



# JCB MIB | JIMMY CARTER BOULEVARD & MOUNTAIN INDUSTRIAL BOULEVARD CORRIDOR STUDY

DRAFT OCTOBER 2021





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Prepared by



# ACKNOWLEDGEMENTS

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# INTRODUCTION

The Jimmy Carter Boulevard/Mountain Industrial Boulevard corridor is an important part of the transportation system in the eastern and northeastern suburbs of the Atlanta region. Providing north-south mobility from Holcomb Bridge Rd in the north to East Ponce de Leon Avenue in the south, it parallels I-285, the perimeter freeway that encircles Atlanta, providing direct connectivity to multiple jurisdictions including DeKalb County, Gwinnett County, City of Peachtree Corners, City of Norcross, and the City of Tucker.

The corridor emerged as the major arterial it is today in the 1970s and 1980s as it anchored the first wave of suburban growth outside of I-285.

In particular, this growth was associated with the emergence of Technology Park and assorted manufacturing and distribution centers in present day Peachtree Corners on the north end of the corridor, the Mountain Industrial area near the south end of the corridor, and the Western Electric copper wire manufacturing plant at I-85. As suburban growth has pushed further east and north, parts of the corridor (particularly in the area around I-85) have emerged as host to an increasingly diverse community, many who are first wave immigrants from Asian and Hispanic countries. This confluence of local population and employment growth, along with broader regional growth has positioned the corridor as one of the major arterial corridors in the region with traffic volumes of 80,400 vehicles a day (year 2018) a day at its busiest location just north of I-85.

In recent years, the corridor has been host to several planning and transportation initiatives including:

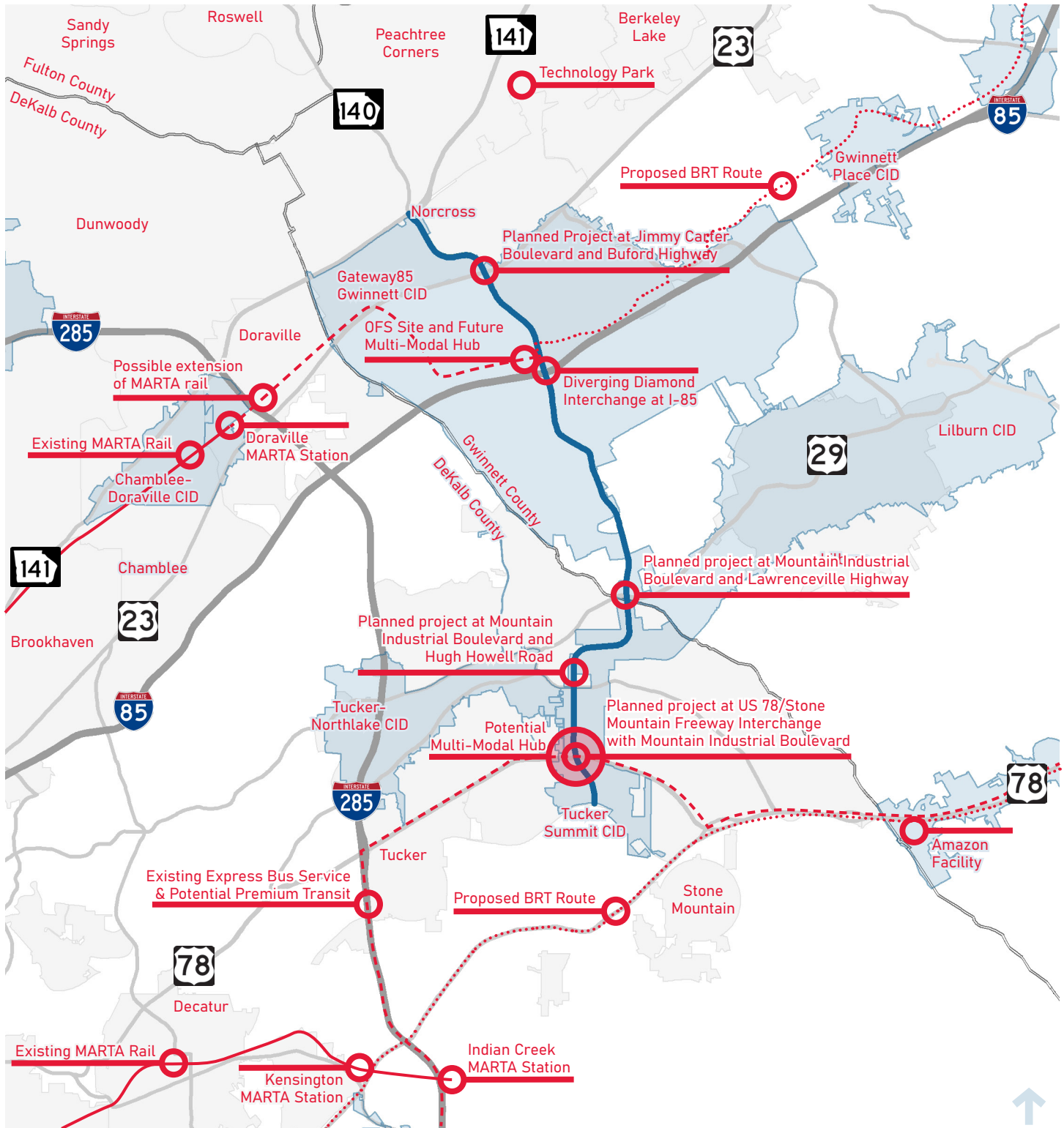
- Redevelopment and revitalization of the corridor has been considered as stressed in the Comprehensive Plans of both Gwinnett County and the City of Tucker. Parts of the Western Electric plant (now known as the OFS site) have been converted to Eagle Rock Studios, where several hit movies have been filmed, and another part was purchased by Gwinnett County in 2018 for redevelopment purposes and as the location for a potential transit hub. Similarly, in Tucker the old Sears site has emerged with its own redevelopment project known as “The Rise” which would see a mix of uses at the corner of Hugh Howell Road and Mountain Industrial Boulevard.
- The rise of e-commerce has begun to dramatically change freight patterns and needs along the corridor with Amazon and UPS opening a handful of new distribution centers on or near the corridor, which were further explored in two recent (2020) Freight Cluster Plans by the Gateway 85 Community Improvement District (CID) on the north end of the corridor and by the Tucker Summit CID on the south end of the corridor.
- Transit needs have similarly been examined in recent years with both Gwinnett County and DeKalb County conducting countywide transit studies to identify long term needs and strategies, which has yielded the aforementioned idea of a transit hub at the OFS site and a Bus Rapid Transit (BRT) line that would extend further into Gwinnett County.

- Vehicular transportation has been addressed through several projects including the construction of a Diverging Diamond Interchange at I-85 which opened to traffic in 2015. Several other major constrained locations along the corridor have been the subject of design projects including the interchange at US 78 and the corridor’s intersections with Buford Highway and Lawrenceville Highway. Similarly, Gwinnett County and the Georgia Department of Transportation have partnered for a major Planning and Environmental Linkages (PEL) study along the I-85 to examine long term strategies along that corridor including the interchange at Jimmy Carter Boulevard.

With this in mind, Gwinnett County, the City of Tucker, Gateway 85 CID, Lilburn CID, and Tucker Summit CID partnered with Pond & Company to develop a cohesive long term multi-jurisdictional vision for the corridor with a specific focus on safe and efficient traffic operations and a broader examination of other multimodal transportation needs.



## Study Corridor Location



# GOALS & DESIRED OUTCOMES

As stated previously, this study aims to create a cohesive vision for transportation improvements among the many jurisdictions along the corridor. With this in mind, the study team reviewed previous plans, interviewed stakeholders, and worked with the steering committee to establish goals for this planning process.

## Previous Plans Review

There are many existing plans covering the JCB/MIB corridor. In all, the project team reviewed 18 different plans. These plans can be divided into 5 types: Comprehensive Plans, Multimodal Transportation Plans, Transit Plans, Sub-Area Plans, and Freight Plans. The tables below summarize the common goals and themes of the different plans.

### Comprehensive Plans

#### Gwinnett 2040 Unified Plan

The Gwinnett Unified Plan identifies five themes that act as an overall framework to guide its policies. The County relies on this framework for decision-making in land use, fiscal health, transportation and infrastructure investments and community amenities. The Five Themes are:

1. Maintain Economic Development & Fiscal Health
2. Foster Redevelopment
3. Maintain Mobility & Accessibility
4. Provide More Housing Choices
5. Keep Gwinnett a “Preferred Place”

**Theme 1 – Maintain Economic Development & Fiscal Health.** Gwinnett County's rapid growth lends itself to rapid economic growth, which must be carefully thought out to continue to trend in a positive direction. Related policies include the promotion of mixed-use, nodal development along major corridors, and the encouragement of redevelopment of existing, aging retail centers along with new retail as part of mixed-use developments.

Portions of the Jimmy Carter Blvd within Gwinnett County lie within the Regional Activity Centers, Community Mixed-Use areas, and Vibrant Community character areas where higher residential intensity with office and commercial opportunities are present. These areas would typically be able to provide greater value to the county's tax digest and fiscal health.

**Theme 2 – Foster Redevelopment.** The Unified Plan calls for a attention to areas which may benefit from redevelopment. Older areas with potential to diminish to substandard, underused, or vacant conditions. New ARC Livable Centers Initiative (LCI) areas like Jimmy Carter Blvd are eligible for funding that helps attain viable redevelopment goals. Related Policies include promoting densification in special areas designated for mixed-use through rezoning and increased infrastructure capacity and the use of Tax Allocation Districts (TADs).

The corridor is currently home to the Regional Activity Centers character area which offers the opportunity to integrate office and professional use and walkable environments as well as Community Mixed-Use which offers opportunities for integrated development. A large portion of the corridor is also located within the Jimmy Carter TAD.

**Theme 3 – Maintain Mobility and Accessibility.** Traffic is A regional issue, prevalent in Gwinnett County, is understood and addressed in this plan. Policies reinforced in this theme include: supporting the recommendations and policies in the Transit Development Plan and adopting and promoting land use policies that support recommendations and policies in the Comprehensive Transportation Plan.

**Theme 4 – Provide More Housing Choices.** Preserving workforce housing within Gwinnett County through a variety of housing types and price ranges will help achieve the County's goals of reducing congestion and sustaining its economic base. This funnels into adopted Policy 4.1: Preserve and Expand Housing for All Income Levels and Phases of Life.

**Theme 5 – Keep Gwinnett a Preferred Place.** This theme highlights the continued strides for quality of life initiatives. Policies identified for promoting and retaining the high quality of life in Gwinnett County pertinent to the Jimmy Carter Boulevard Corridor are as follows: Improve the walkability of Gwinnett's Activity Centers and Neighborhoods; Draft Design Guidelines for areas that are ready for redevelopment and new development; Provide incentives for enhances open space and trails.

## **Peachtree Corners Comprehensive Plan**

### Vision

1. Offering a high quality of life for residents
2. Providing a competitive environment business
3. Creating a strong sense of community for all, and
4. Accommodating the best opportunities to live, work, play, and stay.

### Goals

1. Build and strengthen a unified and family-friendly multicultural community
2. Maintain a high-quality natural and cultural environment
3. Integrate transportation and accessibility into development decisions
4. Enable redevelopment and capture high quality new development
5. Emerge as the most desirable and advantageous community in the Atlanta Region

### Jimmy Carter Blvd -Specific Opportunities

- Mixed-use corridors; destination retail

## **Norcross 2040 Comprehensive Plan**

The Norcross vision statement reads: “Norcross will be a dynamic and welcoming community in which generations of diverse citizens can engage, create, contribute, and flourish.” This vision is supported by overarching goals that are intended to shape the City’s direction.

These goals are based on both analysis of existing conditions and trends, and the priorities voiced by the community. The six community goals are as follows:

1. Continue to Define Norcross’ Sense of Place
2. Continue to Strengthen Norcross as a Livable, Inclusive, and Safe Environment
3. Increase Opportunities for Travel via Different Modes within and Outside Community
4. Maintain a Vibrant Economy and Continue to Facilitate Job Growth
5. Ensure that Norcross Residents have a Variety of Attainable, Quality Housing Options
6. Further the City’s Tradition of Strong Leadership and High Level of Quality Services.

### Jimmy Carter Blvd-Specific Opportunities

- Jimmy Carter is viewed as a gateway to the City of Norcross on the North and South end with a mixed-use employment center to the north and a potential transit hub to the south. Gateway signage and elements desired at PIB, BuHi, and I-85.

- Development intensity highest at the intersection of JCB and Buford Highway; development of mixed-use node at this intersection is encouraged.
- Pedestrian Safety Improvements are needed at the intersection of Jimmy Carter Blvd and Buford Highway

less competitive assets. The City seeks to introduce a biomedical business component to the area.

- MIB is a gateway corridor, and the City intends to enhance its appeal.
- Allow live/work along MIB

### Tucker Comprehensive Plan

#### Consolidated Vision/Goals

- Enhance Downtown Tucker
- Increase Transportation Connections
- Preserve and Improve Neighborhoods
- Strengthen Recreational and Community Resources
- Bolster Economic Base

#### Mountain Industrial Blvd-Specific Opportunities

- In depth analysis of existing zoning along the corridor. Existing and permitted development is undesirable to public.
- Mountain Industrial Area is key to the diversity in Tucker’s commercial and industrial base, which should be preserved by modernizing and redeveloping the

### DeKalb County 2035 Comprehensive Plan

Community Goals are divided into focus categories. Those categories include Natural & Historic Resources, Housing, Economic Development, Transportation, and Land Use. Goals and objectives most relevant to MIB are as follows:

- Housing – Housing variety, workforce; mixed-use
- Economic Development – Revitalize Corridors, Infrastructure and Aesthetics, Employment Center Creation
- Transportation – Asset Management; Bicycle and Pedestrian, Transportation Demand Management
- Land Use – Mixed-Use Development, Healthy neighborhoods, connectivity, small area plans

### Goals Summary - Comprehensive Plans

Common Themes Across Reviewed Comprehensive Plans	Quality of Life				
	Mobility & Infrastructure			Economic Development	
	Local & Regional Connectivity	Pedestrian & Bicycle Accessibility	Safety	Mixed-Use Redevelopment Opportunities	Job Growth
Gwinnett 2040 Unified Plan	✓	✓	✓	✓	✓
Norcross 2020 Comprehensive Plan	✓	✓	✓	✓	✓
DeKalb County 2035 Comprehensive Plan	✓	✓	✓	✓	✓
Peachtree Corners Comprehensive Plan		✓		✓	✓
Tucker Comprehensive Plan	✓				✓



## Transportation Plans

### Atlanta 2050 Regional Transportation Plan

The Atlanta Region's plan policy framework is three-fold: Attaining world-class infrastructure, create healthy livable communities, and fostering a competitive economy.

### Destination2040

The framework of the Destination2040 Plan is established through the following short- and long-range goals:

#### 1. Improve Connectivity

- Improve overall connectivity within Gwinnett County by tying activity centers to each other and by enhancing cross-County movements
- Improve connectivity between Gwinnett County and the rest of the region
- Improve connectivity and reliability regardless of mode or purpose

#### 2. Leverage the County's Transportation System to Improve Economic Vitality and Quality of Life

- Connect people to jobs and educational opportunities through coordinated transportation and land use investment decisions

- Use transportation investments to encourage development/redevelopment in strategic locations throughout the County
- Facilitate the efficient movement of goods
- Preserve community livability and attractiveness; respect and value existing community open spaces and prioritize

#### 3. Improve Safety and Mobility for All People Across All Modes of Travel

- Prioritize projects and programs that improve safety, acknowledging all users in project design
- Continue to evaluate innovative design as well as improved technologies and products for use in the County's transportation network
- Consider mobility needs of all population groups when investing in the transportation system

#### 4. Proactively Embrace Future Transportation Opportunities

- Invest in rehabilitation and maintenance of existing transportation infrastructure
- Prioritize projects that maximize the benefit of taxpayer dollars and alternate funding sources



The Plan additionally identifies priorities among vehicular travel, connectivity, transit services, transportation safety, maintenance/roadway repair, walking/biking, economic vitality, and access to transportation. Although crafted prior to the 2040 Unified Plan effort, the goals and priorities of Destination2040 align with the Unified Plan's five themes. Integrating land uses and land use policies with transportation infrastructure and policies enables the system to efficiently and effectively connect the greatest number of people to the greatest number of destinations. The correlation between the 2040 Unified Plan themes and the CTP goals and priorities of Destination2040 will help lay the foundation to strengthen land use decisions and development patterns to better support future transportation investments in Gwinnett County.

Destination 2040 breaks priority projects down into three funding tiers: Level 1 (Short-Range), Level 2 (Mid-Range), and Level 3 (Long-Range). This is a list of applicable projects along Jimmy Carter Boulevard by tier:

#### Level 1

- Sidewalks and Pedestrian Safety Projects: S-14, S-22, S-20, S-24, S-23
- Intersections and Roadway Corridor ATMS/ITS: GCint\_057, GCint\_060, GCint\_035, LCID\_007

#### Level 2

- Intersections and Roadway Corridor ATMS/ITS: GCint\_059, GCint\_035, GCint\_060
- Major Roads: GCmri\_34
- Bridges, Culverts, and Transportation Drainage: GVCID\_004a

#### Level 3

- Bridges, Culverts, and Transportation Drainage: GVCID\_004a

## Peachtree Corners Comprehensive Transportation Plan

### Goals

- Identify the transportation projects and policies to improve transportation safety
- Prioritize asset management and maintenance of the existing transportation system
- Use the City's transportation system to maximize economic development opportunities
- Make transportation decisions that improve the quality of life in the community
- Consider projects that enhance and protect the City's natural and cultural environment
- Accommodate all users of transportation
- Leverage technology as a mechanism to improve the transportation Systems
- Facilitate east-west movements across Peachtree Corners

## Tucker Strategic Transportation Master Plan

### Transportation Objectives

- Provide connectivity to green spaces, businesses and public spaces
- Improve walking and biking conditions
- Enhance travel safety
- Manage an efficient multi-modal system with traffic congestion reduction

### Strategies

- Enhance downtown Tucker by prioritizing walking, beautification and safety improvements in the immediate downtown
- Enhance traffic capacity and flow outside the downtown core
- Prioritize projects and strategies which keep traffic moving, but with increased travel safety for all users
- Enhance walking infrastructure and safety throughout the City
- Maintain the City's transportation infrastructure in good working order

## Goals Summary - Multimodal Transportation Plans

Common Themes Across Reviewed Transportation Plans	Quality of Life				
	Mobility & Infrastructure			Economic Development	
	Local & Regional Connectivity	Equity & Accessibility	Increased Safety & Reduced Congestion	Economic Vitality	Freight Movement
Atlanta 2050 Regional Transportation Plan	✓	✓	✓	✓	✓
Gwinnett County Destination2040	✓	✓	✓	✓	✓
Peachtree Corners CTP	✓	✓	✓	✓	
Tucker Strategic Transportation Master Plan	✓	✓	✓	✓	



## I-85 Corridor Study

The Georgia Department of Transportation and Gwinnett County are partnering to conduct a Comprehensive Corridor Study along I-85. The study area is roughly 18 miles long and is primarily located within Gwinnett County. The study will propose solutions to reduce congestion, enhance traffic operations, and improve safety in this area. Through collaboration with stakeholders and the public, a wide range of potential solutions will be identified. These alternatives will be analyzed and the recommendations will be developed for implementation.

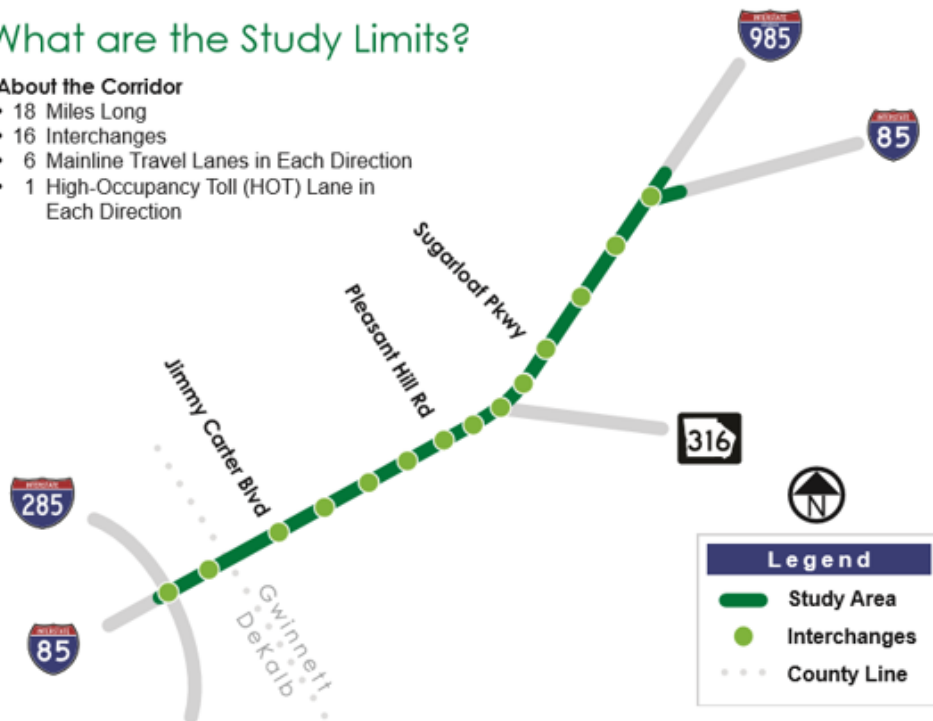
At this time, the I-85 Corridor Study does not have any project recommendations. The plan has identified 13 Hot Spots along the corridor which will require projects to address identified needs. The segments of I-85 approaching the interchange at Jimmy Carter Blvd northbound and southbound have been identified as hot spots.

- **Hot Spot #2 (I-85 Northbound)** - Many motorists must change lanes to stay on I-85 as they approach Jimmy Carter Boulevard since the right-most lane ends there. This lane change causes congestion that backs up toward Pleasantdale Road.
- **Hot Spot #12 (I-85 Southbound)** - Drivers using the High-Occupancy Toll (HOT) lane who wish to exit onto Jimmy Carter Boulevard must merge across the entire mainline while traffic from Indian Trail-Lilburn Road must merge to get onto the mainline in the same area. This causes vehicle conflicts, resulting in speed adjustments and congestion.

### What are the Study Limits?

#### About the Corridor

- 18 Miles Long
- 16 Interchanges
- 6 Mainline Travel Lanes in Each Direction
- 1 High-Occupancy Toll (HOT) Lane in Each Direction



## Transit Plans

### Atlanta Transit Link Regional Transit Plan

#### Governing Principles

- **Economic Development and Land Use** – Creates or enhances connectivity and access to job centers, activity centers, and economic centers in line with the Unified Growth Policy.
- **Equity** – Provide new or expanded service to and from low and moderate income areas to improve connectivity and focusing on investments that better enable people to meet their day-to-day needs
- **Mobility and Access** – Connects population centers, employment, recreation, using cross-jurisdictional services to create regional connectivity.
- **Environmental Sustainability** – Offers new or enhances services as alternatives to SOV travel, and promoting the use of alternative fuels to build environmentally sustainable communities
- **Innovation** – Uses innovative solutions to improve rider experience, fare collection, cost savings, integration with transit alternatives and more.
- **Return on Investment** – Ensures that project financing plans are feasible, sound and promotes cost-efficient alternatives for new or enhances service that enable regional economic opportunity and growth.

### Connect Gwinnett

- **SUSTAINABILITY** – Preserve and promote social and environmental character through an integrated strategy that addresses transportation solutions.
  - **Environment** – Encourage the reduction of air pollution, fuel consumption, and impacts to natural resources by providing/enhancing more sustainable modes of transportation.
  - **Economic Development** – Influence economic development patterns by providing an enhanced transportation network to better connect population, employment and commercial centers.
  - **Congestion Relief** – Reduce congestion and/or the demand to increase roadway capacity for automobiles by encouraging transit use.
- **STEWARDSHIP** – Utilize available resources in an efficient manner to meet the transportation need.
  - **Equity** – Increase the mobility of those with limited financial or traveling capabilities by focusing service on the mobility needs of disadvantaged communities.
  - **Productivity and Efficiency** – Use constrained financial resources in the most cost-effective manner while maximizing ridership.
  - **System Maintenance** – Continuously maintain existing capital investments to achieve a state of good repair.
- **SERVICE QUALITY** – Enhance the desirability and utility of the transit service for Gwinnett residents and workers.
  - **Coverage and Connectivity** – Expand the number of communities and destinations served to increase transit accessibility.
  - **Travel Time Reduction** – Make the transit network more competitive and effective for its users through capital and operating investments.
  - **Reliability** – Increase the reliability of the transit network through investment in priority treatments, technologies, safety and operations.

## Gwinnett BRT Study

The Satellite Boulevard to Jimmy Carter Boulevard BRT Corridor Study aims to provide an examination of the study area's future. Based on previous plans, this BRT proposed route, also referred to as Route 700, would begin in the south at the Doraville MARTA station with the proposed 15-mile alignment following New Peachtree, Buford Highway, Button Gwinnett Drive, Best Friend Road, Brook Hollow Parkway, and Satellite Boulevard northeast toward the Infinite Energy Center. The alignment then would cross under I-85 via Sugarloaf Parkway to the Sugarloaf Mills Park-and-Ride. A substantial portion of this BRT route is proposed to be bus only lanes, beginning north of Jimmy Carter Boulevard. This study is limited to the 10-mile section of this alignment from Jimmy Carter Boulevard to Sugarloaf Parkway and across to the Sugarloaf Mills Park-and-Ride. The study area is defined as an approximately ¼ mile buffer on each side of the BRT corridor, which expands to a 1-mile buffer around three transit stations/hubs: future Multimodal Hub (near Jimmy Carter Boulevard), Gwinnett Transit Center (at Gwinnett Place Mall), and the Infinite Energy Center.

The study will evaluate locations for BRT stations along the corridor as well as propose recommendations for what the stations and surrounding areas may look like. In addition, the study will provide guidance for changes in zoning or other transit-supportive

policies needed to position the corridor for successful BRT implementation.

The future Route 700 would provide direct high-capacity transit access to the JCB/MIB corridor. This would greatly expand mobility in the area and provide alternative mode of transportation for longer distance commuters to the corridor. Last mile connections and transfers to local bus routes would be needed at the proposed multimodal hub.

## DeKalb County Transit Master Plan

- Live, Work, Play, and use
  - Creating robust network of complementary modes: different types of transit solutions (QOL)
- Make sure thriving and emerging areas have transit service
  - Defined fiscally sensible solutions, the Master Plan will bolster economic development activities in currently prosperous areas and encourage investment in those areas identified for future growth so that all areas of the County will benefit from future transit improvements.
- Ensure that the Transit Vision is Affordable and Effective
- Make sure Transit is Available to Everyone

## Goals Summary - Transit Plans

Common Themes Across Reviewed Transit Plans	Quality of Life				
	Mobility & Infrastructure			Economic Development	
	Coverage & Connectivity	Equity & Accessibility	Safety & Reliability	Economic Efficiency & ROI	Job & Activity Center Creation
Atlanta Transit Link Regional Transit Plan	✓	✓	✓	✓	✓
Connect Gwinnett	✓	✓	✓	✓	✓
DeKalb County Transit Master Plan	✓	✓	✓	✓	✓

## Subarea Plans

### Tucker Summit Freight Cluster Plan

The Tucker Summit Community Improvement District (TSCID) Freight Cluster Plan provides detailed insight into the area's current and future freight activity in order to address transportation planning, traffic operations and other related planning. The plan includes a list of projects to address challenges and opportunities; projects might include roadway, bridge and way-finding improvements. The Plan will also include a list of identified, recommended projects and policy changes to address those project needs.

Project recommendations were made at 14 intersections along Mountain Industrial Blvd. These intersection improvement projects focused on short term projects with high impact for freight mobility that could be easily implemented. All recommendations have been incorporated into the intersection analysis of the JCB/MIB corridor study.

### Gateway 85 Freight Cluster Plan

The Gateway85 Gwinnett Community Improvement District (CID) Freight Cluster Plan (FCP) is a planning study focusing exclusively on truck and freight-related considerations. Its purpose is to understand how the CID's transportation networks are being used for the handling of freight, how these uses are evolving, and what this means for the CID's priorities regarding goods movement.

Seven high priority project recommendations were made along Jimmy Carter Blvd for implementation in the short term. These projects focused on short term projects have been incorporated into the intersection analysis of the JCB/MIB corridor study.

### Jimmy Carter Blvd LCI Report

Jimmy Carter Boulevard is an important gateway into Gwinnett County. The multi-cultural Jimmy Carter Boulevard gets a detailed plan for transportation and land use, and ultimately a transition away from its car centric past.

1. Multi-cultural identify
2. Improve aesthetics
3. Increase pedestrian and bicycle safety
4. Improve access to transit
5. Walkable mixed-use
6. Increase and enhance public spaces
7. Improve Traffic Flow
8. Improve perception of safety
9. Provide diverse retail, restaurants, etc.

### Gwinnett Village CID Indian Trail and Jimmy Carter Blvd Ped-Bike Connectivity Plan

- Safe and understandable crossings at intersections
- Pedestrian crossings at regular intervals
- Sidewalk and Bicycle Facilities for Access to Transit and Commercial Areas
- Healthy Lifestyles through walking and biking

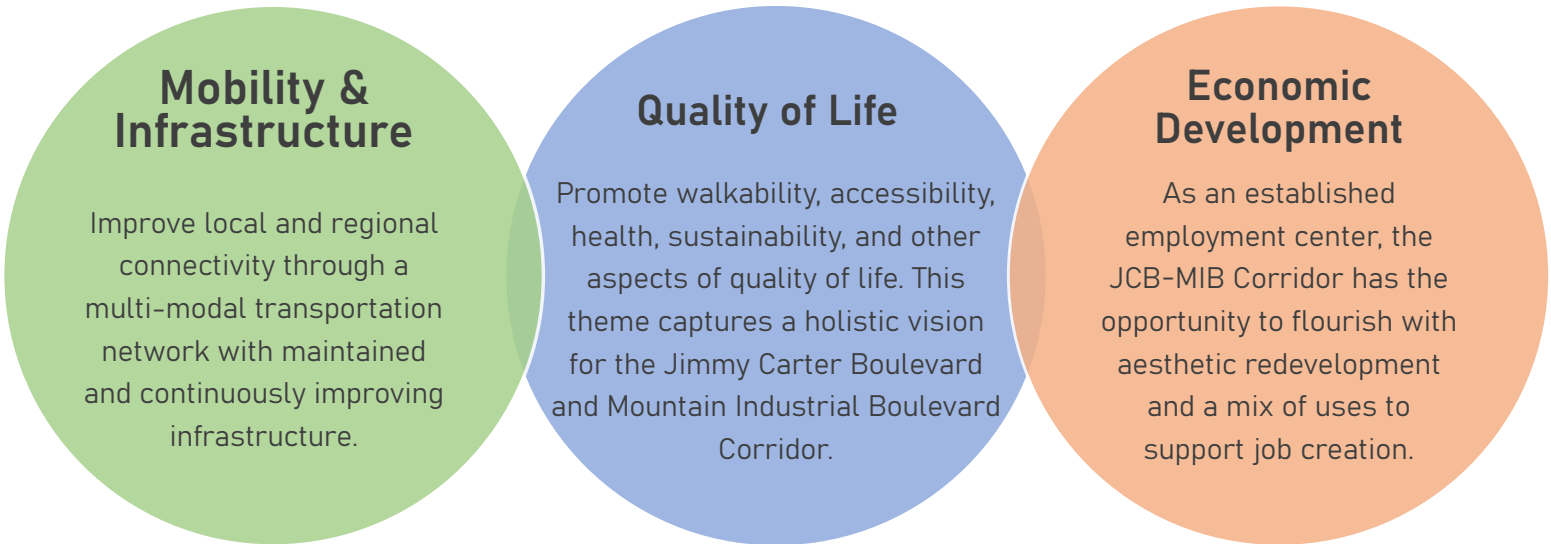
## Goals Summary - Subarea Plans

Common Themes Across Reviewed Sub-Area Plans	Quality of Life				
	Mobility & Infrastructure				Economic Dev.
	Walkability	Access to Transit	Improve Traffic Flow	Bicycle & Pedestrian Safety	Access to Commercial Areas
Jimmy Carter Blvd LCI Report	✓	✓	✓	✓	✓
GVCID Indian Trail & Jimmy Carter Blvd Ped-Bike Connectivity Plan	✓	✓		✓	✓

## Existing JCB/MIB Corridor Goals

This study is heavily focused on mobility and infrastructure with the goal of improving traffic flow for better local and regional connectivity.

The mobility and infrastructure goal from previous plans was selected as the most important for the JCB/MIB Corridor Study.



## Steering Committee

The project was directed by a steering committee made up of representatives from all sponsoring partners as well as other nearby stakeholders.

Committee membership included:

- Vince Edwards, AICP - Gwinnett County
- Daniel Piotrowski - Gwinnett County
- Ken Hildebrandt, PE, PTOE - City of Tucker
- Thomas Udell, PE, PTOE - City of Tucker
- Emory Morsberger, Tucker Summit CID and Gateway 85 CID
- Robert Michener, Gateway 85 CID
- Tad Leithead, Lilburn CID
- Todd Long PE, PTOE - Consultant representing Gateway 85 CID
- Larry Kaiser, PE - Consultant representing Lilburn CID and Tucker Summit CID

Working with the steering committee, the project team established a set of desired outcomes (goals) for the corridor study. These goals include:



### Improved Traffic Flow

- Intersection Improvements
- Interchange Improvements
- Additional Lanes on Jimmy Carter Blvd



### Better Employee Access

- Support Bus Rapid Transit
- Support Multimodal Transfer Center
- Improve Last Mile Transit Connections



### Economic Development

- Improve Infrastructure for Businesses
- Improve Freight Mobility
- Reduce Crashes

## Stakeholder Interviews

The planning team conducted listening sessions with an array of representatives of the jurisdictions and other entities of influence along the Jimmy Carter Boulevard and Mountain Industrial Boulevard Corridor. Pond gathered diverse perspectives from representatives from Gwinnett County, DeKalb County, the Cities of Tucker, Norcross, and Peachtree Corners, Gateway85 CID, Lilburn CID, Tucker Summit CID, MARTA, GDOT, The Atlanta Transit Link, and Gwinnett County Transit.

### Traffic Issues

Across the board, many interviewees reported severe traffic congestion all along the corridor. Many noted that the diverging diamond at the I-85 interchange was an effective improvement for a relatively short period of time, however, it is no longer effective in moving vehicle traffic efficiently. Additionally, other intersections of note include Buford Highway, Rockbridge Road, Hugh Howell Road, and the US-78 Interchange.

### Transit Needs

Several individuals indicated that there is a need for broader transit connections along the Corridor. Mountain Industrial Boulevard in DeKalb County is

serviced by MARTA bus and Jimmy Carter Boulevard in Gwinnett County is serviced by Gwinnett County Transit, though some believe more streamlined service would better serve the public. Some said either rail or bus rapid transit would be helpful to those who rely on public transportation.

### Development Patterns

Some indicated that employment and industrial uses, along with excess impervious surfaces make the corridor “brutal and bare,” creating an uncomfortable environment for pedestrians. The need for pleasant landscaping would provide another mobility option for those who preferred to walk. Other representatives claimed the need for Transit Oriented Developments at locations would require rehabilitation of existing facilities in order to make transit expansion meaningful and effective.

### Barriers to Implementing Improvements

There were also common thoughts around challenges that come with implementing traffic improvements. These include right-of-way acquisition for widening-related projects as well as funding. The application of public funds is made more complex by the mix of local and state roads involved along the corridor.

## General Community Engagement

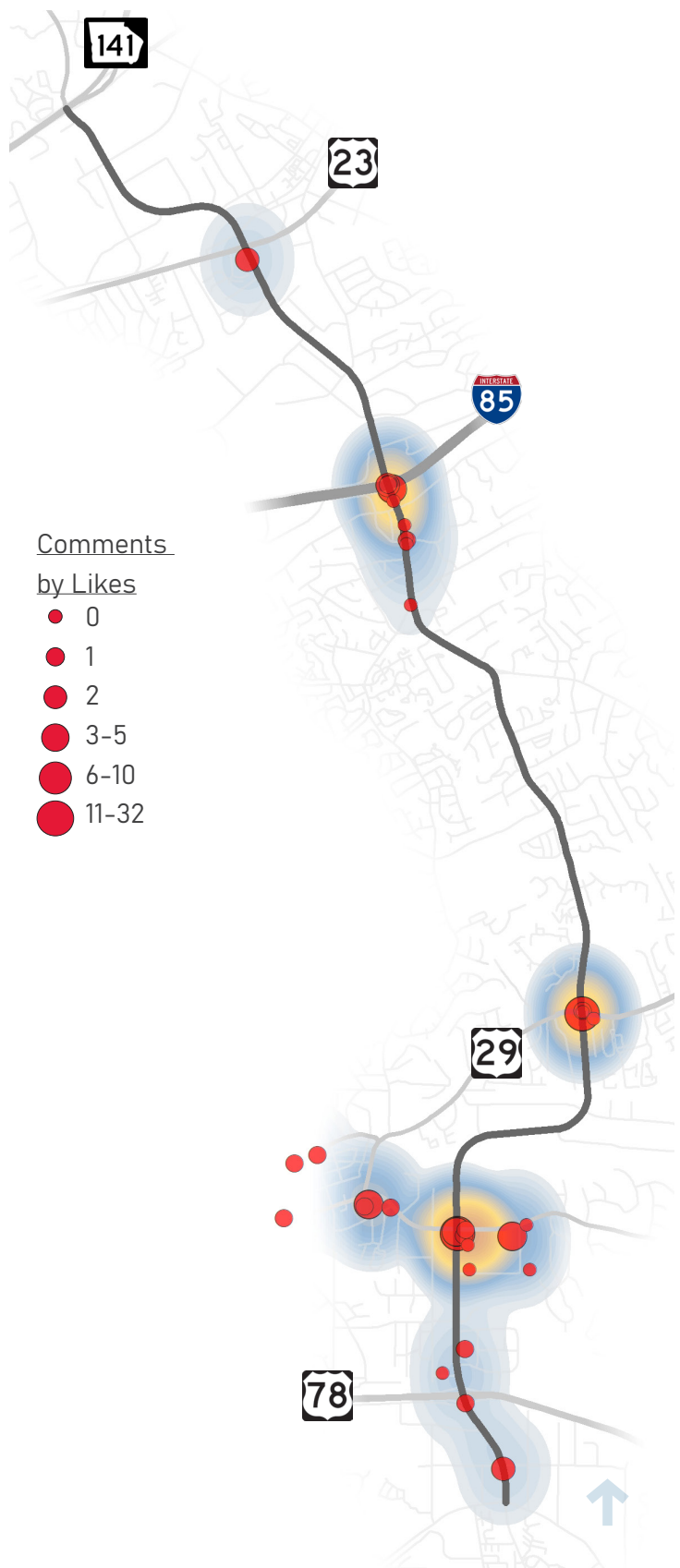
While the purpose of the study is primarily to understand the corridor's operational and infrastructure needs, an online community engagement hub was created via Social Pinpoint for members of the public to offer commentary on the transportation issues along the corridor. This engagement hub was opened in mid August 2020 and publicized by the study's participating communities and agencies.

The centerpiece of the engagement hub included an interactive map where participants could place 'pins' reflecting different transportation issues along the corridor as indicated below:

- Congested Location markers were to be placed on areas where participants experience traffic congestion that should be alleviated
- Safety Concern markers were to be placed at locations where participants perceived any kinds of safety concerns for any roadway users.
- Bicyclist or Pedestrian Concern markers were to be placed where there participants had specific concerns related to those walking, running, bicycling, or using other active modes of transport along the corridor
- Transit Need markers were to be placed where participants saw needs related to public transit uses along the corridor, including Gwinnett County Transit (GCT) services
- Other or General Comment markers were to be placed wherever participants had something they would like to tell the planning team that may not fit into one of the above categories

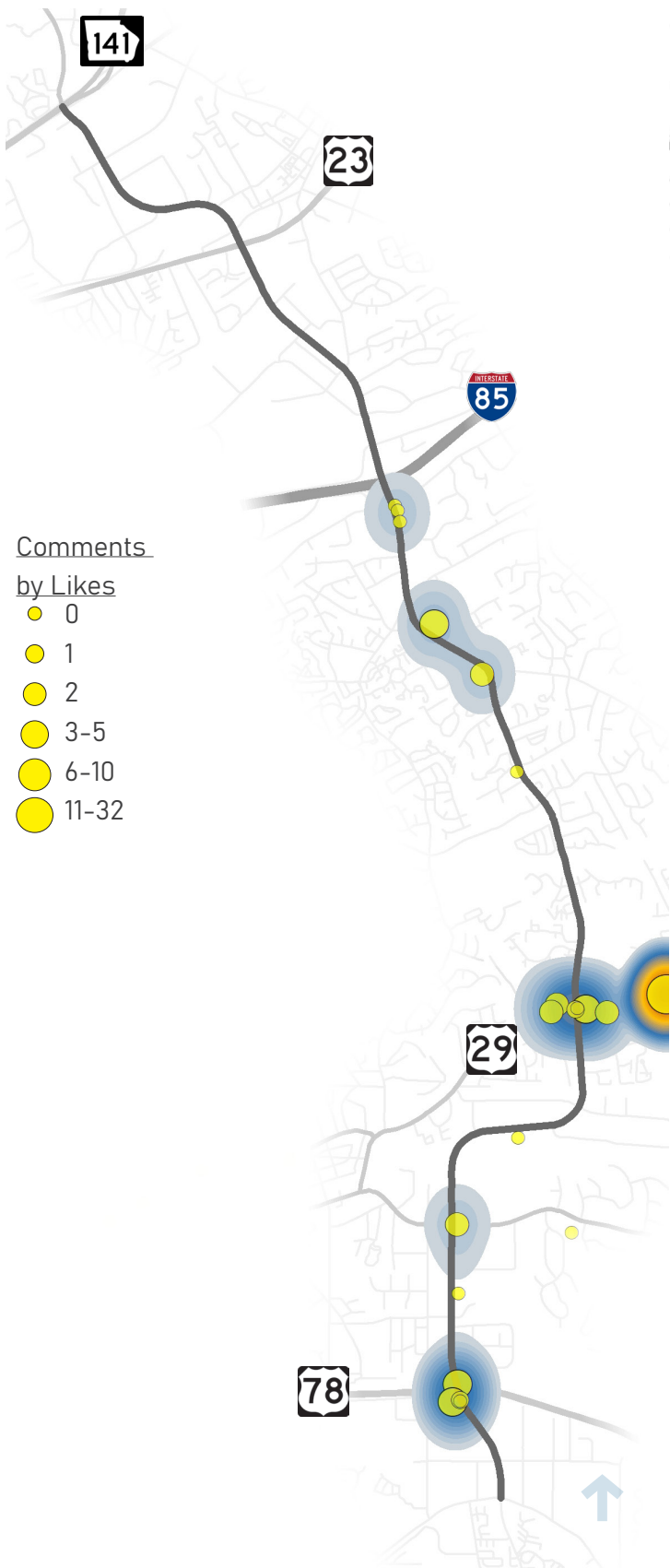
Overall 95 pins were placed on the map and a commenting feature yielded an additional 158 upvotes and 6 downvotes on those 95 pins for a total of 260 comments.

### Congestion





### Safety

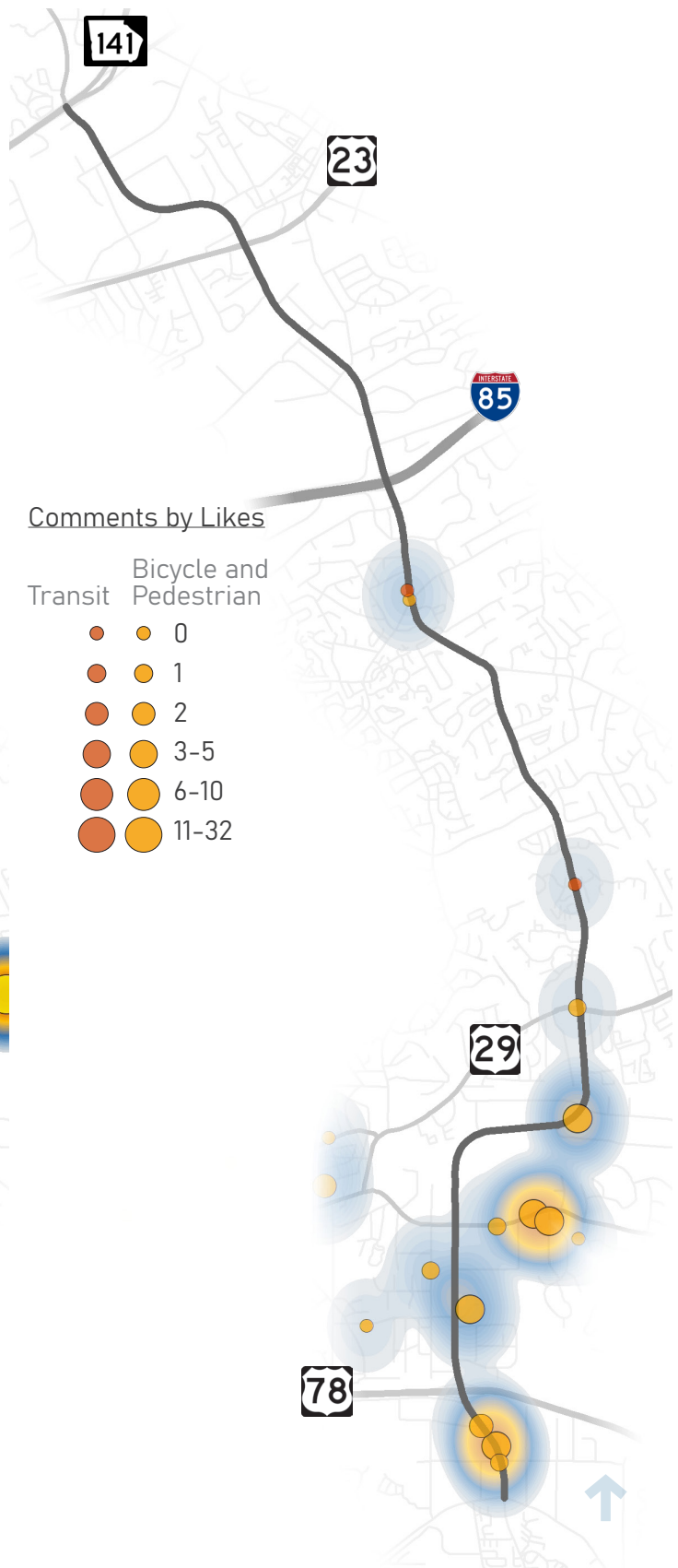


#### Comments

##### by Likes

- 0
- 1
- 2
- 3-5
- 6-10
- 11-32

### Bicycle, Pedestrian, and Transit Concerns



#### Comments by Likes

##### Bicycle and Pedestrian Transit

- 0
- 1
- 2
- 3-5
- 6-10
- 11-32

# CORRIDOR CONTEXT

To establish an understanding of the overall Jimmy Carter Boulevard - Mountain Industrial Boulevard corridor, a review of the existing context was conducted. A field review was conducted and data about the corridor was collected. More detailed from the field review are included in **Appendix A**.

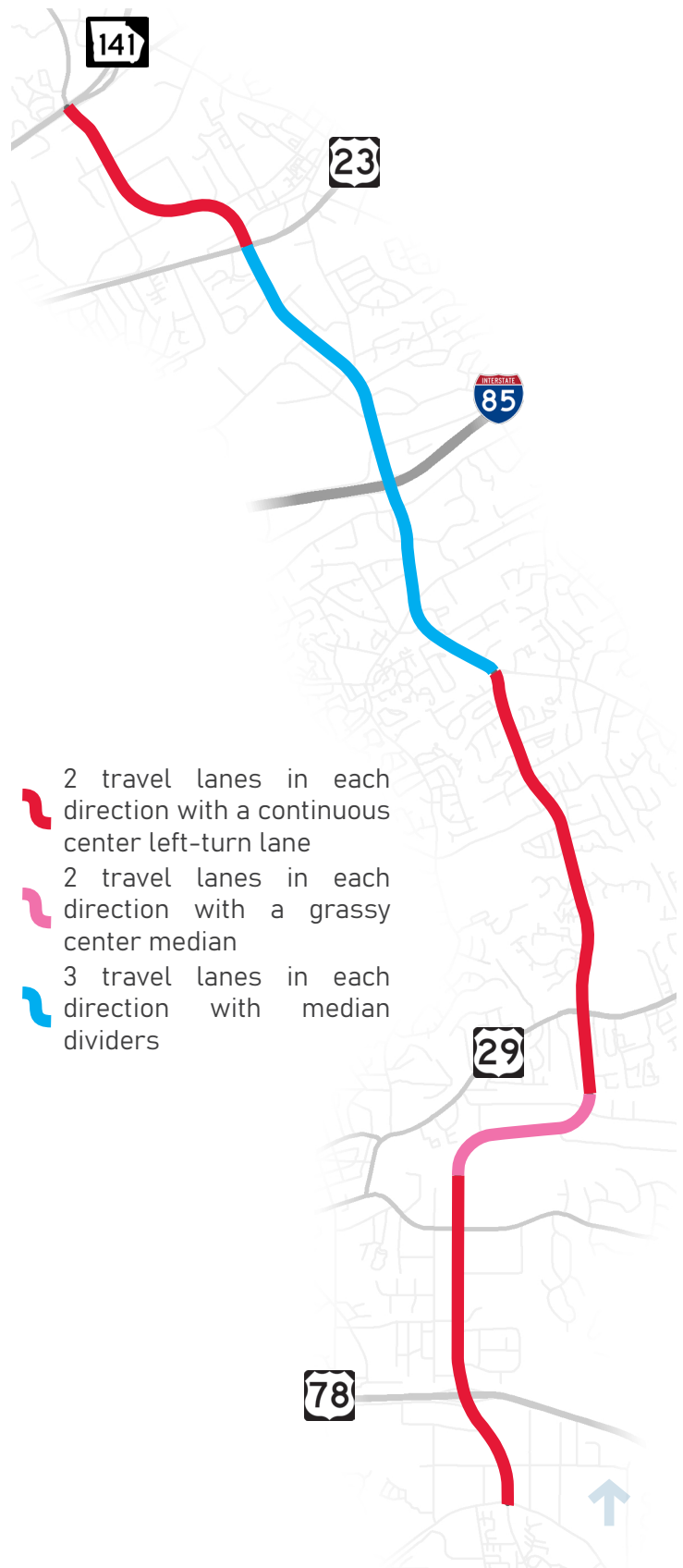
## Current Laneage

The first map to the right shows the existing travel lane configuration. Near the I-85 interchanges, Jimmy Carter Boulevard has three travel lanes in each direction and has nearly continuous left turn lanes serving major intersections. In this section, there are generally narrow concrete median dividers that restrict left turns at locations other than those major intersections. For most of the rest of the corridor, Jimmy Carter Boulevard and Mountain Industrial Boulevard feature two travel lanes in each direction and has a center continuous two-way left turn lane. The exception to this is a short section in Tucker, which instead features a grassy median with auxiliary left turn lanes at many major and minor intersections.

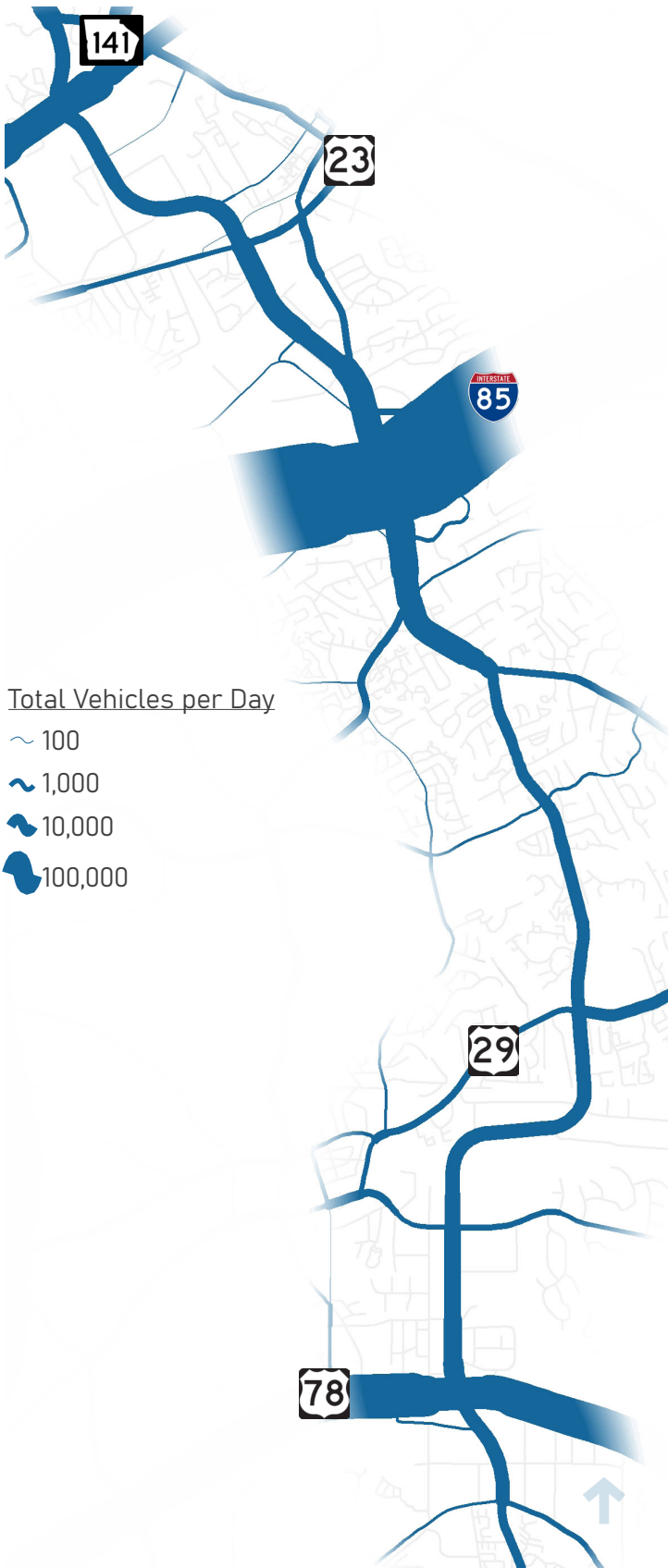
## Traffic Volumes

The map to the right displays existing (2020) and future year (2050) traffic volumes along the JCB/ MIB corridor as well as intersecting roadways. For both time periods, volume on the corridor is highest in the northern section between Peachtree Industrial Blvd (PIB) and Rockbridge Rd. Volume peaks on the segments to the immediate north and south of I-85. Major cross street traffic volumes exist on PIB (SR 141), Buford Hwy (SR-23), I-85, Singleton Rd/Norcross Tucker Rd, Rockbridge Rd, Lawrenceville Hwy (SR 29), Hugh Howell Rd, and Stone Mountain Freeway (US 78).

Travel Lanes and Median Condition

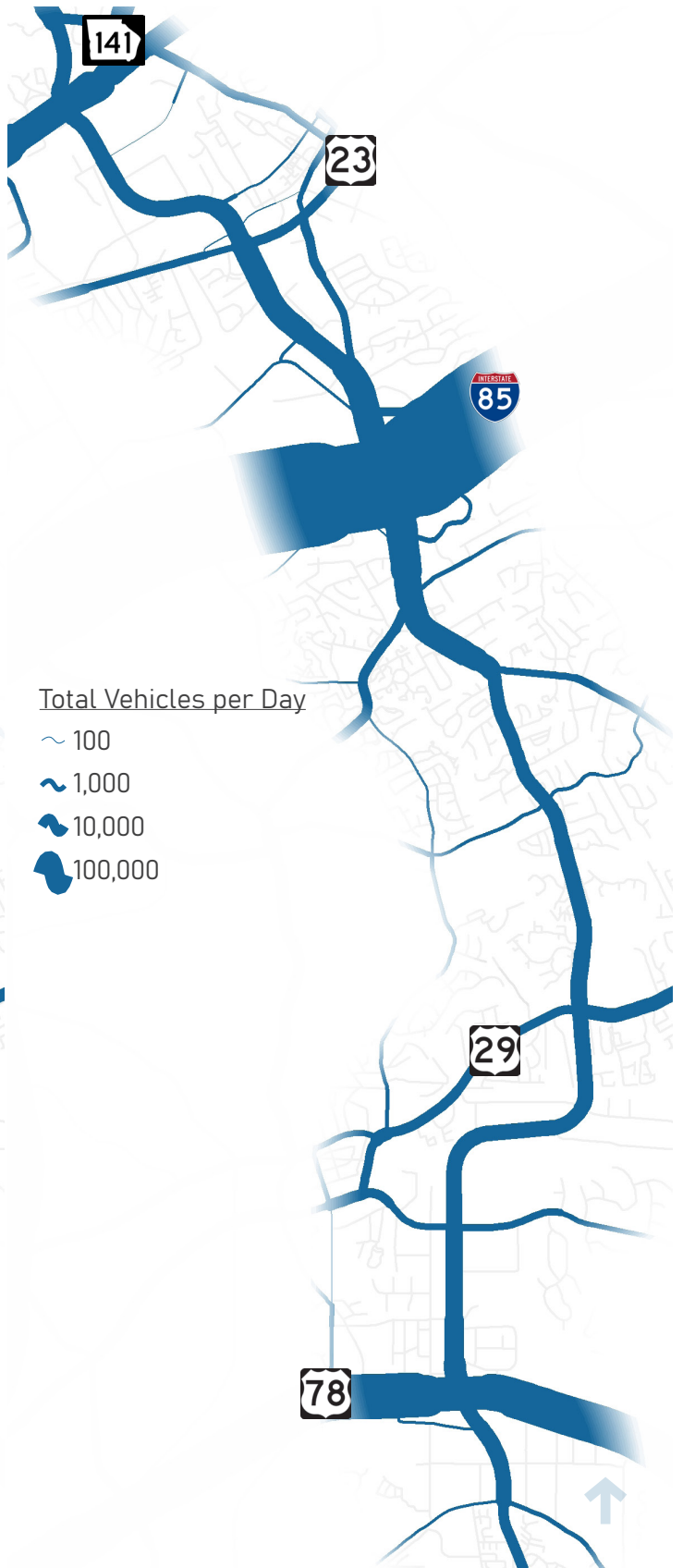


Year 2020 Travel Volumes (ARC Travel Demand Model) Year 2050 Travel Volumes (ARC Travel Demand Model)



Total Vehicles per Day

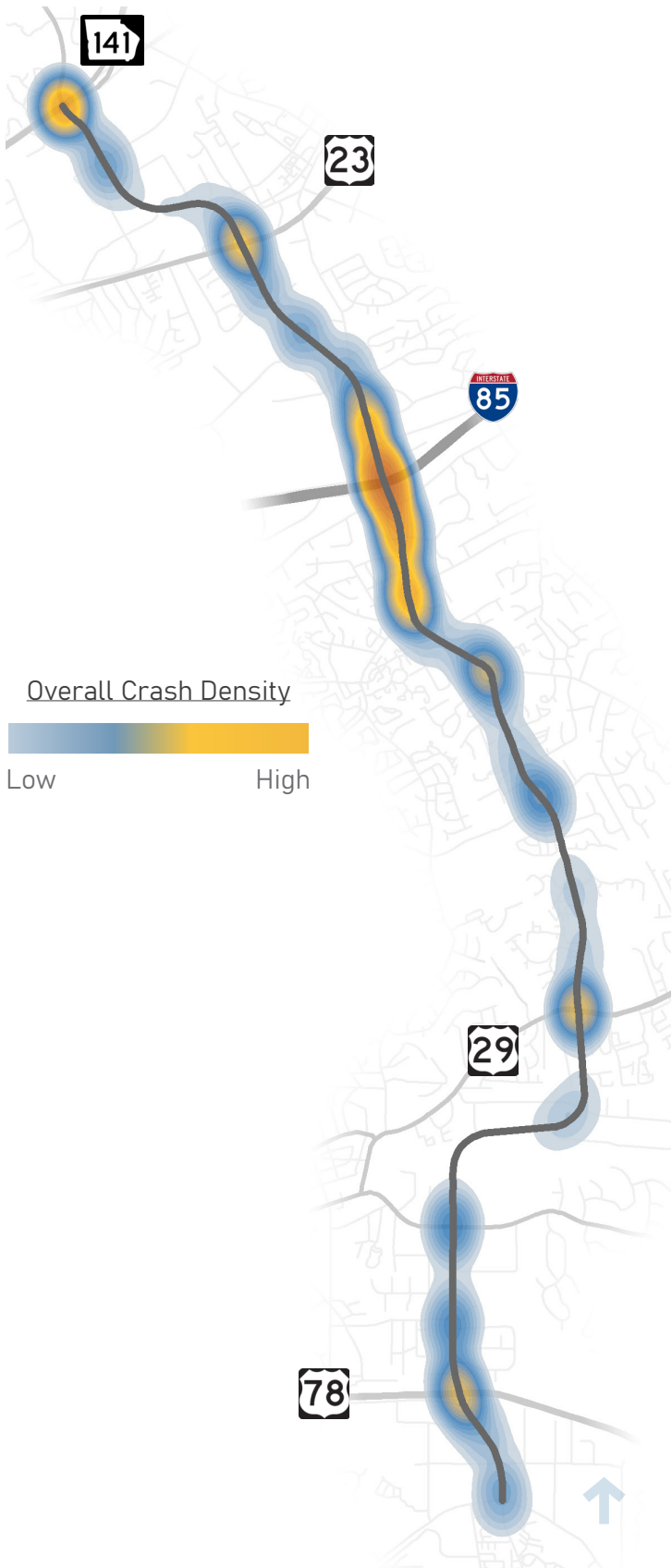
- ~ 100
- ~ 1,000
- 10,000
- 100,000



Total Vehicles per Day

- ~ 100
- ~ 1,000
- 10,000
- 100,000

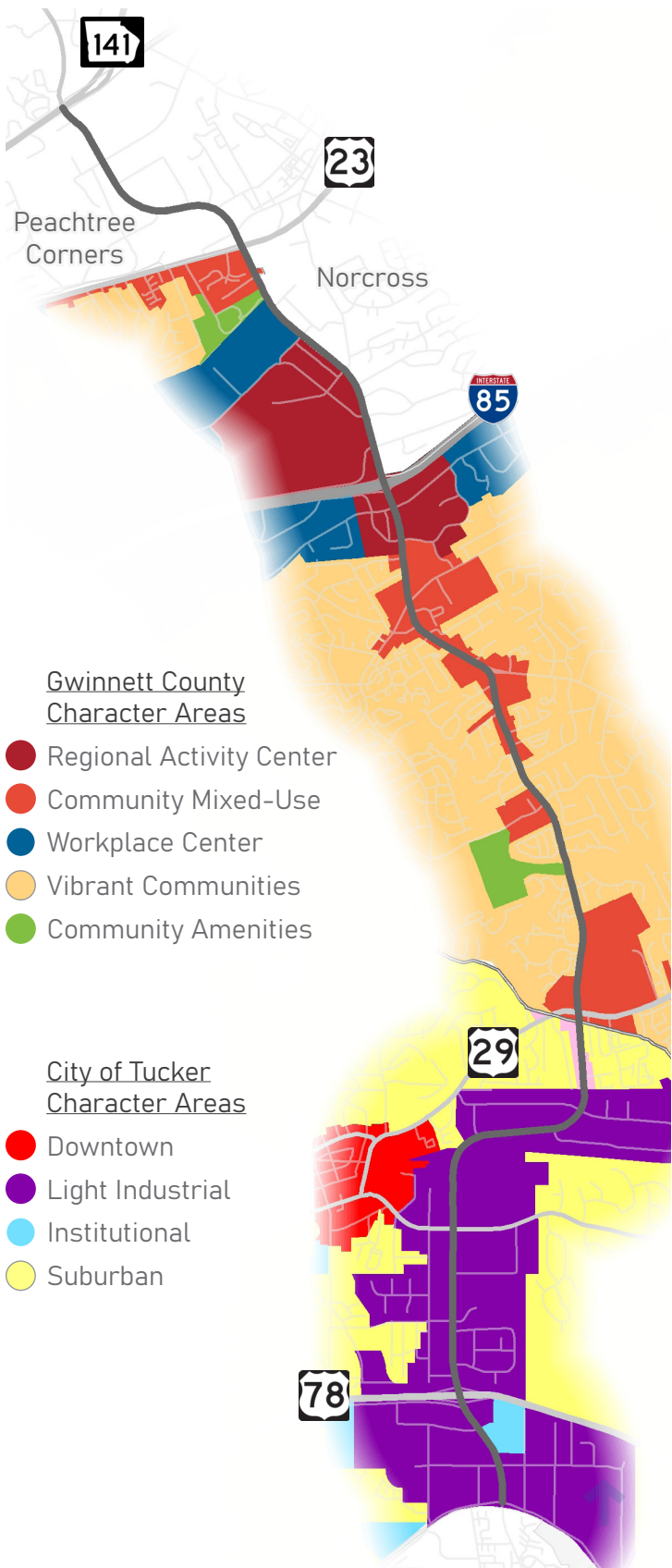
## Crash Density (2015-2019)



## Crash History

Crashes on the corridor are displayed in the map to the right. Several crash hotspots show up. These include the high-volume segments to the north and south of the I-85 interchange, the intersections with PIB, Buford Hwy, Rockbridge Rd, Lawrenceville Hwy, and Stone Mountain Freeway. In general, crashes tend to occur most where traffic volumes are the highest and the JCB/MIB corridor fits this pattern.

## Future Development Maps



## Future Development Maps

Future development character areas are shown for Gwinnett County and the City of Tucker. There is a wide variety of character areas throughout the corridor which speaks to the varying nature of land use along the corridor. Future land use along the portion of the corridor within the City of Tucker is dominated by industrial land use. This is the current land use in the area and is expected to remain so. The Future land use along the portion of the corridor in Gwinnett county varies more and include residential land us (Vibrant Communities), mixed use, and regional work/activity centers. Future character areas portend changes near the I-85 interchange and the emergence of a major regional activity center with high levels of employment.

## Population Density

Population density along the corridor is concentrated in the central portion between I-85 and Lawrenceville Hwy. This area is currently made up of suburban residential land uses.

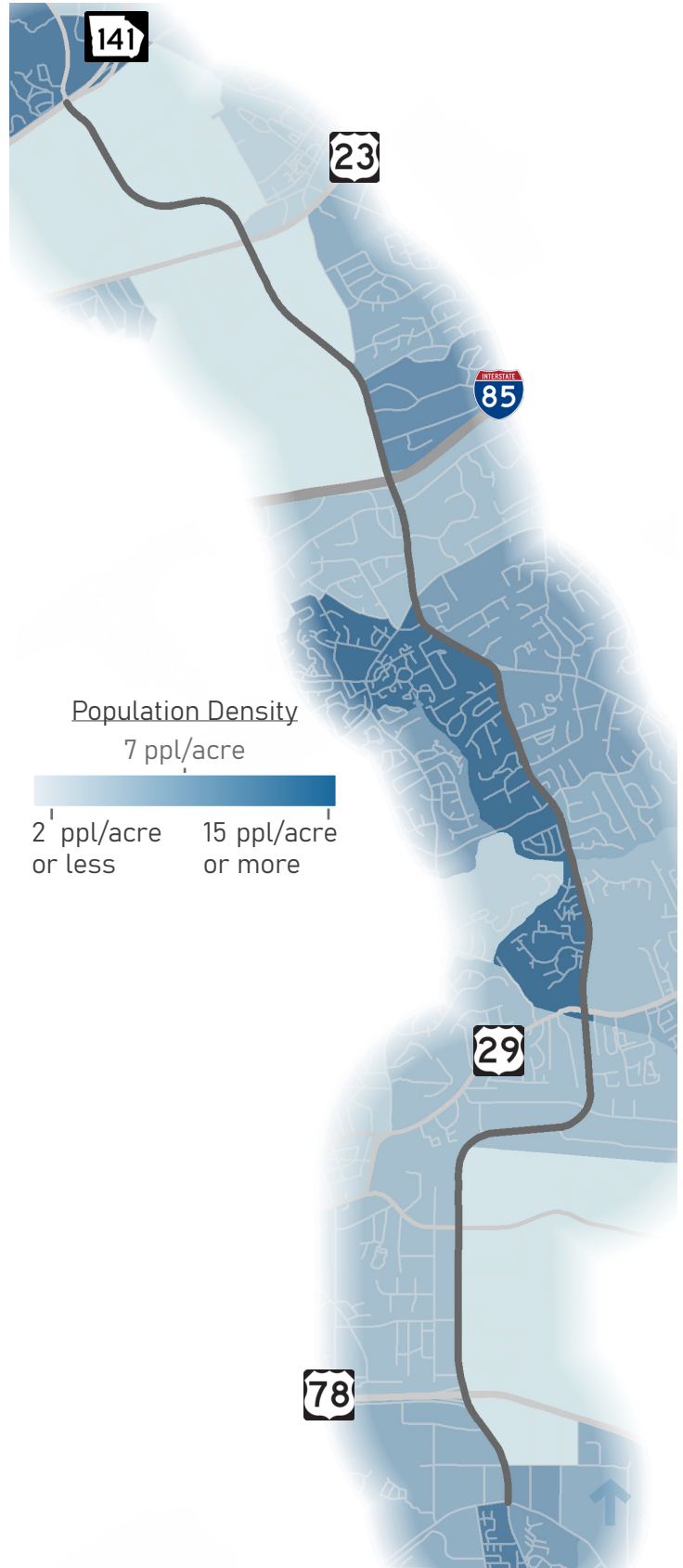
## Households without Vehicles

Households without vehicles are an important planning consideration especially when thinking of transit and pedestrian infrastructure. There are some nodes of households along the corridor that have high levels without access to a car. The largest node of such households occurs near the intersection of Jimmy Carter Blvd and Rockbridge Rd. Lower than average levels of automobile access occur between I-85 and SR 141/Peachtree Industrial Boulevard as well as near the south of the study area at E. Ponce de Leon Ave.

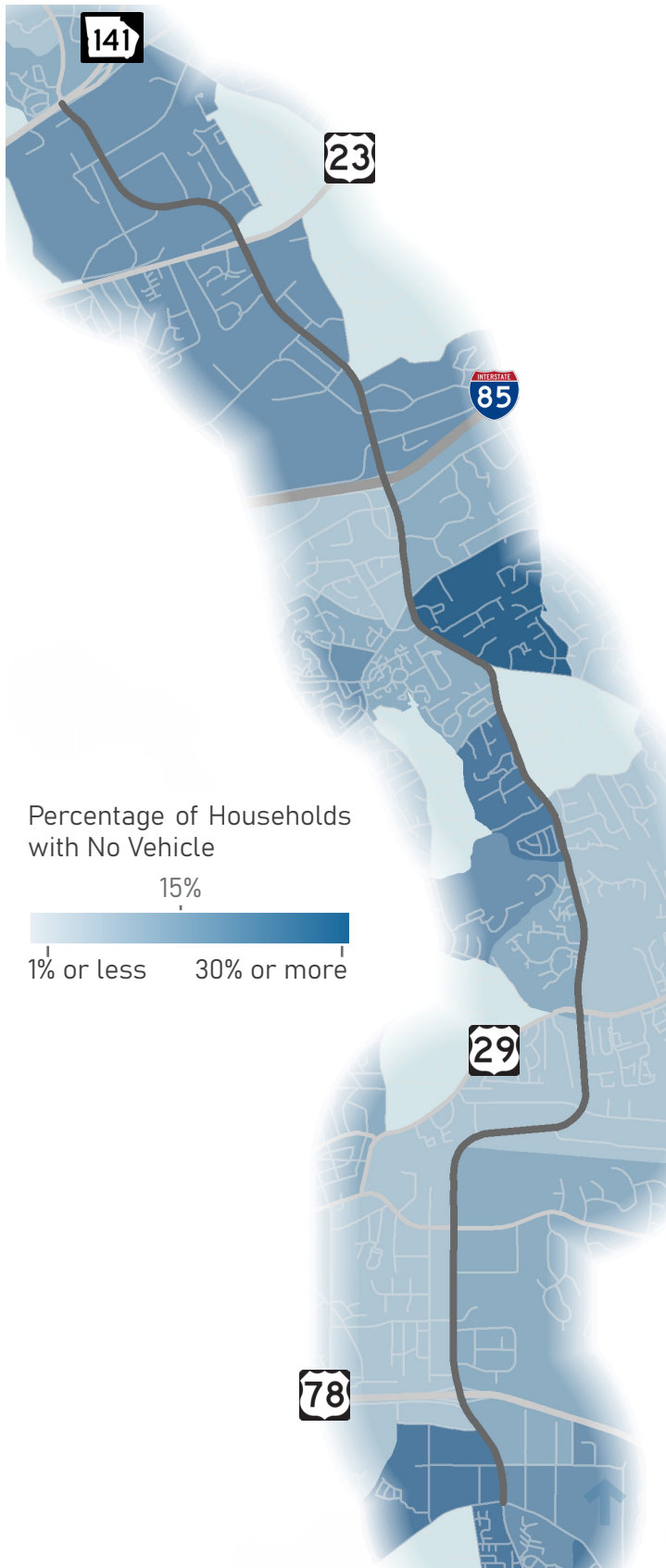
## Commute Modes

The most common method of commuting for residents along the corridor is single-occupancy vehicle which falls in line with regional patterns. However, there are significant nodes of transit use (between I-85 and PIB) and carpooling (near Rockbridge Rd). These commute patterns generally co-locate with the households without access to vehicles.

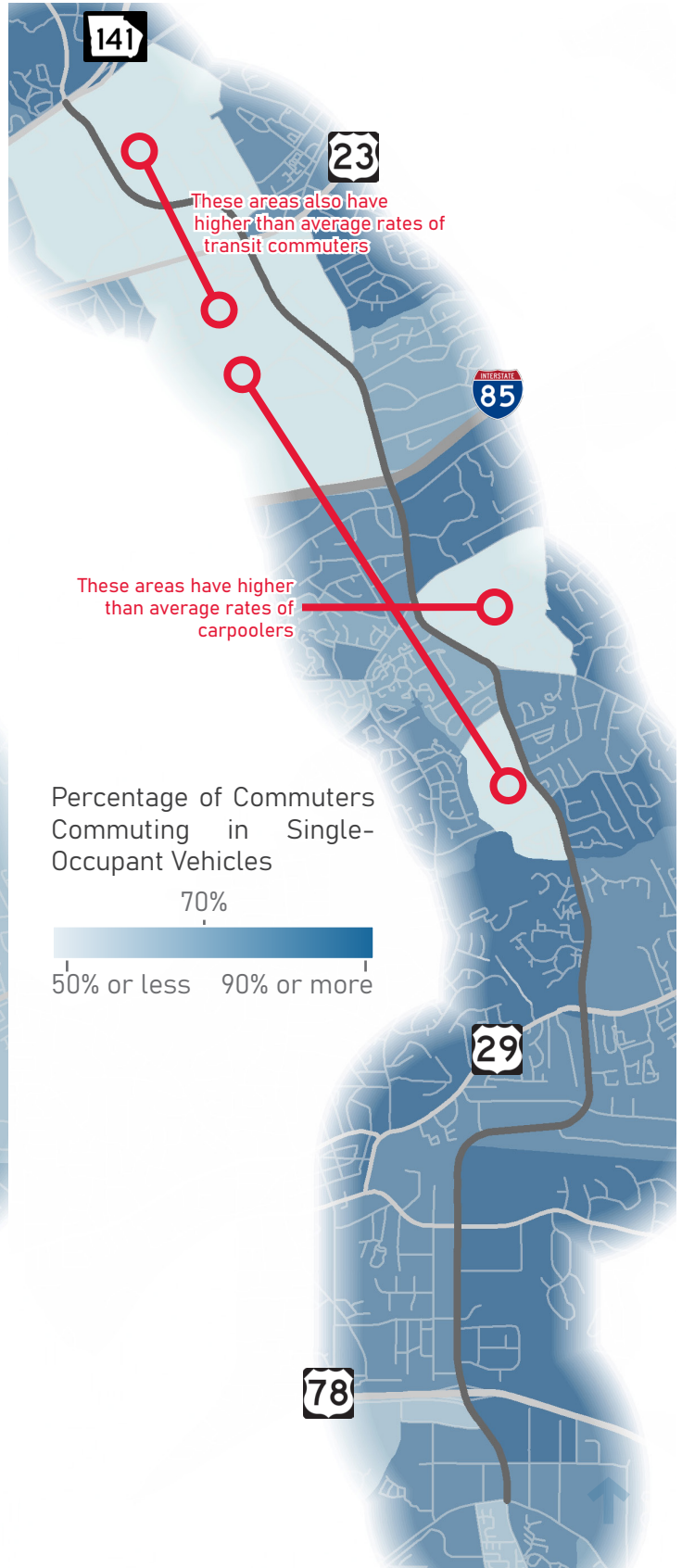
Population Density



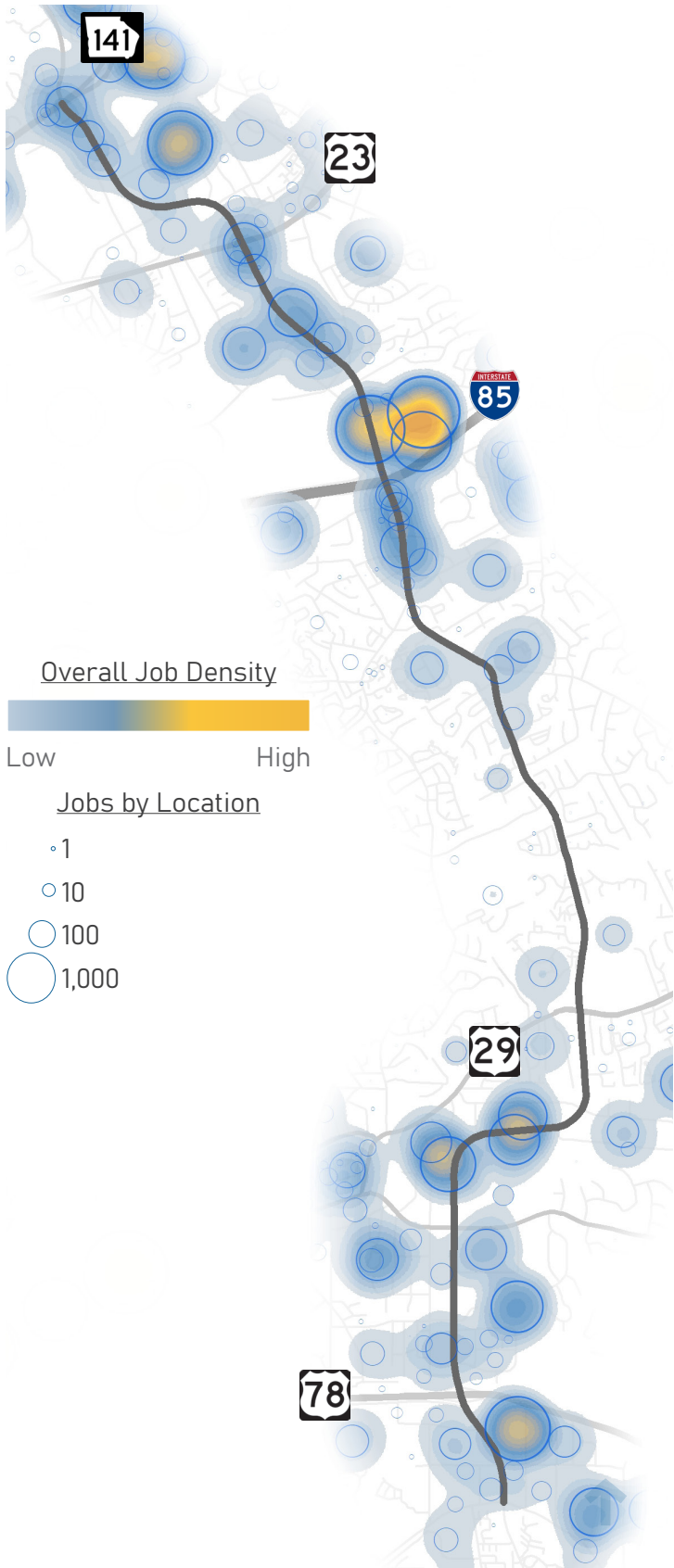
## Households with No Vehicles



## Single-Occupant Vehicle Commuters



## Employment Density



## Employment Density

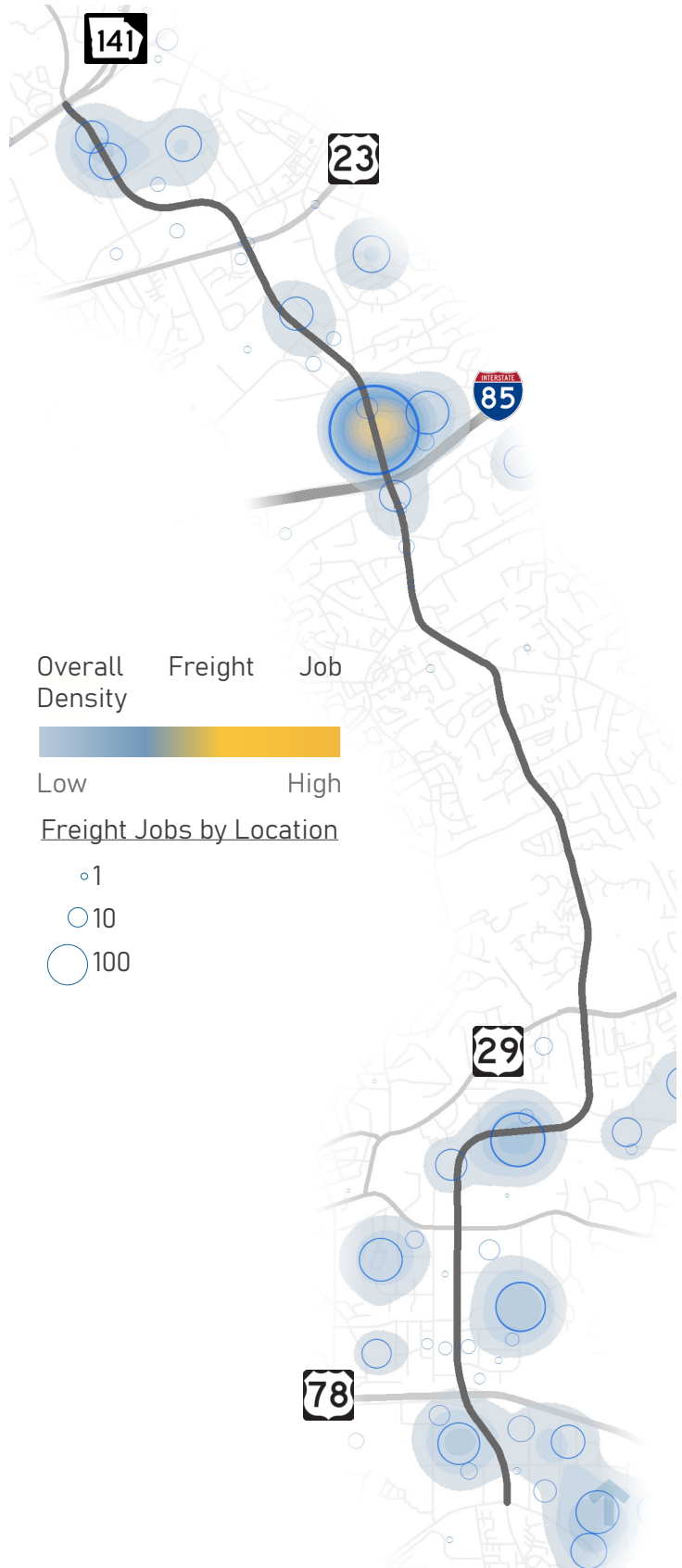
Employment density along the corridor is relatively dispersed throughout with the exception of the suburban residential node as between I-85 and Lawrenceville Hwy. The highest concentration of jobs occurs directly adjacent to the I-85 interchange. Other areas of employment occur near PIB in the north and between Lawrenceville Hwy and US 78 in the south.



## Freight Nodes

Freight land use is very important along the corridor. Such land use produces both high levels of employment as well as high levels of truck traffic. The highest concentration of freight employment is at I-85 with another large node between Lawrenceville Hwy and US 78.

Freight Employment Concentrations





## Pedestrian and Bicycle Analysis

Active transportation (walking, biking, etc.) is an important aspect of mobility along the JCB/MIB corridor. Active transportation often works in tandem with transit to enable last mile access to employment, housing, and other destinations along the corridor.

### Sidewalk Coverage

Overall, sidewalk coverage is intermittent throughout the corridor. Some sections have sidewalks on both sides, some have sidewalks on one side, some have no sidewalks. The map below illustrates the status of sidewalk coverage along the JCB/MIB corridor.

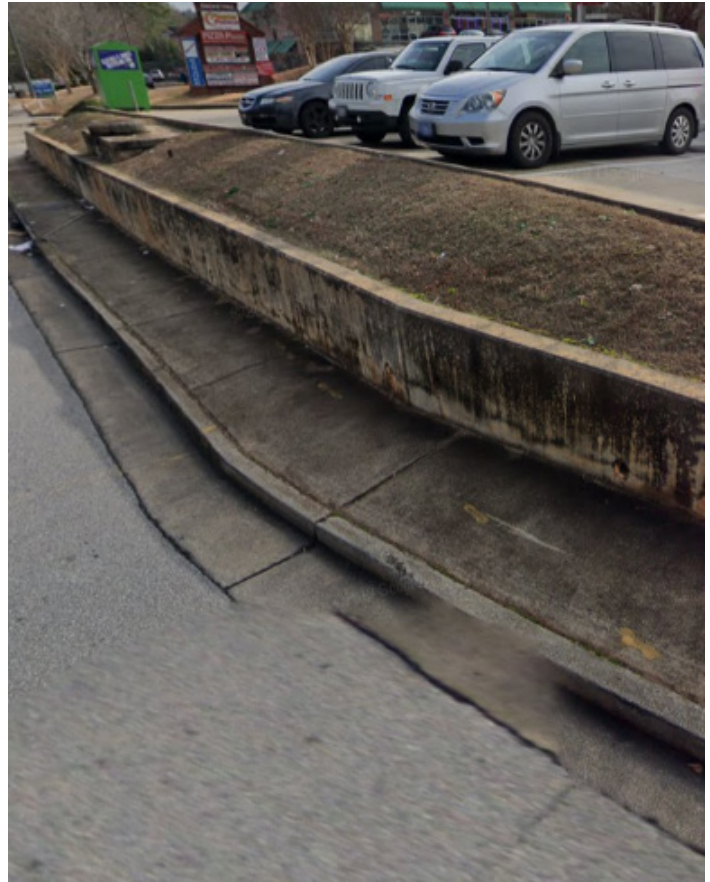
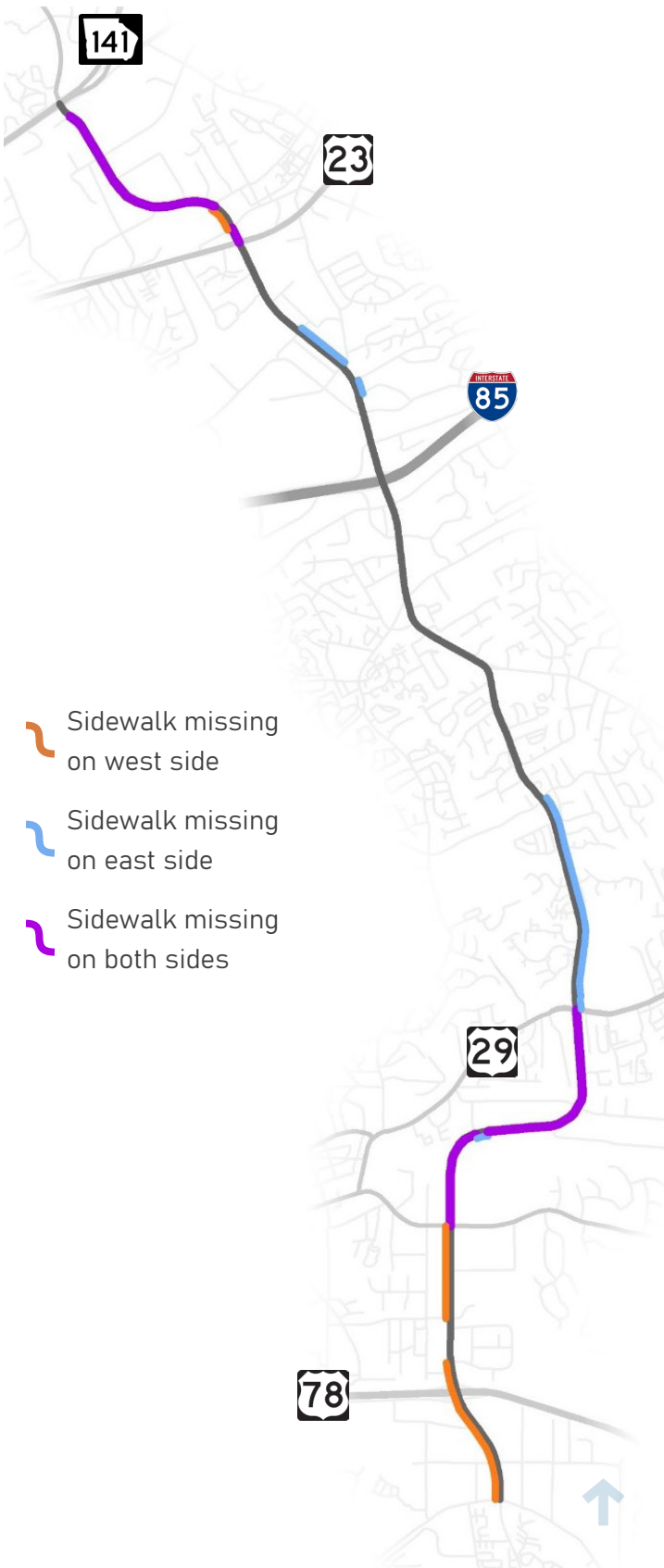
- The southern portion of the corridor in DeKalb County has the least amount of overall sidewalk coverage.
- Due to missing sidewalk segments pedestrians are often forced to create their own path on the side of the road.
- Many bus stops exist where there is no supporting pedestrian infrastructure.

### Pedestrian Crossings

From a pedestrian safety perspective, crossing the roadway often creates the most dangerous challenges. Marked crossings of the PIB/MIB corridor are only available at signalized intersections. Crossing with the assistance of a traffic signal provides a safer crossing opportunity for pedestrians. However, people are less likely to cross at signalized intersections if they must walk more than 1/8 mile to reach them. Spacing of marked crosswalks at longer distances encourages potentially dangerous mid-block crossings of the corridor. For example, the corridor segment between Hugh Howell Road and S. Royal Drive has no pedestrian crossings for 1.05 miles.

- Additional analysis may be able to identify strategic locations where mid-block crossings could be located along the corridor to facilitate safer pedestrian movement.
- Ideally, safe crossing opportunities would exist every 1/4 mile

## Sidewalk Gaps



## Sidewalk Quality

In addition to analysis of the presence or absence of pedestrian infrastructure, the quality of existing infrastructure was examined. Often sidewalks are substandard and leave pedestrians feeling uncomfortable while walking.

- In places, retaining walls create narrow walkways which make it difficult for approaching pedestrian to pass each other.
- Throughout the corridor there is little or no buffer between the sidewalk and the roadway. The volume and speed of automobile traffic makes walking close to the roadway uncomfortable for pedestrians.

## Bicycle Facilities

There are currently no bicycle facilities present on the corridor. There is a potential connection possibility to the PATH Stone Mountain Trail which runs along E. Ponce de Leon Avenue at the southern terminus of the study area.

Similar to comfort levels of pedestrians walking along the corridor, the volume and speed of automobile traffic negatively impacts the biking experience.

- Any new bicycle facilities should be physically separated from the roadway.
- Multi-use trails would be an option that provides both pedestrian and bicycle access.

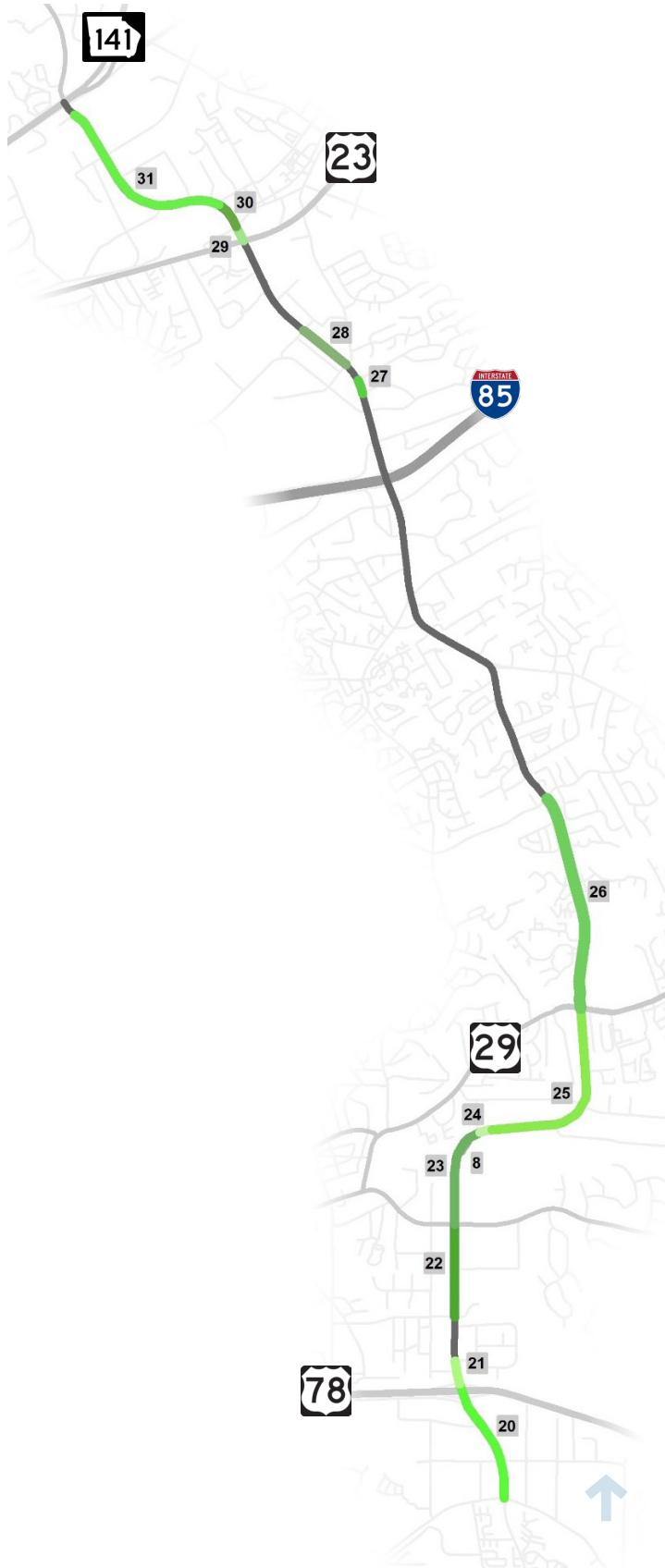
## Bicycle and Pedestrian Project Recommendations

Recommendations for sidewalk projects have been made to address identified missing links in the pedestrian network along the corridor. These projects would enhance pedestrian safety and work in tandem with transit service in the area.

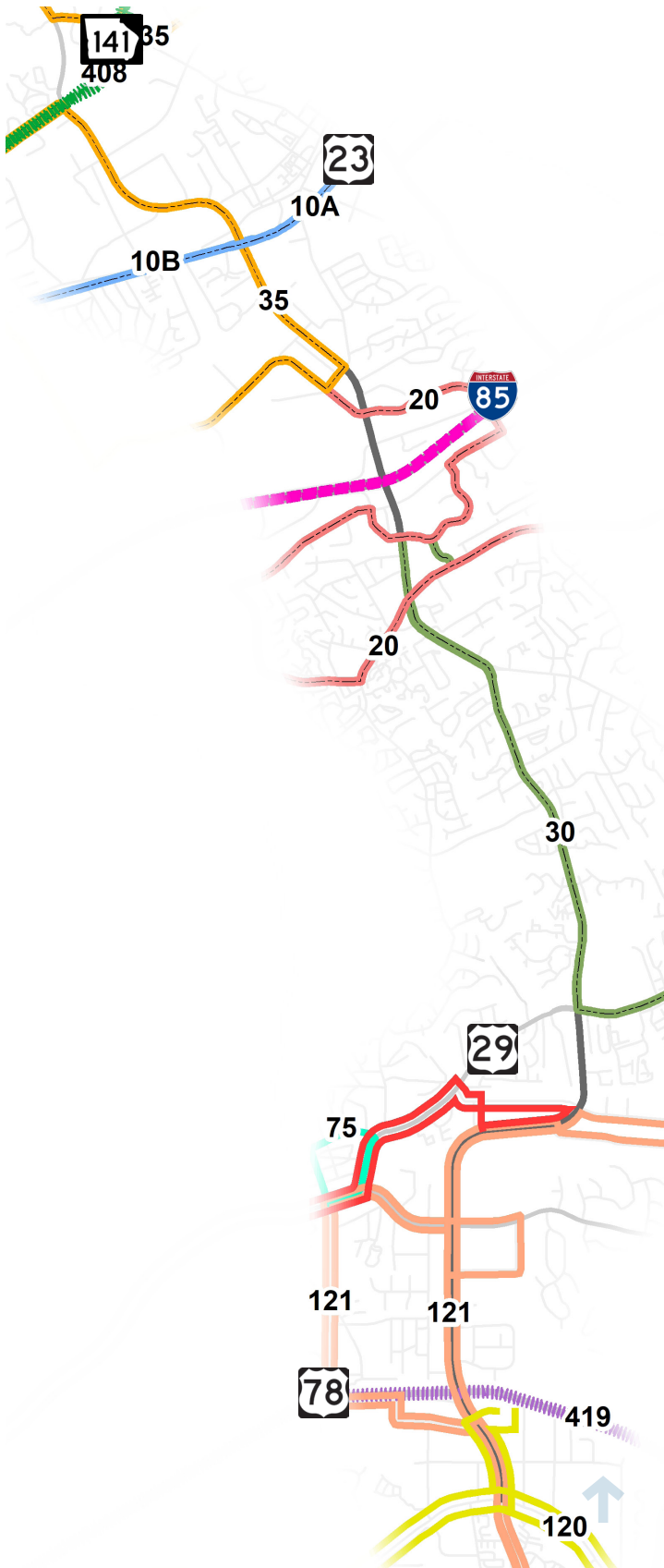
### Bicycle and Pedestrian Projects

Proj. ID	Limits	Project Description
8	MIB at railroad	Build Pedestrian Bridge over Railroad.
20	MIB from E. Ponce to US 78	Install new sidewalk on west side of roadway.
21	MIB from US 78 Ramps to Hammermill Rd South	Install new sidewalk on west side of road.
22	MIB from Elmdale Rd to Hugh Howell Rd	Install new sidewalk on west side of road.
23	MIB from Hugh Howell Rd to Tuckerstone Pkwy	Install new sidewalks on both sides of road.
24	MIB from Tuckerstone Pkwy to 2457 MIB	Install new sidewalk on south/east side of road.
25	MIB from 2457 MIB to Lawrenceville Hwy	Install new sidewalk on both sides of road.
26	JCB from Lawrenceville Hwy to Williams Rd	Install new sidewalk on east side of road.
27	JCB from Financial Dr to Lanier Blvd	Install new sidewalk on east side of road.
28	JCB from N Norcross Tucker Rd to Best Friend	Install new sidewalk on east side of road.
29	JCB from Buford Hwy to S Peachtree St	Install new sidewalk on both sides of road. (Part of GDOT PI #0015983)
30	JCB from S Peachtree to W Peachtree	Install new sidewalk on west side of road. (Part of GDOT PI #0015983)
31	JCB from W Peachtree to Racetrack driveway	Install new sidewalks on both sides of road.

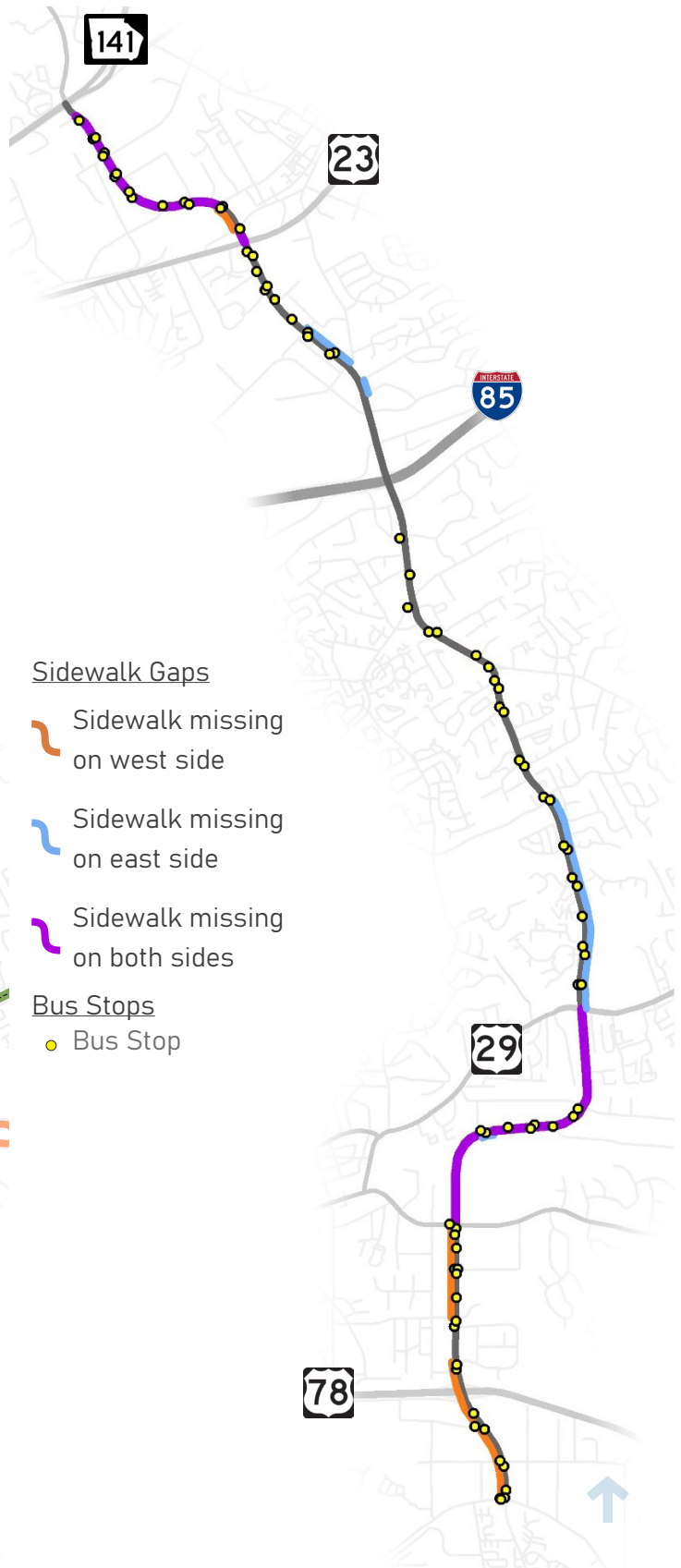
# Bicycle and Pedestrian Projects






## Existing Transit Service



## Existing Transit Stops and Sidewalk Gaps



### Sidewalk Gaps

-  Sidewalk missing on west side
-  Sidewalk missing on east side
-  Sidewalk missing on both sides

### Bus Stops

-  Bus Stop



## Transit Analysis

Transit service is a vital ingredient in the overall mobility of the JCB/MIB corridor. Transit provides mobility options for those without vehicles. In addition, transit use can potentially decrease congestion by reducing single-occupant vehicle travel.

### Existing Service

Transit service in the JCB/MIB corridor is provided by Gwinnett County Transit (GCT), MARTA, and Xpress with a combination of local fixed route bus service and longer distance commuter bus service providing connections to downtown and midtown Atlanta.

The JCB/MIB corridor has robust bus route coverage with more than 10 different local routes in operation. In all, 84% of the corridor is directly served by local bus service. These routes offer access to jobs and housing on or adjacent to the corridor. In addition, there is connectivity to MARTA rail stations and transfer options between routes.

## Transit Needs

Despite the robust transit coverage on the corridor, this transit analysis shows a moderate amount of deficiencies for consideration.

- There is no direct connectivity between GCT, MARTA, and Xpress transit service. If effect this leads to a bifurcated system split between Gwinnett County to north and DeKalb County to the south.
- There is no direct access to longer distance commuter bus service. The GCT, MARTA, and Xpress commuter service passes through the corridor on routes like US 78, I-85, Buford Hwy, and PIB without any stops. This makes it likely that longer distance trips need multiple transfers.
- As discussed in the Pedestrian and Bicycle analysis, transit service would benefit from upgraded pedestrian infrastructure. There are many bus stops that do not have adequate sidewalks and crosswalks.

## Proposed Projects

In early 2020, the Gwinnett County Board of Commissioners compiled a list of projects to submit to The Atlanta-Region Transit Link Authority (The ATL) for inclusion in the regional transit plan. Following the approval of the regional transit plan amendment, the Board of Commissioners developed a narrowed referendum list to submit to the ATL Board for approval. The ATL Board approved the referendum list and the Board of Commissioners approved a resolution to call for a November 2020 referendum on a new transit local sales tax to fund the Gwinnett Transit Plan, the list of 82 transit projects in Gwinnett County approved by the ATL Board.

### Jimmy Carter Multimodal Hub

One of the proposed projects is a multimodal hub with direct access to Jimmy Carter Blvd just north of I-85 at the intersection with Brookhollow Pkwy. The multimodal hub would accommodate Heavy Rail, Bus Rapid Transit, Xpress Commuter Bus, Direct Connect, and Local buses, pick-up/drop-off, and park-and-ride activity.

If funded and built, the Jimmy Carter Multimodal Hub would become a central piece of both the Gwinnett County and regional transit system. It would be in itself a new activity center and would greatly expand transit access along the JCB/MIB corridor. However, the transit funding referendum failed to pass in November 2020 and the plans remain unfunded with implementation outside of the time horizon of this current corridor study.

## High Capacity Transit

The Gwinnett Transit Plan recommends new Bus Rapid Transit service to operate on Jimmy Carter Blvd between Peachtree Industrial Blvd and the Multimodal Hub near I-85.

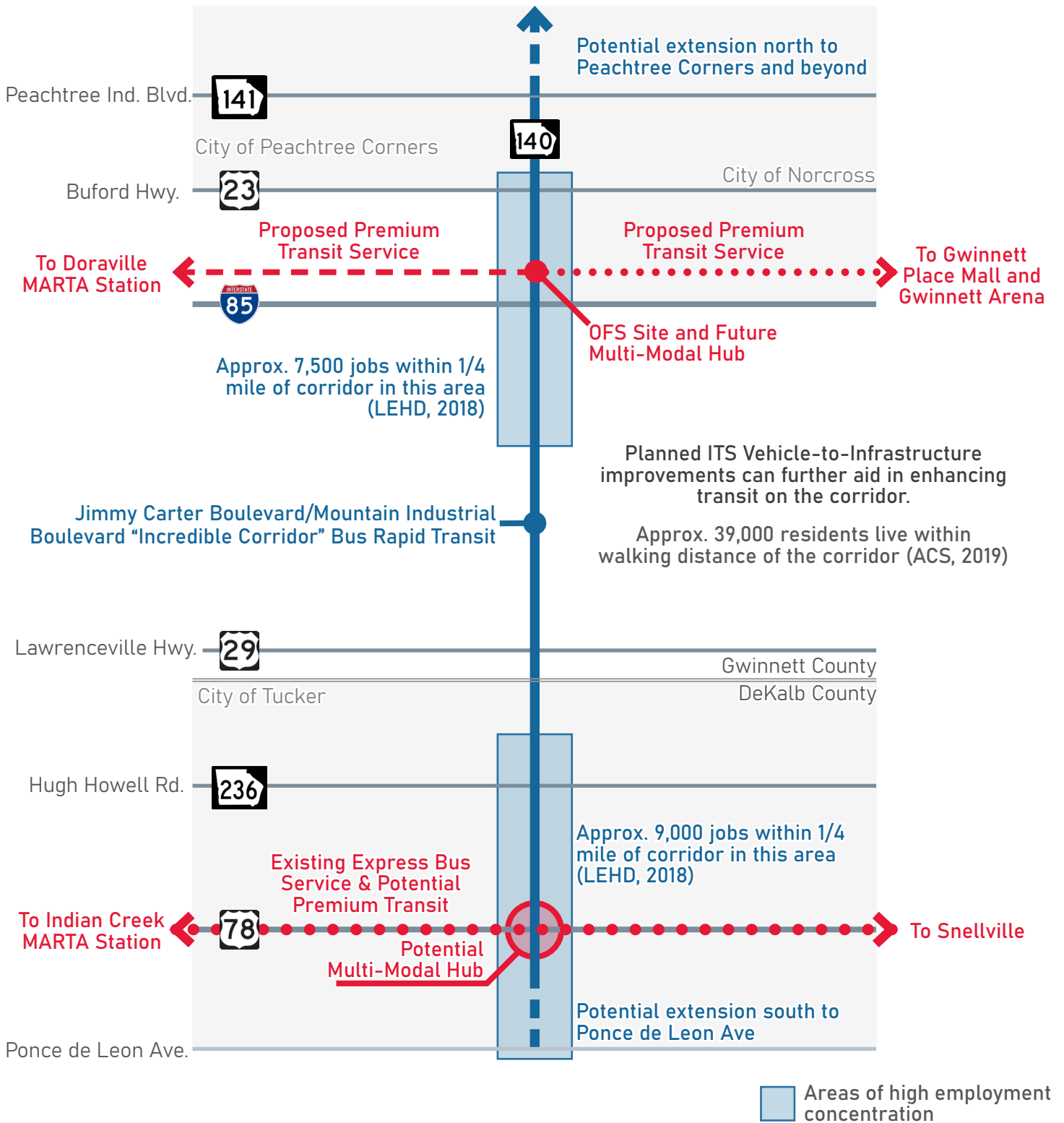
### Transit Recommendations

- Implement the needed pedestrian infrastructure as identified in the Pedestrian and Bicycle analysis.
- Explore a connector/circulator service operated by CIDs and funded in cooperation between DeKalb County, Gwinnett County, City of Tucker, and the CIDs.
- Explore a shorter term build out of a new park and ride lot providing access to regional commuter bus service.
- Explore high capacity transit service that would run along the entire JCB/MIB corridor. An immediate next step would be a transit feasibility study for such new service.
- Because the timeline for a feasibility study and eventual implementation of a high-capacity transit service can be particularly long, jurisdictions along the corridor could consider in interim, shorter-term demonstration project displaying how transit service along the corridor could potentially work.



## Potential Corridor Bus Rapid Transit Alignment with Key Connections and Select Features

An examination of the potential for enhanced transit service includes considerations of planned and potential transit transfer stations to transit opportunities on either end of the corridor as well as significant employment and population within walking distance of Jimmy Carter and Mountain Industrial Boulevards. Such an opportunity - as well as the viability of potential expansion beyond the planned transit transfer stations - can be further explored through a cooperative, multi-jurisdictional feasibility study.



# Transportation System Management and Operations (TSMO)

Transportation Systems Management and Operations (TSMO) is a set of integrated transportation strategies focused on optimizing the performance of the existing transportation network. TSMO uses traditional traffic signal technology along with Intelligent Transportation Systems (ITS) and system management techniques to provide a multimodal transportation system that can meet the needs of the corridor as they vary and change throughout the day and from day to day.

The JCB/MIB corridor serves a variety of trip purposes and travel modes. This use of the corridor for these varying purposes and by various modes changes throughout the day. In addition, the variety of land use along the corridor results in changes in vehicle demand along different sections of the corridor. The TSMO strategy recommended for this corridor will recognize and adapt to these differences and will provide continuous operations across jurisdictional boundaries. Key elements of the TSMO Strategy include:

- Leverage existing and emerging ITS technology for communications between traffic signals and vehicles (vehicle to infrastructure) and between vehicles (vehicle to vehicle).
- Provide signal system coordination and operations under a consistent strategy along the whole corridor across jurisdictional boundaries.
- Consider and plan for the growing truck volumes along the corridor to facilitate safe operations of the corridor with mixed vehicle types and facilitate movement of freight

during off peak hours.

- Provide signal priority operations for transit, signal pre-emption for emergency vehicles, and safety and operational strategies for freight movement through implementation of technology and system operational strategies.

Enhance pedestrian crossing capabilities through use of improved detection technologies and signal operational strategies that are optimized for safe pedestrian crossings.

In addition to the capacity and operational improvements currently being proposed in this study, the JCB/MIB corridor could benefit from active management from a TSMO perspective.

- Coordinate between Gwinnett County, City of Tucker, and GDOT to extend the active management of the corridor traffic operations further south down Mountain Industrial Blvd. Currently, GDOT actively manages signal timing in the corridor on SR 140 (Jimmy Carter Blvd) between Peachtree Industrial Blvd and Lawrenceville Hwy as part of their Regional Traffic Operations Program (RTOP). South of this point Mountain Industrial Blvd is no longer a state route.
- Through this coordinated effort, implement plan for moving freight through corridor outside of peak hours. Implement higher cycle lengths and coordination for through movements at night and coordinate with major shippers to facilitate release of trucks at night.

- Participate in GDOT Connected Vehicle Program
  - Install connected vehicle roadside units to provide a platform for communication between the vehicles and roadway infrastructure (including traffic signals) via DSRC or C-V2X technology (Program underway by GDOT and Gwinnett County).
  - Implement signal preemption for emergency vehicles.
- Install vehicle detection to identify truck volumes at six locations along the corridor and use the data as input information for a traffic responsive signal system.
- Implement signal priority of transit vehicles traveling along the corridor as linear routes are developed for access to future high capacity transit along or parallel to the I-85 corridor.
- When information on vehicle type is available in the future through connected vehicle technology, implement signal priority for platoons of trucks using the corridor.

# OPERATIONAL ANALYSIS

## Operational Analysis Overview

The centerpiece part of the study was a series of operational analyses at major intersection locations along the corridor. This included collecting historical traffic count data along the corridor as the basis for an existing conditions analysis intended to reflect 2020 non-COVID conditions, developing forecasts to represent likely changes in traffic demand for the future years of 2030 and 2050, identifying operational deficiencies in all of the years analyzed, and developing and testing alternatives at these intersections to address identified operational deficiencies.

## Existing Traffic Data

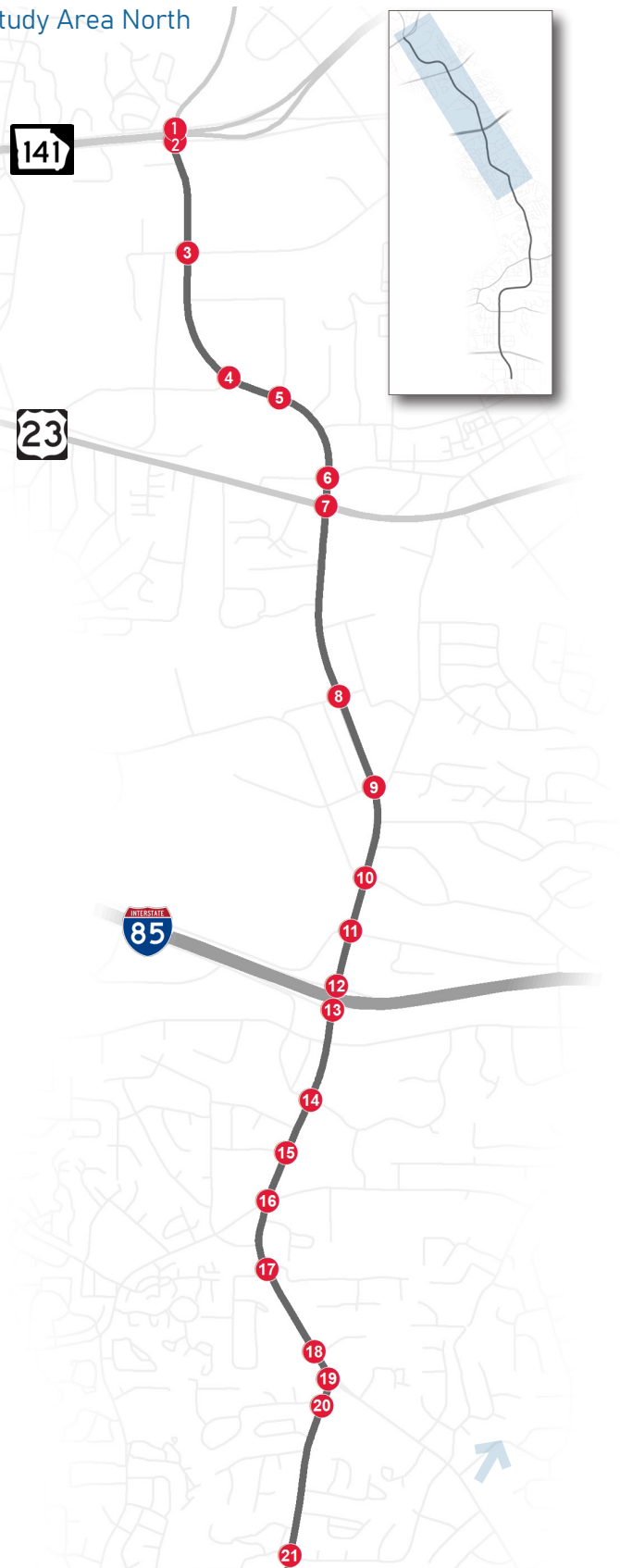
The first step in the operational analysis process was to identify existing weekday peak hour intersection turning movements along the corridor. Unfortunately, the study commenced right as COVID-19 restrictions and lockdowns were put into place and it was determined that any existing traffic counts would be highly affected by the repressed demand and changing traffic conditions. However, relatively recent traffic counts had been collected across the corridor in previous years and with the understanding that this process was ultimately a long-range planning study, it was decided that these raw count volumes could be the basis for indexing volumes to theoretical 2020 non-COVID conditions. The count locations, years of collection, and source are indicated in the tables to the right and on the following page.



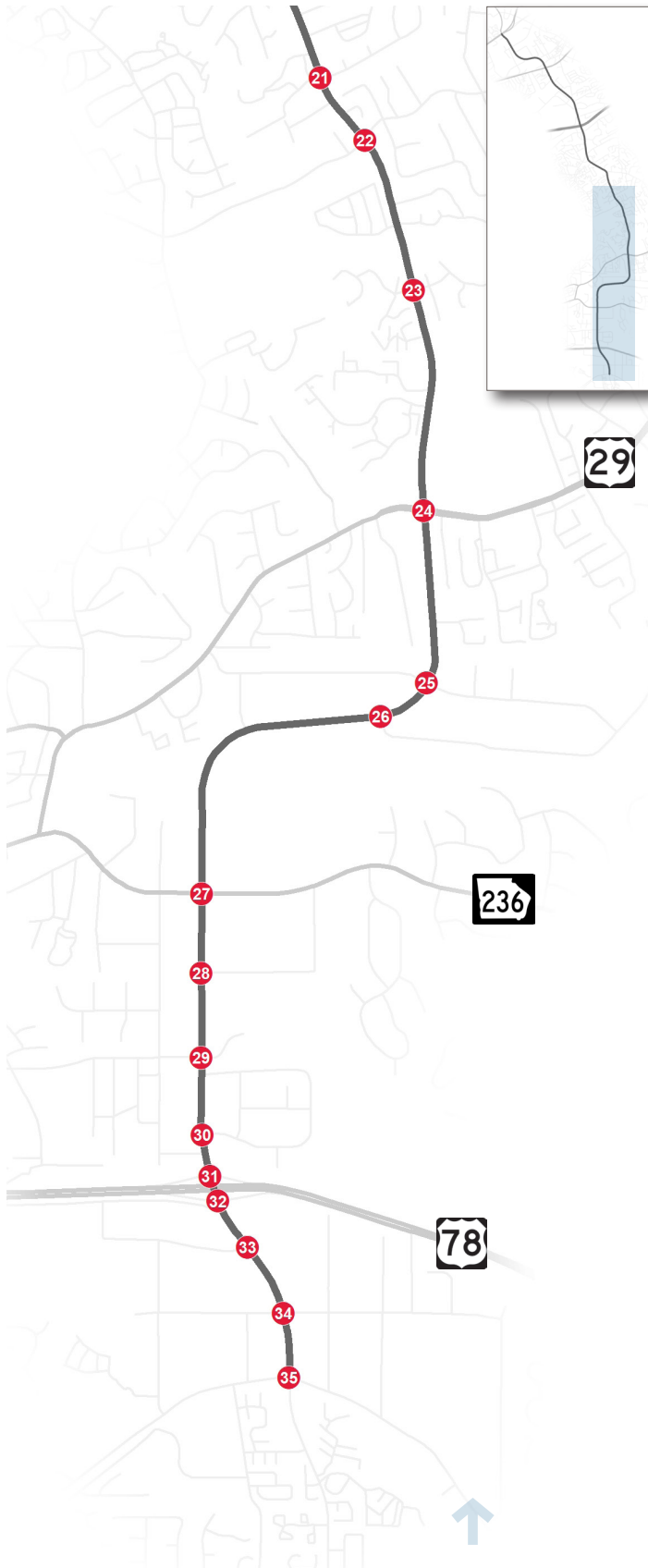
## Study Area North Intersections by Count Source

ID	Intersection	Count Year	Count Source
1	SR 141/PIB Southbound Ramps	2019	Gateway 85 Freight Cluster Plan
2	SR 141/PIB Northbound Ramps	2019	Gateway 85 Freight Cluster Plan
3	Atlantic Boulevard	2019	Gateway 85 Freight Cluster Plan
4	Corley Road	2019	Gateway 85 Freight Cluster Plan
5	Pacific Drive	2019	Gateway 85 Freight Cluster Plan
6	S. Peachtree Street	2019	Gateway 85 Freight Cluster Plan
7	Buford Highway	2019	Gateway 85 Freight Cluster Plan
8	Best Friend Road	2019	Gateway 85 Freight Cluster Plan
9	N. Norcross Tucker Road	2019	Gateway 85 Freight Cluster Plan
10	Brook Hollow Parkway	2019	Gateway 85 Freight Cluster Plan
11	Goshen Springs Road	2019	Gateway 85 Freight Cluster Plan
12	I-85 SB Ramps	2019	Gateway 85 Freight Cluster Plan
13	I-85 NB Ramps	2019	Gateway 85 Freight Cluster Plan
14	Dawson Blvd/Live Oak Pkwy	2019	Gateway 85 Freight Cluster Plan
15	Hayes Dr NWS	2014	GDOT RTOP Program
16	S. Norcross Tucker Rd/Singleton Rd	2014	GDOT RTOP Program
17	Gale Dr NW/Tracy Valley Dr NW	2014	GDOT RTOP Program
18	Rockbridge School Rd NW	2014	GDOT RTOP Program
19	Rockbridge Rd	2014	GDOT RTOP Program
20	Boyett Dr NW/Walmart Driveway	2017	Gwinnett County

Study Area North



## Study Area South



## Study Area South Intersections by Count Source

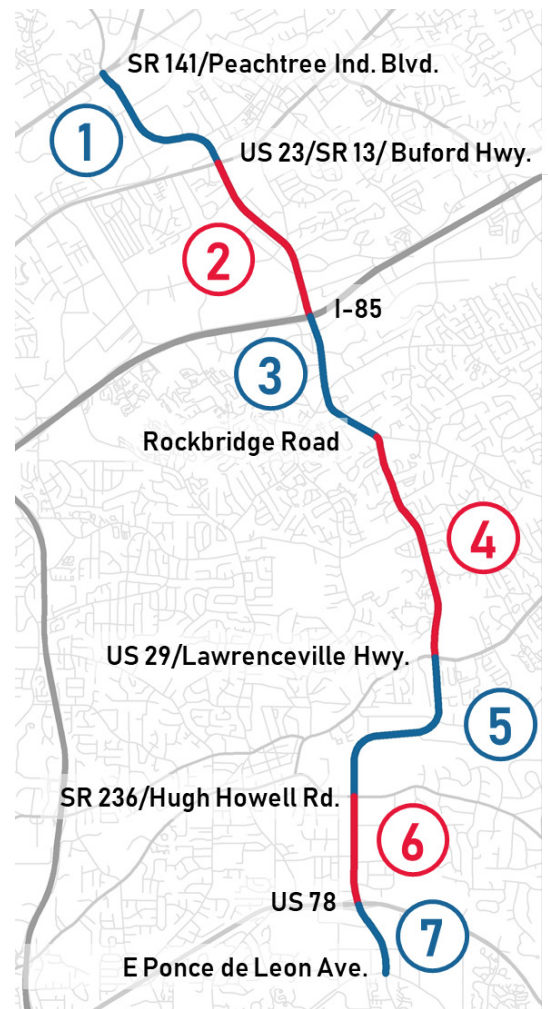
ID	Intersection	Count Year	Count Source
21	Sunrise Village Ln/ Meadowbrook Dr NW	2014	GDOT RTOP Program
22	Williams Rd/Britt Rd	2016	GDOT RTOP Program
23	Everest Trail	2016	GDOT RTOP Program
24	US 29/GA 8/ Lawrenceville Hwy	2017	GDOT RTOP Program
25	N. Royal Atlanta Dr	2016	GDOT RTOP Program
26	S. Royal Atlanta Dr	2016	GDOT RTOP Program
27	GA 236/Hugh Howell Rd	2016	GDOT RTOP Program
28	Granite Dr	2016	GDOT RTOP Program
29	Elmdale Dr/Roger Marten Way	2016	GDOT RTOP Program
30	Hammermill Rd [South]	2016	GDOT RTOP Program
31	US 78/Stone Mountain Freeway WB Ramps	2016	GDOT RTOP Program
32	US 78/Stone Mountain Freeway EB Ramps	2016	GDOT RTOP Program
33	Greer Cir/DeKalb County Schools Facility Parking Lot	2016	GDOT RTOP Program
34	Lewis Rd	2016	GDOT RTOP Program
35	Ponce De Leon Avenue	2016	GDOT RTOP Program

# Traffic Volume Forecasts

In order to anticipate traffic volumes in a theoretical year 2020 that was not impacted by COVID-19, an emerging GDOT methodology was used. Growth rates were developed by comparing several sources of data including comparison of travel demand models, review of historical growth rates, and contrasting with forecasts used on the recent Gateway 85 and Tucker Summit Freight Cluster Plans. Due to the length of the corridor and different areas of character within it, seven distinct areas were identified for these reviews as indicated in the map and tables below.

As the table indicates, historical data yields very high Compounded Annual Growth Rates (CAGR) which was attributed to the period of time that data covers (2009-2018) which tracked a sustained period of economic recovery from its lowest point. Similarly, the Atlanta Regional Commission (ARC) travel demand model which takes a broader and more long-term view by tracking changes in land use and development over time and its impact on the transportation system yielded much more modest CAGRs. In the end, CAGRs rates were set to 1.0% north for the segments north of Lawrenceville Highway and 1.25% for the segments south of Lawrenceville Highway reflecting a desire to have general approach consistency with the two recent Freight Cluster Plans and the acknowledgment that the CAGRs used in those studies reflected a broad reconciliation of the historical traffic data and travel demand model sources.

These selected CAGRs were applied to the existing raw traffic count data to develop traffic volumes that represent a theoretical non-COVID year 2020 for existing conditions as well as future conditions in the years 2030 and 2050.



## Growth Rates by Zone and Source

Zone	GDOT Historic Count in Zone	GDOT TC Station Number(s)	Nearest TC Station Number	GDOT Historical Zone CAGR* 2009-2018	2015-2020 Travel Demand Model CAGR*	2020-2050 TDM** Zone CAGR*	Gateway 85 Short Term CAGR*	Gateway 85 Long Term CAGR*	Tucker Summit CAGR*	Selected CAGR*
1	N	N/A	135-6214	8.72%	1.88%	0.75%	1.30%	1.00%	N/A	1.00%
2	Y	135-6214	N/A	8.72%	1.71%	0.88%	1.30%	1.00%	N/A	1.00%
3	N	N/A	135-6214	8.72%	1.17%	0.73%	N/A	1.00%	N/A	1.00%
4	Y	135-6314	N/A	2.06%	1.47%	1.12%	N/A	1.00%	N/A	1.00%
5	N	N/A	135-6314	2.06%	1.20%	0.72%	N/A	N/A	1.25%	1.25%
6	N	N/A	135-6314	2.06%	1.45%	0.74%	N/A	N/A	1.25%	1.25%
7	Y	N/A	089-3716	3.54%	2.09%	0.88%	N/A	N/A	1.25%	1.25%

\*Compounded Annual Growth Rate

\*\* Travel Demand Model

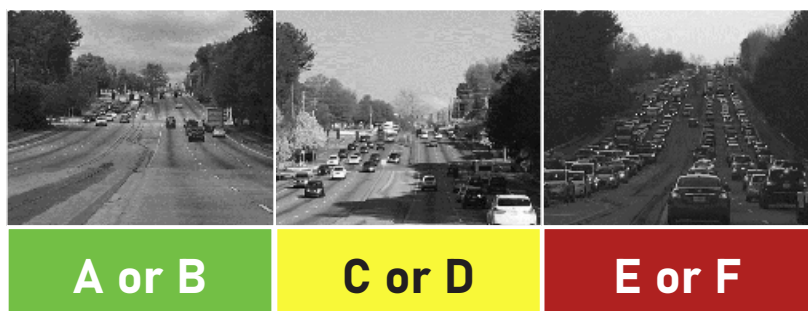
# Existing and Future No-Build Operational Analysis Results

The corridor intersections were analyzed using Trafficware’s Synchro 11 software. Analysis was performed based on methodologies published in the Highway Capacity Manual (HCM). HCM methodology determines the average amount of delay an intersection control (signal, stop sign, etc.) causes for each vehicle in the intersection. This is typically expressed in average seconds of delay per vehicles (sec/veh). Intersections (or individual approaches or movements at intersections) are then assigned a Level of Service based on this average delay, based on research about drivers’ perceptions of delay. Levels of Service range from A to F, with different threshold for signalized and unsignalized control. Generally drivers expect longer delays at traffic signals, and thus the same LOS will accept a higher delay at a signal than at a stop sign or other unsignalized control. Different jurisdictions have different policies, but generally an LOS of A through D is considered acceptable, while LOS of E or F indicates that an improvement is needed. At signalized intersections, an overall average delay is shown. At side-street stop-controlled intersections, each stop-controlled approach is shown separately.

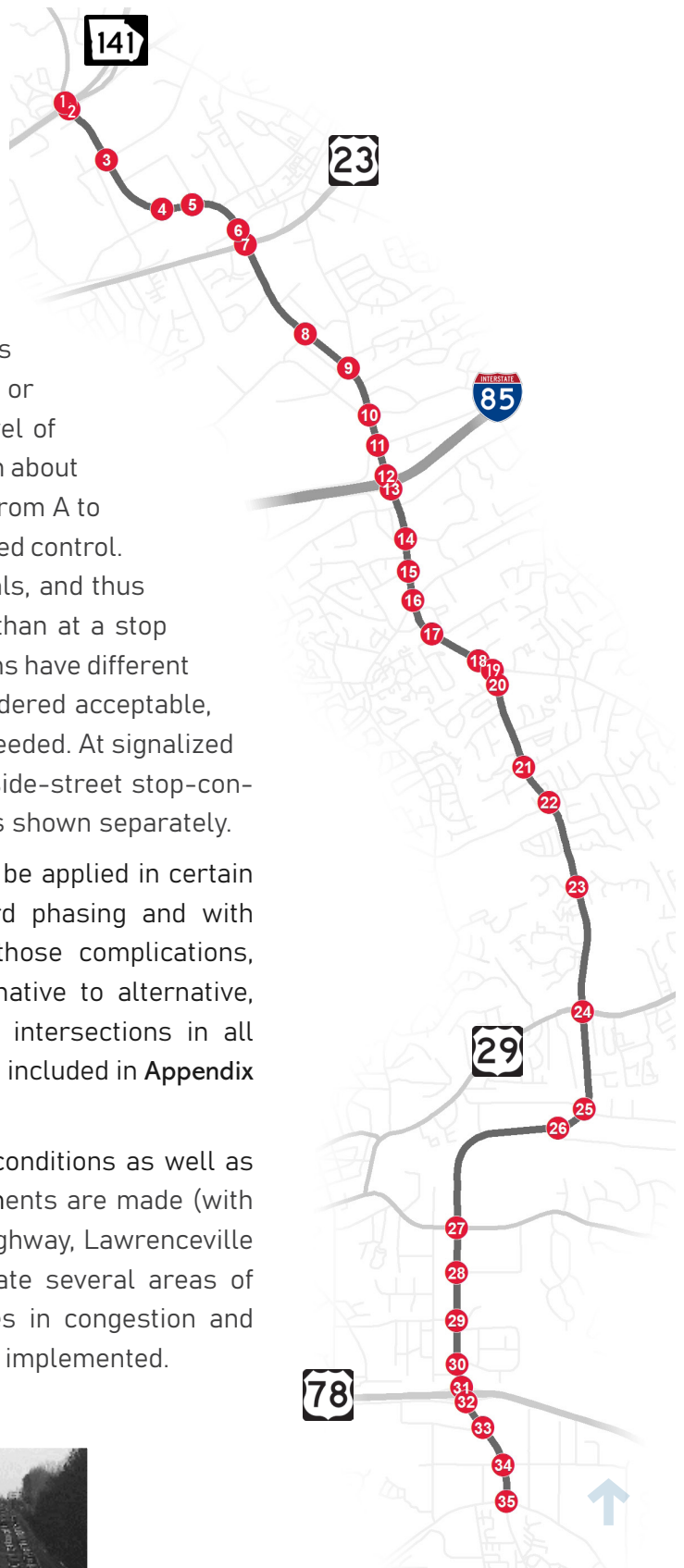
The newest versions of the HCM methodology cannot be applied in certain situations, including intersections with non-standard phasing and with shared lanes. Because this corridor has both of those complications, for consistency in comparing year to year or alternative to alternative, methodology from the HCM 2000 was used for all intersections in all timeframes. Full Synchro output for all intersections is included in Appendix B.

The table below reflects analysis results from 2020 conditions as well as conditions for the year 2030 and 2050 if no improvements are made (with the exceptions of planned improvements at Buford Highway, Lawrenceville Highway, and Hugh Howell Road). The results indicate several areas of congestion today with anticipated dramatic increases in congestion and delay throughout the corridor if improvements are not implemented.

## Traffic Conditions by Level of Service



## Analyzed Intersections





## No Build Delay and Level of Service

ID	Intersection	Existing Delay (LOS)		No Build Delay (LOS)			
		AM	PM	AM	PM	AM	PM
1	SR 141/PIB Southbound Ramps	44 (D)	29 (C)	50 (D)	37 (D)	83 (F)	57 (E)
2	SR 141/PIB Northbound Ramps	29 (C)	31 (C)	38 (D)	38 (D)	91 (F)	69 (E)
3	Atlantic Boulevard	53 (D)	18 (B)	67 (E)	28 (C)	119 (F)	47 (D)
4	Corley Road	36 (D)	2028 (F)	23 (C)	3060 (F)	82 (F)	9792 (F)
5	Pacific Drive	30 (C)	10 (A)	49 (D)	11 (B)	116 (F)	16 (B)
6	S. Peachtree Street	69 (E)	16 (B)	75 (E)	28 (C)	110 (F)	52 (D)
7	Buford Highway	61 (E)	57 (E)	51 (D)	51 (D)	63 (E)	60 (E)
8	Best Friend Road	17 (B)	18 (B)	24 (C)	21 (C)	24 (C)	30 (C)
9	N. Norcross Tucker Road	24 (C)	27 (C)	19 (B)	19 (B)	73 (E)	32 (C)
10	Brook Hollow Parkway	34 (C)	65 (E)	66 (E)	72 (E)	117 (F)	70 (E)
11	Goshen Springs Road	25 (C)	72 (E)	46 (D)	167 (F)	87 (F)	126 (F)
12	I-85 SB Ramps	25 (C)	31 (C)	36 (D)	32 (C)	110 (F)	74 (E)
13	I-85 NB Ramps	65 (E)	34 (C)	67 (E)	37 (D)	120 (F)	100 (F)
14	Dawson Blvd/Live Oak Pkwy	55 (D)	69 (E)	58 (E)	102 (F)	128 (F)	174 (F)
15	Hayes Dr NWS	3 (A)	18 (B)	3 (A)	21 (C)	4 (A)	48 (D)
16	S .Norcross Tucker Rd/Singleton Rd	69 (E)	56 (E)	67 (E)	69 (E)	96 (F)	138 (F)
17	Gale Dr NW/Tracy Valley Dr NW	30 (C)	12 (B)	5 (A)	13 (B)	41 (D)	12 (B)
18	Rockbridge School Rd NW	8 (A)	11 (B)	9 (A)	12 (B)	15 (B)	19 (B)
19	Rockbridge Rd	8 (A)	19 (B)	11 (B)	18 (B)	19 (B)	22 (C)
20	Boyett Dr NW/Walmart Driveway	6 (A)	5 (A)	5 (A)	7 (A)	6 (A)	18 (B)
21	Sunrise Village Ln/Meadowbrook Dr NW	5 (A)	4 (A)	5 (A)	4 (A)	6 (A)	6 (A)
22	Williams Rd/Britt Rd	42 (D)	54 (D)	51 (D)	58 (E)	74 (E)	99 (F)
23	Everest Trail	6 (A)	7 (A)	7 (A)	13 (B)	8 (A)	16 (B)
24	US 29/GA 8/Lawrenceville Hwy	48 (D)	83 (F)	65 (E)	117 (F)	124 (F)	204 (F)
25	N. Royal Atlanta Dr	26 (C)	21 (C)	19 (B)	24 (C)	25 (C)	44 (D)
26	S. Royal Atlanta Dr	18 (B)	18 (B)	20 (B)	21 (C)	17 (B)	34 (C)
27	GA 236/Hugh Howell Rd	69 (E)	64 (E)	49 (D)	54 (D)	100 (F)	99 (F)
28	Granite Dr	4 (A)	3 (A)	5 (A)	5 (A)	6 (A)	3 (A)
29	Elmdale Dr/Roger Marten Way	36 (D)	31 (C)	26 (C)	52 (D)	58 (E)	148 (F)
30	Hammermill Rd [South]	4 (A)	10 (B)	4 (A)	11 (B)	14 (B)	58 (E)
31	US 78/Stone Mountain Freeway WB Ramps	15 (B)	17 (B)	26 (C)	19 (B)	71 (E)	44 (D)
32	US 78/Stone Mountain Freeway EB Ramps	16 (B)	19 (B)	21 (C)	26 (C)	61 (E)	63 (E)
33	Greer Cir/DeKalb County Schools Facility Parking Lot	20 (B)	18 (B)	25 (C)	23 (C)	44 (D)	35 (C)
34	Lewis Rd	30 (C)	25 (C)	32 (C)	28 (C)	98 (F)	60 (E)
35	Ponce De Leon Avenue	66 (E)	54 (D)	85 (F)	59 (E)	157 (F)	90 (F)

## Alternatives Development and Testing

Review of the results from the No-Build analysis were combined with a separate process utilizing Phase 1 of the GDOT Intersection Control Evaluation (ICE) process to develop operational alternatives to mitigate the existing observed congestion and safety issues as well as the anticipated congestion in the future. The ICE results are provided in **Appendix C**.

The developed alternatives are described in the table below. These alternatives were further tested using Synchro as documented in the following table. More detail about the considered alternatives is included in the intersection alternative one-sheets in **Appendix D**.

### Improvement Alternatives Considered by Intersection

ID	Intersection	Improvement Alternative(s)
1	SR 141/PIB Southbound Ramps	<b>Alternative 1:</b> Widen Jimmy Carter Blvd to six lanes, Restrict Through Movements at Existing SPUI, accommodate through movements on access road with network improvements <b>Alternative 2:</b> Widen Jimmy Carter Blvd to six lanes, Diverging Diamond Interchange
2	SR 141/PIB Northbound Ramps	<b>Alternative 1:</b> Widen Jimmy Carter Blvd to six lanes, Restrict Through Movements at Existing SPUI, accommodate through movements on access road with network improvements <b>Alternative 2:</b> Widen Jimmy Carter Blvd to six lanes, Diverging Diamond Interchange
3	Atlantic Boulevard	Widen Jimmy Carter Blvd to six lanes, install WBR turn lane
4	Corley Road	Widen Jimmy Carter Blvd to six lanes, install NBR turn lane along Corley Rd, signalize and provide permissive-protected movement to WBL turning vehicles
5	Pacific Drive	Widen Jimmy Carter Blvd to six lanes, convert intersection to a RCUT, consider unsignalizing this location and installing a signalized RCUT at the northern intersection of Pacific Dr with Jimmy Carter Blvd
6	S. Peachtree Street	Widen Jimmy Carter Blvd to six lanes, Install WBL turn lane
7	US 23/Buford Highway	Widen Jimmy Carter Blvd to six lanes, install eastbound double left turn lanes, install SB right turn lane, maintain all existing turn lanes, convert SBL movement to a triple left turn
8	Best Friend Road	Provide permissive-protected signal phase to EBL, install SBR turn lane
9	N. Norcross Tucker Road	Restrict NBL/Send to U turn at Best Friend Rd, switch SBL to permissive only phasing in the AM

Improvement Alternatives Considered by Intersection (continued)

ID	Intersection	Improvement Alternative(s)
10	Brook Hollow Parkway	<p><b>Alternative 1:</b>                      Quadrant Roadways at Financial Dr and Pep Boys to divert SBL/NBL, and WBR movements. Install new traffic signals along Financial Dr at Jimmy Carter Blvd and Brookhollow Pkwy and signalize the intersection of the new roadway with Brookhollow Pkwy. Install two quadrant roadways, using the existing Financial Drive roadway in the northeast quadrant and constructing a new facility in the northwest quadrant. Install one northbound and two southbound left turn lanes at the intersection of Jimmy Carter Blvd with Financial Dr</p> <p><b>Alternative 2:</b>                      Alt 1 plus install additional WBT lane</p>
11	Goshen Springs Road	Convert intersection to a Signalized RCUT
12	I-85 SB Ramps	<p><b>Alternative 1:</b>                      Convert interchange to a SPUI</p> <p><b>Alternative 2:</b>                      Widen Existing DDI</p> <p><b>Alternative 3:</b>                      Traditional Diamond with Loop Ramp from I-85 SB</p>
13	I-85 NB Ramps	<p><b>Alternative 1:</b>                      Convert interchange to a SPUI</p> <p><b>Alternative 2:</b>                      Widen Existing DDI</p> <p><b>Alternative 3:</b>                      Traditional Diamond with Loop Ramp from I-85 SB</p>
14	Dawson Blvd/ Live Oak Pkwy	Convert intersection to a Thru-Cut, install grade separation at Oakbrook pkwy (overpass/underpass) with no turns allowed , use the pavement available to install triple left turn lanes on the EB and WB approaches, install EBR turn bay
15	Hayes Dr NWS	Lower minimum split for side streets in the PM peak hour

Improvement Alternatives Considered by Intersection (continued)

ID	Intersection	Improvement Alternative(s)
16	S. Norcross Tucker Rd/ Singleton Rd	<p><b>Alternative 1:</b> Install quadrant roadway at Oakwood Cir diverting NBL and EBR movements. To make room for the NBL turn bay, prohibit SBL movement at the Jimmy Carter Blvd at Tracey Valley Dr intersection and have them U-Turn at Rockbridge School Rd. Install triple left turn lanes for the WBL and EBL movements and double left turn lanes for the SBL movement</p> <p><b>Alternative 2:</b> Center Turn Overpass</p>
17	Gale Dr NW/ Tracy Valley Dr NW	Restrict SBL to accommodate the proposed Oakwood quadrant intersection, divert to u-turn at Rockbridge School Rd
18	Rockbridge School Rd NW	Install WB right turn lane
19	Rockbridge Rd	<p><b>Alternative 1:</b> Close access to IHOP driveway</p> <p><b>Alternative 2:</b> Close IHOP Driveway and Provide Interparcel Access to IHOP with larger development to the north"</p>
20	Boyett Dr NW/Walmart Driveway	Add EBL turn lane
21	Sunrise Village Ln/ Meadowbrook Dr NW	No Build
22	Williams Rd/ Britt Rd	<p><b>Alternative 1:</b> Install NBR turn lane, Restrict NBL movement with U turn at Meadowbrook Dr</p> <p><b>Alternative 2:</b> Alt 1 plus restricted SBL with new signal and U turn at Wandering Way</p> <p><b>Alternative 3:</b> Widen Williams Rd/ Britt Rd</p>
23	Everest Trail	<p><b>Alternative 1:</b> Convert intersection to a RCUT</p> <p><b>Alternative 2:</b> Reduce the minimum split phase for the side streets</p>
24	US 29/GA 8/ Lawrenceville Hwy	<p><b>Alternative 1:</b> Install quadrant roadway at McDonald's to divert SBL and EBR movements, install right turn lanes on the WB and EB approaches, install double right turn lanes for NBR movement, install double left turn lanes for WBL and EBL movements, and widen Lawrenceville Hwy to 6 lanes. The crossover intersections should be signalized with protected phases for all left turn movements and overlap phases for right turn movements. The crossover intersection east of the Mountain Industrial Blvd should have double left turn lanes along the southbound approach.</p> <p><b>Alternative 2:</b> CFI</p> <p><b>Alternative 3:</b> Left turn overpass</p>

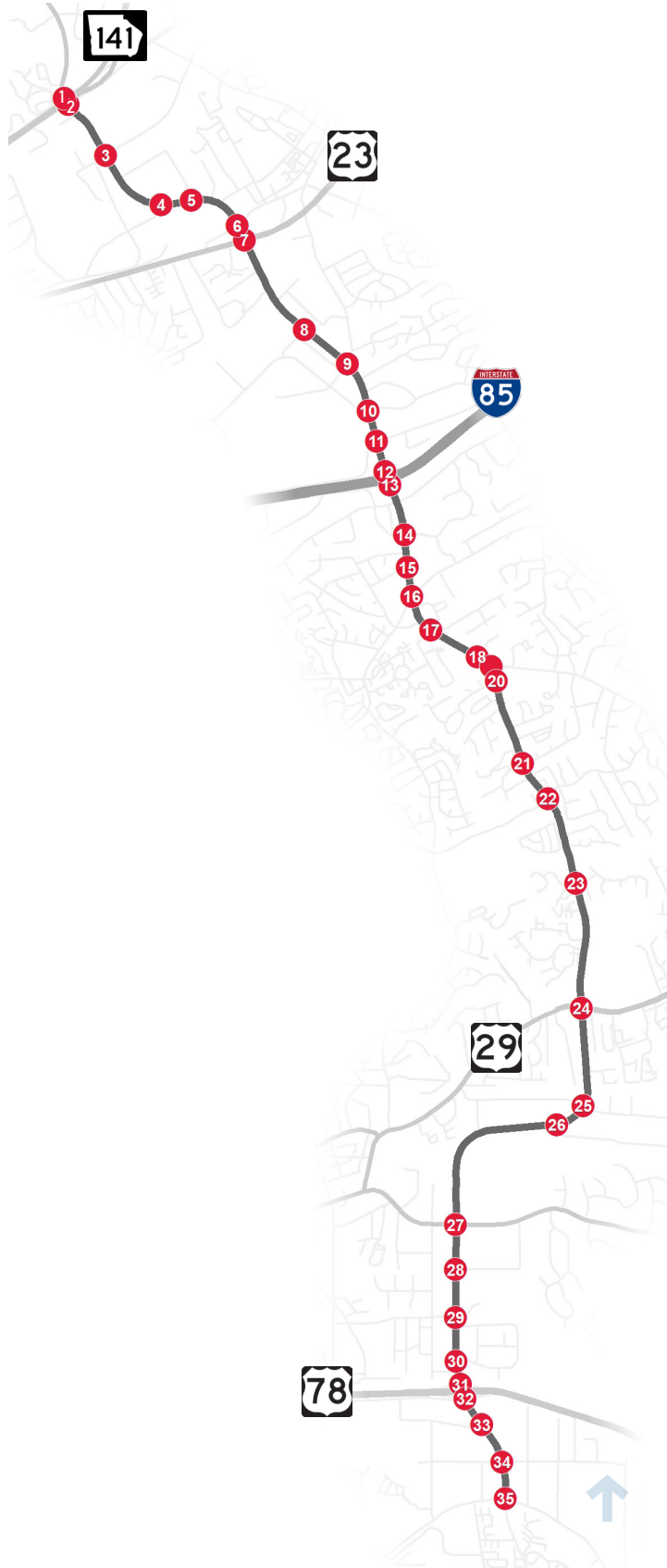
Improvement Alternatives Considered by Intersection (continued)

ID	Intersection	Improvement Alternative(s)
25	N. Royal Atlanta Dr	Install NBR, SBR, WBR turn lanes, convert NBL phasing to protected only, install EBL turn lane
26	S. Royal Atlanta Dr	Install NBL, EBR turn bays
27	GA 236/Hugh Howell Rd	<b>Alternative 1:</b> Install northbound and southbound double left turn lanes, install EBR and WBR turn lanes, widen Mountain Industrial Blvd to six lanes <b>Alternative 2:</b> Install northbound and southbound double left turn lanes, install EBR and WBR turn lanes, widen Hugh Howell Rd to six lanes <b>Alternative 3:</b> CFI
28	Granite Dr	No Build
29	Elmdale Dr/ Roger Marten Way	Install SBR turn lane, install double right turn lanes for the EBR movement and double left turn lanes for the WBL movement, install NBR Turn Lane
30	Hammermill Rd [South]	Install westbound left and NBR turn bays, "Punch" west leg of the intersection through to provide connectivity with Tucker Industrial Rd, install NBL turn lane
31	US 78/Stone Mountain Freeway WB Ramps	Replace Bridge to provide additional capacity, install double left turns for NBL movement and lengthen turn bays, install double right turn lanes for WBR movement
32	US 78/Stone Mountain Freeway EB Ramps	Replace Bridge to provide additional capacity, install SBL double left turn lanes and lengthen the turn bays
33	Greer Cir/DeKalb County Schools Facility Parking Lot	Install SBR turn lane, provide permissive-protected phase to EBL movement,
34	Lewis Rd	Install EBL and NBR, SBR, and WBR left and right turn lanes, convert SBL movement to a double left turn lane, adjust phasing to allow shorter side street splits
35	Ponce De Leon Avenue	Install right turn lanes on all approaches, including WBR double RT lane. Install double left turn lane for SBL movement.

## Build Scenarios Delay and Level of Service

ID	Intersection	Build Alternative 1 Delay (LOS)		Build Alternative 2 Delay (LOS)		Build Alternative 3 Delay (LOS)	
		AM	PM	AM	PM	AM	PM
1	SR 141/PIB Southbound Ramps	53 (D)	41 (D)	46 (D)	32 (C)		
2	SR 141/PIB Northbound Ramps			68 (E)	24 (C)		
3	Atlantic Boulevard	67 (E)	20 (B)				
4	Corley Road	27 (C)	50 (D)				
5	Pacific Drive	6 (A)	4 (A)				
6	S. Peachtree Street	33 (C)	18 (B)				
7	Buford Highway	53 (D)	53 (D)				
8	Best Friend Road	16 (B)	33 (C)				
9	N. Norcross Tucker Road	28 (C)	44 (D)				
10	Brook Hollow Parkway	63 (E)	64 (E)	47 (D)	64 (E)		
11	Goshen Springs Road	11 (B)	61 (E)	11 (B)	61 (E)		
12	I-85 SB Ramps	48 (D)	47 (D)	28 (C)	28 (C)	112 (F)	78 (E)
13	I-85 NB Ramps			39 (D)	27 (C)	40 (D)	62 (E)
14	Dawson Blvd/Live Oak Pkwy	31 (C)	32 (C)				
15	Hayes Dr NWS	4 (A)	19 (B)				
16	S Norcross Tucker Rd/Singleton Rd	79 (E)	64 (E)	28 (C)	18 (B)		
17	Gale Dr NW/Tracy Valley Dr NW	2 (A)	4 (A)				
18	Rockbridge School Rd NW	32 (C)	15 (B)				
19	Rockbridge Rd	17 (B)	19 (B)	17 (B)	19 (B)		
20	Boyett Dr NW/Walmart Driveway	5 (A)	18 (B)				
21	Sunrise Village Ln/Meadowbrook Dr NW	34 (C)	18 (B)				
22	Williams Rd/Britt Rd	45 (D)	59 (E)	39 (D)	57 (E)	52 (D)	58 (E)
23	Everest Trail	6 (A)	8 (A)	8 (A)	10 (B)		
24	US 29/GA 8/Lawrenceville Hwy	29 (C)	57 (E)	47 (D)	37 (D)		
25	N. Royal Atlanta Dr	24 (C)	34 (C)				
26	S. Royal Atlanta Dr	30 (C)	33 (C)				
27	GA 236/Hugh Howell Rd	69 (E)	68 (E)	68 (E)	74 (E)		
28	Granite Dr	6 (A)	5 (A)				
29	Elmdale Dr/Roger Marten Way	36 (D)	46 (D)				
30	Hammermill Rd [South]	31 (C)	43 (D)				
31	US 78/Stone Mountain Freeway WB Ramps	45 (D)	24 (C)				
32	US 78/Stone Mountain Freeway EB Ramps	18 (B)	35 (C)				
33	Greer Cir/DeKalb County Schools Facility Parking Lot	55 (E)	38 (D)				
34	Lewis Rd	48 (D)	44 (D)				
35	Ponce De Leon Avenue	57 (E)	57 (E)				

# Analyzed Intersections



## Preferred Alternatives and Analysis Results

Through review of the alternatives analysis and discussion with project stakeholders, preferred alternatives were developed as indicated in the table below. Additionally, the long term preferred alternatives were analyzed again as a system to understand their cumulative benefit along the corridor with optimized signal timing phases, splits, and offsets as shown in the following table.

### Selected Alternatives by Intersection

ID	Intersection	Short Term Selected Alternative	Long Term Selected Alternative
1	SR 141/PIB Southbound Ramps	Conduct an Interchange Study	Widen Jimmy Carter Blvd to Six Lanes, Convert Interchange to a Conventional SPUI
2	SR 141/PIB Northbound Ramps	Conduct an Interchange Study	
3	Atlantic Boulevard	Add right turn lane on Atlantic Blvd. westbound approach; install a mountable curb	Widen Jimmy Carter Blvd to six lanes, install WBR turn lane
4	Corley Road	Add a northbound right turn lane on Corley Rd.	Widen Jimmy Carter Blvd to six lanes, install NBR turn lane along Corley Rd, signalize and provide permissive-protected movement to WBL turning vehicles
5	Pacific Drive		Widen Jimmy Carter Blvd to six lanes, convert intersection to a RCUT, consider unsignalizing this location and installing a signalized RCUT at the northern intersection of Pacific Dr with Jimmy Carter Blvd
6	S. Peachtree Street		Widen Jimmy Carter Blvd to six lanes, Install WBL turn lane
7	Buford Highway	Widen Jimmy Carter Blvd to six lanes, install eastbound double left turn lanes, install SB right turn lane, maintain all existing turn lanes	Widen Jimmy Carter Blvd to six lanes, install eastbound double left turn lanes, install SB right turn lane, maintain all existing turn lanes, convert SBL movement to a triple left turn
8	Best Friend Road		Provide permissive-protected signal phase to EBL, install SBR turn lane
9	N. Norcross Tucker Road		Restrict NBL/Send to U turn at Best Friend Rd, convert SBL to permissive only phasing in the AM



Selected Alternatives by Intersection (continued)

ID	Intersection	Short Term Selected Alternative	Long Term Selected Alternative
10	Brook Hollow Parkway	Install additional SBL turn lane to provide for a double-left turn movement	Install two quadrant roadways, using the existing Financial Drive roadway in the northeast quadrant and constructing a new facility in the northwest quadrant. Install one northbound and two southbound left turn lanes at the intersection of Jimmy Carter Blvd with Financial Dr/New Quadrant Roadway and signalize this location. Install additional WBT lane
11	Goshen Springs Road		Convert intersection to a Signalized RCUT
12	I-85 SB Ramps	Conduct an Interchange Study	Convert Interchange to a SPUI
13	I-85 NB Ramps	Conduct an Interchange Study	
14	Dawson Blvd/ Live Oak Pkwy	Optimize signal timing on Jimmy Carter Blvd. between I-85 and Singleton Rd	Convert intersection to a Thru-Cut, install grade separation at Oakbrook pkwy (overpass/underpass) with no turns allowed , use the pavement available to install triple left turn lanes on the EB and WB approaches, install EBR turn bay
15	Hayes Dr NWS	Optimize signal timing on Jimmy Carter Blvd. between I-85 and Singleton Rd	Lower minimum split for side streets in the PM peak hour
16	S. Norcross Tucker Rd/ Singleton Rd	Optimize signal timing on Jimmy Carter Blvd. between I-85 and Singleton Rd	Alternative A: Install quadrant roadway at Oakwood Cir diverting NBL and EBR movements. To make room for the NBL turn bay, prohibit SBL movement at the Jimmy Carter Blvd at Tracey Valley Dr intersection and have them U-Turn at Rockbridge School Rd. Install triple left turn lanes for the WBL and EBL movements and double left turn lanes for the SBL movement Alternative B: Center Turn Overpass
17	Gale Dr NW/ Tracy Valley Dr NW		Restrict SBL to accommodate the proposed Oakwood quadrant intersection, divert to u-turn at Rockbridge School Rd

Selected Alternatives by Intersection (continued)

ID	Intersection	Short Term Selected Alternative	Long Term Selected Alternative
18	Rockbridge School Rd NW		Install WB right turn lane
19	Rockbridge Rd	Install signage warning drivers of the drop lane southbound along Jimmy Carter Blvd	Close IHOP Driveway and Provide Interparcel Access to IHOP with larger development to the north
20	Boyett Dr NW/Walmart Driveway		Add EBL turn lane
21	Sunrise Village Ln/ Meadowbrook Dr NW		No Build
22	Williams Rd/ Britt Rd		Install NBR turn lane, restrict northbound and southbound left turning vehicles and provide sufficient downstream U-Turn accommodations for heavy vehicles
23	Everest Trail		Convert intersection to a RCUT
24	US 29/GA 8/ Lawrenceville Hwy	Install double left turn lanes along the southbound, eastbound, and westbound approaches,	Convert intersection to Continuous Flow Intersection with double left turn crossovers and free flowing right turn merge conditions

Selected Alternatives by Intersection (continued)

ID	Intersection	Short Term Selected Alternative	Long Term Selected Alternative
25	N. Royal Atlanta Dr	Install single right-turn lanes with channelization and wide curb radii along the northbound, southbound, and westbound approaches; convert southbound, eastbound, and westbound left turn signals to flashing yellow arrow (FYAs); convert northbound left-turn to a protected-only movement; install pedestrian signals and crosswalks across the east and west legs (N. Royal Atlanta Dr.) of the intersection; install ADA ramps at all four corners; install sidewalks along all approaches to connect to MARTA bus stops; install median nose delineators along Mountain Industrial Blvd.; install backplates with retroreflective borders on all traffic signal heads; install supplemental signal heads and "traffic signal ahead" signage along the northbound and southbound approaches; repave and restripe N. Royal Atlanta Dr; install raised pavement markers on N. Royal Atlanta Dr.; work with property owner to consider relocating driveway just west of intersection further away from the intersection.	Install NBR, SBR, WBR turn lanes, convert NBL phasing to protected only, install EBL turn lane
26	S. Royal Atlanta Dr	Install single right-turn lane with channelization and wide curb radius along the eastbound approach; remove acceleration lane on west leg and install eyebrow or loon for eastbound U-turns; install pedestrian signals and crosswalks along all approaches; install ADA ramps at all four corners; install sidewalks along all approaches to connect to MARTA bus stops; install median nose delineators along Mountain Industrial Blvd.; install backplates with retroreflective borders on all traffic signal heads; install "traffic signal ahead" signage along the westbound approach; work with property owner to consider relocating driveway just east of intersection further away from the intersection.	Install NBL, EBR turn bays
27	GA 236/Hugh Howell Rd	Install northbound and southbound double left turn lanes, install EBR and WBR turn lanes	Install northbound and southbound double left turn lanes, install EBR and WBR turn lanes, widen Mountain Industrial Blvd to six lanes
28	Granite Dr		No Build



Selected Alternatives by Intersection (continued)

ID	Intersection	Short Term Selected Alternative	Long Term Selected Alternative
29	Elmdale Dr/ Roger Marten Way	Install single right-turn lane with channelization and widen curb radius along the northbound approach; widen curb radius at southwest quadrant; reconfigure Roger Marten Way to add a new separate left-turn lane; reconfigure inside lane of Elmdale Dr. to allow left, through, and right turns; convert northbound and southbound left turn signals to flashing yellow arrow (FYAs); install no right-turn-on-red (RTOR) overhead signage on the mast arm above the inside lane to prohibit RTOR from the inside lane of the Elmdale Dr. approach; install sidewalks along Roger Marten Way and west side of Mountain Industrial Blvd. to connect to MARTA bus stops; install backplates with retroreflective borders on all traffic signal heads; repave and restripe Elmdale Dr. and Roger Marten Way; install raised pavement markers on Elmdale Dr. and Roger Marten Way.	Install SBR turn lane, install double right turn lanes for the EBR movement and double left turn lanes for the WBL movement, install NBR Turn Lane
30	Hammermill Rd [South]	Install single right-turn lane with channelization and widen curb radius along the northbound approach; convert southbound and westbound left turn signals to flashing yellow arrow (FYAs); install sidewalks along west side of Mountain Industrial Blvd. south of the intersection and extend to the US 78 interchange; install one-way pavement markings on west leg, and signage at driveway on west leg to prohibit eastbound traffic; install backplates with retroreflective borders on all traffic signal heads; work with property owner to close driveway to Public Storage just south of the intersection.	Install westbound left and NBR turn bays, "Punch" west leg of the intersection through to provide connectivity with Tucker Industrial Rd, install NBL turn lane
31	US 78/Stone Mountain Freeway WB Ramps	Conduct an Interchange Study	Replace Bridge to provide additional capacity, install double left turns for NBL movement and lengthen turn bays, install double right turn lanes for WBR movement
32	US 78/Stone Mountain Freeway EB Ramps	Conduct an Interchange Study	Replace Bridge to provide additional capacity, install SBL double left turn lanes and lengthen the turn bays

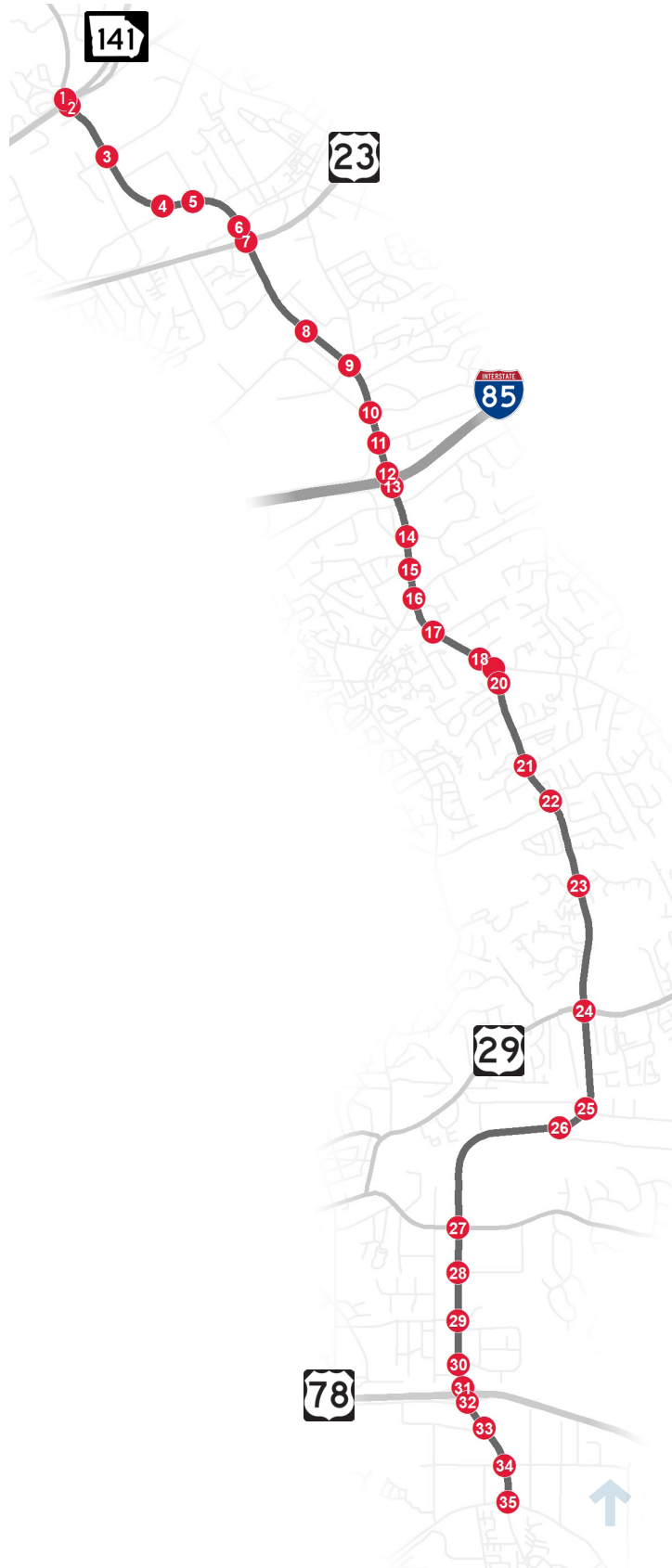
Selected Alternatives by Intersection (continued)

ID	Intersection	Short Term Selected Alternative	Long Term Selected Alternative
33	Greer Cir/ DeKalb County Schools Facility Parking Lot	Install single right-turn lane with channelization and widen curb radius along the southbound approach; convert all left turn signals to flashing yellow arrow (FYAs); install protected/permissive phasing for eastbound Greer Cir. left-turn movements; install sidewalks along west side of Mountain Industrial Blvd. and along Greer Cir. west of the intersection to connect to MARTA bus stops; install backplates with retroreflective borders on all traffic signal heads; repave and restripe Greer Cir. east of the intersection; install raised pavement markers on Greer Cir. east of the intersection.	Install SBR turn lane, provide permissive-protected phase to EBL movement,
34	Lewis Rd	Install single right-turn lanes with channelization and widen curb radius along northbound, southbound, and westbound approaches; convert all left turn signals to flashing yellow arrow (FYAs); install sidewalks along west side of Mountain Industrial Blvd. and along Lewis Rd. west of intersection to connect to MARTA bus stops; install backplates with retroreflective borders on all traffic signal heads; work with property owner to relocate driveway just west of intersection further away from the intersection.	Install EBL and NBR, SBR, and WBR left and right turn lanes, convert SBL movement to a double left turn lane, adjust phasing to allow shorter side street splits
35	Ponce De Leon Avenue	Widen curb radius and install a retaining wall and fill at southeast quadrant of intersection; extend left-turn lane on east leg of the intersection; install median nose delineators at median on south leg; work with property owner to close driveways along Mountain Industrial Blvd. and E. Ponce de Leon Ave. that are closest to the intersection.	Install right turn lanes on all approaches, including WBR double RT lane. Install double left turn lane for SBL movement.

## Long-Term Build Scenarios Delay and Level of Service

ID	Intersection	2030		2050	
		AM	PM	AM	PM
1	SR 141/PIB Southbound Ramps	20 (B)	25 (C)	53 (D)	41 (D)
2	SR 141/PIB Northbound Ramps				
3	Atlantic Boulevard	16 (B)	19 (B)	48 (D)	22 (C)
4	Corley Road	26 (C)	23 (C)	20 (B)	49 (D)
5	Pacific Drive	12 (B)	17 (B)	4 (A)	3 (A)
6	S. Peachtree Street	29 (C)	13 (B)	32 (C)	15 (B)
7	Buford Highway	45 (D)	42 (D)	57 (E)	42 (D)
8	Best Friend Road	15 (B)	12 (B)	22 (C)	25 (C)
9	N. Norcross Tucker Road	41 (D)	43 (D)	29 (C)	39 (D)
10	Brook Hollow Parkway	16 (B)	24 (C)	41 (D)	59 (E)
11	Goshen Springs Road	7 (A)	5 (A)	14 (B)	79 (E)
12	I-85 SB Ramps				
13	I-85 NB Ramps				
14	Dawson Blvd/Live Oak Pkwy	30 (C)	24 (C)	35 (D)	30 (C)
15	Hayes Dr NWS	4 (A)	34 (C)	4 (A)	20 (C)
16	S Norcross Tucker Rd/Singleton Rd	34 (C)	33 (C)	75 (E)	53 (D)
17	Gale Dr NW/Tracy Valley Dr NW	2 (A)	3 (A)	2 (A)	4 (A)
18	Rockbridge School Rd NW	10 (A)	14 (B)	24 (C)	19 (B)
19	Rockbridge Rd	8 (A)	15 (B)	19 (B)	18 (B)
20	Boyett Dr NW/Walmart Driveway	10 (A)	26 (C)	6 (A)	7 (A)
21	Sunrise Village Ln/Meadowbrook Dr NW				
22	Williams Rd/Britt Rd	31 (C)	38 (D)	62 (E)	56 (E)
23	Everest Trail	4 (A)	6 (A)	6 (A)	4 (A)
24	US 29/GA 8/Lawrenceville Hwy	21 (C)	20 (B)	40 (D)	34 (C)
25	N. Royal Atlanta Dr	17 (B)	25 (C)	19 (B)	32 (C)
26	S. Royal Atlanta Dr	22 (C)	26 (C)	17 (B)	32 (C)
27	GA 236/Hugh Howell Rd	52 (D)	46 (D)	75 (E)	66 (E)
28	Granite Dr				
29	Elmdale Dr/Roger Marten Way	19 (B)	34 (C)	13 (B)	45 (D)
30	Hammermill Rd [South]	5 (A)	5 (A)	6 (A)	45 (D)
31	US 78/Stone Mountain Freeway WB Ramps	21 (C)	6 (A)	40 (D)	24 (C)
32	US 78/Stone Mountain Freeway EB Ramps	19 (B)	25 (C)	20 (B)	35 (C)
33	Greer Cir/DeKalb County Schools Facility Parking Lot	28 (C)	16 (B)	49 (D)	37 (D)
34	Lewis Rd	50 (D)	24 (C)	47 (D)	46 (D)
35	Ponce De Leon Avenue	48 (D)	34 (C)	60 (E)	56 (E)

## Analyzed Intersections



## Network Improvements

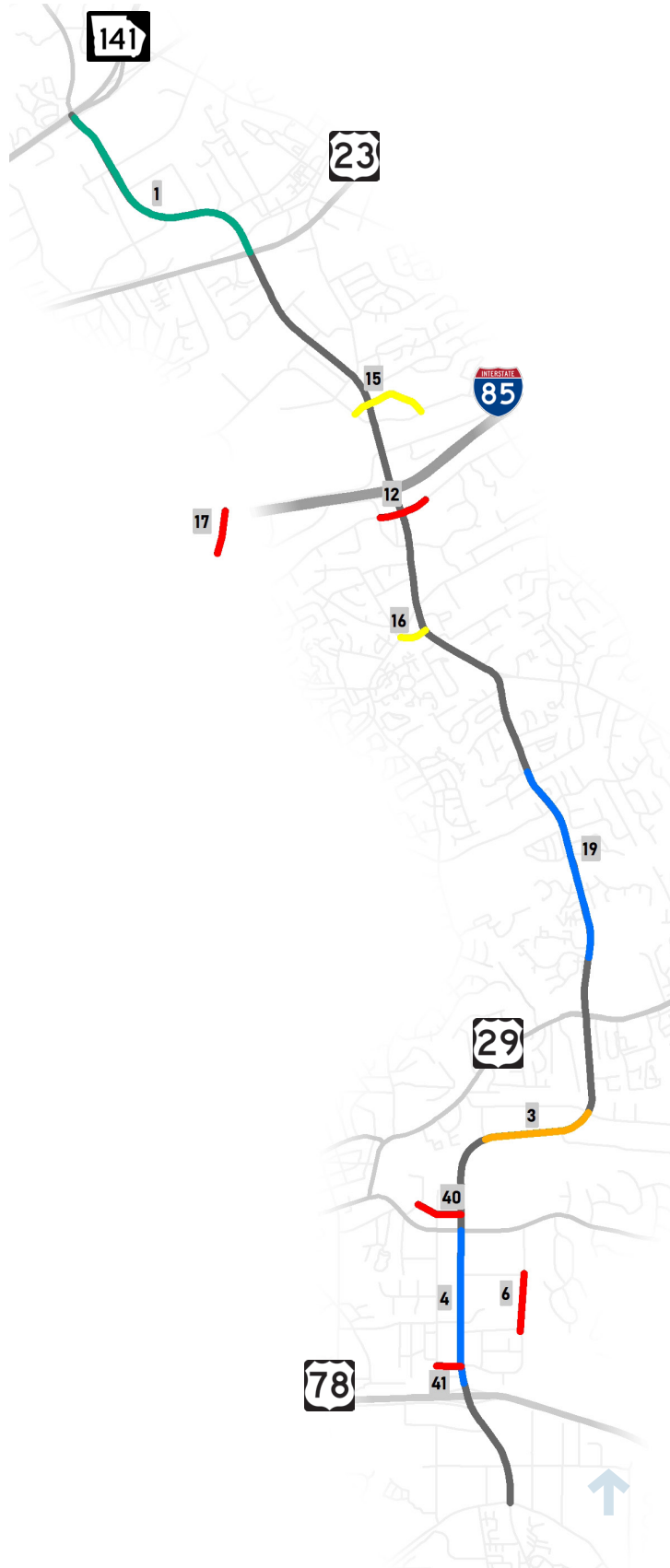
Through coordination with stakeholders, other ongoing or proposed network improvements were also identified that would relieve congestion and generally improve conditions on the study corridor. The table below and map on the facing page identify different types of improvements that benefit the roadway network as a whole. Some of these improvements, like RCUT Corridors (sometimes called Superstreets) are generally a series of intersection improvements, but operate together as a system to provide benefits beyond those felt at a single location. These projects will likely require further study and consideration to determine their implementation feasibility including constructability as well as consistency with local municipality goals and visions.

### Network Improvements

Project No.	Limits	Project Description
1	Jimmy Carter Boulevard from Peachtree Industrial Boulevard to Buford Hwy	Widen from four to six lanes
3	Jimmy Carter Boulevard from N Royal Atlanta Drive to Tuckerstone Parkway	Extend LT Lanes and Add RT acceleration Lanes add side street LT Lanes
4	Mountain Industrial Boulevard from US 78 Ramps to GA 236/ Hugh Howell Road	RCUT system at all intersections
6	Hammermill Rd - Flinstone Drive Connection	New connection between Hammermill Road and Flinstone Drive at Granite Drive
12	Jimmy Carter Boulevard at Oakbrook Parkway/McDonough Drive	Oakbrook Pkwy-McDonough Dr Grade Separated Crossing over Jimmy Carter Boulevard
15	Jimmy Carter Boulevard at Brook Hollow Parkway	Extend Financial Drive to create a quadrant roadway, prohibit left turns from Jimmy Carter Boulevard onto Brook Hollow Parkway
16	Jimmy Carter Boulevard at Norcross-Tucker Road/Singleton Road	Open intersection with Oakwood Circle to create a quadrant roadway, prohibit the NBL movement from Jimmy Carter Boulevard onto Norcross Tucker Road
17	Nancy Hanks Drive and Graves Road at I-85	New underpass connecting Graves Rd to Nancy Hanks Drive
19	Jimmy Carter Boulevard from Club Parkway to Meadowbrook Drive	RCUT Corridor
40	North of GA 236/Hugh Howell Rd	New Roadway Connection between MIB and Tucker Industrial
41	Mountain Industrial Boulevard at Hammermill Road (south)	New Roadway Connection between MIB and Tucker Industrial (currently being studied)



# Network Improvements

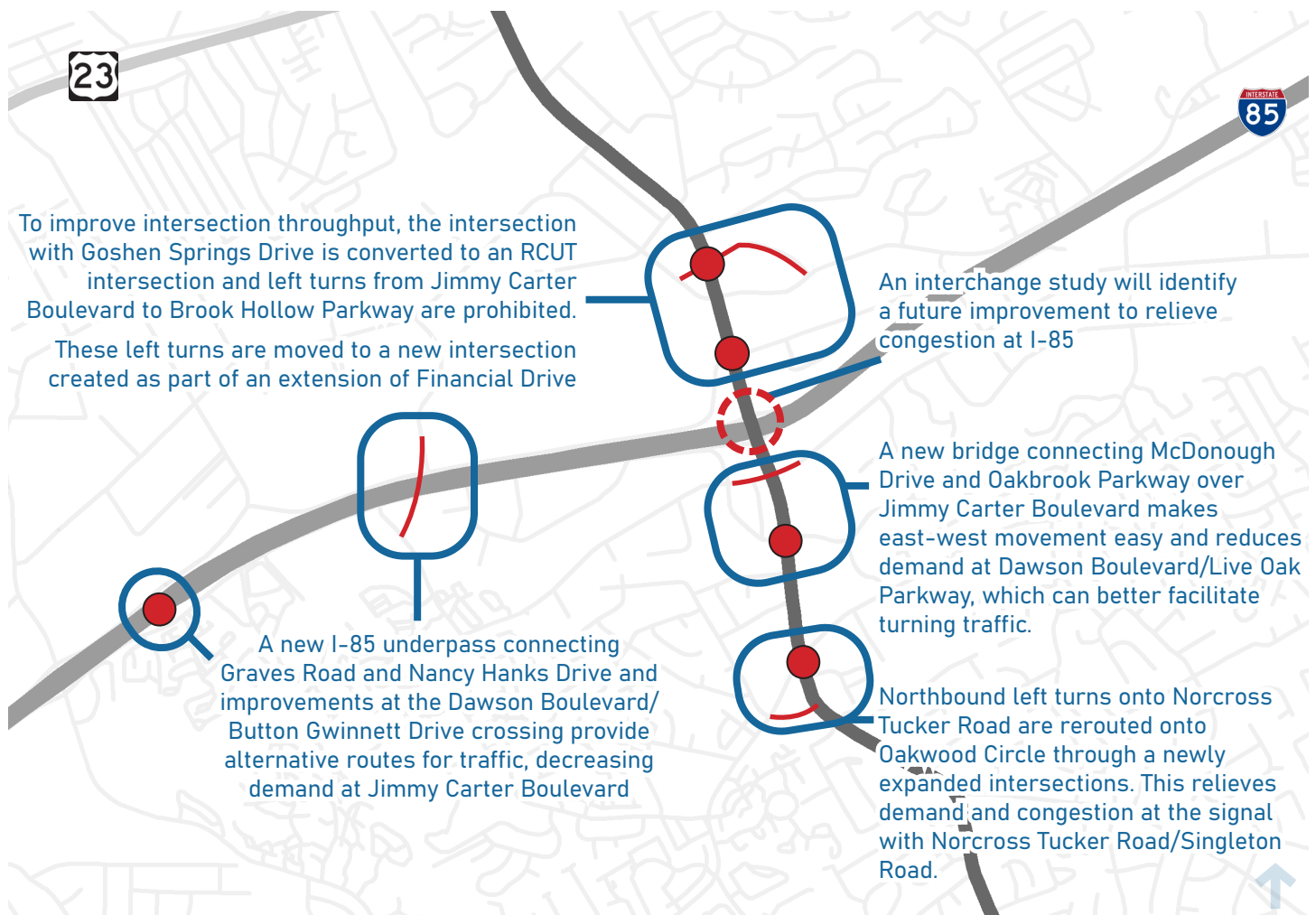


## Network Improvements and Complementary Projects

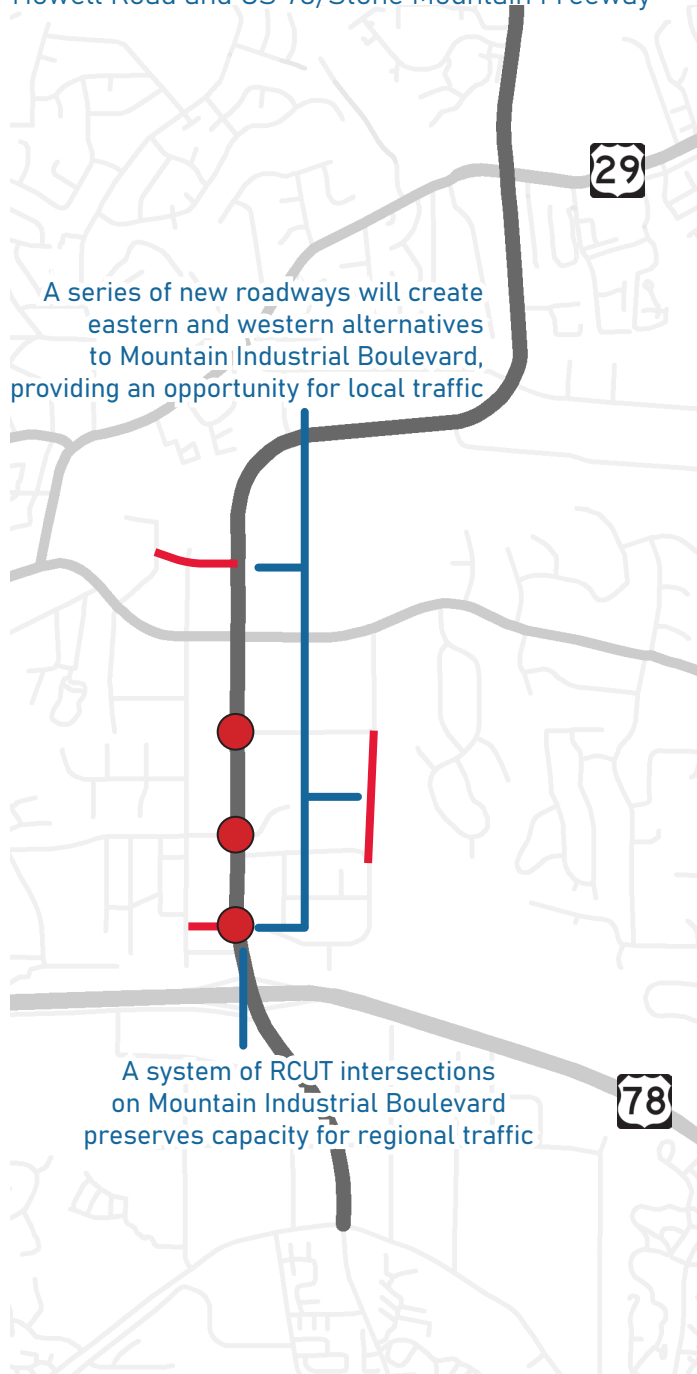
While most recommendations are focused directly on the JCB/MIB corridor, there are some improvements that can be made off the corridor. These consist of new road connections that will increase routing options and create opportunities to bypass other busy intersections. For example, making a new connection between Hammermill Road and Granite Drive (Project 6 in the table above) would effectively create a backage road to the east of Mountain Industrial Boulevard between Hugh Howell to the north and Hammermill Road to the south. It would provide a potential way to bypass the SR 236/Hugh Howell Rd at Mountain Industrial Boulevard intersection. The new roadway connections are shown in the map to the right.

In addition, many of the recommendations for intersection improvements work together to create better corridor level traffic flow. These projects produce a benefit greater than the individual parts. The map to the right displays how the projects work together to form quadrant roadways, overpasses, and RCUT corridors.

### Systematic Improvements near the I-85 Interchange



## Systematic Improvements between GA 236/Hugh Howell Road and US 78/Stone Mountain Freeway



# PRIORITIZATION AND IMPLEMENTATION PLAN

## Prioritization Methodology

Recommended projects have been prioritized using a variety of inputs. These inputs measure deficiency, benefit/cost, public input, safety, and goals. The resulting prioritization scores have been used to sort projects into three tiers for consideration in implementation.

### Deficiency (Mobility)

This prioritization criterion looked at the deficiency of mobility along the corridor. To assess this, intersection Level of Service (LOS) was calculated for each study intersection in the corridor. Intersections with higher delay in current conditions were given higher priority over those with lower delay.

#### Mobility Deficiency Prioritization Criteria

LOS	Prioritization Score
A, B	1
C, D	5
E, F	10

### Benefit/Cost (Delay reduction/Total Cost)

This criterion considers the benefit of the project normalized by the cost of implementing the project. Total daily hours of delay reduction for each proposed project was calculated. This metric was chosen because it takes into account how many drivers the project will impact. Delay reduction was then divided by total project cost to get a ratio for comparison across different projects with widely varying costs.

#### Delay Reduction Cost Prioritization Criteria

Total Delay/Cost (\$100s)	Prioritization Score
0.169 – 4.657	10
0.168 – 0.047	7
0.046 – 0.015	4
0.014 – 0.00	1

### Public Input

This criterion looks at intersections that were identified as problematic by the public. Individuals were able to identify problem locations on an interactive map on a project website.

#### Public Input Prioritization Criteria

Interactive Map Locations + (Upvotes – Downvotes)	Prioritization Score
25+	10
11 – 24	5
1 – 10	1
0	0

## Safety (Intersection Crash Rate)

Intersection crash rate was calculated at each analysis intersection. Intersections with higher crash rates were given priority over intersections with lower crash rates.

### Safety Prioritization Criteria

Intersection Crash Rate per Million Entering Vehicles	Prioritization Score
4.01 – 5.00	10
3.00 – 4.00	5
0.00 – 2.99	1

## Goals (Implementation)

A major goal of this study was a focus on projects that can be implemented in the short-term. An important metric for implementation is overall cost. This criterion gives priority to lower cost projects.

### Goals Prioritization Criteria

Implementation	Prioritization Score
\$0 – \$1,000,000	10
\$1,000,001 – \$5,000,000	5
\$5,000,001+	1



## Prioritization Results

Prioritization inputs were combined to get an average score between 1 – 10. After assigning scores to all projects, they were broken into implementation tiers for use when considering which projects to pursue first. Detailed prioritization scores are included in **Appendix E**.

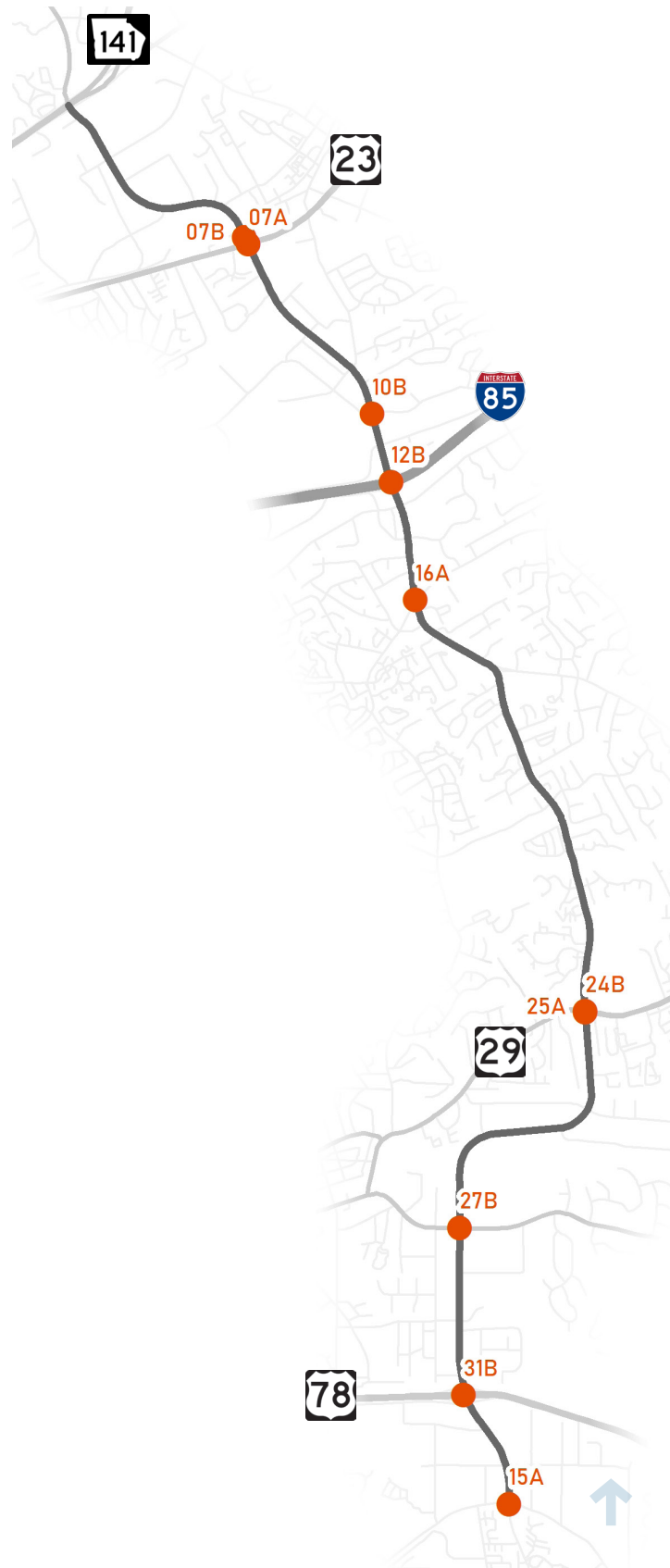
### Tier 1 Projects

These projects have the highest priority scores. They should be considered first during implementation.

#### Tier 1 Projects

Project No.	Location	Project Description	Overall Score	Tier
24B	US 29/GA 8/ Lawrenceville Hwy	Install double left turn lanes along the southbound, eastbound, and westbound approaches (Ongoing improvement led by Gwinnett County)	10	1
12B	I-85 Interchange	Conduct an Interchange Study	10	1
07A	US 23/Buford Highway	Widen JCB to six lanes, install eastbound double left turn lanes, install SB right turn lane, maintain all existing turn lanes, convert SBL movement to a triple left turn (Additional improvement beyond ongoing project needed in long-term)	8	1
07B	US 23/Buford Highway	Widen Jimmy Carter Blvd to six lanes, install eastbound double left turn lanes, install SB right turn lane, maintain all existing turn lanes (Ongoing improvement led by Gwinnett County)	7	1
24A	US 29/GA 8/ Lawrenceville Hwy	Convert intersection to Continuous Flow Intersection with double left turn crossovers and free flowing right turn merge conditions (Additional improvement beyond ongoing project needed in long-term)	7	1
35A	Ponce De Leon Avenue	Install right turn lanes on all approaches, including WBR double RT lane. Install double left turn lane for SBL movement.	7	1
10B	Brook Hollow Parkway	Install additional SBL turn lane to provide for a double-left turn movement	7	1
27B	GA 236/Hugh Howell Rd	Install northbound and southbound double left turn lanes, install EBR and WBR turn lanes	7	1
16A	S Norcross Tucker Rd/Singleton Rd	Install quadrant roadway at Oakwood Cir diverting NBL and EBR movements. Prohibit SBL movement at the JCB at Tracey Valley Dr intersection and have them U-Turn at Rockbridge School Rd. Install triple left turn lanes for the WBL and EBL movements and double left turn lanes for the SBL movement	7	1
31B	US 78/Stone Mountain Freeway WB Ramps	Conduct an Interchange Study	7	1

Tier 1 Projects



## Tier 2 Projects

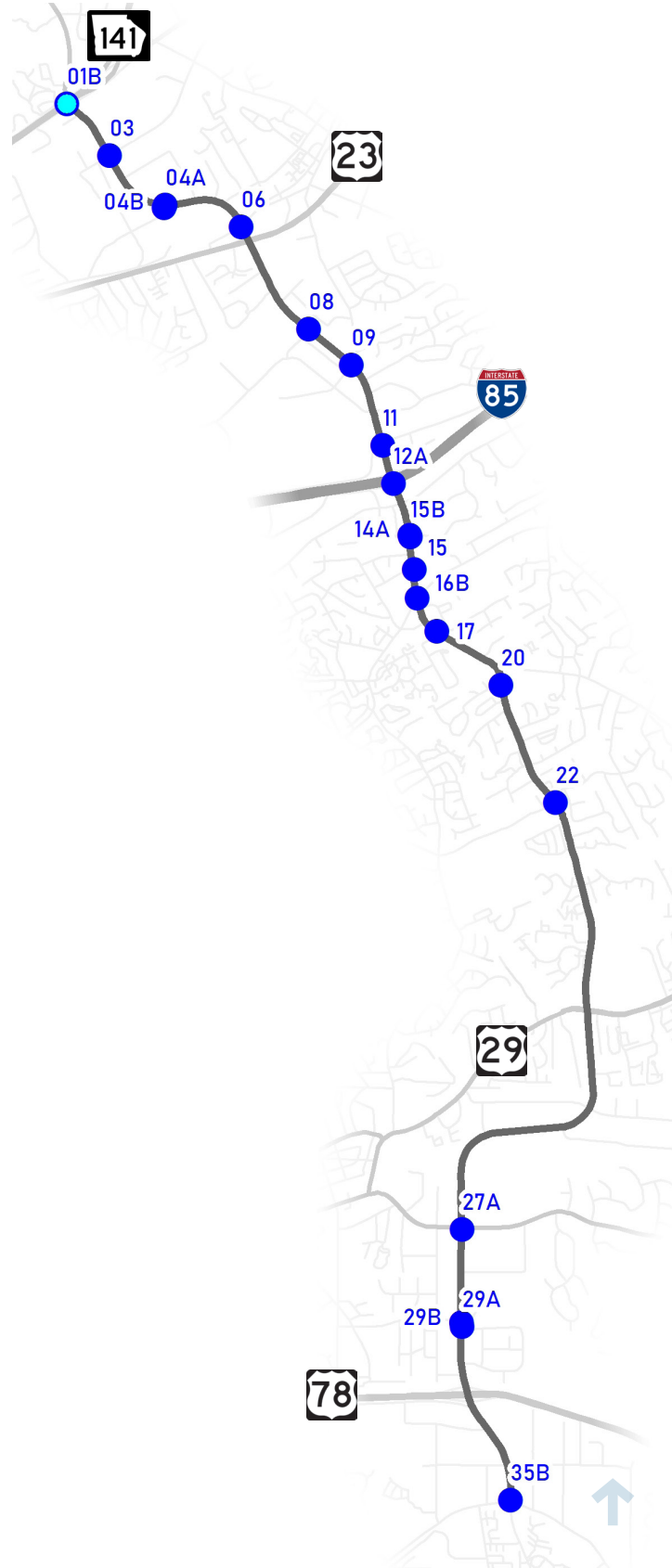
Tier 2 projects should be considered after Tier 1 Projects or in situations where implementation can easily be associated with other efforts. These projects are still highly beneficial and in alignment with corridor goals, but are generally less critical than Tier 1 projects.

### Tier 2 Projects

Project No.	Location	Project Description	Overall Score	Tier
12A	I-85 Interchange	Implement the results of the interchange study (Project 12B)	6	2
04A	Corely Road	Install NBR turn lane along Corley Rd, signalize and provide permissive-protected movement to WBL turning vehicles	6	2
01B	GA 141/Peachtree Industrial Blvd	Conduct an Interchange Study	6	2
35B	E Ponce de Leon Ave	Widen curb radius and install a retaining wall and fill at southeast quadrant of intersection; extend left-turn lane on east leg of the intersection; install median nose delineators at median on south leg; work with property owner to close driveways along Mountain Industrial Blvd. and E. Ponce de Leon Ave. that are closest to the intersection.	6	2
14B	Jimmy Carter Boulevard from I-85 to Singleton Rd	Optimize Signal Timing	6	2
04B	Corely Road	Install NBR turn lane along Corely Rd	6	2
27A	GA 236/Hugh Howell Road	Install northbound and southbound double left turn lanes, install EBR and WBR turn lanes, widen MIB to six lanes	6	2
11	Crescent Drive/Goshen Springs Road	Convert intersection to a Signalized RCUT	5	2
22	Williams Road/Britt Road	Install NBR turn lane, restrict northbound and southbound left turning vehicles and provide sufficient downstream U-Turn accommodations for heavy vehicles	5	2
29A	Elmdale Drive/Roger Marten Way	Install SBR turn lane, install double right turn lanes for the EBR movement and double left turn lanes for the WBL movement, install NBR Turn Lane	5	2



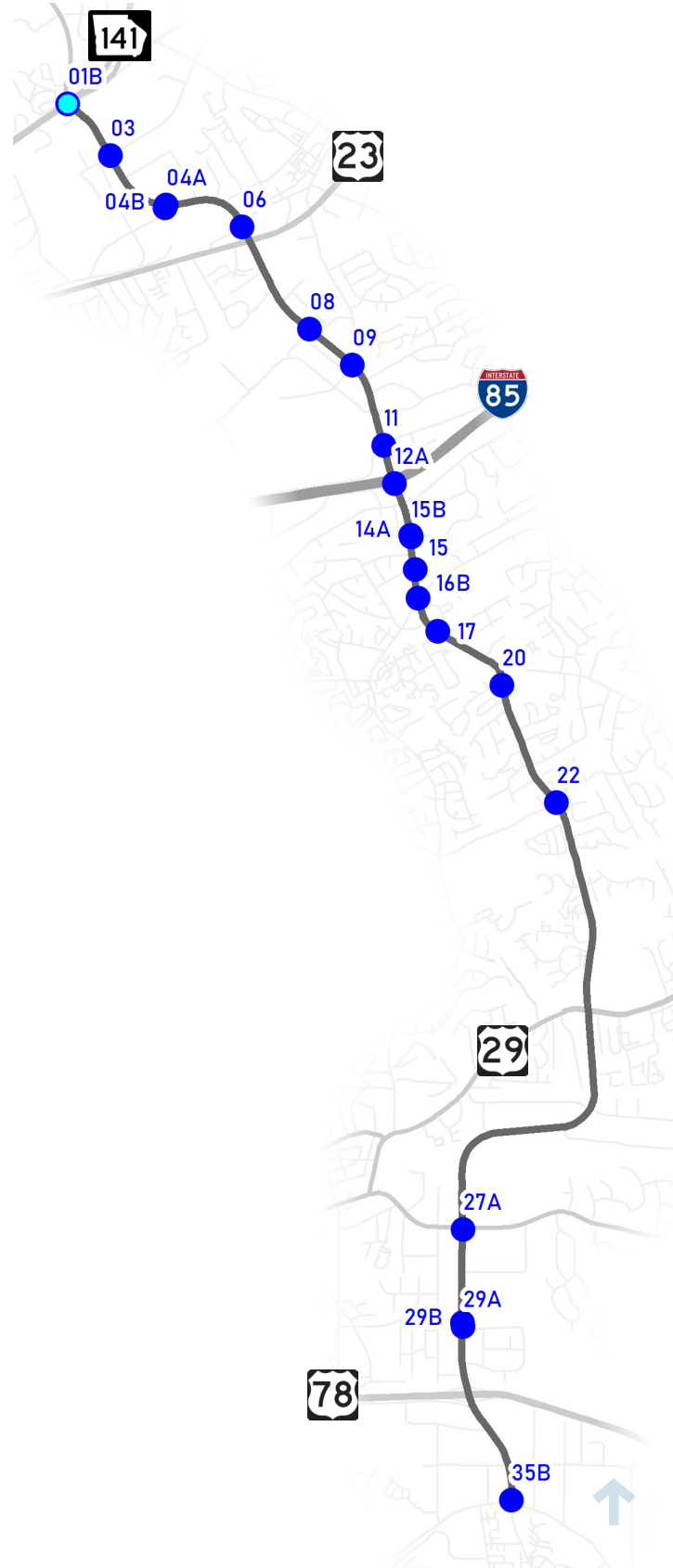
Tier 2 Projects



Tier 2 Projects (continued)

Project No.	Location	Project Description	Overall Score	Tier
06	S. Peachtree Street	Install WBL turn lane	5	2
15	Hayes Drive NWS	Lower minimum split for side streets in the PM peak hour	5	2
14A	Dawson Boulevard/Live Oakbrook Parkway	Convert intersection to a Thru-Cut, install grade separation at Oakbrook pkwy (overpass/underpass) with no turns allowed, use the pavement available to install triple left turn lanes on the EB and WB approaches, install EBR turn bay	5	2
09	N. Norcross Tucker Road	Restrict NBL/Send to U turn at Best Friend Rd, convert SBL to permissive only phasing in the AM	5	2
03	Atlantic Boulevard	Install WBR turn lane	5	2
29B	Elmdale Drive/Roger Marten Way	Install single right-turn lane with channelization and widen curb radius along the northbound approach; widen curb radius at southwest quadrant; reconfigure Roger Marten Way to add a new separate left-turn lane; reconfigure inside lane of Elmdale Dr. to allow left, through, and right turns; convert northbound and southbound left turn signals to flashing yellow arrow (FYAs); install no right-turn-on-red (RTOR) overhead signage on the mast arm above the inside lane to prohibit RTOR from the inside lane of the Elmdale Dr. approach; install sidewalks along Roger Marten Way and west side of Mountain Industrial Blvd. to connect to MARTA bus stops; install backplates with retroreflective borders on all traffic signal heads; repave and restripe Elmdale Dr. and Roger Marten Way, install raised pavement markers on Elmdale Dr. and Roger Marten Way.	5	2
20	Boyett Drive NW/Walmart Driveway	Add EBL turn lane	5	2
16B	S. Norcross Tucker Road/Singleton Road	Convert intersection to a Center Turn Overpass	5	2
17	Gale Drive NW/Tracy Valley Drive	Restrict SBL to accommodate the proposed Oakwood quadrant intersection, divert to U-turn at Rockbridge School Rd	5	2
08	JCB @ Best Friend Road	Provide permissive-protected signal phase to EBL, install SBR turn lane	5	2

Tier 2 Projects



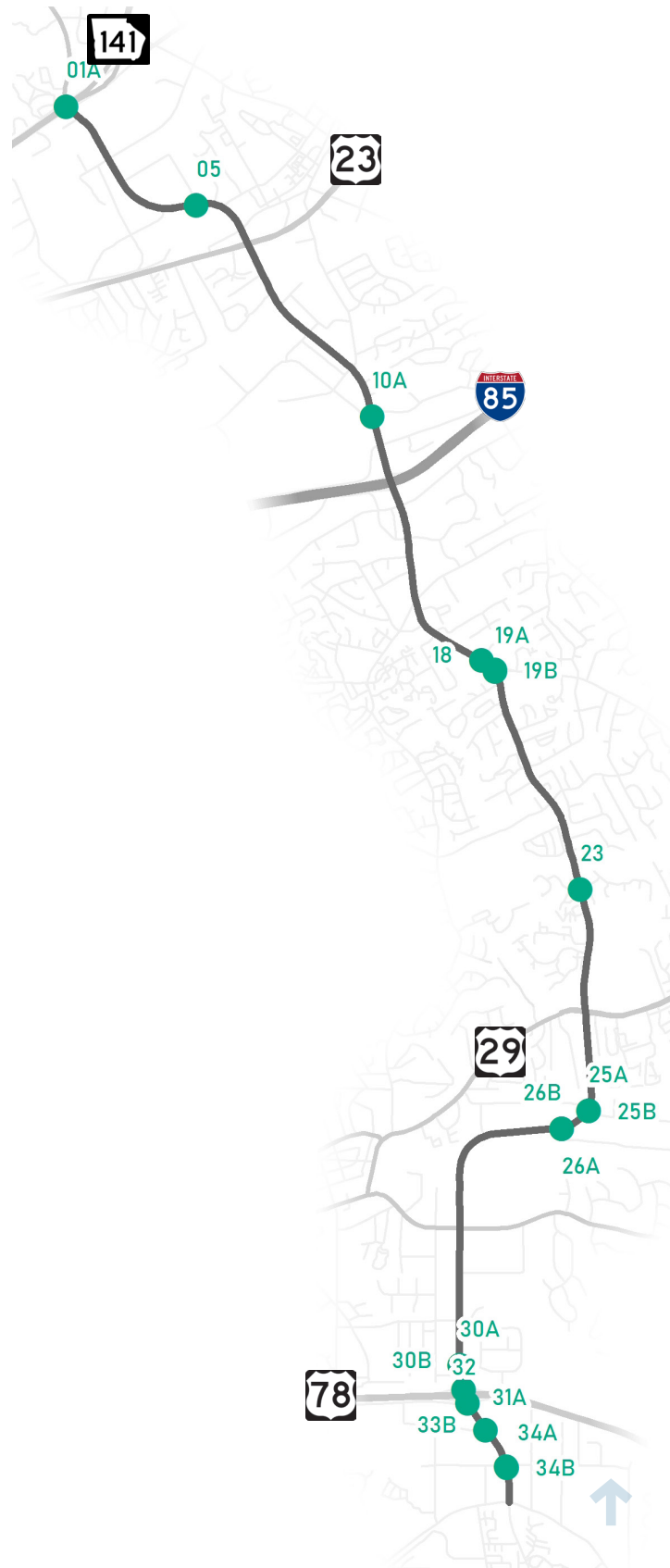
## Tier 3 Projects

Tier 3 projects should be considered after Tier 1 and Tier 2 projects have been implemented or when implementation may become easy by attaching improvements to other planned modifications or to ongoing development in the area.

### Tier 3 Projects

Project No.	Location	Project Description	Overall Score	Tier
01A	SR 141/Peachtree Industrial Boulevard Interchange	Implement results of interchange study (Project 01B)	4	3
10A	Brook Hollow Parkway	Install two quadrant roadways, using the existing Financial Drive roadway in the northeast quadrant and constructing a new facility in the northwest quadrant. Install one northbound and two southbound left turn lanes at the intersection of Jimmy Carter Blvd with Financial Dr/New Quadrant Roadway and signalize this location. Install additional WBT lane	4	3
25A	N Royal Atlanta Drive	Install NBR, SBR, WBR turn lanes, convert NBL phasing to protected only, install EBL turn lane	4	3
25B	N Royal Atlanta Drive	Install single right-turn lanes with channelization and wide curb radii along the northbound, southbound, and westbound approaches; convert southbound, eastbound, and westbound left turn signals to flashing yellow arrow (FYAs); convert northbound left-turn to a protected-only movement; install pedestrian signals and crosswalks across the east and west legs (N. Royal Atlanta Dr.) of the intersection; install ADA ramps at all four corners; install sidewalks along all approaches to connect to MARTA bus stops; install median nose delineators along Mountain Industrial Blvd.; install backplates with retroreflective borders on all traffic signal heads; install supplemental signal heads and "traffic signal ahead" signage along the northbound and southbound approaches; repave and restripe N. Royal Atlanta Dr; install raised pavement markers on N. Royal Atlanta Dr.; work with property owner to consider relocating driveway just west of intersection further away from the intersection.	4	3
19A	Rockbridge Rd	Close IHOP Driveway and provide inter-parcel Access to IHOP with larger development to the north	4	3

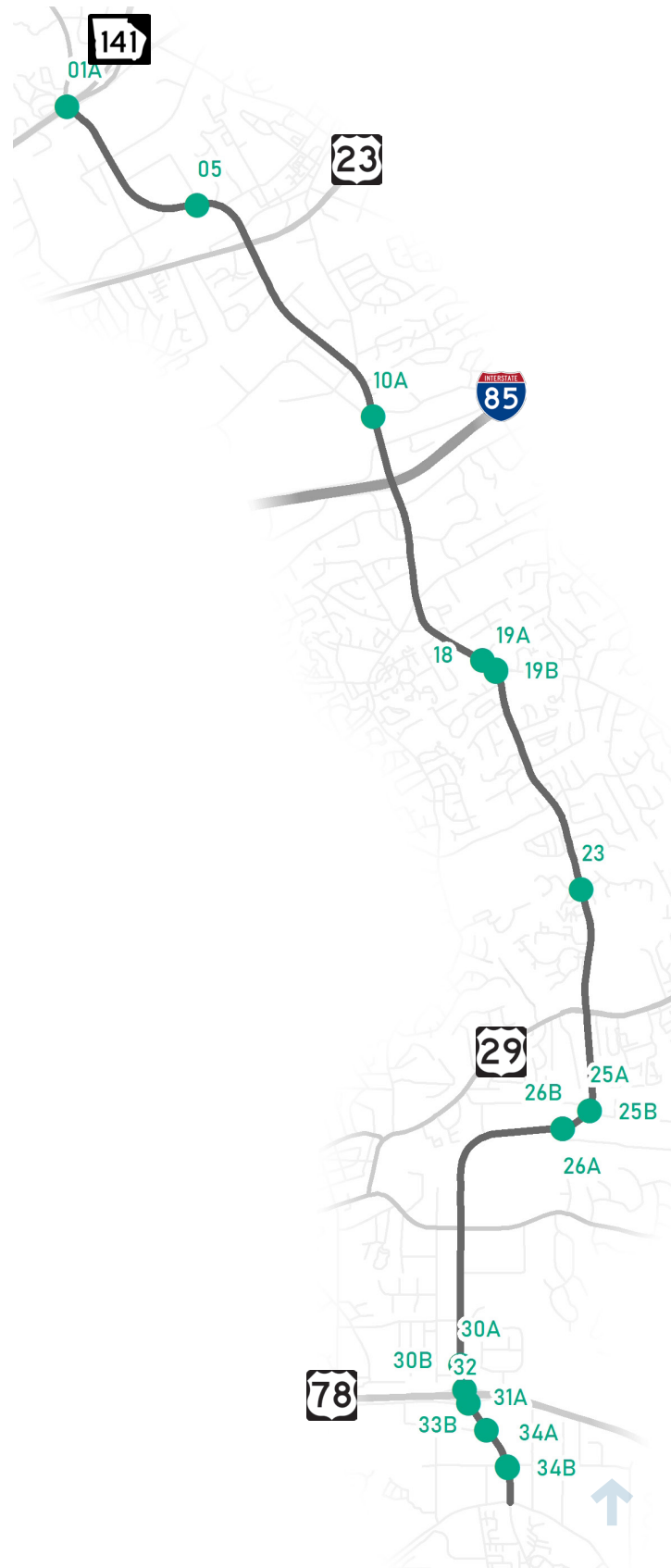
Tier 3 Projects



Tier 3 Projects (continued)

Project No.	Location	Project Description	Overall Score	Tier
34A	Lewis Road	Install EBL and NBR, SBR, and WBR left and right turn lanes, convert SBL movement to a double left turn lane, adjust phasing to allow shorter side street splits	4	3
05	Pacific Drive	Convert intersection to a RCUT, consider unsignalizing this location and installing a signalized RCUT at the northern intersection of Pacific Dr with JCB	4	3
18	Rockbridge School Road NW	Install WB right turn lane	4	3
31A	US 78/Stone Mountain Freeway Interchange	Replace bridge to provide additional capacity, install SBL and NBL double left turn lanes and lengthen the turn bays; install double WBL turn lanes	3	3
30A	Hammermill Road	Install westbound left and NBR turn bays, "Punch" west leg of the intersection through to provide connectivity with Tucker Industrial Rd, install NBL turn lane	3	3
19B	Rockbridge Road	Install signage warning drivers of the drop lane southbound along Jimmy Carter Blvd	3	3
34B	Lewis Road	Install single right-turn lanes with channelization and widen curb radius along northbound, southbound, and westbound approaches; convert all left turn signals to flashing yellow arrow (FYAs); install sidewalks along west side of Mountain Industrial Blvd. and along Lewis Rd. west of intersection to connect to MARTA bus stops; install backplates with retroreflective borders on all traffic signal heads; work with property owner to relocate driveway just west of intersection further away from the intersection.	3	3
26B	S Royal Atlanta Drive	Install single right-turn lane with channelization and wide curb radius along the eastbound approach; remove acceleration lane on west leg and install eyebrow or loon for eastbound U-turns; install pedestrian signals and crosswalks along all approaches; install ADA ramps at all four corners; install sidewalks along all approaches to connect to MARTA bus stops; install median nose delineators along Mountain Industrial Blvd.; install backplates with retroreflective borders on all traffic signal heads; install "traffic signal ahead" signage along the westbound approach; work with property owner to consider relocating driveway just east of intersection further away from the intersection.	3	3

Tier 3 Projects

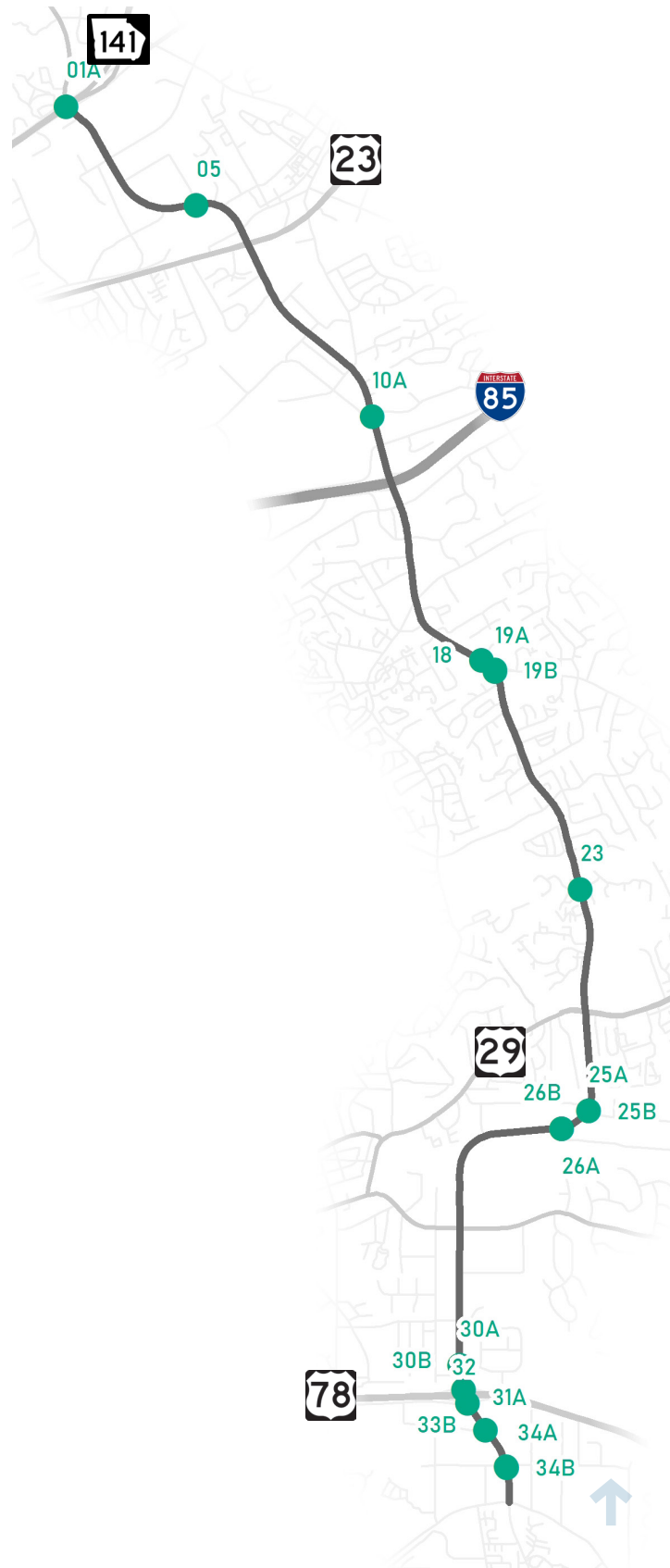


Tier 3 Projects (continued)

Project No.	Location	Project Description	Overall Score	Tier
30B	Hammermill Road	Install single right-turn lane with channelization and widen curb radius along the northbound approach; convert southbound and westbound left turn signals to flashing yellow arrow (FYAs); install sidewalks along west side of Mountain Industrial Blvd. south of the intersection and extend to the US 78 interchange; install one-way pavement markings on west leg, and signage at driveway on west leg to prohibit eastbound traffic; install backplates with retroreflective borders on all traffic signal heads; work with property owner to close driveway to Public Storage just south of the intersection.	3	3
33B	Greer Circle/ DeKalb County Schools Facility Parking Lot	Install single right-turn lane with channelization and widen curb radius along the southbound approach; convert all left turn signals to flashing yellow arrow (FYAs); install protected/permissive phasing for eastbound Greer Cir. left-turn movements; install sidewalks along west side of Mountain Industrial Blvd. and along Greer Cir. west of the intersection to connect to MARTA bus stops; install backplates with retroreflective borders on all traffic signal heads; repave and restripe Greer Cir. east of the intersection; install raised pavement markers on Greer Cir. east of the intersection.	3	3
31A	US 78/Stone Mountain Freeway Westbound Ramps	Replace Bridge to provide additional capacity, install double left turns for NBL movement and lengthen turn bays, install double right turn lanes for WBR movement	3	3
26A	S Royal Atlanta Drive	Install NBL, EBR turn bays	3	3
23	Everest Trail	Convert intersection to a RCUT	2	3



Tier 3 Projects



## Planning Level Project Cost Development

Planning level costs estimates were developed for recommended intersection improvement projects. The GDOT ICE evaluation primary tool was used. Certain project types are not available in the ICE evaluation tool. For these projects the ARC planning level cost estimation tool was used to derive initial costs. Costs were then reviewed and adjusted based on engineering and planning judgment with an eye towards conservative costs. All costs are in 2021 dollars.

### Cost Estimates by Project

Project No.	Location	PE	UTL	ROW	CST	Cntgncy.	Total
01A	SR 141/ Peachtree Industrial Boulevard Interchange	\$835,000	\$47,000	\$2,436,000	\$3,343,000	\$1,332,200	\$7,993,200
01B	SR 141/ Peachtree Industrial Boulevard Interchange	\$300,000	-	-	-	\$60,000	\$360,000
03	Atlantic Boulevard	\$31,000	\$1,000	-	\$126,000	\$31,600	\$189,600
04A	Corely Road	150,000	\$10,000	-	\$467,000	\$125,400	\$752,400
04B	Corely Road	\$31,000	\$1,000	-	\$126,000	\$31,600	\$189,600
05	Pacific Drive	\$169,000	\$9,000	\$452,000	\$678,000	\$261,600	\$1,569,600
06	S Peachtree Street	\$31,000	\$1,000	-	\$126,000	\$31,600	\$189,600
07A	US 23/Buford Highway	\$63,000	\$3,000	-	\$252,000	\$63,600	\$381,600
07B	US 23/Buford Highway	\$174,000	\$9,000	-	\$698,000	\$176,200	\$1,057,200
8	Best Friend Road	\$31,000	\$1,000	-	\$126,000	\$31,600	\$189,600
9	N Norcross Tucker Road	\$37,250	\$2,000	\$113,000	\$149,250	\$60,300	\$361,800
10A	Brook Hollow Parkway	\$420,000	\$24,000	\$3,044,000	\$1,684,000	\$1,034,400	\$6,206,400
10B	Brook Hollow Parkway	\$31,000	\$1,000	-	\$126,000	\$31,600	\$189,600
11	Crescent Drive/ Goshen Springs Road	\$169,000	\$9,000	\$452,000	\$678,000	\$261,600	\$1,569,600
12A	I-85 Interchange	\$1,000,000	\$1,000,000	\$2,436,000	\$30,955,000	\$7,078,200	\$42,469,200
12B	I-85 Interchange	\$300,000	-	-	-	\$60,000	\$360,000
14A	Dawson Boulevard/Live Oak Parkway	1,000,000	\$50,000	-	\$12,000,000	2,610,000	\$15,660,000

Cost Estimates by Project (continued)

Project No.	Location	PE	UTL	ROW	CST	Cntgncy.	Total
14B	Jimmy Carter Boulevard from I-85 to Singleton Road	\$100,000	-	-	-	\$20,000	\$120,000
15	Hayes Drive NWS	\$5,000	-	-	\$15,000	\$4,000	\$24,000
16A	Norcross Tucker Road/Singleton Road	\$328,000	\$28,000	\$1,522,000	\$1,317,000	\$639,000	\$3,834,000
16B	Norcross Tucker Road/Singleton Road	\$1,000,000	\$1,000,000	\$1,000,000	\$30,000,000	\$6,600,000	\$39,600,000
17	Gale Drive NW/ Tracy Valley Drive NW	\$37,250	\$2,000	\$113,000	\$149,250	\$60,300	\$361,800
18	Rockbridge School Road NW	\$31,000	\$1,000	-	\$126,000	\$31,600	\$189,600
19A	Rockbridge Road	-	-	-	\$140,000	\$10,000	\$150,000
19B	Rockbridge Road	-	-	-	\$45,000	\$5,000	\$50,000
20	Boyett Drive NW/Walmart Driveway	\$31,000	\$1,000	-	\$126,000	\$31,600	\$189,600
22	Williams Road/ Britt Road	\$180,000	\$12,000	\$226,000	\$424,500	\$168,500	\$1,011,000
23	Everest Trail	\$169,000	\$9,000	\$452,000	\$678,000	\$261,600	\$1,569,600
24A	US 29/ Lawrenceville Hwy	\$263,000	\$15,000	\$559,000	15,000,000	\$3,167,400	\$19,004,400
24B	US 29/ Lawrenceville Hwy	\$118,000	\$6,000	-	\$475,000	\$119,800	\$718,800
25A	N Royal Atlanta Drive	\$133,000	\$7,000	-	\$535,000	\$135,000	\$810,000
25B	N Royal Atlanta Drive	\$118,000	\$6,000	-	\$475,000	\$119,800	\$718,800

Cost Estimates by Project (continued)

Project No.	Location	PE	UTL	ROW	CST	Cntgncy.	Total
26A	S Royal Atlanta Drive	\$63,000	\$3,000	-	\$252,000	\$63,600	\$381,600
26B	S Royal Atlanta Drive	\$31,000	\$1,000	-	\$126,000	\$31,600	\$189,600
27A	GA 236/Hugh Howell Rd	\$395,880	\$10,000	\$550,000	\$2,500,000	\$502,000	\$3,958,800
27B	GA 236/Hugh Howell Rd						N/A
29A	Elmdale Drive/ Roger Marten Way	\$118,000	\$6,000	-	\$601,000	\$145,000	\$870,000
29B	Elmdale Drive/ Roger Marten Way	\$118,000	\$6,000	-	\$475,000	\$119,800	\$718,800
30A	Hammermill Road	\$144,000	\$8,000	-	\$578,000	\$146,000	\$876,000
30B	Hammermill Road	\$31,000	\$1,000	-	\$126,000	\$31,600	\$189,600
31A	US 78/Stone Mountain Freeway WB Ramps	-	\$720,000	-	\$7,200,000	\$1,584,000	\$9,504,000
31B	US 78/Stone Mountain Freeway Interchange	\$300,000	-	-	-	\$60,000	\$360,000
33B	Greer Circle/ DeKalb County Schools Parking Lot	\$31,000	\$1,000	-	\$126,000	\$31,600	\$189,600
34A	Lewis Rd	\$174,000	\$9,000	-	\$698,000	\$176,200	\$1,057,200
34B	Lewis Rd	\$174,000	\$9,000	-	\$698,000	\$176,200	\$1,057,200
35A	E Ponce de Leon Ave	\$133,000	\$7,000	-	\$535,000	\$135,000	\$810,000
35B	E Ponce de Leon Ave	\$31,000	\$1,000	-	\$126,000	\$31,600	\$189,600



WELLS  
FARGO

## Key Projects and Initiatives

The JCB/MIB Corridor Study has identified myriad projects and initiatives for the funding jurisdictions to pursue. Once complete, these efforts will increase mobility, reduce delay, enhance safety, expand transportation options, and ultimately make the corridor a better place to work and live. Recommended projects, studies, and policies have been organized by travel mode below.

### Car and Freight Mobility and Safety

Personal automobiles and heavy trucks are the biggest users of the JCB/MIB corridor. To improve mobility and safety for this mode of transportation, this study makes the following recommendations:

#### Intersection Improvements by Prioritization Tier

Recommended intersection improvement projects should be implemented by prioritization Tier. Immediate next steps would include identifying responsible jurisdiction, securing funding, and beginning design.

#### Interchange Modification Studies

Three interchanges (Stone Mountain Freeway, I-85, and Peachtree Industrial Blvd) have been identified for modification. Making changes to interstates and freeways is a major undertaking with a long timeline. Interchange Modification Studies (IMRs) are an immediate next step.

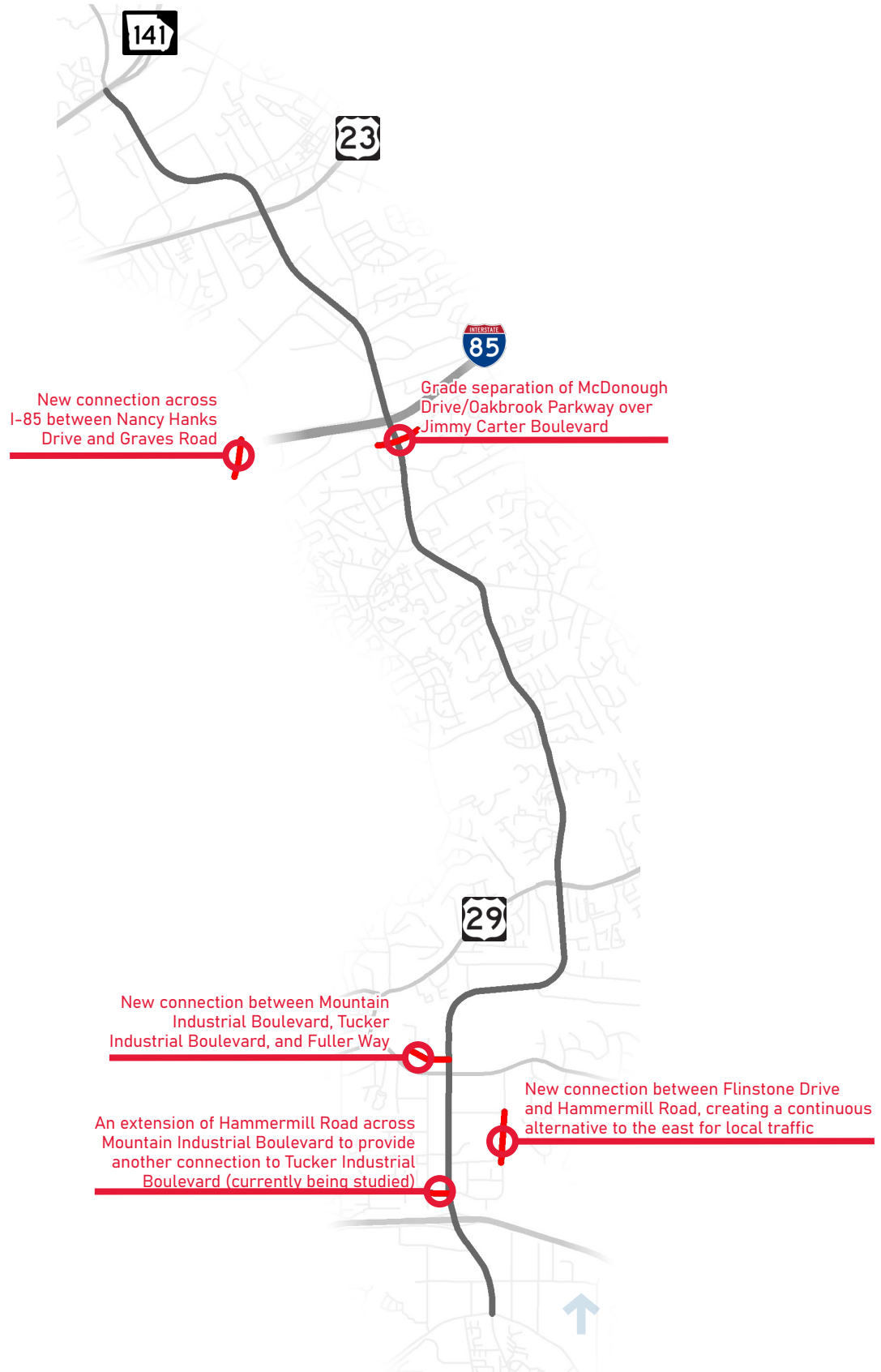
#### TSMO/ITS

Intelligent Transportation Systems have been proven to be a cost effective way to increase mobility on roadways without additional lanes. Immediate next steps to implement ITS technology on the JCB/MIB corridor would include exploring partnerships with GDOT and ARC. GDOT currently actively manages signals on the SR 140 portion of the corridor but not on the non-state route portions. The corridor could benefit from extending the active signal management. Additionally, the Atlanta Regional Commission, through its Strategic Regional TSMO Plan is looking for partners to help fund local ITS studies. This ARC funding opportunity should be further explored.

#### New Road Connections

While most recommendations are focused directly on the JCB/MIB corridor, there are some improvements that can be made off the corridor. These consist of new road connections that will increase routing options and create opportunities to bypass other busy intersections.

## New Roadway Connections



## Transit

The JCB/MIB corridor is already well served by bus transit. The following recommendations could enhance transit along the corridor and provide additional transportation options for workers and residents

### Transit Circulator

Explore the possibility of implementing a transit circulator that connects local Gwinnett County Transit and MARTA bus services. Making the circulator driverless would provide an opportunity to expand automated vehicle/connected vehicle technology.

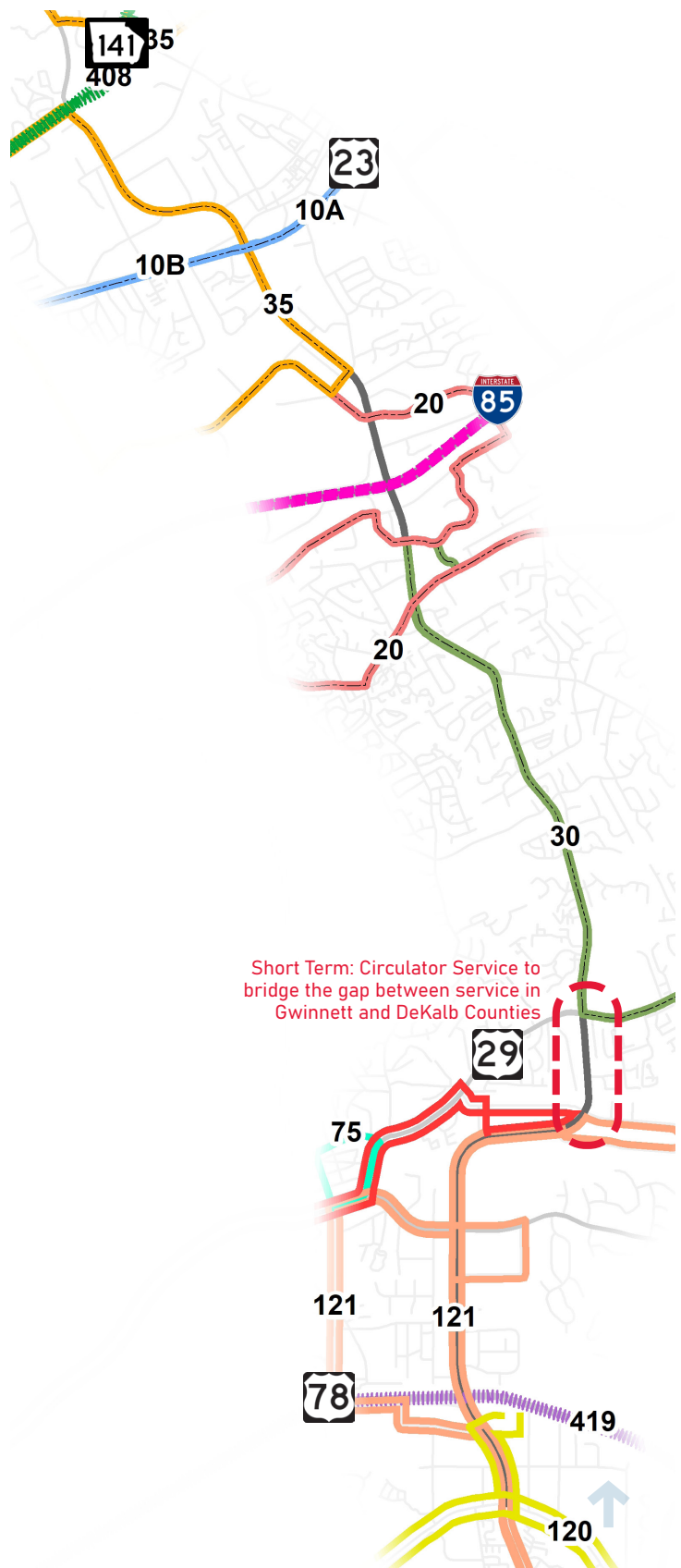
### Higher-Capacity Transit Feasibility Study

While many local routes run along the Jimmy Carter Boulevard/Mountain Industrial Boulevard corridor, the corridor could benefit from a higher capacity transit service more specifically dedicated to the area. The first step would be conducting a multi-jurisdictional transit feasibility study to determine whether such a service could be implemented and operated.

### Demonstration Project

Because the timeline for a feasibility study and eventual implementation of a high-capacity transit service can be particularly long, jurisdictions along the corridor could consider in interim, shorter-term demonstration project displaying how transit service along the corridor could potentially work.

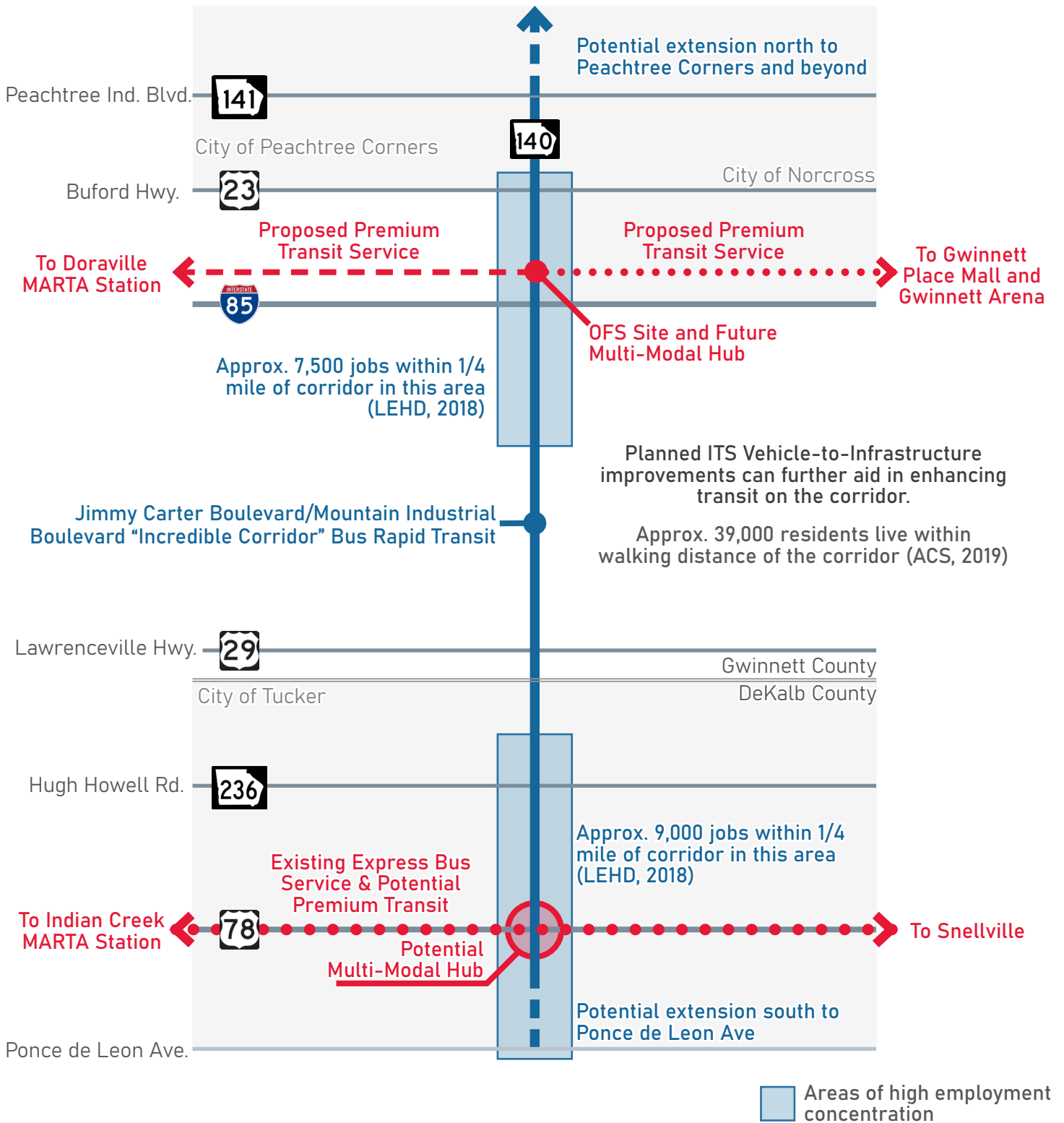
Existing Transit Service





## Potential Corridor Bus Rapid Transit Alignment with Key Connections and Select Features

An examination of the potential for enhanced transit service includes considerations of planned and potential transit transfer stations to transit opportunities on either end of the corridor as well as significant employment and population within walking distance of Jimmy Carter and Mountain Industrial Boulevards. Such an opportunity - as well as the viability of potential expansion beyond the planned transit transfer stations - can be further explored through a cooperative, multi-jurisdictional feasibility study.



### Supportive Pedestrian Infrastructure

Existing and future transit service would be enhanced by the implementation of sidewalks and safer mid-block pedestrian crossings along the corridor.

### Bicycle and Pedestrian

While the JCB/MIB corridor is dominated by car and truck use, there is an distinct need to improve the walking experience. These improvements would enhance pedestrian mobility as well as transit use.

### Sidewalk Projects

Missing sidewalk links have been identified along the corridor. These missing links should be filled in by building new sidewalks along the corridor. Sidewalk projects identified in section three of this study should serve as a guide.

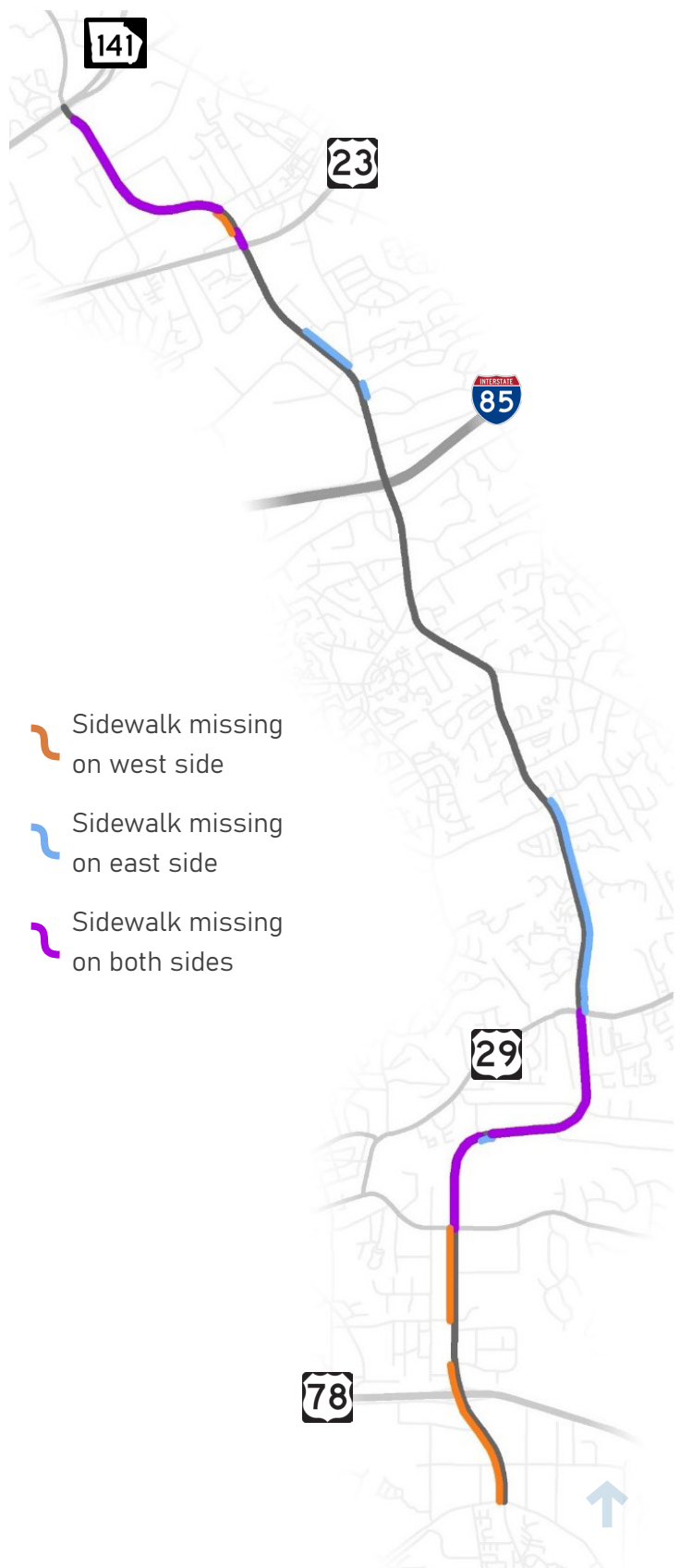
### Mid-Block Crossing Study

Pedestrian safety is dependent on the ability to safely cross the road as much as it is by the sidewalks along side it. The Jimmy Carter Boulevard/Mountain Industrial Boulevard corridor has safe crossing only at signalized intersections which creates long stretches with no mid-block crossings for walkers. An immediate next step would be to conduct a mid-block crossing study for the corridor with a goal of having a safe pedestrian crossing at ¼ mile intervals.

### Implement Corridor Wide Sidewalk Standards

The corridor would benefit from an updated and consistent sidewalk standard among all jurisdictions adjacent to JCB/MIB. Such standards could enhance the look and feel of the corridor as well as providing a better experience for pedestrians. Standards should include a buffer between the road and sidewalk, and the possibility of a multiuse path on one side of the road to provide bicycle accommodations as well.

### Sidewalk Gaps



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## State Maintenance

Currently, Jimmy Carter Boulevard north of I-85 is part of State Route 140. However, the portion of the Jimmy Carter Boulevard/Mountain Industrial Boulevard corridor south of I-85 is owned and maintained by Gwinnett County and then DeKalb County. This disjointed maintenance adds an additional challenge to the application of public funds to corridor-wide improvements. As a multi-lane, multi-jurisdictional arterial that serves a regional travel pattern, the study corridor would be well-suited to be state maintained.

Frequently, GDOT prefers to not add new state route mileage, but prefers to transfer state maintenance from one location to another. After a preliminary review of other state routes in the area, it may be possible to return SR 378 to local maintenance in exchange for an extension of SR 140 south to US 78. The length of SR 378, from US 23/SR 13/Buford Highway to US 29/SR 8/Lawrenceville Highway includes:

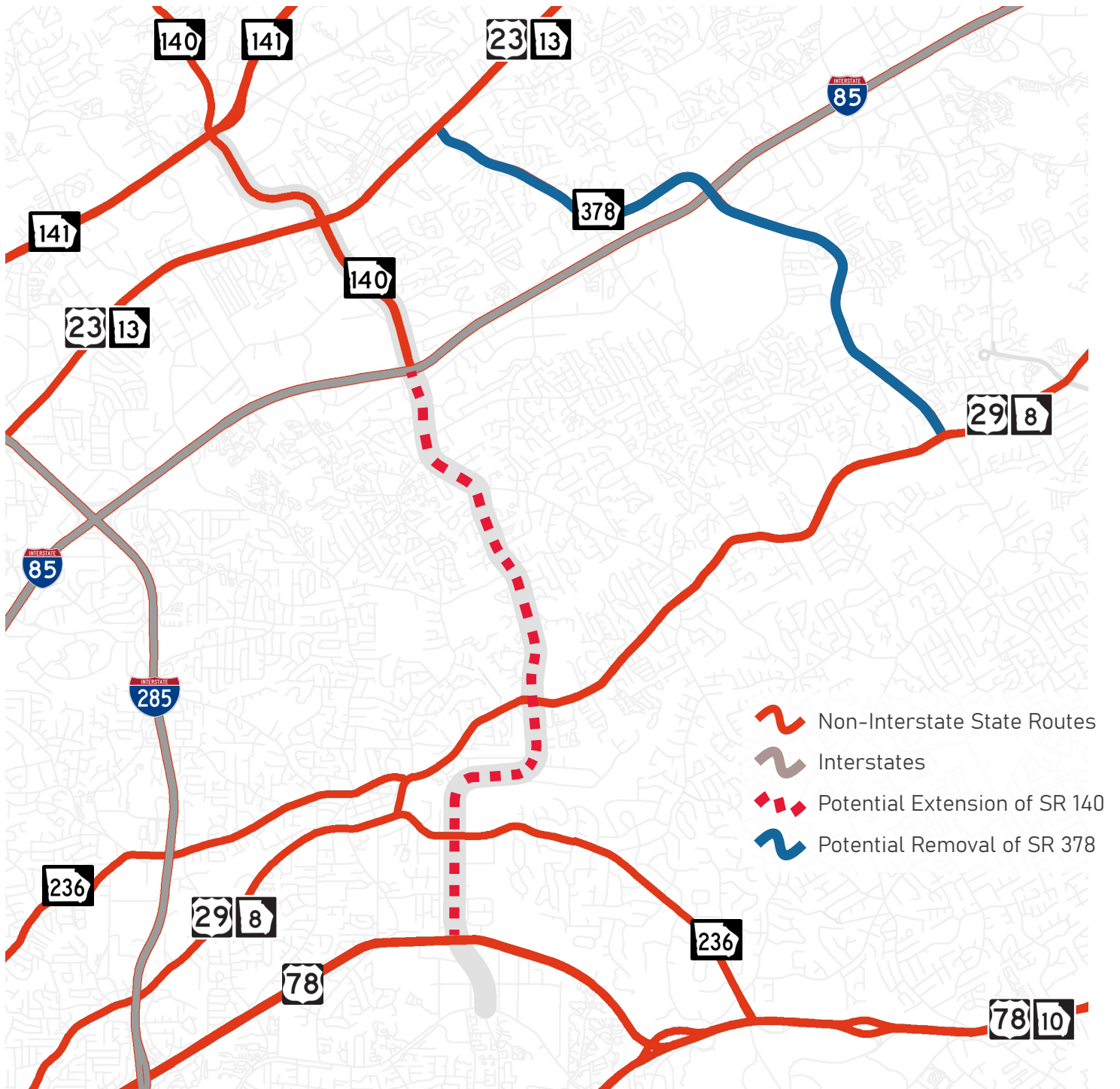
- 6.4 linear miles of roadway in Gwinnett County, and
- 27.1 lane-miles in Gwinnett County.

The extension of SR 140 from I-85 south to US 78 would include:

- 6.3 linear miles of roadway,
  - 3.4 miles in Gwinnett County and
  - 2.9 miles in DeKalb County, and
- 27.8 lane-miles,
  - 16.2 lane-miles in Gwinnett County, and
  - 11.6 lane-miles in DeKalb County

This conversion would place more facility in Gwinnett County under local maintenance while in DeKalb County, more facility would become state-maintained. Additional modifications or agreements may be needed to make the deal equitable and attractive to all parties.

## Potential State Route Transfer





**JCB** | JIMMY CARTER BOULEVARD &  
**MIB** | MOUNTAIN INDUSTRIAL BOULEVARD  
CORRIDOR STUDY

Prepared by

**POND**