of Decision (ROD) will be issued by the FTA at the conclusion of the FEIS. The following figure shows the proposed implementation schedule for the Bay Link project.

Implementation Schedule