

The Atlanta BeltLine: Transit Feasibility White Paper

**Prepared for:
The Atlanta Development Authority**

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BELTLINE TRANSIT PANEL

Panel Membership:

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PURPOSE STATEMENT:

The purpose of the BeltLine Transit Panel is to broaden understanding of the BeltLine Transit Loop and the function it serves in the Urban Transportation System through review and assessment of relevant work. The Panel will clarify key transportation elements focusing on transit integration from a network perspective. It will synthesize information and identify basic principles on how the BeltLine should develop over time.

Product: Summarize the above in a brief white paper

CONTEXT OR CHARGE:

The BeltLine Transit Panel was assembled by the Atlanta Development Authority (ADA) to review the studies done to date on the BeltLine project and assess and comment on the feasibility of the transit component and how it might function in relation to an integrated transit system for Central Atlanta. The end purpose of this work is to synthesize the information developed on the BeltLine for its transit potential and provide guidance and suggest principles on how BeltLine transit might develop over time.

PROCESS:

The charge to the Panel was limited by available information and timeframe considerations. The Panel was established in mid-June and held three public meetings. Two of the meetings included presentations of all proposed transit projects relevant to the Panel's charge as well as public comment from a variety of concerned citizens. It should be noted that many of the studies bearing directly on this report are ongoing, with significant questions and findings of the Panel depending on the outcomes of that work. Many of the transit initiatives presently aimed at Central Atlanta potentially are important and could be necessary to support the growing markets for intown living and working – it is a question of reviewing them in a comprehensive context.

From this input, the Panel identified key issues facing the transit elements of the BeltLine proposal and developed suggested guidance on how these issues might be resolved. In the process, the Panel identified key findings that need to be considered by the ADA and other decision-making bodies in order to move the BeltLine forward.

We believe the Beltline, or more likely, some segments of the Beltline alignment, represent a potentially viable transit investment, which could improve the mobility options for Atlanta's citizens.

KEY FINDINGS:

- 1) The renewed market interest in development of the central city creates a real opportunity for the city to adopt a very different model of development than what has happened traditionally. The opportunity represented by the BeltLine is integrally tied into the issue of the redevelopment and growth of the central city.
- 2) Even though the BeltLine represents more than just a transportation opportunity (e.g., green space and development), in order for the City's vision of neighborhood preservation, redevelopment, and growth to occur, a vision that views transportation as a system, and not a series of disparate projects, is critical for the future of the City.
- 3) This vision should build upon the existing system of bus, rail, pedestrian/bike, and local streets, as well as consider a broad range of other initiatives. The Panel heard from a number of proponents about a variety of proposals none of which considered the area-wide system that would be most beneficial to accomplishing the city-wide vision of neighborhood preservation, redevelopment, and growth.
- 4) The paucity of ridership estimates for different transit options in the BeltLine corridor (especially given how far the BeltLine concept has come in the City's policy agenda) is surprising. In some cases, individual projects have had ridership forecasts prepared, but it does not appear that credible ridership determinations have been made that consider the network effect of other transit projects that are being seriously considered. The ARC prioritization of transit projects, for example, relied on individual sponsors of projects to submit ridership forecasts subject to consistency guidelines for the modeling. The ARC itself did not undertake transit network modeling during the recent update of the regional plan to determine project priorities. MARTA is currently conducting an Alternatives Analysis of different transit concepts which should provide better information on expected ridership. The implication of this to the Panel's deliberations was that there were no credible ridership estimates for its consideration.
- 5) As often portrayed by the press and by many advocates, the BeltLine opportunity is often described as a continuous loop that follows the rail corridor around the central city. It seems likely that solely from a transit ridership perspective, portions of this loop will not generate sufficient transit ridership to justify investment in high capacity transit infrastructure. Now and in the future some segments of the BeltLine, or possibly other alignments serving major trip origins and destinations in the MARTA Alternatives Analysis would likely be more productive from a transit ridership perspective based on ridership and technical considerations. This increases the importance of identifying appropriate technology and ridership potential. We recognize

there are a number of ridership and technical considerations that will ultimately determine the final configuration. The Beltline alone may not take riders to key employment destinations but must connect to a transportation system that best meets the needs of residents or visitors to the city. The circumferential Beltline may not be one project but several more project segments and potential alignments to meet the criteria for federal funding. In order to qualify for Federal Transit Administration (FTA) support there is a very detailed and explicit process that must be followed.

- 6) When considering possible transportation investments, one should start with the city-wide vision and determine what types of transportation investments (technologies, alignments, etc.) best support this vision. In putting together an area-wide framework, the City should consider what forms of development it wants and design transit and other local transportation improvements to support that type of development. The framework should be used to establish priorities in funding key transportation investments.
- 7) In particular, where transit investment is included in this transportation framework, transit needs to be decided up front. It cannot be an afterthought to the development process.
- 8) The currently proposed alignment of the BeltLine presents other significant technical issues associated with potential transit use in the BeltLine corridor such as: right-of-way width, freight use of rail lines, elevation differences, etc.
- 9) As was noted to the Panel by several speakers, the amount of revenue generated from the TAD is expected to cover only about half of what will be needed (and depending on the design and technology involved, this could be an underestimate). It is highly likely that additional sources of funding will be necessary to cover the costs associated with capital investment. Also, very little information (and in some sense interest) was available on the expected operating and maintenance costs ,although MARTA is beginning the alternatives analysis and will include this, associated with any proposed service in the BeltLine corridor. In many transit infrastructure investments, such costs are often quite large over the life of a project. In order to qualify for Federal Transit Administration (FTA) support there is a very detailed and explicit process that must be followed.

THE TRANSIT CHALLENGE AND OPPORTUNITY

The Panel was impressed by the energy and commitment of a large number of citizen groups and individuals who are truly committed to improving transit in Central Atlanta. The Panel noted that resurgent growth in Central Atlanta is both supported by and dependent on enhanced transit access to reach its full potential.

The BeltLine as it has been conceptualized has three constituent parts:

- Private development and redevelopment opportunity
- Greenspace and greenway trail connectivity
- Transit and transportation

While the Panel's focus was on transit, the context, transportation needs, and general characteristics of the first two parts bear directly on the third. The Panel's efforts were focused on what is known and has been shared so far, and given its very tight time constraints and limited charge, the Panel could not generate new data, but instead relied on the work of other agencies and groups, both completed and in progress.

The Panel below makes several observations concerning the transit and transportation component of the proposed BeltLine, and as well identifies a number of issues that the ADA and the City may want to consider in shaping its strategies for the next phase of the BeltLine work. These observations are summarized in the following categories:

- Ridership
- Technical considerations
- Cost, financing strategies, and funding sources
- Management structure and process
- Private development patterns and potentials
- Quality of life

The following discussion summarizes what the Panel learned and considered in developing its understanding of the issues as a basis for identifying or suggesting next steps in the BeltLine planning and approval process. The findings below, unless stated otherwise, should be considered more as questions than conclusions, whose answers will likely become clearer as the ongoing work is completed.

Ultimately the focus is not only about the circumferential transit component, but also about the City's vision for redevelopment of the Central Area including the BeltLine and how any proposed transit works in conjunction with existing communities and the existing transit network.

Ridership

Estimated ridership for a transit service is one of the most important considerations when examining new transit investment. Even though the BeltLine initiative encompasses more than just a transit focus, expected ridership is often a critical factor in justifying transit investment.

The Panel is surprised at the paucity of credible information relating to expected ridership of the BeltLine alternative. Of all the information generated in support of the BeltLine concept, ridership appears to be the least studied or understood. This is perplexing, because much work less central to transit viability has been done on the concept. Some of the transit proposals reviewed by the Panel had estimated transit ridership, but many of these were carried out on a project-by-project basis and did not assume the existence of all the other transit projects being considered (Note: some included all transit projects that are in ARC's *Mobility 2030* plan, but did not include those currently under consideration but not in the plan). As a result, no integrated picture of transit ridership potential for the Central Atlanta area has been developed.

With no ridership numbers, the Panel is left to speculate on what ridership can be expected given its collective expertise in transportation planning and land use. Some important considerations in this regard include:

- There are very few locations along the BeltLine where large and dense concentrations of jobs are expected – these are mostly projected for the Lindbergh area, already served by MARTA bus and rail service.
- The highest numbers and concentrations of jobs in the city (and the region for that matter) are in Downtown, Midtown, and Buckhead, none of which would be directly served by the BeltLine. The transportation system must connect the study area to these locations.
- Some balance and direct linkage between where people live and work, especially in dense concentrations, have proven most propitious for viable transit, yet the projected BeltLine development appears to be mostly residential with some community supportive commercial, not the characteristic mix for generating large numbers of trips.
- The BeltLine proposal as a concept envisions a circumferential transit service around the central city core. Based on development potential and market feasibility, it seems likely that the eastern and perhaps southeastern portion of this belt would provide the best potential for transit ridership. The other segments will not likely generate as significant a level of trips.
- A circumferential BeltLine transit investment would seem to improve the connectivity to the MARTA network and would thus provide enhanced mobility for residents and visitors to the corridor. This in itself could generate new transit trips. However, it will take a long time before enough development is in place to result in significant internal-to-internal transit trips in the corridor.
- The circumferential BeltLine project in its entirety will not likely generate sufficient transit ridership in the corridor to satisfy the criteria for federal New Start transit investment. However, some project segments and indeed other potential alignments in the study area may, in fact, satisfy such criteria.

MARTA, currently underway with an Alternatives Analysis for its Inner Core Connectivity Study, comes closest to offering the opportunity to provide an integrated transit ridership analysis. MARTA officials stated to the Panel that this study fully intends to model different service options. Even so, its scope does not appear to include the Peachtree Streetcar proposal, or the incorporation of commuter rail or commuter bus ridership impacts.

The Panel notes that the BeltLine as defined by the ADA is one of the alternatives under study by MARTA. Three of its four study alternatives incorporate all or part of the Northside Drive multimodal corridor, as well as legs to Emory and back to south DeKalb County (the C-Loop). With the inclusion of the proposed Peachtree Streetcar along with the Northside Drive and CDC/Emory links and with consideration of commuter rail and

commuter bus interconnectivity options, the Inner Core study could be expected to provide useful ridership projections and comparisons for the whole of an integrated Central Atlanta transit picture.

QUESTIONS OR OBSERVATIONS THAT MIGHT GUIDE THAT PICTURE INCLUDE:

- There are many BeltLine/C-Loop alternatives – what will be the City’s and ADA’s assessment procedure, transit phasing, and support strategy as data emerges to describe the lines and segments generating the most ridership, keeping in mind that ridership is a key indicator of existing and potential development?
- ARC modeling in which the “BeltLine” scored high considered the entire C-Loop and the northeast part of the BeltLine (the Emory segment is not in the ADA conceptualization); as MARTA’s and ADA’s work goes forward, how will the ridership outcomes affect the potential for federal funding and accordingly local policy choices?
- For the purpose of advancing an integrated transportation plan, MARTA should add the missing elements to develop and evaluate a truly integrated picture.

Technical Considerations

A number of issues have been raised by the BeltLine concept that are technically complicated, some of which are under study, some of which cannot be fully understood until later steps are taken, but some of which need to be identified and more clearly understood even at this conceptual level to resolve these technical issues:

- Gaps – there are at least five places where the BeltLine is discontinuous, thus creating challenges if a circumferential approach is to be adopted.
- Vertical Profile/Elevation Changes - Less developed as far as the Panel was able to determine were considerations of the vertical discontinuities. Where the BeltLine passes over or under the surface street and sidewalk system, vertical connection systems – stairs, ramps, elevators, escalators - will be required and will need to meet at least two sets of criteria – the Americans with Disabilities Act and seamless transfer to other transit modes, biking, walking or cars.
- Right-of-Way – the Panel heard and agrees subject to design refinement that the minimum right-of-way required for two-way transit operation is 45 feet and the minimum for a greenway trail is 15 feet, meaning that the barest minimum for the two existing together in the same ROW is 60 feet. This number must be borne in mind in reviewing any proposed development in the BeltLine if provision of transit is to be a goal (and it should be). Similarly, any acquisition or easement should have this minimum in mind in any further negotiation. It must be noted, too, that wherever the BeltLine is on a bank or in a valley, these distances must be widened to accommodate the necessary bank widths to accommodate both transit and trail, and will likely necessitate retaining walls.

- Mode Transfer Issues –the BeltLine crosses the MARTA line between stations typically at least one half mile away. Two ideas have been advanced to address these discontinuities: build new MARTA stations at the crossing points or bring the BeltLine off its right-of-way to existing stations. Much work still needs to be done to determine how either of these strategies might work. Questions raised include whether overcoming discontinuities is worth it in terms of ridership, cost, development potential, and time to accomplish. The Panel noted that discontinuities for the greenway trail can be easily overcome as described by PATH by simply making strategic on-street or alternate paths to bridge them. While the concept of the BeltLine incorporates and perhaps depends on its intersections with MARTA rail, these intersections raise two issues of their own: common station locations and transfer time and ease. The first poses significant technical and cost issues, yet achieving seamless transfer is essential if MARTA rail is to be successfully integrated into the BeltLine transit picture. The second addresses a further barrier to potential transit use, the wait time and the quality of the wait environment in transferring from one mode to another can significantly reduce potential ridership. These factors, also affect bus transfers.
- Transit Technology Options –the Panel believes that there should be a transparently conducted, open-minded consideration of the technology options, keeping in mind that the key to a comprehensive and successfully integrated transit system will depend on consistency in its support infrastructure – complementary station, platform and stop design, vertical connection treatments, vehicle design, and the graphic systems – maps, schedules, colors, logos and other environmental graphic features that support the systems legibility, convenience, and appeal
- In keeping with the technology options, one must consider not only right-of-way issues, but also system components such as maintenance and storage facilities, power stations, control systems, etc. that will need to be incorporated both into physical design as well as cost estimates.

Costs, Financing Strategies, and Funding Sources

The Panel heard a wide range of capital cost estimates for BeltLine transit (not surprising given how early in the process we are). However, the Panel did not hear much at all about operating cost implications and some ideas about possible funding sources. In this context, the Panel makes these observations and comments:

- Capital costs for developing BeltLine transit have been estimated to be in the one billion dollar range, based on very preliminary estimates. It is likely that these capital costs represent a large share of any capital costs associated with a BeltLine project. However, without knowing the technology involved and thus the physical right-of-way requirements and station and alignment considerations, it is impossible at this stage to state that this funding is sufficient to cover the capital costs, although the Panel’s best estimate is that it is most likely only covering approximately 50% of the capital costs.
- If the BeltLine is not considered as a circumferential project, then it becomes a series of projects for which funding can be put together based on a variety of

sources appropriate to the nature and timing of such projects. Generating money through the TAD could help in attracting federal New Start money for perhaps one of these projects, as well as generating additional private investment; this could help expedite implementation of possible transit projects.

- Operating costs for BeltLine transit have not been addressed as far as the Panel has been able to determine. Judgments on cost ranges are not particularly useful until more is known about ridership, fare structure, operational scenarios, operator organizational structure, technologies, and phasing options. Yet operating costs can be a make or break issue for the viability of transit projects, and the more clearly a credible funding/operating strategy can be developed, the more likely the project can compete in other governmental arenas. As the Panel understands it, TAD funds may not be used to support operations. It should be noted too that operating costs for maintaining the greenway trail and associated parks systems will be crucial to their success. Again, TAD funds will not be available for this purpose.
- The most appropriate funding strategy for the entire BeltLine corridor seems to be one which relies on a variety of funding sources in order to make the BeltLine viable. As such the sources of funding will have to include other public funds from the federal (FTA and CMAQ), state, city or county governments as well as private funds. Some of the pots out of which funding may be gained will be regionally and nationally competitive, and even though the idea of using a TAD to fund a local match is logical and positive in the competitive arena, issues of ridership and operating costs must be effectively addressed to be competitive at higher decision making levels.

Management Structure and Process

While very early in the process, it is nonetheless important to conceptualize options for how the transit component of the BeltLine project might be organized, funded, and made operational, including planning, financing, designing, constructing, and operating the system. As things stand, MARTA or GRTA are the only organizations that have the experience and capability of running a system and contracting for these services. It is important to note that of the three components that make up the BeltLine concept, the transit component has a number of unique characteristics. It is the most expensive, the most technically challenging, the longest to get going and build out, and the furthest from identifying how it might actually get done. The development component is already beginning as is the greenway trail and park system; both need to be coordinated from the very beginning with the transit planning process.

Private Development Patterns and Potentials

As understood by the Panel, the ongoing work headed by EDAW for the ADA studying the development potential surrounding the BeltLine, addresses two aspects of development, one the full build-out potential and the other the market demand over the next 25 years. As the Panel understands it, the projection of future development potential

has been partly driven and shaped by creating the kinds of density necessary to support transit, without encroaching upon or unduly impacting existing single family neighborhoods. Thus, in some segments along the BeltLine, high-density residential development has been projected, some rising as high as 10 and 12 stories though averaging 4-6 (see website at atlantada.com). Development response to these projections is being tested through a separate Partnership Land Use Task force that will be carrying on its work through August. There are a number of linked questions raised by this ongoing exploration.

- The Panel believes that the development vision for the BeltLine should be driven by what is appropriate, supportive, and compatible in the communities through which it passes and then determine the transit and transportation needs. .
- The gap between the ultimate build-out potential and the realistic market response over the next 25 years, likely to be quite different in the four quadrants, may significantly affect ridership projections and thus transit viability. Both sets of numbers should be considered in determining the timetable for transit development
- As development occurs, particularly at higher densities, the street network already in place will have to bear the increased traffic load until transit connectivity is in place further underscoring the need for placing transit planning upfront in the development process.
- Development studies should not overlook the future development and redevelopment potential of places in the City that are already supportive of higher density development which will not be served by the BeltLine.
- A core criterion for considering the appropriate priority and timing of the various elements of an integrated transit system is their potential for public private partnership. Private support is a powerful persuader in leveraging public funds.

Quality of Life

One of the core goals for the BeltLine project is improving the quality of life for all Atlantans. Clearly, the greenway trail and associated park system responds directly and positively to this goal, provided that maintenance and operation are incorporated into this element from the beginning. The development component also may be a positive contributor to the quality of life goal, provided that community benefits exceed impacts and the scale and mix of activities are complementary and supportive of nearby neighborhoods. Similarly, the transit element, if it meets a considerable portion of the daily travel needs generated by the new development, will provide an option to the car that should enhance the quality of life. The key threats to this goal are timing and scale of development, proper operation of the greenway trail and park system, and the effectiveness and timing of transit to provide a competitive option to the car for daily trips.

Reference Materials and Presentation Information

Reference list

AJC newspaper articles
Presentation list
Public comment list