



---

## 8.0 Alternatives Analysis Results

This chapter details the results of the Detailed Screening analysis, applying the evaluation methodology described in Chapter 2 to the analyses in Chapter 4 through Chapter 7. Results are identified for each of four evaluation categories: Mobility and Accessibility, Land Use and Redevelopment, Environmental Effects, and Cost Effectiveness. Following the results is a comparison of alignment options for both the northwest quadrant (with stops at either Arts Center or Lindbergh MARTA Station) and the eastside (with stops at either Inman Park-Reynoldstown or King Memorial MARTA Station), a comparison of technology options (BRT, LRT, and Modern Streetcar), and an analysis of the ratings, merits and disadvantages for each of the ten Detailed Screening Alternatives based on the evaluation criteria.

The sections which follow summarize the effect of public outreach and input on the technical analysis and present the top rated alternatives for consideration as the Locally Preferred Alternative (LPA). The chapter concludes with a discussion of next steps by MARTA and project stakeholders, as the Beltline proceeds from the AA toward latter phases of project development.

### 8.1 Detailed Screening Evaluation Results

#### ***Mobility and Accessibility***

Overall, Alternatives B1 and B3 (Northwest-Lindbergh) outperformed Alternatives B2 and B4 (Northwest-Arts Center) in this evaluation category. Modeling of patronage and operations estimated that accessing Lindbergh in the northwest quadrant can produce at least 16.0 percent more annual riders in Year 2030, 18.9 percent more new regional transit system riders in 2030, and at least 46.9 percent greater annual regional travel time savings, when compared to Northwest-Arts Center alignment options. The Northwest-Lindbergh alignments also reduced the demand for rail-to-rail transfers at the Five Points MARTA Station, by at least 9.0 percent. Based on Year 2000 demographic data, the Northwest-Lindbergh alignment would have slightly improved rapid transit access for at least 4.5 percent more of the population above age 65, 1.5 percent more of the low-income population, and 1.5 percent more households without automobile access.

Modeling of operations for the Northwest-Arts Center alignment options resulted in significantly higher boardings on Study Area feeder routes (+6000 and +4000 for Alternatives B2 and B4, respectively) than the Northwest-Lindbergh options (-300 and +400 for respective Alternatives B1 and B3). This difference is primarily due to the presence of the Northwest Beltline Connector bus route in the B2 and



---

B4 alternatives. The Northwest-Arts Center alignment would have slightly improved rapid transit access for at least 2.9 percent more of the minority population in the study area, based on Year 2000 data.

Each Eastside-King Memorial alternative (B1 and B2) outperformed its comparable Eastside-Inman Park/Reynoldstown alternative (B3 and B4) in the Mobility and Accessibility category, although the variation in performance was significantly smaller than that for the Northwest alignment options. Based on Year 2000 data, the Eastside-King Memorial options would have slightly improved rapid transit access for more of the transportation disadvantaged populations, including at least 9.0 percent more of households lacking access to automobiles, 8.8 percent more of the low-income population, 6.1 percent more of the minority population, and 0.9 percent more of the population above age 65. The active redevelopment of Capitol Homes and Grady Homes, both within half-mile of the King Memorial MARTA Station and proposed Beltline stop, by the Atlanta Housing Authority into mixed-use, mixed-income developments, may narrow the lead in the transit dependent accessibility measure.

Individually, Alternative B1 outpaced Alternative B3 for the highest score in the Mobility and Accessibility category, in part due to superior figures in the performance measures for service to transit dependent populations. This is despite Alternative B3 having slightly superior modeling results for ridership and travel time savings.

### ***Land Use and Redevelopment***

Overall, Alternatives B1 and B2 (Eastside-King Memorial) outperformed Alternatives B3 and B4 (Eastside-Inman Park/Reynoldstown) in this evaluation category. There were only marginal differences in projected Year 2030 population among alternatives, as the Eastside-King Memorial options would improve access near stations for at least 0.5 percent more residents. The variation in projected Year 2030 employment near stations is more evident, as the Eastside-King Memorial options would improve access near stations for at least 9.4 percent (33,000) more employees. The advantage in projected employment is intuitive given the station's proximity to the Central Business District, as Grady Memorial Hospital and Georgia State University are partially within the a half-mile radius of the station.

The Eastside-Inman Park/Reynoldstown Alternatives had marginally higher proportions of vacant or underutilized land within a half-mile of Beltline stations (1.9 percent). However, within an equivalent half-mile station buffer the Eastside-King Memorial Alternatives held more land with economic and zoning development incentives (10.6 percent). The Eastside-King Memorial Alternatives



also provided access to higher proportions of major cultural, educational and recreational facilities.

Each Northwest-Arts Center Alternative (B2 and B4) outperformed its comparable Northwest-Lindbergh Alternative (B1 and B3, respectively) in this category, although the degree of scoring variation was smaller than the differences between the Eastside alignment alternatives. The Northwest-Lindbergh Alternatives would improve rapid transit access for at least 0.6 percent more Year 2030 residents, but the Northwest-Arts Center Alternatives would enhance rapid transit access for at least 23.7 percent (74,000) more Year 2030 employees. Similarly, Alternatives B1 and B3 included at least 0.9 percent more vacant or underutilized land near stations, but Alternatives B2 and B4 included at least 20.8 percent more land with development incentives. This may be attributable to the presence of single-family residential areas and commercial land uses that are more established along the Northwest-Lindbergh corridor, producing relatively lower levels of demand for incentives to redevelop land.

Individually, Alternative B2 outpaced Alternative B1 for the highest scores among alignments in this evaluation category, due to superior performance in station proximity to employees, land with development incentives, and major cultural, educational and recreational facilities. This is despite having 0.6 percent less of the projected Year 2030 population and 1.5 percent less vacant or underutilized land within a half-mile from station locations.

Input from the public and other key stakeholders revealed no substantial variation in the effects of the alignments on the potential to enhance the visual quality of the urban environment. The most significantly expressed interest in this regard was the consistency of the Northwest-Lindbergh alignment with the original “loop” vision for the Beltline, maximizing the potential for the integration of trails, parks and transit throughout the Beltline corridor.

Variation among scores by mode were due to the reduced effect of BRT, relative to rail modes, on the capacity to redevelop vacant or underutilized land and land with development incentives beyond ¼-mile of Beltline stations. Similarly, the scoring variation represents the less beneficial impacts of BRT, relative to the rail modes, on the visual and aesthetic qualities of the urban environment, within the context of the Beltline study area. Research by the analysis team and public input did not identify a significant need for scoring variation between Modern Streetcar and LRT, but both modes outperformed BRT in this evaluation category.



---

## ***Environmental Effects***

Overall, Alternatives B1 and B3 (Northwest-Lindbergh) outperformed Alternatives B2 and B4 (Northwest-Arts Center) in this evaluation category. Regional emissions modeling results indicated a minimum 14.7 percent greater reduction in annual tons of nitrogen oxide emissions for the Northwest-Lindbergh alignment options, and a minimum 9.7 percent greater reduction in volatile organic compound (VOC) emissions. Accordingly, regional savings in vehicle miles traveled were at least 20.3 percent greater for the Northwest-Lindbergh options. There are 3.15 fewer miles of in-street operation generated by the Northwest-Lindbergh options, as the Northwest-Arts Center alignments continue on surface streets from Joseph E. Lowery Boulevard (north of Jefferson Street) to Arts Center MARTA Station. The Northwest-Lindbergh options hold incremental advantages in a lower number of potentially impacted historic and archaeological sites, religious properties and cemeteries, and a lower amount of potentially impacted wetlands.

Alternatives B2 and B4 are superior in the significantly reduced number of residences and non-residential land uses potentially impacted by either right-of-way acquisition or noise. The Northwest-Arts Center Alternatives avoid the right-of-way requirements in the Northwest-Lindbergh corridor associated with additional guideway needed to operate alongside CSX active freight rail. The Northwest-Arts Center Alternatives hold an incremental edge in the number of potentially impacted historic districts.

Alternatives B1 and B2 (Eastside-King Memorial) outperformed Alternatives B3 and B4 (Eastside-Inman Park/Reynoldstown), respectively, in the Environmental Effects category. However, the variation in performance was significantly smaller than that for the Northwest alignment options. The Eastside-King Memorial alignments have the potential to affect at least 17 percent fewer households by direct noise impacts, and pose incrementally fewer potential impacts to historic and archaeological sites, historic districts, and parklands.

Individually, Alternative B1 outpaces Alternative B3 for the highest score in this evaluation category, mostly because of superior performance to the latter alternative in the number of potential households affected by noise.

## ***Cost Effectiveness***

Of the four evaluation categories, Cost Effectiveness is the only category with quantitative performance measures that can delineate the alternatives by mode. Regardless of alignment, BRT Alternatives outperformed their comparative modes across all performance measures in the Cost Effectiveness category. As the ridership and operating model results detected differences among new



---

ridership and travel time savings solely by alignment and not by mode, the denominators had little or no effect on the rankings of modes in the Cost Effectiveness performance measures. All BRT Alternatives outperformed Modern Streetcar and LRT in the ratio performance measures, which included net operating cost per passenger mile, incremental cost per unit travel time saved, and incremental cost per new rider. While Modern Streetcar generally outperformed LRT, Alternative B1 *LRT* ranked higher than Alternative B2 *Streetcar* in incremental operating cost per passenger mile, and higher than both Alternative B4 *Streetcar* and Alternative B2 *Streetcar* in cost per unit travel time saved.

Unlike the previous three evaluation categories, parity was evident in the overall Cost Effectiveness ranking of alternatives by alignment. Strictly among the BRT Alternatives, each alignment ranked either first, second, third or fourth for at least one of the five performance measures. The Northwest-Lindbergh rail alternatives were superior to Northwest-Arts Center Alternatives for O&M costs, operating cost per passenger mile, cost per unit travel time saved, and cost per new rider, but the Northwest-Lindbergh BRT Alternatives require higher capital costs than Northwest-Arts Center, and cost more per new rider. The Eastside-Inman Park/Reynoldstown alignment alternatives were higher in absolute costs than the Eastside-King Memorial options for the capital and O&M cost measures, but proved superior for the ratio performance measures, and for the overall Cost Effectiveness evaluation criteria.

Overall, Alternatives B4 *BRT* and B3 *BRT* tied for the highest scores in this evaluation category. Alternative B4 *BRT* offered the lowest incremental cost per new rider, while Alternative B3 *BRT* provided the lowest net operating cost per passenger mile and the lowest incremental cost per unit travel time saved. Table 8-1 provides a comparative summary of alternatives for each evaluation category.



**Table 8-1: Summary Ranking of Alternatives**

Evaluation Category	Alternatives									
	B1 BRT	B1 Streetcar	B1 LRT	B2 BRT	B2 Streetcar	B2 LRT	B3 BRT	B3 Streetcar	B4 BRT	B4 Streetcar
Mobility & Accessibility (30%)	<b>2.62</b>	<b>2.62</b>	2.62	1.45	1.45	1.45	<b>2.54</b>	<b>2.54</b>	1.38	1.38
Land Use & Redevelopment (25%)	1.42	<b>1.78</b>	1.78	1.54	1.90	1.90	<b>1.12</b>	<b>1.39</b>	1.25	1.52
Environmental Effects (20%)	<b>1.63</b>	<b>1.63</b>	1.63	1.22	1.22	1.22	<b>1.57</b>	<b>1.57</b>	1.13	1.13
Cost Effectiveness (25%)	<b>2.07</b>	<b>1.20</b>	0.60	2.07	0.86	0.40	<b>2.18</b>	<b>1.25</b>	2.18	0.94
<b>Total Alternative Scores</b>	<b>7.74</b>	<b>7.23</b>	6.63	6.28	5.43	4.97	<b>7.41</b>	<b>6.75</b>	5.94	4.97
Top Rated Alternatives in <b>BOLD</b>										
High Ranking										
Medium High Ranking										
Medium Low Ranking										
Low Ranking										



---

### ***Comparison – Northwest Quadrant Alignment Options***

When comparing total scores for the alignment options in the Northwest quadrant of the Beltline, the Northwest-Lindbergh options hold a clear advantage over the Northwest-Arts Center options. The three Alternative B1 modes and the two Alternative B3 modes make up all of the alternatives ranked in the top five. The Northwest-Lindbergh Alternatives are projected to access lower levels of projected Year 2030 station-area employment, and there is potential for additional community impacts/disruptions through property acquisitions. However, the Northwest-Lindbergh alignment alternatives are bolstered by superior performance in the Mobility and Accessibility category, higher Year 2030 projections of station-area residential population, and advantages in most measures of Environmental Effects and Cost Effectiveness, including operating costs and regional reductions in pollutant emissions and vehicle miles traveled.

### ***Comparison – Eastside Alignment Options***

When comparing alternatives by mode, each Eastside-King Memorial Alternative consistently outscores their Eastside-Inman Park/Reynoldstown counterpart in this Detailed Screening analysis, although the scale of these advantages are small relative to the comparison of alignments in the Northwest quadrant.

There is an inherent penalty in the ranking methodology for both Eastside-Inman Park/Reynoldstown Alternatives due to the lack of a third mode (LRT, which is fatally flawed for Alternatives B3 and B4). As one example, when either the B3 or B4 Alternatives are tied for the lowest performance for a measure, it receives a rating of 2, while the lowest rating an Eastside-King Memorial Alternative (B1 or B2) can receive under the same circumstances is a 3.

If LRT was available as a third mode for evaluation and ranking of the Eastside alignment options, Alternative B3 would have likely edged Alternative B1 for the highest score in the Mobility and Accessibility category, and Alternative B3 would have likely tied Alternative B1 for the highest score in the Environmental Effects category. However, even if LRT was available as a third mode for evaluation and ranking, due to the sizable performance gap between sets of Eastside alignment alternatives, the B1 and B2 alignments would continue to prove superior across modes in the Land Use and Redevelopment category.

Alternative B3 *BRT* would have likely edged Alternative B4 *BRT* for the highest score in the Cost Effectiveness category, and Eastside-Inman Park alignments (Alternatives B3 and B4) would have likely outperformed their Eastside-King Memorial counterparts (Alternatives B1 and B2) for LRT. In total, the scoring gaps between the Eastside alternatives are likely larger in this analysis than would have occurred if LRT were present for Alternatives B3 and B4. However,



---

the order of scores among alternatives evaluated in the Detailed Screening phase would not be altered.

Despite lower absolute costs for capital and O&M, the Eastside-King Memorial options are generally less cost-effective by mode due to inferior ridership and travel time savings. However, each Eastside-King Memorial Alternative outperformed its Eastside-Inman Park/Reynoldstown counterpart in most categories pertaining to station and centerline proximity. Such categories include accessibility to major cultural, educational and recreational facilities, Year 2000 transit dependent population, projected Year 2030 total population and employment, and fewer households potentially impacted by noise.

### ***Comparison – Mode/Technology Options***

The Cost Effectiveness criteria drive the ultimate ranking of alternatives by mode, as they quantitatively classify the performance of each alternative while making up 25 percent of the total score. The qualitative measures that rate modes in the Land Use and Redevelopment section, by comparison, collectively make up 12 percent of the total score.

Prior to the application of the cost effectiveness performance measure, the Modern Streetcar and LRT alternatives consistently outperform the BRT alternatives, due to superior qualitative scoring for their potential to enhance the urban environment and to support redevelopment within a half-mile of Beltline stops.

Due to the Cost Effectiveness criteria, however, BRT surpasses the rail modes in the total scoring within each alignment. For the Eastside-King Memorial alignments (B1 and B2), Modern Streetcar consistently outranked LRT, again due to superior overall performance in cost effectiveness.

Greater competition among modes in the technical analysis might have been achievable if the decision were reached in the Alternatives Analysis phase to significantly increase station spacing, affecting sensitivity to travel time, ridership and cost effectiveness. However, evaluation and decision making regarding stations to remove for rail alternatives would be inappropriately premature at this phase. Regardless of which technology is selected as part of an LPA, consideration of strategies to improve the Beltline project's competitiveness and advancement for Federal funding support will occur, prior to and during the preliminary engineering phase of project development.



---

### ***Evaluation – Alternative B1 BRT***

Alternative B1 *BRT* ranks first among ten alternatives in the Detailed Screening analysis. The alternative benefits from the cost effectiveness of the BRT modes, as the B1 BRT's score is the second highest in the overall Cost Effectiveness criteria and first among all Build Alternatives for annual O&M costs.

The B1 Alternatives have superior scores in both the Mobility and Accessibility and the Environmental Effects criteria. Within a half-mile of Beltline stops, the B1 alternatives had the highest proportions of projected Year 2030 population, and the highest proportions of the transit dependent population based on Year 2000 Census data. B1 Alternatives also have the most beneficial effect on heavy rail transfers at the Five Points MARTA Station.

As a Northwest-Lindbergh alignment alternative, however, it poses significantly greater potential for community impacts and disruptions than the Northwest-Arts Center Alternatives.

As a BRT Alternative, it has limited public acceptability and redevelopment potential and less capability to enhance the urban environment relative to the rail alternatives.

### ***Evaluation – Alternative B1 Streetcar***

Alternative B1+Streetcar ranks third among ten alternatives in this analysis and highest among the four evaluated Modern Streetcar Alternatives. This alternative has the lowest annual O&M costs for any non-BRT alternative, but the third-highest capital cost, higher than Alternative B2 *LRT*, which travels to Arts Center MARTA Station in lieu of the Lindbergh MARTA Station.

Like B1 *BRT*, the alternative benefits by having superior scores in both the Mobility and Accessibility and the Environmental Effects criteria. As a Northwest-Lindbergh alignment alternative, however, it poses significantly greater potential for community impacts and disruptions than the Northwest-Arts Center alternatives.

As a rail alternative, it has superior public acceptability and redevelopment potential and greater capability to enhance the urban environment relative to the BRT alternatives.

### ***Evaluation – Alternative B1 LRT***

Alternative B1 *LRT* ranks fifth among the ten alternatives evaluated in this analysis and was the superior of the two LRT alternatives. Scoring higher than



---

Alternative B2 *LRT* in overall cost effectiveness, B1 *LRT* also edges B2 *Streetcar* in operating cost per passenger mile and outperforms both B2 *Streetcar* and B4 *Streetcar* in incremental cost per unit travel time saved. However, it is the most capital-intensive of all projects in terms of cost, and requires the second highest amount of annual O&M costs.

Like B1 *BRT* and B1 *Streetcar*, the alternative benefits by having superior scores in both the Mobility and Accessibility and the Environmental Effects criteria. However, as a Northwest-Lindbergh alignment alternative, it poses significantly greater potential for community impacts and disruptions than the Northwest-Arts Center alternatives.

As a rail alternative, it has superior public acceptability and redevelopment potential and greater capability to enhance the urban environment relative to the BRT alternatives.

#### ***Evaluation – Alternative B2 BRT***

Alternative B2 *BRT* ranks sixth overall among ten evaluated in this analysis, and is the highest ranked among the Northwest-Arts Center alignment options. This alternative required the lowest capital cost among all alternatives. Alternative B2 *BRT* ranked fourth overall in operating cost per passenger mile and incremental cost per unit travel time saved, despite having the lowest performance for these measures among the BRT Alternatives.

The B2 Alternatives would produce significantly more boardings of feeder bus routes in the study area. B2 Alternatives would reach the highest proportion of minority population based on Year 2000 data, and the highest level of projected Year 2030 employment. These alternatives have the most station-area land with development incentives, and the highest level of accessibility to major cultural, educational and recreational facilities.

As a Northwest-Arts Center alignment alternative, it poses significantly less potential for community impacts and disruptions than the Northwest-Lindbergh Alternatives.

The B2 Alternatives had the lowest figures for total annual Beltline ridership, new ridership on the regional system, regional savings in travel time and vehicle miles traveled reductions in pollutant emissions, and vacant/underutilized land near stations. The B2 Alternatives would require the longest amount of in-street operation, and would also potentially impact the most wetlands, religious properties and cemeteries.



---

As a BRT Alternative, it has limited public acceptability and redevelopment potential and less capability to enhance the urban environment relative to the rail alternatives.

### ***Evaluation – Alternative B2 Streetcar***

Alternative B2 *Streetcar* ranked eighth among ten alternatives evaluated in this analysis. Of the Modern Streetcar Alternatives, this alternative required the lowest capital cost, but required the highest operating cost per passenger mile, incremental cost per unit travel time saved, and incremental cost per new rider.

The B2 Alternatives would produce significantly more boardings of feeder bus routes in the study area. B2 Alternatives would reach the highest proportion of minority population based on Year 2000 data, and the highest level of projected Year 2030 employment. These alternatives have the most station-area land with development incentives, and the highest level of accessibility to major cultural, educational and recreational facilities.

As a Northwest-Arts Center alignment alternative, it poses significantly less potential for community impacts and disruptions than the Northwest-Lindbergh Alternatives.

The B2 Alternatives had the lowest figures for total annual Beltline ridership, new ridership on the regional system, regional savings in travel time and vehicle miles traveled reductions in pollutant emissions, and vacant/underutilized land near stations. The B2 Alternatives would require the longest amount of in-street operation, and would also potentially impact the most wetlands, religious properties and cemeteries.

As a rail alternative, it has superior public acceptability and redevelopment potential and greater capability to enhance the urban environment relative to the BRT Alternatives.

### ***Evaluation – Alternative B2 LRT***

Alternative B2 *LRT* tied for last (with B4 *Streetcar*) among the alternatives evaluated in this study. Despite requiring less capital cost than B1 *LRT*, the alternative ranked last in all other measures under the Cost Effectiveness category.

The B2 Alternatives would produce significantly more boardings of feeder bus routes in the study area. B2 Alternatives would reach the highest proportion of minority population based on Year 2000 data, and the highest level of projected Year 2030 employment. These alternatives have the most station-area land with



---

development incentives, and the highest level of accessibility to major cultural, educational and recreational facilities.

As a Northwest-Arts Center alignment alternative, it poses significantly less potential for community impacts and disruptions than the Northwest-Lindbergh Alternatives. As a rail alternative, it has superior public acceptability and redevelopment potential and greater capability to enhance the urban environment relative to the BRT Alternatives.

The B2 Alternatives had the lowest figures for total annual Beltline ridership, new ridership on the regional system, regional savings in travel time and vehicle miles traveled reductions in pollutant emissions, and vacant/underutilized land near stations. The B2 Alternatives would require the longest amount of in-street operation, and would also potentially impact the most wetlands, religious properties and cemeteries.

### ***Evaluation – Alternative B3 BRT***

Alternative B3 *BRT* ranked second among ten alternatives in this analysis, and is the highest ranked among all Eastside-Inman Park/Reynoldstown alignment options. The alternative tied with Alternative B4 *BRT* for the highest overall score in the Cost Effectiveness criteria, with the lowest operating cost per passenger mile, the lowest incremental cost per unit of travel time saved, and the second lowest annual O&M cost. Further, the B3 Alternatives are projected to produce the highest levels of total annual Beltline ridership, new ridership on the regional system, savings in both travel time and regional miles traveled, and reductions in regional criteria pollutant emissions. The B3 Alternatives would operate with the lowest in-street mileage.

As a B3 Alternative, it would access the lowest proportion of minority population based on Year 2000 Census data, and would access the lowest projected proportion of Year 2030 study area employment, the lowest acreage of station-area land with development incentives, and the lowest combination of major cultural, educational and recreational facilities. The B3 Alternatives would also potentially impact the most historic districts and parklands.

As a BRT Alternative, it has limited public acceptability and redevelopment potential and less capability to enhance the urban environment relative to the rail alternatives. The low performance of the B3 alignment and the BRT mode alternatives resulted in this alternative having the lowest score in the Land Use and Redevelopment category.



---

### ***Evaluation – Alternative B3 Streetcar***

Alternative B3+Streetcar ranked fourth among the ten alternatives evaluated in this analysis. This alternative held the highest score among Modern Streetcar alternatives for cost effectiveness, despite having the second highest capital cost among all alternatives. This is due to being the highest-ranked Modern Streetcar alternative for operating cost per passenger mile, incremental cost per unit travel time saved, and incremental cost per new rider.

The B3 Alternatives are projected to produce the highest ridership levels, travel time savings benefits and reductions in regional criteria pollutant emissions, while requiring the lowest in-street mileage during operation.

As a B3 Alternative, it would access the lowest proportion of minority population based on Year 2000 Census data, and would access the lowest projected proportion of Year 2030 study area employment, the lowest acreage of station-area land with development incentives, and the lowest combination of major cultural, educational and recreational facilities. The B3 Alternatives would also potentially impact the most historic districts and parklands.

As a Northwest-Lindbergh alignment alternative, it poses significantly greater potential for community impacts and disruptions than the Northwest-Arts Center Alternatives.

As a rail alternative, it has superior public acceptability and redevelopment potential and greater capability to enhance the urban environment relative to the BRT Alternatives.

### ***Evaluation – Alternative B4 BRT***

Alternative B4 *BRT* ranks seventh among the ten alternatives evaluated in this analysis, and lowest among all BRT Alternatives. Tied with Alternative B3 *BRT* for the highest score in the Cost Effectiveness category, B4 *BRT* produces the lowest incremental cost per new rider and the second lowest values for capital cost and incremental cost per unit travel time saved. B4 *BRT* ranked fourth overall for annual O&M costs, despite having the lowest performance for this measure among the BRT Alternatives.

As a Northwest-Arts Center alignment alternative, it poses significantly less potential for community impacts and disruptions than the Northwest-Lindbergh Alternatives.

The B4 Alternatives have the lowest overall scores in the Mobility and Accessibility and the Environmental Effects categories. These alternatives



---

resulted in the lowest reduction in heavy rail transfers at the Five Points MARTA Station, the lowest levels of accessibility to most transit dependent populations based on Year 2000 data, and the greatest potential for impacts to historic and archaeological sites, wetlands and parklands. The B4 Alternatives also access the lowest proportion of projected Year 2030 population within a half-mile of Beltline stops.

As a BRT Alternative, it has limited public acceptability and redevelopment potential and less capability to enhance the urban environment relative to the rail alternatives.

### ***Evaluation – Alternative B4 Streetcar***

Alternative B4 *Streetcar* tied for last (with B2 *LRT*) among the alternatives evaluated in this study. This alternative required the highest annual O&M costs among Modern Streetcar alternatives.

As a Northwest-Arts Center alignment alternative, it poses significantly less potential for community impacts and disruptions than the Northwest-Lindbergh Alternatives.

As a rail alternative, it has superior public acceptability and redevelopment potential and greater capability to enhance the urban environment relative to the BRT Alternatives.

The B4 Alternatives have the lowest overall scores in the Mobility and Accessibility as well as the Environmental Effects categories. These alternatives resulted in the lowest reduction in heavy rail transfers at the Five Points MARTA Station, the lowest levels of accessibility to most transit dependent populations based on Year 2000 data, and the greatest potential for impacts to historic and archaeological sites, wetlands and parklands. The B4 Alternatives also access the lowest proportion of projected Year 2030 population within a half-mile of Beltline stops.

## **8.2 Public Outreach Approach and Input**

The outreach process utilized a variety of methods for engaging and informing the public including stakeholder interviews, meetings, workshops, speaker's bureau and newsletters, as described in Chapter 7 – Public Involvement. As a result of these outreach efforts, valuable input was incorporated into the LPA decision-making process. Public input leading up to the Detailed Screening phase of the analysis is documented in the Prescreening/Fatal Flaw Analysis Technical Memorandum – June 2006. Given below are the resounding themes



---

presented during the August 2006 public meetings and through subsequent comments:

- A general preference for Streetcar or Light Rail as the preferred mode of transit
- Overwhelming opposition towards Bus Rapid Transit as the preferred mode of transit
- Alternatives B3 and B1 were the most highly favored alternatives
- Significant concerns expressed regarding environmental impact, efficiency, compatibility with parks and trails, the ability of transit to spur development, handicap accessibility, pavement of the right-of-way, keeping current with technology, and connectivity of proposed routes.
- A strong preference in favor of the Eastside-Inman Park/Reynoldstown alignment as compared to the Eastside-King Memorial alignment.
- The public was very concerned about their opinions and preferences being factored into the decision making process
- Overall, the public was in support of the Beltline project

As previously noted, public input has been incorporated throughout the analysis process. For example, Section 5.2.4 – Enhancement of Urban Environment contains an extensive presentation of public concerns expressed relative to this subject matter and their incorporation in the evaluation of alternatives.

### 8.3 Top Rated Alternatives Considered

Alternatives **B1 BRT**, **B3 BRT** and **B1 Streetcar** achieved more than 70 percent of the maximum available score and are classified as “High” in the Detailed Screening of alternatives. Alternative **B3 Streetcar**, with the highest score among alternatives classified as “Medium-High”, would likely have achieved slightly more than 70 percent of the maximum available score if LRT was not fatally flawed for evaluation in alignments B3 and B4. Therefore, this alternative is also brought forward for further consideration. These are the alternatives which most effectively satisfy the Purpose and Need statement developed for the Beltline AA.

Among ten alternatives analyzed, this set reflects the superior ranking of the Northwest-Lindbergh alignment options and the BRT and Modern Streetcar technology options. **Alternative B1 BRT** attains the highest score due to the Northwest-Lindbergh and BRT elements, plus the slight advantage of Alternative B1 (King Memorial) over Alternative B3 (Inman Park/Reynoldstown) among Eastside alignment options.

By including **Alternative B3 BRT**, the set of recommended alternatives reflects the moderate public interest and the greater comparability among Eastside options when compared to the Northwest options.



---

By including **Alternatives B1 Streetcar** and **B3 Streetcar**, the set of recommended alternatives takes into account the highest-performing non-BRT alternative, given reservations expressed by much of the general public over the practicality and community-level effects of BRT relative to other modes. The B1 *Streetcar* alternative would be the highest performing alternative (along with B1 *LRT*) before the consideration of Cost Effectiveness criteria. Similarly, the B3 *BRT* alternative would be the fourth best performing option (after B1 *BRT*), due to the slight advantage in the Eastside-King Memorial alignment.

The Detailed Screening process narrowed four alignment alternatives to two and three technology alternatives to two. Recommendations for the selection of an LPA from among the above four options, was essentially tiered by alignment (B1 or B3) and by mode (BRT or Streetcar).

### **Staff Recommendation**

The technical results of the BeltLine AA show the continuous loop (Lindbergh to Lindbergh) as the best performing option, with the East Line connection at the King Memorial station. The best performing technology, considering capital and operating cost estimates and environmental impacts was Bus Rapid Transit (BRT). During the Public Outreach process, the preference indicated by the community and major stakeholders was the continuous loop (Lindbergh to Lindbergh) with the East Line connection at the Inman Park/Reynoldstown station to capture development along Moreland Avenue and increase alignment consistency with the TAD boundary. The general public and business and political stakeholders also strongly supported rail technology over bus rapid transit.

MARTA Staff recommended the B3 Alternative (Lindbergh-to-Lindbergh Loop via Inman Park/Reynoldstown) as the preferred alignment with the specific rail technology to be defined in the next phase of study.

Advantages of the recommended alternative are listed as follows:

- Retains continuous loop as prescribed in original BeltLine concept
- Alignment option generated the highest ridership
- Rail technology indicates the permanence of transit desired by developers for transit-oriented development
- Increases transit accessibility and connectivity to and within forty-five neighborhoods
- Predominantly contained within the approved Tax Allocation District
- Supported by the City of Atlanta and BeltLine Partners



- 
- Strong community and business support for rail technology operating along the continuous loop

### **Action by MARTA Board of Directors**

After consideration of the aforementioned alternatives and technologies, the MARTA Board of Directors formally adopted staff's recommendation of the Alternative B3 alignment configuration as the Locally Preferred Alternative (LPA) with an unspecified rail technology to be determined in the next phase of study.

### **8.4 Next Steps**

MARTA will pursue all opportunities to advance the development of the Beltline LPA into the next phases of project development, including preliminary engineering. To maintain the Beltline's eligibility for federal funds, the project development process will follow FTA procedural guidance for projects competing for New Starts funding. Key tasks will include:

- Developing a Strategic Implementation Phasing Plan and Identification of a Minimum Operable Segment (MOS);
- Coordination with FTA on establishing the specific Purpose and Need and Transportation System Management Alternatives for the MOS;
- Preparation of preliminary project management and financial plans to update the full Beltline LPA in the *Regional Transportation Plan* by the Atlanta Regional Commission;
- Completion of scoping activities required under the National Environmental Policy Act (NEPA); and
- Provision of project justification and financial data to FTA as a prerequisite to entry into the preliminary engineering phase.

Continued involvement of the public and continued coordination with regional stakeholders is vital for ensuring meaningful progress through these next steps of project development.