



Pedestrian Facilities

2018

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INTRODUCTION

Atlanta's Transportation Plan is the access strategy for Atlanta City Design. The Plan is divided into a concise final report and a series of detailed technical appendices. The final report summarizes Atlanta's Transportation Plan in an easily digestible manner using infographics, maps, and images and is intended for the general public and elected officials. The technical memorandums are intended for planners, City staff, and implementation partners that require a higher level of detail.

As part of Atlanta's Transportation Plan, this technical appendix focuses on pedestrian facilities throughout the City, with a focus on high priority sidewalk areas, including rail stations and Livable Centers Initiative (LCI) areas. This document provides an overview of the extent and condition of sidewalks, an assessment of sidewalk connectivity, a summary of public input related to sidewalks, and a summary of sidewalk needs. Finally, this document also presents a series of recommendations and action items to guide the City through implementing pedestrian-friendly policies and constructing new facilities.

BACKGROUND

Pedestrian facilities are critical to accomplishing the Atlanta City Design vision. Part of that vision includes a City which is interconnected by a range of travel modes – transit, auto, walking and biking. Walking is vital to mobility in Atlanta because it is a healthy and environmentally friendly mode of transportation, as well as a key connection to transit. Nearly all transit trips involve walking at one or both ends of that trip as riders walk to the bus stop or rail station, and then walk from transit to their destination.

EXISTING CONDITIONS

Walking is a critical connection for any trip that we make, whether it is walking to the car, the train or bus, or walking an entire trip. Clear, safe walking paths and infrastructure are essential to get us where we need to go every day. This technical memo provides an overview of existing infrastructure for pedestrians, which includes people who walk and run, as well as those in wheelchairs or mobility scooters. Based on this assessment and goals set by the City of Atlanta and its stakeholder partners, needs and recommendations will be developed in later sections.

Pedestrian safety is an issue in the City of Atlanta, with a rate of 3.23 pedestrian fatalities per 100,000 persons. This rate is higher than 1.89 pedestrian fatalities per 100,000 persons for the State of Georgia and 1.67 for the United States. This document focuses on identifying deficiencies in existing pedestrian infrastructure and providing recommendations that will improve safety for all users. The Safer Streets Technical Memorandum includes an analysis of pedestrian safety and recommends specific strategies to increase safety for all modes of transportation.

EXISTING SIDEWALK FACILITIES

Overall, 44% of Atlanta's streets have sidewalks on one or both sides. This total amount of sidewalk coverage is not unusually high or low, but is typical within a city. The City of Austin, TX completed a detailed comparison of its' sidewalks to peer cities in 2015 and found sidewalk coverage in that peer group to range from 50% to 71% (ignoring two outliers who had 23% coverage (Nashville, TN) and 94% coverage (Minneapolis, MN)).

There are **1,988** miles of streets in Atlanta.
876 miles of streets have sidewalks
44% of streets have sidewalk coverage¹

To gain a more detailed understanding of sidewalk coverage throughout the City and identify underserved areas, an analysis of sidewalk coverage by travelshed was undertaken. The City was divided into a total of 11 smaller geographic units referred to as travelsheds as part of the transportation modeling process. These travelsheds were developed to facilitate analysis of existing conditions and evaluate performance of candidate transportation projects. Each travelshed was defined by similar geospatial characteristics, including land use, development density, demographics, and trip-making characteristics. Figure 2² on page 6 shows how the

¹ Approximate numbers based on data provided by City of Atlanta

² Data Source: City of Atlanta, does not include subdivisions

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sidewalk coverage in Atlanta differs greatly between the travelsheds. An understanding of existing sidewalk coverage at the travelshed level will be important for developing and prioritizing recommendations for increasing sidewalk coverage. Additionally, the amount of sidewalk coverage in each travelshed has implications regarding the effectiveness of travel demand management (TDM) strategy recommendations.

Based on available mapping of existing sidewalks, the Airport travelshed has the lowest sidewalk coverage by far. This is because Hartsfield-Jackson Atlanta International Airport is the primary land use in this travelshed and the street and sidewalk networks are extremely limited compared to the rest of the City. Outside of the Airport travelshed, the Buckhead Residential and Buckhead Business travelsheds of the City have the lowest percentage of sidewalk coverage. In contrast, sidewalk coverage is highest in the Northeast Atlanta and Central Business District travelsheds. Figure 1 shows sidewalk coverage for each of the travelsheds.

While Buckhead Residential, Northwest Atlanta, Southwest Atlanta, and Southeast Atlanta travelsheds have lower population and employment densities than Central Business District, Midtown, and Buckhead Business travelsheds, there are still pedestrian and sidewalk connections that need to be made to access services along major corridors, connect neighborhood streets, and access transit service.

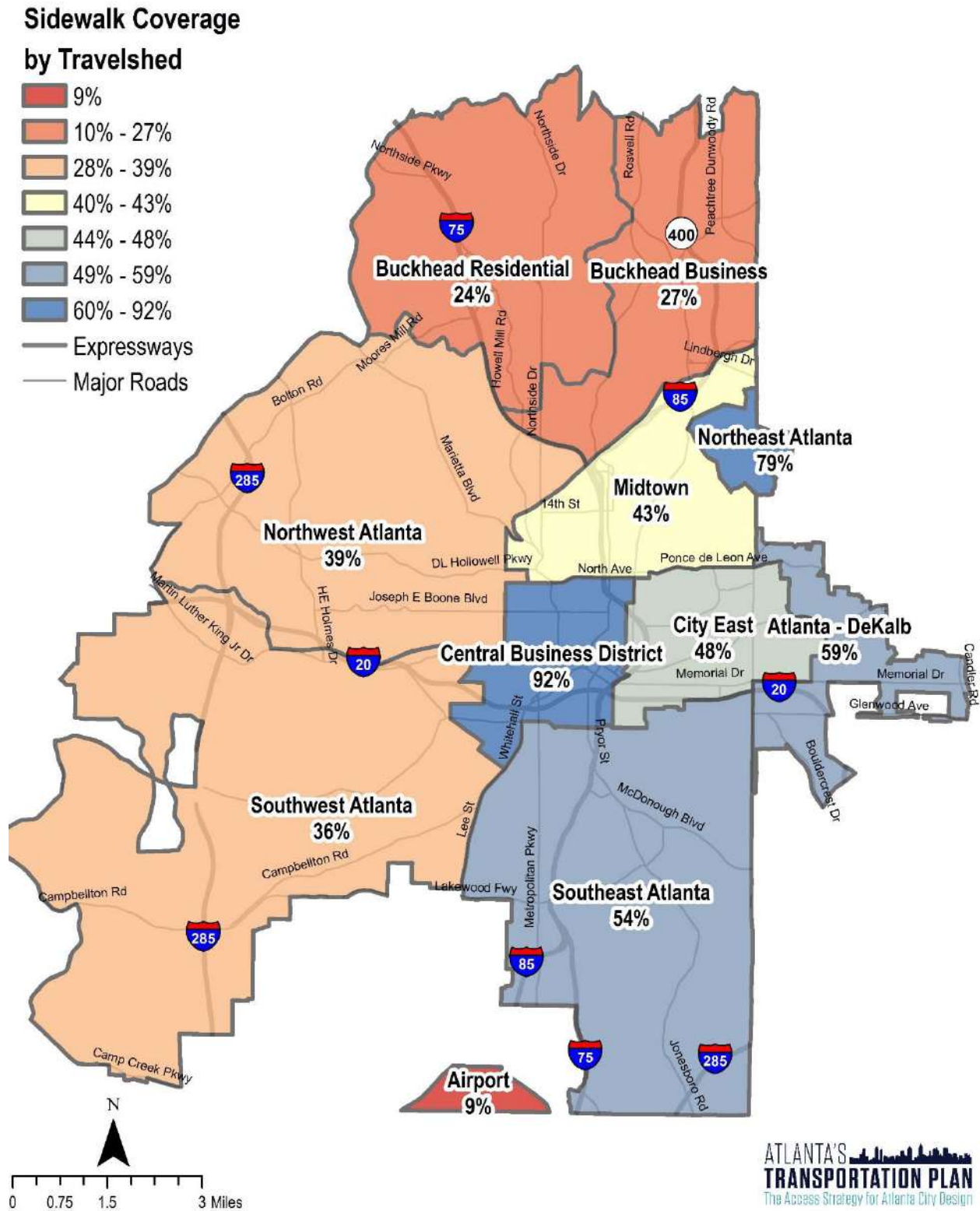
FIGURE 1: ESTIMATED CITYWIDE SIDEWALK COVERAGE

| Travelshed Name | Miles of Street Centerline | Miles of Sidewalk* | Percent of Streets with Sidewalks |
|---------------------------|----------------------------|--------------------|-----------------------------------|
| Airport | 7 | 1 | 9% |
| Buckhead Residential | 148 | 36 | 24% |
| Buckhead Business | 244 | 66 | 27% |
| Southwest Atlanta | 326 | 118 | 36% |
| Northwest Atlanta | 249 | 96 | 39% |
| Midtown | 272 | 116 | 43% |
| City East | 220 | 105 | 48% |
| Southeast Atlanta | 299 | 163 | 54% |
| Atlanta - DeKalb | 82 | 49 | 59% |
| Northeast Atlanta | 19 | 15 | 79% |
| Central Business District | 122 | 112 | 92% |
| Total | 1988 | 876 | 44% |

*"Miles of Sidewalks" refers to miles of City streets with sidewalk on one or both sides

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FIGURE 2: ESTIMATED CITYWIDE SIDEWALK COVERAGE



CITYWIDE SIDEWALK CONDITIONS

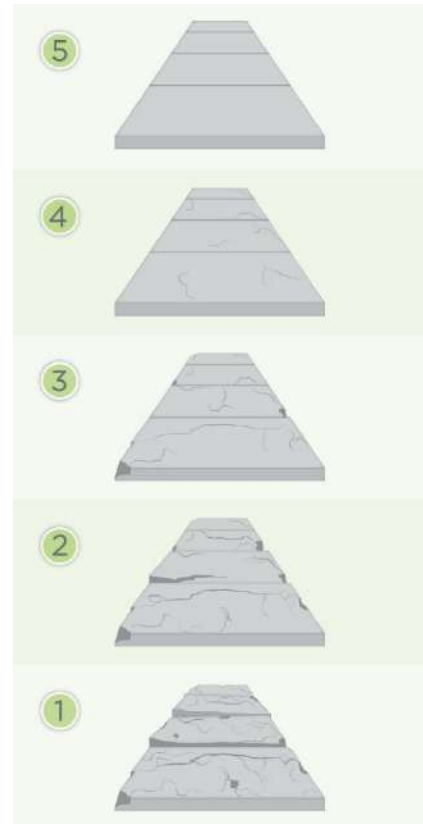
The condition of sidewalks varies widely across the City, and is difficult to inventory as it can vary greatly even within the same city block while few tools exist to observe or collect this information cost-effectively. However, researchers at the Georgia Institute of Technology (Georgia Tech) have developed and deployed a mobile system to collect sidewalk condition information such as roughness and other attributes. Over the course of 2013 and 2014 students collected sidewalk roughness data in most neighborhoods within Atlanta¹.

Sidewalk roughness is reported as an index of vertical displacement of sidewalks-which is particularly important to identify areas where sidewalks are not level and make it more difficult for wheelchairs, scooters, and increase the potential for tripping and falling. Sidewalk vertical displacement can happen because of tree roots, heavy loads, or uneven settling of the ground over time. Georgia Tech's data measures roughness on a scale from 1 (worst) to 5 (best), which are illustrated in Figure 3. While these data are 3-4 years old, they provide a high-level view of areas in the City where sidewalks are in more need of repair.

It is important to note that Georgia Tech did not conduct data collection for all existing sidewalks. Some neighborhoods, such as Midtown, are undergoing more detailed data collection. In addition, some sidewalks are new since 2013 and 2014. Nevertheless, this data provides a valuable means of spatial analysis of the general condition of the City's sidewalks. Figure 4 shows the area where data were collected along with the existing sidewalk network. Areas without data include Midtown, Paces, Buckhead, Lakewood Heights, Princeton Lakes, and Aubodon Forest.

Figure 5 illustrates areas which have the most (worst) reported sidewalk roughness in red as well as the least (best) reported sidewalk roughness in green. Each data point provides the average roughness approximately every 50 feet. Not surprisingly, both high and poor-quality sidewalks are concentrated in Downtown and other areas where the sidewalk network is more

FIGURE 3: SIDEWALK ROUGHNESS



¹ For more information on sidewalk data collection methodology see: Guensler, Randall, Alice Grossman, Alexandra Frackelton, Vetri Elango, Yanzhi Xu, Chris Toth, Alper Akanser, Felipe Castrillon, Evangelos Palinginis, and Ramik Sadana. *Automated Sidewalk Quality and Safety Assessment System (Regional University Transportation Center Subproject)*. No. FHWA-GA-15-1216. 2015.

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developed. This is likely a result of those areas developing first (i.e. oldest sidewalks) and subsequently seeing redevelopment (i.e. newest sidewalks). Concentrations of quality sidewalks are located throughout Downtown, West Midtown, Candler, Edgewood, and Adair Park. Whereas, most other parts of the City have sidewalks of average condition.

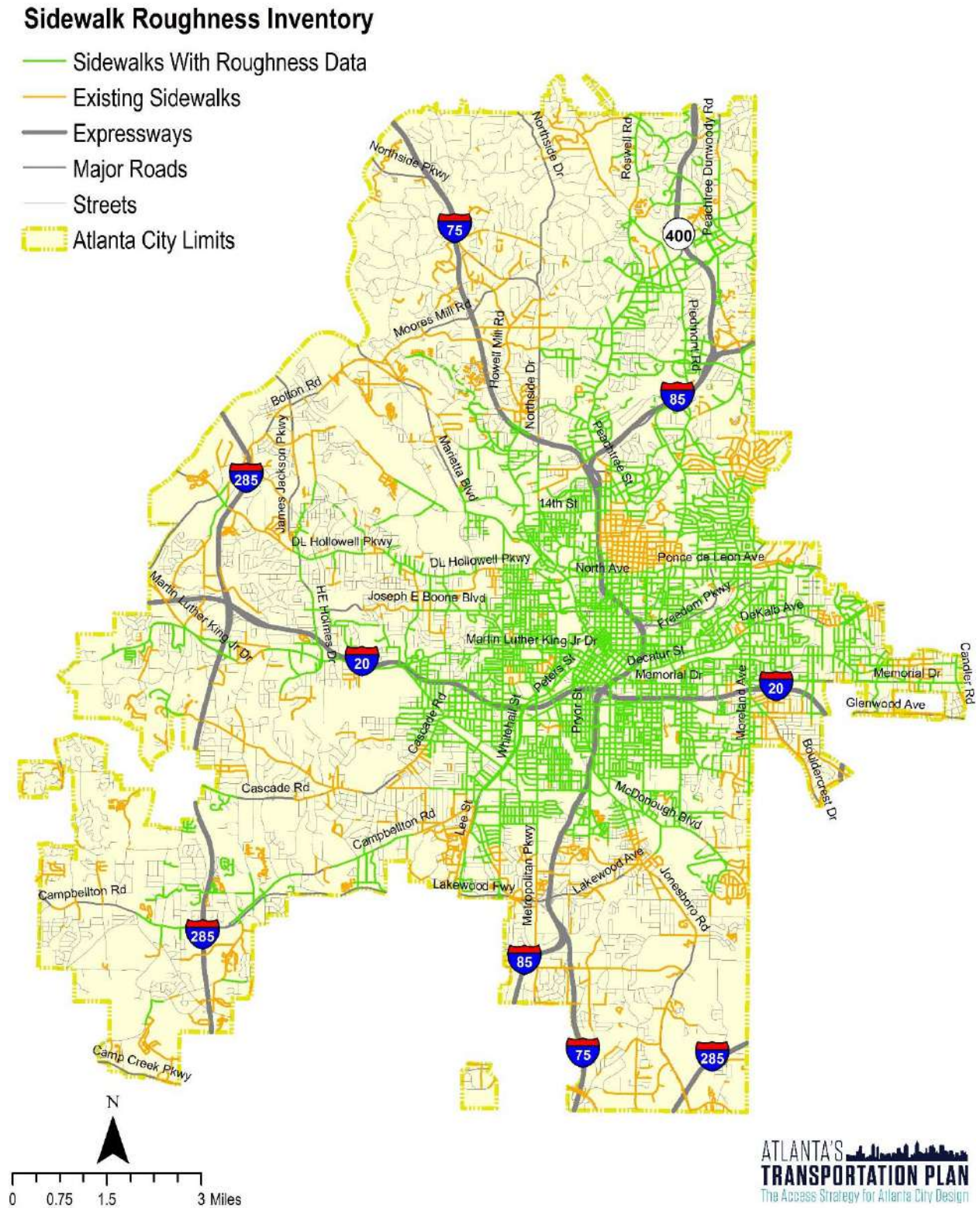
Hotspots for the poorest quality sidewalks are concentrated in parts of Atlanta's most dense areas. Neighborhoods in East Atlanta, South West Atlanta networks also displayed a need for repair of existing sidewalks. Sidewalks along corridors such as Murphy Ave, Joseph E Boone, Blvd, McDaniel St. have poor conditions. Neighborhoods with the highest concentration of sidewalks that need repair are Capitol View, Sylvan Hills, Chosewood Park, Capital Gateway, Summerhill, East Atlanta, Little Five Points, Lake Claire, Home Park, Ormewood Park, Vine City, Channing Valley/Colonial Homes, Dixie Hills, Ashview Heights, English Avenue, Bankhead, West Manor, and Garden Hills/Buckhead Forest. Generally, these areas where we have sidewalks in a poor state of repair are among the most dense areas of the City. Figure 5 on page 10 shows areas of the City where sidewalks in poor condition.

Within Atlanta's sidewalk system, there are a number of gaps in the network and areas where sidewalks have exceeded their useful life and need to be rehabilitated or replaced. This need for addressing poor sidewalk conditions is Citywide. High quality sidewalks are important to the quality of life as they facilitate access to transportation, retail, and neighbors. Sidewalks are important not only for convenience and as method of transportation, but because members of our communities such as the elderly, children, parents with strollers, and persons with disabilities are disproportionately impacted by sidewalks that are missing or in poor condition.

While Georgia Tech has made good progress inventorying sidewalks and estimating roughness, a thorough, exhaustive sidewalk inventory needs to be undertaken in order to identify gaps and sidewalk conditions and prioritize sidewalk improvements. Based on the high number of gaps in the existing system and backlog of sidewalks in need of repair and replacement, an annual program funding new sidewalk construction and rehabilitation or replacement of existing sidewalks in poor condition could be a viable strategy.

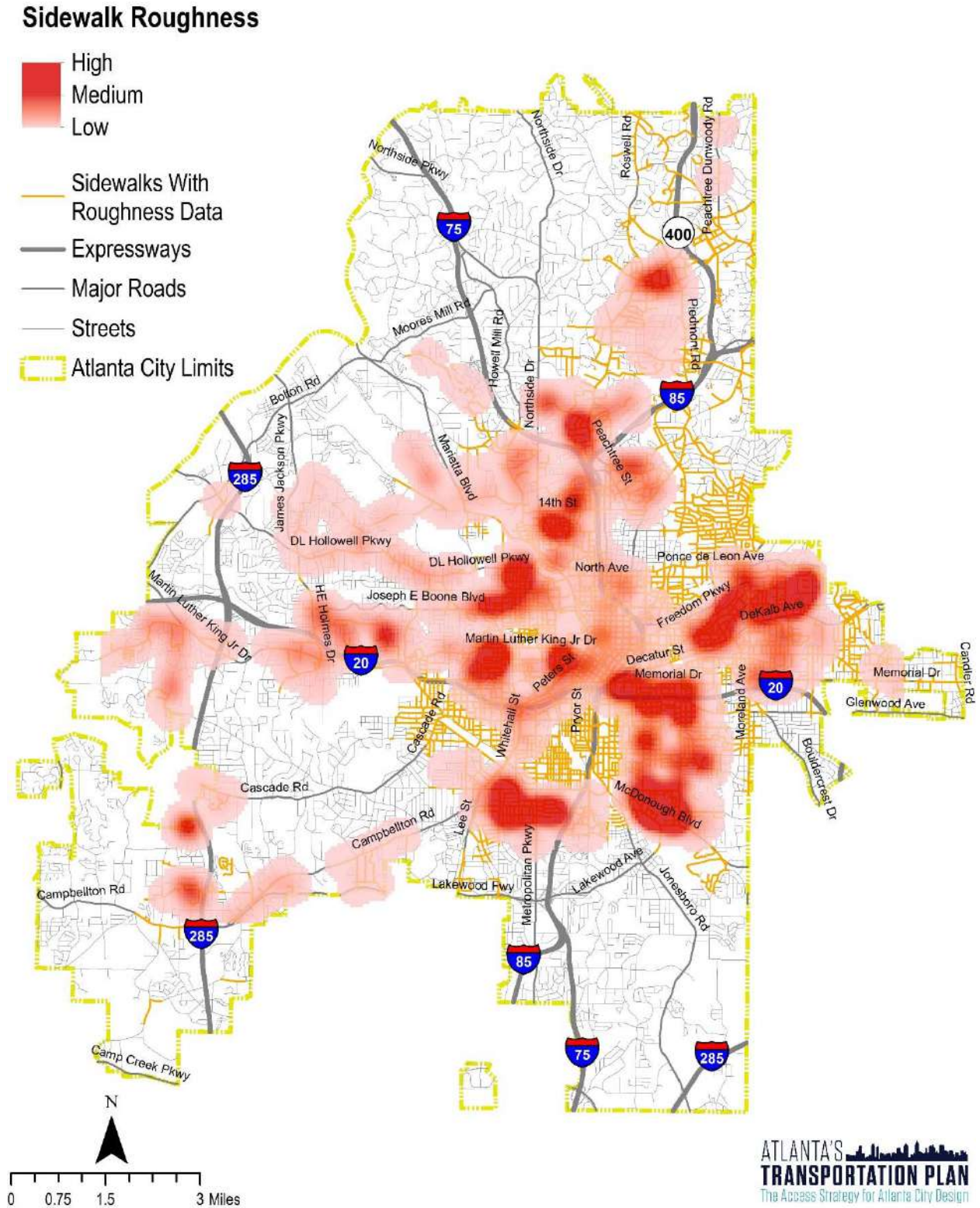
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FIGURE 4: EXTENT OF GEORGIA TECH SIDEWALK ROUGHNESS INVENTORY



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FIGURE 5: CONCENTRATIONS OF POOR QUALITY SIDEWALKS



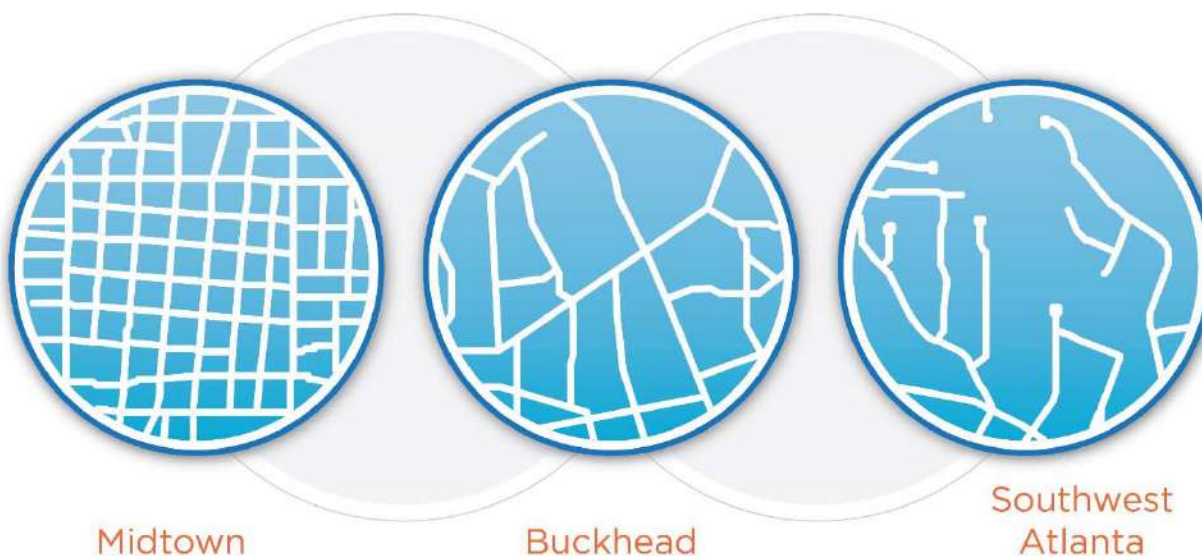
CONNECTIVITY

Connectivity of sidewalks is how we describe the ability to connect to intended destinations, and is important to building an accessible and seamless network. The existence of sidewalks is not enough – they must be connected to adjacent facilities and provide opportunities for pedestrians to reach multiple destinations. One indicator of pedestrian connectivity is intersection density, which studies show is one of the most important aspects on peoples' choice to walk³.

While not all streets may have sidewalks, intersections provide opportunities for pedestrians to connect to more of the transportation network. Low intersection density requires pedestrians to walk farther to reach a cross street or major connection where there may be transit connections or access more of the network destinations. High intersection densities provide more flexibility and often reduce the distance of the trip. Figure 6 provides a graphic representation of low and high intersection densities.

Where intersection density is high, there are multiple options and paths for pedestrians. Where there is low intersection density, there are fewer opportunities for pedestrians to connect to other streets, particularly where there may be two adjacent cul-de-sacs but not connected via a walking path or street. Figure 6 shows examples of high, medium, and low intersection densities in the Midtown, Buckhead, and Southwest Atlanta areas of the City, respectively.

FIGURE 6: EXAMPLES OF INTERSECTION DENSITY



³ Travel and the Built Environment, Reid Ewing and Robert Cervero, Journal of the American Planning Association

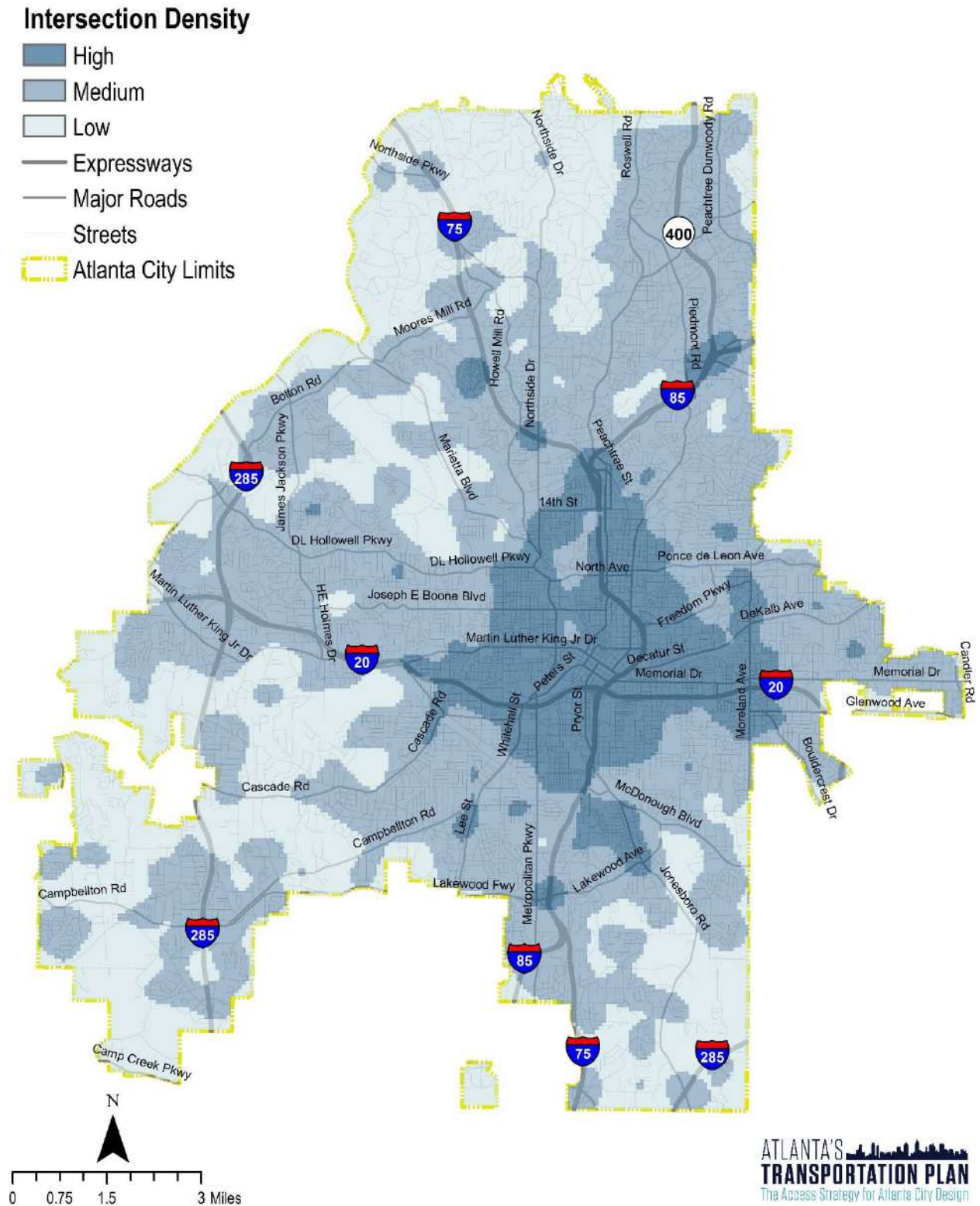
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In Figure 7, on the next page, the roadway intersection density has been calculated and broken into three categories: high, medium, and low for Atlanta. For the most part, this map shows a pattern consistent with the sidewalk coverage described earlier - indicating that some areas in the City have high coverage and high connectivity, while areas in the southwest particularly, have few connections and lower intersection density. Generally, intersection density is highest where development density is also high – such as Downtown and Midtown. One notable exception to this pattern is Buckhead – where intersection density is only medium yet the density of development is relatively high.

Areas of the City with high intersection densities represent the best opportunities for a high return on investment when implementing pedestrian improvements. Because intersection density correlates to higher connectivity, the same amount invested in an area with high intersection density has the potential to serve more pedestrians than a similar investment in an area with low intersection density.

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FIGURE 7: INTERSECTION DENSITY



PRIORITY SIDEWALK COVERAGE AREAS

While sidewalks are important citywide, they are especially important in two areas where walking is key to the access and mobility strategy – near MARTA rail stations and within LCI areas. These are discussed independently in this section.

Rail Stations

There are 38 MARTA rail stations in Atlanta, serving Buckhead, Midtown, Downtown, and corridors in East, South, and West Atlanta. Walking is an important connection to access the rail stations, particularly in Atlanta, where there are limited parking options at stations.

The existence and condition of sidewalks near MARTA rail stations vary widely in different parts of the City. The areas surrounding downtown MARTA stations generally have higher sidewalk connectivity, while the areas around stations further west on the MARTA Blue (Hamilton E. Holmes) and Green (Bankhead) rail lines have less sidewalk infrastructure. While sidewalk infrastructure is most important in the denser areas of the City to facilitate last-mile connections between stations and destinations, residential areas adjacent to stations outside the Downtown, Midtown, and Buckhead employment centers also need good quality pedestrian connections to rail transit. Increasing the extent and quality of sidewalks around all transit stations is important to provide viable connections to both origins and destinations and encourage travelers to shift away from single occupancy vehicles to transit.

The areas surrounding the Westlake, Bankhead, and Hamilton E. Holmes Stations have the most limited sidewalk infrastructure within the City of Atlanta. In the northern part of the City along the MARTA Red and Gold Lines, the Lindbergh and Lenox Stations also have limited sidewalks within their ½ mile of the stations. On the south side, sidewalks within ½ mile of the Fort McPherson and Oakland City Stations have limited sidewalks and would benefit from the development of new streets and sidewalks to increase connectivity to the MARTA stations from surrounding neighborhoods.

While stations that are in dense employment centers, such as Downtown and Midtown, have a strong network of sidewalks, some of these existing sidewalks need reconstruction, replacement, or repair. This also applies to stations on the east side of the City including the Georgia State, King Memorial, Inman Park–Reynoldstown, Edgewood-Candler Park, and East Lake Stations.

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FIGURE 8: RAIL STATION AREA OVERVIEW

| Station Area | Number of Stations | Sidewalk Coverage | Description |
|---------------|--------------------|-------------------|--|
| Buckhead | 3 | Medium | Areas near rail stations generally have sidewalk infrastructure while residential areas are lacking. |
| Downtown | 7 | High | Virtually all streets have sidewalks. |
| East Atlanta | 3 | High | High sidewalk coverage and connection into neighborhoods |
| Midtown | 3 | High | Area has high coverage of sidewalks |
| South Atlanta | 3 | Medium | Areas near Oakland City and Lakewood have medium sidewalk coverage and limited crossings over parallel rail line |
| West Atlanta | 4 | Low | Hamilton E. Holmes station area has the least amount of coverage of all station areas in the West. |

Livable Centers Initiative Areas

The Livable Centers Initiative (LCI) program at the Atlanta Regional Commission (ARC) awards funds to local governments and nonprofit organizations to prepare and implement plans for the enhancements of existing centers and corridors consistent with regional development policies and transportation infrastructure funding.⁴ There are 22 LCI areas in or partially in the City of Atlanta, including the 2017 award-winning plans for the Aerotropolis Greenway and Imagine Memorial, an extension of the Memorial LCI. Infrastructure projects resulting from these LCI plans often include sidewalks and pedestrian facilities that then qualify for further funding to implement. Specifically, during the LCI process, project sponsors identify funding sources to provide the 20% local match required to access an 80% federal match. To date, the LCI program has provided approximately \$86 million in federal transportation funds for pedestrian facilities in the Atlanta Region. The following table highlights existing sidewalk coverage and pedestrian recommendations from existing LCI areas. Local funding sources and federal matching funds have already been identified for these projects, as such, they are not included in the project list for Atlanta's Transportation Plan.

While the LCI program is a potential source of funding to implement LCI recommendations, there is a disparity between sidewalk coverage and LCI areas. The west, southwest, and northwest of Atlanta have fewer LCI areas, and therefore do not have as much access to the LCI program to improve pedestrian facilities.

⁴ Source: ARC Livable Centers Initiative(www.atlantaregional.com)

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FIGURE 9: LIVABLE CENTERS INITIATIVE (LCI) AREAS

LCI Areas

-  Existing Sidewalks
-  Expressways
-  Major Roads
-  Streets
-  Atlanta City Limits

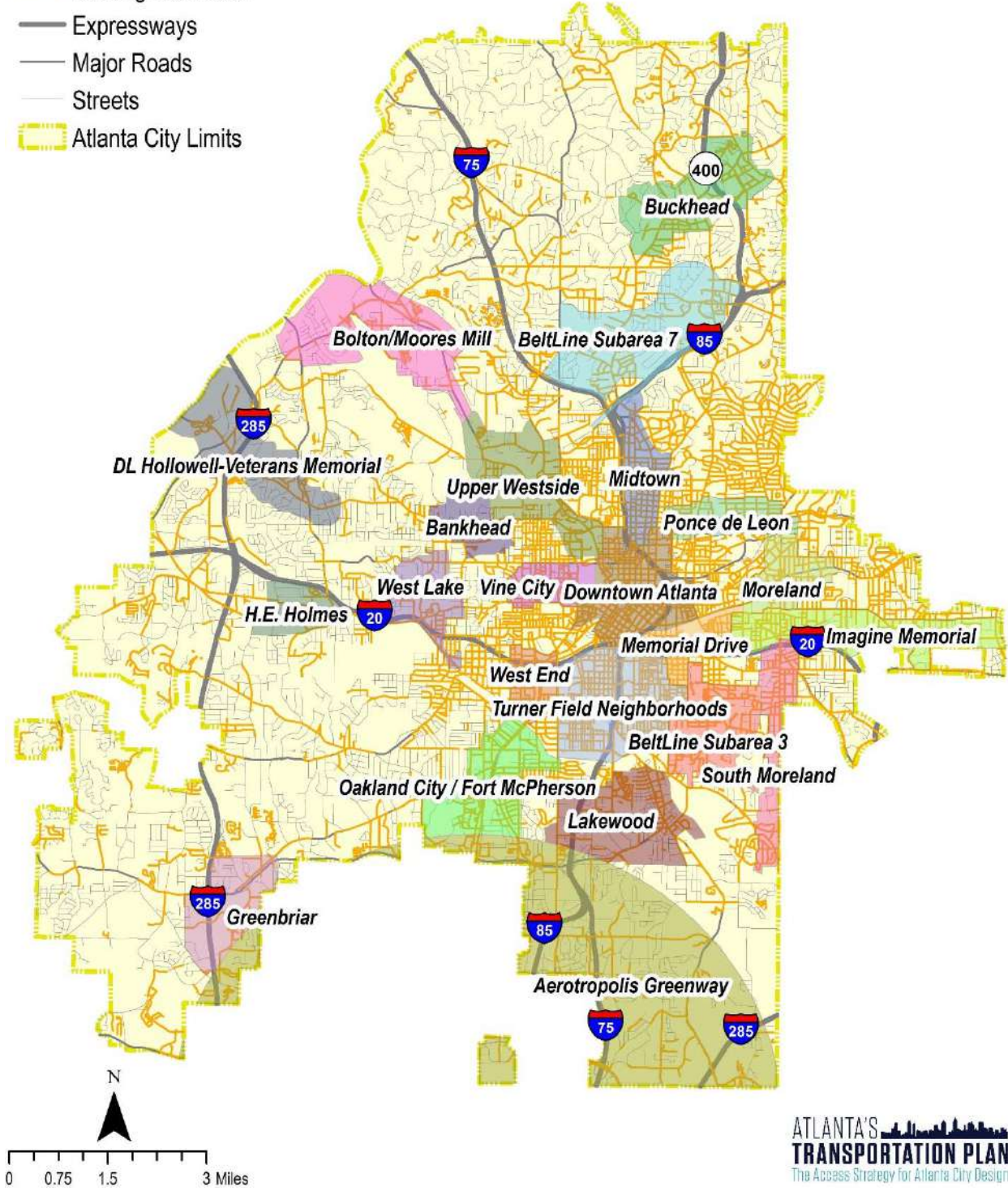


FIGURE 10: LCI SIDEWALK COVERAGE

| LCI Area | Sidewalk Coverage | Sidewalk Recommended Improvements | LCI Area | Sidewalk Coverage | Sidewalk Recommended Improvements |
|------------------------------------|-------------------|--|-----------------------------|-------------------|---|
| Aerotropolis Greenway | Low | New, no recommendations yet | Lakewood | Medium | Sidewalk replacement |
| Bankhead | Medium | Increase sidewalk connectivity | Memorial Drive | High | Increased pedestrian lighting |
| BeltLine Subarea 3 | Medium | Install sidewalk on Atlanta Ave | Moreland | High | Increase of pedestrian signage |
| BeltLine Subarea 7 | Medium | Stronger sidewalk connectivity | Oakland City/Fort McPherson | High | Fort McPherson Multiuse Path (project 13) |
| Bolton/Moores Mill | Low | Increase pedestrian signalization | Ponce de Leon | High | Sidewalk widening and resurfacing |
| Buckhead | High | Enhance pedestrian environment with pedestrian infrastructure | South Moreland | Medium | Sidewalk widening and connectivity to neighborhoods a |
| D.L. Hollowell – Veterans Memorial | Medium | Pedestrian ramps and crossings at all signalized intersections Eliminate obstructions in the sidewalk such as utility poles | Turner Field | High | Increased sidewalk lighting |
| Downtown Atlanta | High | Sidewalk infrastructure and pedestrian facilities | Upper Westside | High | Pedestrian facilities on Marietta Blvd, D.L. Hollowell, and Joseph E. Lowery Blvd |
| Greenbriar | Low | Need for traffic islands, striping, and signage | Vine City | High | Upgrade Northside Drive pedestrian facilities (T-31) |
| H.E. Holmes | Medium | Sidewalk construction and infrastructure | West End | High | Sidewalk reconstruction, widening, and lighting |
| Imagine Memorial | High | New, no recommendations yet | West Lake | Low | Require all new development to be pedestrian-oriented |

PEDESTRIAN PUBLIC INPUT

At three open-house public meetings during the first phase of public engagement, attendees were asked to place stickers on locations where they currently walk regularly for work, school, or frequent errands. These three open-house public meetings were held at City Hall, Adamsville Recreation Center, and the Atlanta International School in Buckhead. Results from the sticker exercise can be seen in Figure 11.

Key Takeaways:

- Participants from all meetings **currently walk Downtown**
- Adamsville participants **walk very little in their own neighborhood** (west, southwest Atlanta), but do walk elsewhere
- Buckhead walking was centered around **Peachtree Street**
- Overall, few participants reported walking in areas where there is little to no sidewalk coverage.

Participants reported that they walk to amenities, such as parks, transit stations, bus stops, restaurants, and other attractions in the Downtown and Midtown areas and to access the BeltLine. Buckhead attendees noted that they enjoy **walking in their neighborhood for leisure and to local restaurants** in the area. On the other hand, participants in Adamsville generally said they did not walk much because of a **lack of available sidewalks in their neighborhoods**, and walk only when they have no other mobility options.

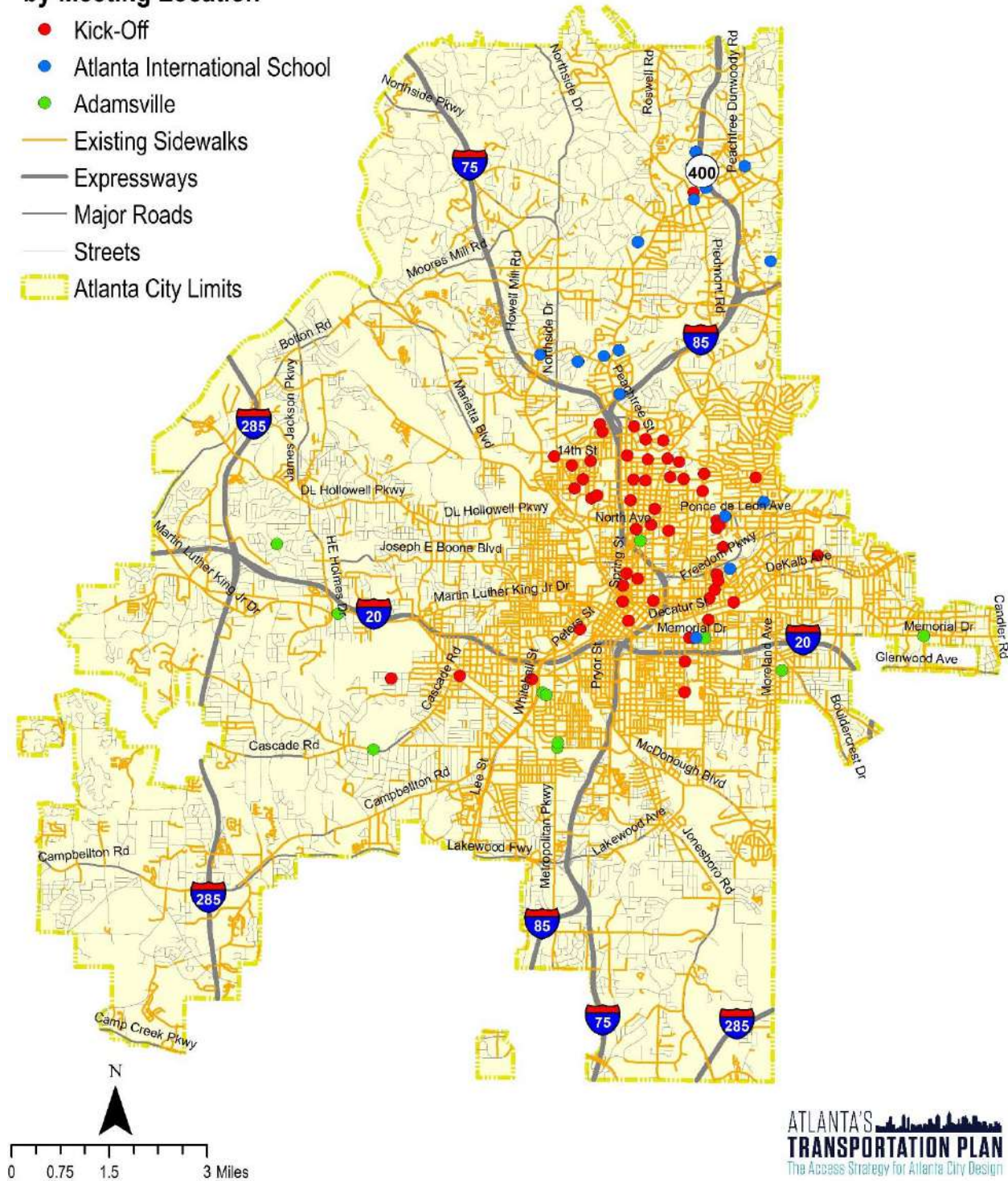
Most attendees said that they would walk more if there were more sidewalks in better condition.

Attendees cited broken sidewalks, safety concerns, poor lighting, and speeding cars as major barriers to walking. Walking along major corridors, such as Memorial Drive, Ponce de Leon Avenue and Martin Luther King Jr. Drive is crucial to access destinations along those roadways and transit services. Attendees also asked about increasing the number and safety of crosswalks, particularly along corridors with higher speeds.

FIGURE 11: WHERE PUBLIC MEETING ATTENDEES CURRENTLY WALK

**Where Public Meeting Attendees Walk
by Meeting Location**

- Kick-Off
- Atlanta International School
- Adamsville
- Existing Sidewalks
- Expressways
- Major Roads
- Streets
- ▭ Atlanta City Limits



PEDESTRIAN NEEDS

Based on the existing conditions analysis and public input, sidewalks that are missing or not in good repair are a critical concern for pedestrians. However, pedestrian needs are not limited to sidewalks and include crosswalks, traffic calming, lighting, and street amenities such as benches, trash cans, and landscaping. Addressing these additional needs is important to improve safety and maximize the use of pedestrian facilities by encouraging additional trips.

In defining sidewalk needs in Atlanta, it is necessary to consider the existing physical conditions, the traveling needs of the community, and the overall goals and objectives of Atlanta's Transportation Plan. Figure 12 presents sidewalk connections and pedestrian infrastructure related to the goals and objectives of Atlanta's Transportation Plan, and therefore help point to specific recommendations which are supportive of the City's vision.

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FIGURE 12: RELATIONSHIP OF GOALS AND OBJECTIVES TO PEDESTRIAN CONNECTIONS

| Goal | Objective | Pedestrian Connection |
|---------------|---|--|
| Safety | Eliminate traffic fatalities and reduce serious injuries | Lacking or inadequate walking facilities can put pedestrians at risk from automobiles. Properly designed sidewalks and street crossings provide a safe, separate facility for pedestrians so that they do not have to walk in the street, along private property, or on uneven surfaces. Implementing traffic calming on streets adjacent to sidewalks can reduce vehicle speeds and increase pedestrian safety. |
| | Reduce transportation-related emissions to improve air quality | An expanded network will provide the opportunity for more walking trips, which produce no vehicle emissions. |
| | Provide all residents with active transportation opportunities to improve public health | Sidewalks and paths provide a facility for pedestrians to make trips or walk/run for leisure. Direct pedestrian connections to transit and/or final destinations allows for more active trips, which promotes improved health. Improved pedestrian crossings near transit stations can also encourage active transportation trips. |
| Mobility | Focus density and economic development to support transportation investments | Good pedestrian facilities are particularly necessary near transit facilities, business districts, and services to achieve maximum use of businesses and services. |
| | Reduce congestion by maximizing the existing transportation system | While the streets and highways are already near or at their capacity, the City has opportunity to better use and to greatly increase the capacity for walking, biking and transit trips. Providing pedestrian scale lighting and amenities when building new or rehabilitating existing pedestrian facilities can increase pedestrian trips. |
| | Leverage local transportation funding to achieve the greatest impact | Improved facilities for walking are key to getting more use from existing infrastructure. |
| | Fix existing infrastructure and address critical maintenance | Sidewalk repair or reconstruction is a cost-effective means to facilitate efficient mobility. |
| Affordability | Provide transportation options to economically disadvantaged neighborhoods | Transit dependent persons rely on walking to/from destinations and transit services. |
| | Expand access to jobs and services | Transit can't go everywhere – therefore a walking connection is critical to accessing more of Atlanta's jobs. |
| | Reduce household transportation costs for lower income households | Walking remains the lowest-cost mobility option in Atlanta. |
| | Support livable communities and local character through great design | Walking reduces traffic and parking, improves public safety, and builds great communities. |

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Based on the assessment of the sidewalk network throughout the City of Atlanta, considering coverage, connectivity, and quality, there are needs in each area for the City to achieve a complete and well-maintained sidewalk network. There are areas lacking sidewalks both in the core as well as in outlying areas. Maintenance or rehabilitation needs exist in pockets both in town and in outlying neighborhoods. This variety of needs is best addressed not by a simple list of projects, but perhaps by policies and programs which facilitate different actions in each neighborhood. For instance, in some neighborhoods rehabilitation is most important, while in other neighborhoods adding missing sidewalks is most important.

PEDESTRIAN RECOMMENDATIONS

Based on the assessment of existing sidewalks and consideration of the City's vision for the future, this section provides the following recommendations to achieve a world-class pedestrian system:

- Adopt "Pedestrians First" Policy
- Replace Damaged or Inadequate Sidewalks
- Build Out Complete, ADA-Compliant Sidewalk Network
- Implement "Atlanta Walks" Sidewalk Program
- Collect Pedestrian Use Data
- Complete a Comprehensive, City-wide Sidewalk Inventory and Conditions Assessment

Recommendation: Adopt "Pedestrians First" Policy

As the City continues to move toward a truly balanced multimodal system, it will be important to have high-level policy which makes walking at least as important as driving. This will then provide overall direction to many individual aspects of the design of buildings and streets or even how the City manages day-to-day operations, maintenance and construction activity. For instance, sidewalks should extend not only along all major streets, but also connecting to building entrances. And, in instances where physical space is required for construction or loading/unloading, the sidewalk should be given equal or greater importance as the vehicle travel lanes.

Recommendation: Replace Damaged or Inadequate Sidewalks

There are many sidewalks along older streets in need of repair or replacement. The City should systematically repair or replace sidewalks on an ongoing basis. A regular program that systemically replaces some damaged or inadequate sidewalks every year will have surprising results toward improving conditions for walking throughout the City.

Recommendation: Build Out Complete, ADA-Compliant Sidewalk Network

As shown in the existing conditions section, there are areas of the City with no sidewalks, and poor-quality sidewalks in some areas that do have a complete sidewalk network. It is recommended that the City develop a program to systematically build out sidewalks on each side of all City streets. In addition, supporting elements such as mid-block crosswalks, pedestrian signals and push buttons should also be part of that complete system.

While an individual sidewalk can be a relatively low-cost project, the build out and replacement of existing sidewalks on a citywide scale requires a dedicated program. However, based on the research by Georgia Tech, the lifespan of a concrete sidewalk can be up to 50 years. As a result, a continual sidewalk construction and reconstruction program can achieve surprising results for a relatively small cost compared to other mobility infrastructure. Georgia Tech research⁵ demonstrates how a relatively small millage rate assessed to property owners in the City could fund the buildout and replacement of the existing sidewalk. The following Action Plan presents an example of how to fund and implement this program.

Recommendation: Implement “Atlanta Walks” Sidewalk Program

Rather than approach sidewalk construction or reconstruction as a list of projects, the City will see greater results by creating an ongoing program. This program will set and update sidewalk priorities on an ongoing basis, and the City can budget the program as they deem appropriate or adjust annually if desired. This approach has worked very well in many communities, and has the following benefits to the City and the citizens:

- The City can adjust the funding level for the program annually, based on available funds
- A prioritized list of projects will be updated at least annually, being both responsive to the community while still staying on course to accomplish the larger citywide objectives
- An ongoing program promotes transparency, shows progress, and builds trust in the community
- By anticipating and scheduling the maintenance and replacement of sidewalks, an ongoing program is a proactive approach to maintaining a highly functional sidewalk network and will yield great impacts over time

In addition to installing and repairing sidewalks, repainting existing crosswalks, installing new crosswalks or High-Intensity Activated Crosswalk (HAWK) beacons, and improving lighting and amenities should be included in this program.

Recommendation: Collect Pedestrian Use Data

The volume of use of sidewalks is an important consideration when prioritizing sidewalk construction or reconstruction, yet available data has been very limited. In the past, conducting pedestrian counts was very labor intensive and, therefore, expensive. Thus, data on system wide pedestrian use was typically not available. However, more recently the proliferation of GPS enabled smart phones and a host of health-related apps has resulted in new sources of data for the occurrence of walking trips. This data has begun to be available for purchase through commercial vendors for an entire city, not just on one or two corridors. The City should consider purchasing citywide pedestrian data on a recurring basis – perhaps every 2-3 years – to be better-equipped to understand walking patterns and to best prioritize sidewalk projects.

⁵ The Sample Sidewalk Program Funding Data section at the end of this document provides a detailed estimate of the necessary millage rate increase and underlying sidewalk program assumptions.

Recommendation: Complete a Comprehensive, City-wide Sidewalk Inventory and Conditions Assessment

In addition to collecting pedestrian use data, a comprehensive and up-to-date city-wide sidewalk inventory should be completed and used as a basis for implementing the “Atlanta Walks” Sidewalk Program. Data collected should include sidewalk location and roughness. The sidewalk inventory should be updated every three to five years to identify areas where conditions are deteriorating and to continually inform the prioritization of the “Atlanta Walks” Sidewalk Program.

IMPLEMENTATION TOOLS

To aid the City's implementation of the sidewalk recommendations, the following information and data was assembled to serve as a resource to City staff. Sample prioritization criteria provide a good starting point to prioritize annual sidewalk investments. And, program funding data builds on prior research from Georgia Tech to make a correlation between the funding needs and an example funding strategy.

SAMPLE SIDEWALK PRIORITIZATION CRITERIA

While all sidewalks are important, investment priority should be given to those projects which provide the greatest benefit to overall connectivity. Those projects which connect to transit, parks, libraries, retail centers and other key destinations have the greatest benefit to the walking system. In addition, those sidewalk projects which complete a connection or “fill a gap” in the sidewalk system should be given priority. The data sets discussed earlier in this document provide much of the spatial data necessary to begin a prioritized list. These spatial datasets can be used to score points to each potential sidewalk project, which will serve to produce an objective priority list as a starting point for annual implementation. Following are prioritization criteria which have been used successfully in other communities.

| Potential Prioritization Criteria for “Atlanta Walks” Sidewalk Program |
|--|
| City Design growth corridor |
| Connections to schools, parks, libraries |
| Connections to transit |
| Located in Equitable Target Areas (ETAs) (planning areas where ARC has identified high housing and transportation costs) |
| Citizen requests |
| Areas of high pedestrian use (requires volume data) |
| Completion of gap in sidewalk system |
| High crash area |

SAMPLE SIDEWALK PROGRAM FUNDING DATA

The following calculations follow and expand upon the earlier research by Georgia Tech. In this analysis, the data is used to estimate a millage rate increase which would accomplish full build out and replacement of the sidewalk system over 20 years or over 50 years. This single millage rate would be able to continuously fund construction and replacement of the entire network every 20 or 50 years with relatively small impact on City property taxes. It should be noted that other funding options exist; however, this example illustrates one practical and feasible funding option.

Construction cost estimates were gathered from Georgia Tech researchers from the School of Civil and Environmental Engineering. This group investigated the cost property owners could expect to pay if sidewalk construction costs for updating of Atlanta's sidewalk network as a portion of property taxes. Sidewalks accounted for included sidewalks and curb ramps. Sidewalks on state and US roads were factored out of our analysis with the stipulation they will receive funding from programs facilitated by state and federal agencies. The total assessed value of Atlanta properties was obtained from Fulton and DeKalb County parcel data. The analysis excludes tax exempt properties such as schools, churches, and government buildings.

The time frame of the cost analysis of the asset management system for sidewalks was set for fifty years. This time frame was chosen based on the current life expectancy of sidewalks in the City, making it an optimum time for updating the sidewalk network. Costs were calculated in present day and future values with the factor of inflation over time. Using the information from Georgia Tech, cost was analyzed for asset management over the span of 20 years, using the same Georgia Tech methodology. For millage rate over 20 years, inflation was considered for future years of the assessment of assessed property values.

With variations of sidewalk materials and construction, frequency of use, and other factors, sidewalk longevity may vary in different areas within the City. In some situations, sidewalks may last only 20 years while in other areas they may last up to 50 years. In addition, areas such as Midtown have much new sidewalk construction, as well as areas with new development. Therefore, there is significant variation as to exactly when a sidewalk needs to be replaced. Therefore, the following examples illustrate the funding level for a 20-year replacement and a 50-year replacement, depending on level of aggressiveness to complete the sidewalk network in Atlanta. Additionally, other supporting pedestrian infrastructure such as cross walks, signalization and signage may be desired to add to the program costs.

ATLANTA'S TRANSPORTATION PLAN

Sidewalk Cost Elements:

| Treatment | Median Cost | Units | Lifespan (Years) |
|----------------------|-------------|-------------|------------------|
| Sidewalks (concrete) | \$27.88 | Linear Foot | 50 |
| Curb Ramps | \$764.3 | Each ramp | 50 |

Example 1 - 50 years:

| Construction Totals (50 Years) | Distance (Linear Feet) | Distance (Miles) |
|---|------------------------|------------------|
| Sidewalk Total | 14,382,403 | 2,723 |
| Sidewalk Total Minus State and US Roads | 11,705,778 | 2,217 |
| Ramp Locations Total | 25,222 | |
| Sidewalk Construction/Yr | 234,116 | 44.3 |
| Ramp Construction/ Yr (EA) | 504.44 | |

| 50 Year Construction Costs | Cost |
|----------------------------|-------------|
| Cost/Yr SW | \$6,528,073 |
| Cost/Yr Ramp | \$385,507 |
| Total Cost/Year | \$6,913,580 |

| 50 Year Construction Costs w/ Inflation | (Inflation Rate of 2.5%/yr) |
|---|-----------------------------|
| Cost/Yr SW | \$12,727,700 |
| Cost/Yr Ramp | \$751,618 |
| Total | \$13,479,318 |

| Atlanta Millage Rate (yearly cost/total assessed value) 50 Years | |
|--|------------------|
| Total Atlanta Assessed Property Value | \$25,681,262,303 |
| Millage Rate Per Property | 0.00052487 |

ATLANTA'S TRANSPORTATION PLAN

Example 2 - 20 years:

| Construction Totals (20 Years) | Distance (Linear Feet) | Distance (Miles) |
|---|------------------------|------------------|
| Sidewalk Total | 14,382,403 | 2,723 |
| Sidewalk Total Minus State and US Roads | 11,705,778 | 2,217 |
| Ramp Locations Total | 25,222 | |
| Sidewalk Construction/Yr | 585,289 | 110.85 |
| Ramp Construction/ Yr (EA) | 1,261 | |

| 20 Year Construction Costs | Cost |
|----------------------------|--------------|
| Cost/Yr SW | \$16,317,585 |
| Cost/Yr Ramp | \$963,770 |
| Total Cost/Year | \$17,281,625 |

| 20 Year Construction Costs w/ Inflation | (Inflation Rate of 2.5%/yr) |
|---|-----------------------------|
| Cost/Yr SW | \$20,841,700 |
| Cost/Yr Ramp | \$1,230,959 |
| Total | \$22,072,660 |

| Atlanta Millage Rate (yearly cost/total assessed value) 20 Years | |
|--|------------------|
| Total Atlanta Assessed Property Value | \$25,681,262,303 |
| Millage Rate Per Property | 0.000859485 |

Millage Rate Examples:

| Total Appraised Value (50 Year Program) | Assessed Value (40% Appraised) | Additional Tax (per Year) |
|---|--------------------------------|---------------------------|
| \$100,000 | \$40,000 | \$20.99 |
| \$200,000 | \$80,000 | \$41.99 |
| \$500,000 | \$200,000 | \$104.97 |
| \$1,000,000 | \$400,000 | \$209.95 |

ATLANTA'S TRANSPORTATION PLAN

| Total Appraised Value (20 Year Program) | Assessed Value (40% Appraised) | Additional Tax (per Year) |
|--|-----------------------------------|---------------------------|
| \$100,000 | \$40,000 | \$34.38 |
| \$200,000 | \$80,000 | \$68.76 |
| \$500,000 | \$200,000 | \$171.90 |
| \$1,000,000 | \$400,000 | \$343.79 |

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