

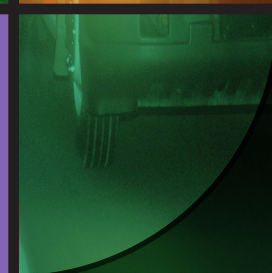
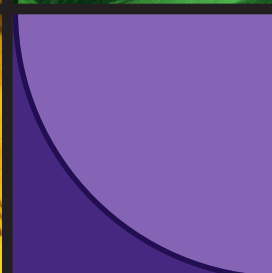
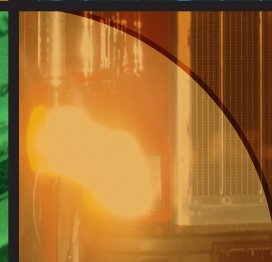
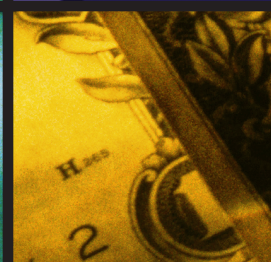
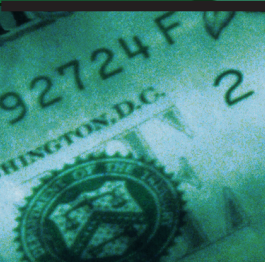
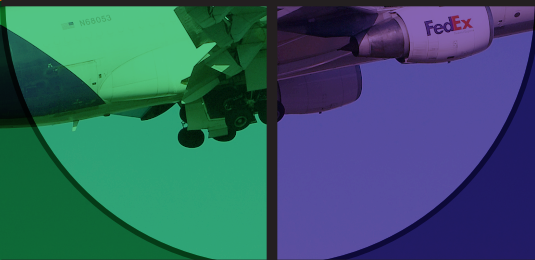
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ARC

Atlanta Regional Freight Mobility Plan
Executive Summary



Plan Goal:

Enhance regional economic competitiveness by providing efficient, reliable and safe freight transportation while maintaining the quality of life in the region's communities.

Plan Objectives:

Facilitation of an understanding of the importance of freight mobility to the region's economy and quality of life;

Development of a dialogue between public decision makers and private sector freight stakeholders regarding freight needs and strategies;

Integration of freight considerations in the public planning processes at all levels;

Identification of a regional freight transportation subsystem that is recognized as being essential to continued regional economic growth; and

Development of a goods movement action plan that is data driven and stakeholder informed.

Plan Overview

Building on recommendations of the Atlanta Regional Freight Task Force, ARC and GDOT began work activities to develop the Atlanta Regional Freight Mobility Plan in late 2005. The Study was a jointly funded effort by ARC and the Georgia Department of Transportation. The development of a data-driven, policy-based Regional Freight Mobility Plan for the Atlanta Metropolitan area is essential to the identification and prioritization of improvements that accommodate mobility of both people and goods while mitigating the negative impacts on congestion, safety, and communities.

Plan Development Process

This effort represents the region's first comprehensive examination of goods movement and freight mobility. As such, it was comprehensive in terms of examining a wide range of associated issues and concerns.



Exhibit 1: Atlanta Regional Freight Mobility Plan Development Process



Economic Implications of Freight Transportation in the Atlanta Region:

A 5% decrease in truck transportation employment would bring an annual loss of nearly \$1.6 billion in GRP for the Atlanta region within about twenty years. It would cost over \$760 million in personal income and nearly 7,000 full-time jobs lost.

A 20% reduction in trucking employment would lose more than \$6.2 billion in Atlanta GRP, \$3.0 billion in personal income and almost 27,000 full-time jobs.

A 5% increase in transportation costs in the Atlanta region would cause decreases of 15% in employment, 6% in personal income, nearly 8% in gross regional output, and \$7.3 billion in state and local tax revenue in the year 2030.

Investing to decrease transportation costs by just a half percent in the Atlanta region could generate \$825 million in state and local tax revenue annually by 2030.

A critical component of the study effort and the resulting recommendations was the extensive participation of the private sector freight stakeholders. Representatives of private sector freight interests including operators, carriers, shippers and logistics service providers contributed in many ways including participating in:

- O/D surveys throughout the region;
- Web-based surveys
- One-on-one interviews
- Mapping of local and regional bottlenecks
- Executive freight forum with local policy makers
- Freight supportive land use workshop with local planners
- Project committees including the Steering Committee and Technical Advisory Committee



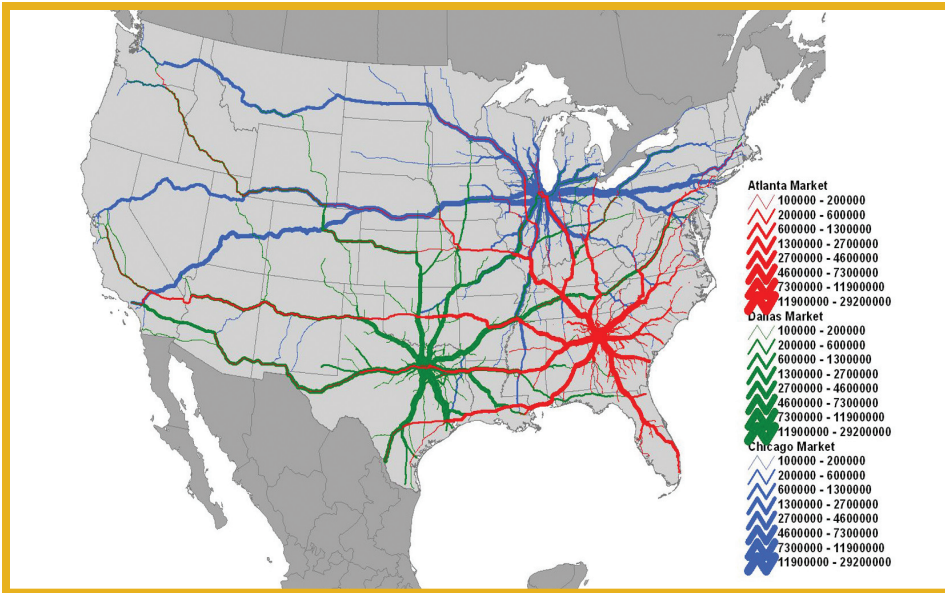
Key Challenges, Needs and Opportunities

The Atlanta region is one of the strongest and fastest growing logistics clusters in the nation. Metropolitan Atlanta ranks fifth in the nation in transportation and logistics employment and the State of Georgia was recently ranked as the best states for logistics because of its air, ground, rail and sea facilities as well as corporate logistics centers and intellectual capital. As a result of the strategic role the region plays in the nation's freight system, identifying and programming effective improvements to accommodate increasing freight, goods, and services movement in the Atlanta area is critical to the region's economic vitality and quality of life. Key freight mobility findings, needs and challenges include:

- **The Region is a Major Freight Hub and its Economy Depends on Freight Mobility.**



Atlanta Regional Freight Mobility Plan Executive Summary



Chicago, Dallas and Atlanta are the three largest inland distribution centers in the nation.

As a thriving regional transportation hub, the Atlanta region has one of the highest concentrations of workers in wholesale trade and transportation services of any area in the country with over 520,000 employees. Located at the intersection of major interstate routes, including the I-85 and I-75 highways at the compass corners bisected by I-20 running east/west, and also encompassing main lines of the Norfolk Southern and CSX railroads, Atlanta is a major transportation and distribution center. Its Hartsfield-Jackson International Airport is a main node in global air transport, and major marine container ports lie nearby, linking world commerce to southeastern markets and points beyond. Atlanta is just 250 miles, or half a day's drive, from the burgeoning Port of Savannah, and within 350 miles of the Ports of Charleston and Jacksonville.





Atlanta Regional Freight Mobility Plan Executive Summary

- **Metropolitan Atlanta’s twenty counties represent the 7th highest volume of freight tonnage among U.S. metropolitan markets in 2005.**

In 2005, nearly 1 billion tons of freight traveled on the region’s transportation system. In 2030, total freight tonnage is projected to increase by 78 percent to nearly 1.7 billion tons. The counties with the highest levels of freight movement include Fulton, Gwinnett and Cobb counties.

Freight Flows by Mode for the 20-county ARC Region, 2005 to 2030 (in tons)

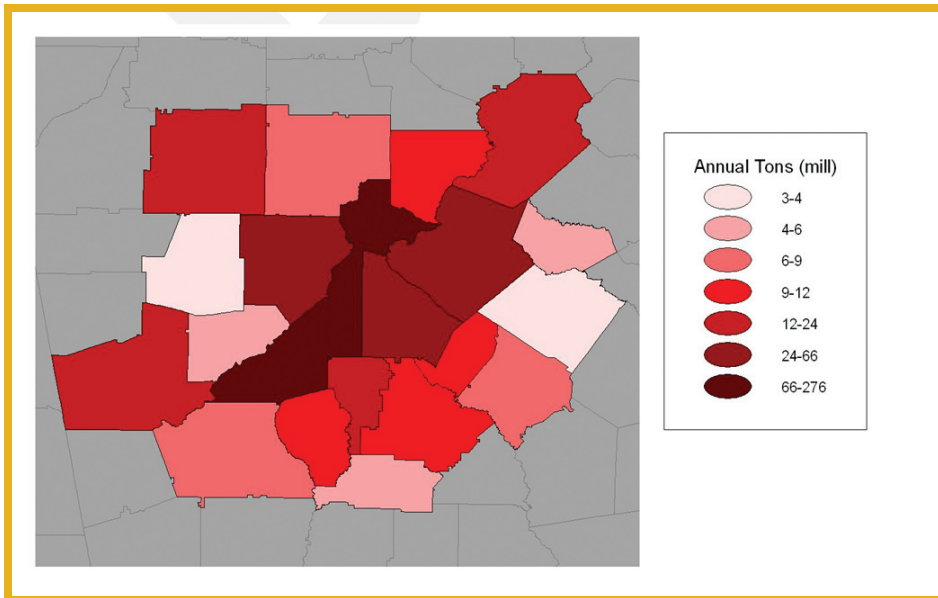
		2005	2030	% Change
Truck	Local	102,907,000	222,199,000	116%
	Outbound	105,622,000	215,885,000	104%
	Inbound	304,225,000	546,004,000	79%
	Through	328,464,000	555,754,000	69%
	TOTAL	841,220,000	1,539,844,000	83%
Air	Outbound	280,000	678,000	142%
	Inbound	1,078,000	2,687,000	149%
	TOTAL	1,359,000	3,366,000	148%
Rail	Local	64,000	190,000	195%
	Outbound	2,961,000	7,261,000	145%
	Inbound	31,498,000	50,759,000	61%
	Through	75,271,000	92,502,000	23%
	TOTAL	109,795,000	150,714,000	37%
All Modes	TOTAL	952,374,000	1,693,924,000	78%

Freight Originating and Terminating in the Atlanta Region, By County

Trucking handled 88% of the freight tonnage moving in the Atlanta region, in 2005:

It is the primary connection between the rail, sea and air networks, making it simultaneously the workhorse and the harness for the multimodal system. By 2030, trucks will account for 91% of all freight





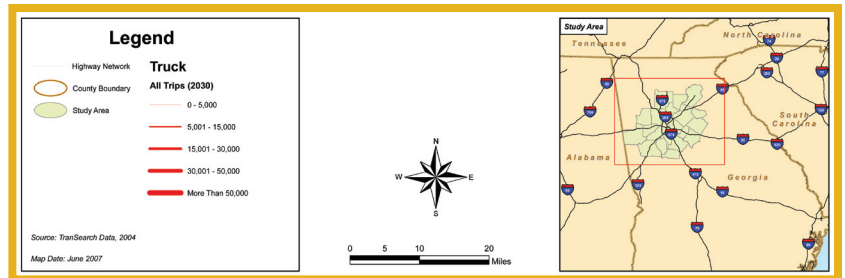
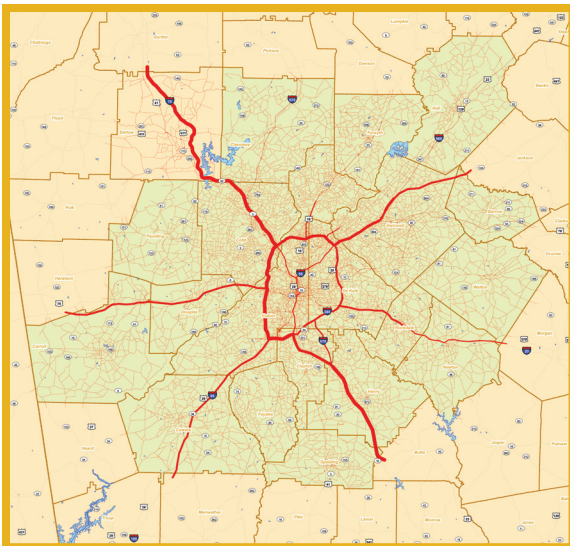
Freight originating and terminating in the Atlanta region, by county

traffic, and the increase in freight volumes will result in more than 140,000 additional trucks on the region's highway system daily. The I-75/I-285/I-75 highway will be the region's most concentrated corridor for truck traffic in 2030. The northern section of I-85 and the western section of I-20 also will continue to bear prominent and heavy volumes of freight.

- **Rail accounts for 12% of Atlanta's freight tonnage:** Two-thirds of the traffic is passing through, yet it fulfills an important role in essential economic sectors like the supply of feedstock to electric utilities, and the burgeoning international trade. Atlanta is served by the two primary Class I railroads operating in the Eastern United States, CSX Transportation and Norfolk Southern, along with three small railways.
- **Air cargo activity is dominated by Atlanta-Hartsfield Jackson International Airport:** The airport ranks 10th among U.S. airports and 25th internationally for tonnage.
- **The Port of Savannah is the primary seaport serving the Atlanta region:** Located approximately 250 miles to the southeast, Savannah together with Charleston forms the center for containerized trade in the South Atlantic.



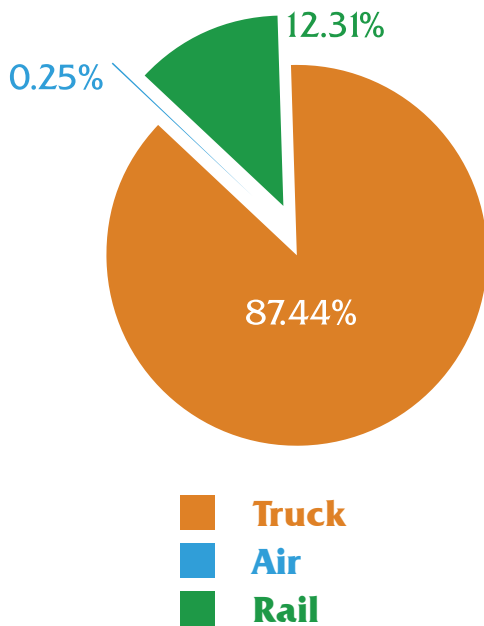
Atlanta Regional Freight Mobility Plan Executive Summary



Projected truck volumes in ARC region, 2030

- **The systemic needs for current and future freight mobility in the Atlanta region summarize as seven key issues:**

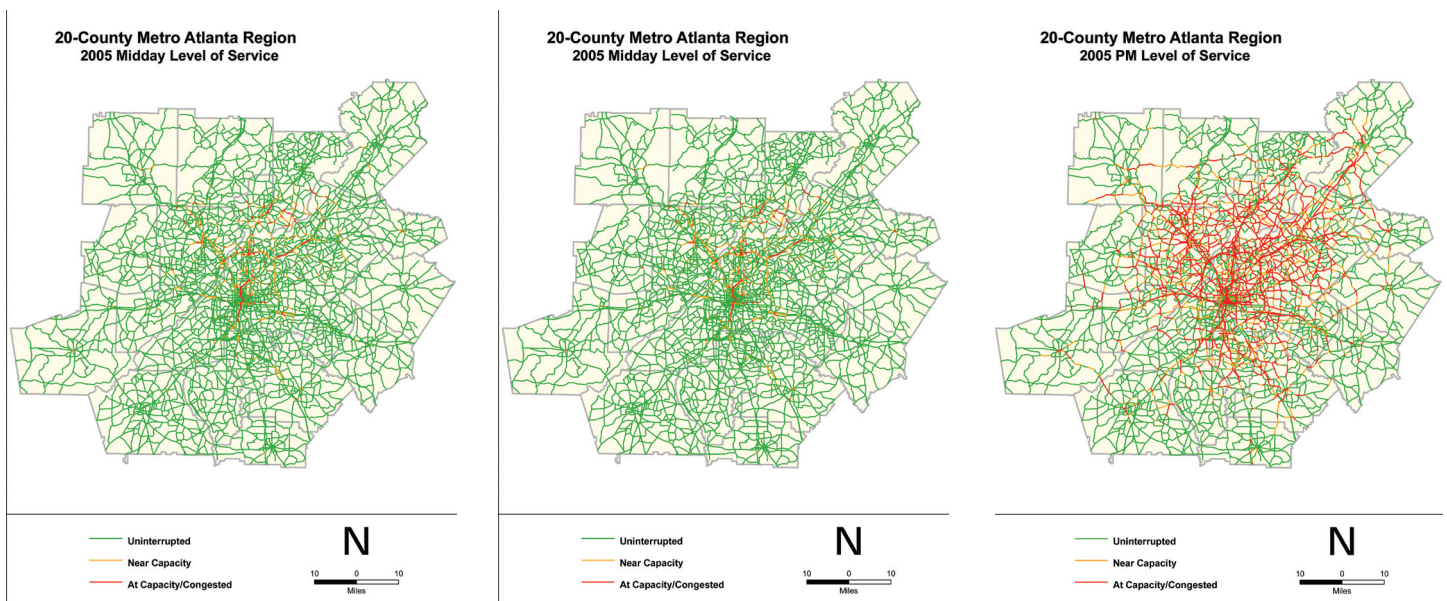
Total tonnage by mode for the 20-county ARC regions, 2005



- System Capacity
 - Regional Approaches
 - Freight System Operations
 - Safety
 - Land Use Conflicts
 - Education and Public Awareness
 - Community and Environmental Impacts
- **Congestion and capacity limitation are the major issue affecting freight mobility in the Atlanta region.** There are five leading multimodal deficiencies and challenges to address. Roadway congestion; bottlenecks at key interchanges and intersections; lack of comprehensive regional truck route system; at-grade crossings; and deficient rail capacity.
 - **The roadway system is severely congested along all major arteries in the region during the morning and evening rush periods.** The top loop of I-285 and extensions northward, and the west side of I-20 are at full capacity from 3 PM to 7 PM. Service levels greatly improve during the midday hours of 10 AM-3 PM, and again at night. The percentage of trucks is often higher



Atlanta Regional Freight Mobility Plan Executive Summary



during off-peak hours, but with passenger traffic greatly reduced, the level of service improves.

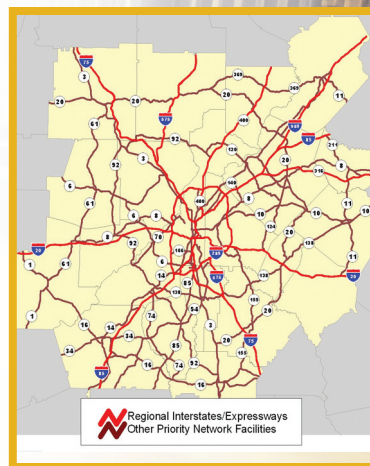
2005 Atlanta region morning-midday-evening levels of service

- **Intersections and interchanges are the chief form of congestion bottleneck affecting freight travel, according to logistics stakeholders.** Among the interchange bottlenecks are three of the twenty called worst in the nation: the I-75/I-85 interchange, the I-85/I-285 Interchange and the I-75/I-285 interchange. Common issues include:
 - Inadequate geometrics and signal timing at intersections on key corridors;
 - At-grade crossings with heavy train volume that intersect key arterial routes;
 - Congestion and inadequate merging lanes at interstate-to-interstate interchanges, and lane restrictions around them.
- **One of the most significant problems identified by logistics stakeholders is the lack of a regional truck route system which leads to the inability to cross the city transversely by truck, without resorting to I-285.** The region's surface routes are formed as radials from the city's center, rather than as a grid system of intersecting arterials, leaving no good way to move across town. The absence of traverse surface arterials comprising

a regional truck route system also implies a lack of relief routes. Cross-town truck drivers who have no alternative to using I-285, also have no alternative when it locks up, forcing congestion back along its major interstate feeders even at non-peak periods.

- **A principal recommendation of the Freight Mobility Plan is the designation and development of a Regional Priority Freight Highway Network (PFHN).** The PFHN is based on stakeholder input, truck concentrations, connection to industry and other modes, and roles in serving local and regional needs. The PFHN

The proposed Atlanta Regional Priority Freight Highway Network



does not yet form an efficient truck route system, because the design, signaling, connectivity, usage, and management of many of the designated facilities are not “truck friendly” making them inadequate for freight. It is these deficiencies that development of the PFHN will address, reducing reliance on interstates, moderating their congestion, and upgrading the operation of freight throughout the region.

- **At-grade rail crossings not only affect freight and passenger mobility on and off the rail, they also create safety risks for the traveling public and harm the public attitude toward freight:** As rail tonnage is projected to grow by 37 percent and high-speed intermodal trains by much more, the delays and safety concerns



associated with at-grade crossings will only increase. There are over 1,600 at-grade rail crossings in the 20 county region and there are 15 crossings in the 20-county area where the roadside vehicle volume exceeds 20,000 per day; the most significant locations for high vehicle volumes and large numbers of crossing trains are in Gwinnett County.

- **Resolution of capacity limitations is the first requirement for long-term development of freight rail services in the Atlanta region.** It affects rail operations in the whole southeastern market, and just as clearly requires regional network investments.
- **Two concerns for the future of intermodal rail service are the marginalization of trailer operations, and the long-term effect of growth on terminal capacity:** Trailer service is an incentive for motor carrier adoption of rail. Quadrupling growth in intermodal traffic could push terminals out of town. To preserve in-town terminals as crucial assets with material public benefits requires sustained access to high-service trains via direct or shuttle connections, and land planning that anticipates rail.
- **Among the operational issues arising during plan development, the three most commonly identified by a spectrum of stakeholders were the need for improved network management, updated design standards to accommodate newer commercial vehicle requirements, and an updated and properly signed regional truck route system.**

ITS for Network Management: Extension of Georgia Navigator as a proactive system has wide appeal as a means of enhancing communication, diverting drivers away from trouble spots, and assisting trucks caught in traffic.

Design Standards: Design deficiencies on freight routes and at freight facilities include elements such as inadequate lanes, signal timing and pavement standards. These factors directly affect the cost of transporting freight in the region and thereby its economic competitiveness.



Regional Truck Route System:

A core roadway freight system is fundamental to supporting the efficient and reliable movement of goods. This does not exist in metropolitan Atlanta today, and the Priority Freight Highway Network is proposed to create it.

Private Sector Input

Coca-Cola Enterprises is one major company interested in moving a portion of their operations off-peak. The company's market objective is to have product within ten minutes of any consumer, and this means that distribution is a fundamental part of its business. The more productive the delivery fleet becomes through less time spent in traffic, the lower the capital requirement for truck equipment and the better the return. For this company, whose association with Atlanta goes back over a century, congestion on the roadways has a direct influence on their market effectiveness and their attraction of capital. In their evaluation, roadway improvements can be helpful, but no investment the region could make would produce benefits comparable to evening operations.

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In response to capacity constraints and increased service requirements, private sector stakeholders continue to modify their shipping and receiving practices: One opportunity may be off-peak deliveries, motivated by the much better operating conditions offered on the roadways at night – as 1996 Olympics planning recognized. A variety of food and retail distributors have a desire to move to night deliveries if receivers become willing to accept them. Receivers have good business reasons for resistance:

Freight supportive land use planning is a critical and proactive step toward sustaining greater Atlanta's economic vitality, mobility and quality of life. The goals of the plan are:

- “Peaceful coexistence” of freight and non-freight land uses.
- Efficient and safe access and mobility for freight transportation purposes.
- Support for smart transportation planning and projects.



Atlanta Regional Freight Mobility Plan Executive Summary



Two key areas of land use that must be addressed are encroachment and redevelopment: Residential and industrial conflicts are now commonplace. They become costly when freight traffic can no longer access established industrial areas due to neighborhood restrictions, noise abatement policies, no-truck routes requiring a circuitous approach, or heavy congestion along previously adequate access routes. The issue is not that industrial and residential areas need to be made separate; the issue is access, through the retention of clear, efficient truck routes into industrial centers as residential areas develop.

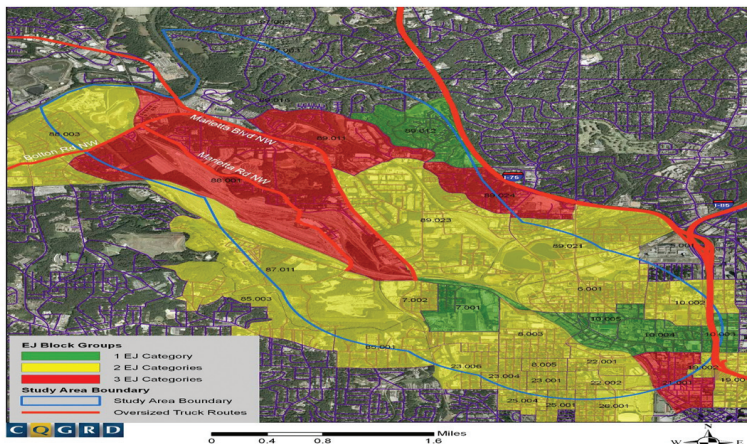
The development sprawl characteristic of greater Atlanta is causing companies in exurban locations to find themselves too far away from the core market: The solution is redevelopment of older freight areas. Public assistance in the assembly of land parcels could help answer the need for much larger facilities for modern distribution, ultimately leading to reductions in truck travel distances and their associated effects.



There is clear demand for a regional approach to the diversity of freight mobility requirements and planning factors affecting the freight subsystem: Inefficiencies in a single locality may limit freight mobility through much of the 20-county region. While many matters are the domain of local governments, ARC has access to resources to their plans. It is through these resources, as well as through its own sense of purpose and exercise of leadership, that ARC can influence and promote planning to accommodate and improve freight mobility.

Safety is a critical component of freight transportation and is treated with high importance by motor carriers: The number of commercial vehicle crashes increased more than 40% between 2000 and 2005. Six out of 10 crashes involving were caused by the commercial vehicles themselves. Eleven corridors were identified as freight safety hotspots. These corridors include:

- I-285 in Clayton, DeKalb and Fulton County;
- I-75 between SR 140 and I-20;
- I-75 between I-285 to SR 138 in Clayton County;
- SR 5 to I-285 in Cobb County;
- I-75 from I-675 to SR 16 in Spalding County;
- I-85 in Coweta, DeKalb and Fulton County;
- I-20 in DeKalb, Douglas, Fulton and Rockdale County;
- SR 20 at SR 316 in Gwinnett County;
- US 78 in Gwinnett County;
- US 23 in Gwinnett County; and
- SR 16 in Spalding County.



The advancement of proactive freight mobility planning and support for freight specific projects will hinge on the level of public appreciation for the attendant benefits, and for the importance of freight mobility for regional competitiveness and quality of life:

The communication of these benefits (and of the cost of failing



to provide for freight) is essential to move from a “not in my backyard” mentality to one of accommodation, while facing and mitigating the negative effects of the logistics sector.

- **Demographic analysis reveals that several well-established freight areas need to deal with mitigation of environmental justice issues and the prevention of new environmental justice communities:** Issues related to freight movements include health impacts, air and noise pollution issues, hazardous materials spills, accidents caused by truck movements, noise pollution and vibration, and safety issues can have serious health implications for community residents. Notable EJ issues are a concern in zones around Atlanta Road/Marietta Boulevard, Fulton Industrial Boulevard, and Fairburn.
- **There is no one-size-fits-all approach to making freight a good neighbor for a community, but a wide range of practices to balance or mitigate the presence of freight facilities and operations have been developed and implemented:** Examples include modifying the hours of freight operations to reduce noise impacts, incorporating low emission technologies and practices, and creating buffer zones to transition between freight/industrial uses and residential uses in an effort to address land use conflicts.

Key Strategies and Recommendations

There is no single solution to address goods movement requirements. Instead what is necessary is continuous and simultaneous implementation of multi-dimensional strategies, coordinated across greater Atlanta. Recommendations are grouped into the overarching dimensions of institutional and policy initiatives, operational improvements, and infrastructure development. Key recommendations include:





Atlanta Regional Freight Mobility Plan Executive Summary

- Conduct peer exchanges with other comparable regions; provide local government freight-related training and capacity building; and begin feasibility discussions on establishing a multi-state I-75 Coalition.
- Incorporate freight-specific measures into project prioritization procedures.
- Establish a Freight Corridor Traffic Signalization Improvement Program to improve signal timing and support efficient freight movement along the priority freight corridors.
- Prepare a Regional Truck Route Plan and identify freight districts signage improvements
- Upgrade Regional Priority Freight Highway Network routes, where needed, to meet minimum geometric and weight requirements to support freight movement needs
- Implement a Georgia Navigator Freight-User Communications Program encouraging increased use of incident-related information by private-sector freight dispatchers.
- Encourage discussions at the Land Use Coordinating Committee (LUCC) to lead discussions identifying opportunities to preserve important freight-related corridors and districts.



Atlanta Regional Freight Mobility Plan Executive Summary



- Prepare Model Freight-Related Land Use Guidelines and Site Design Standards
- Implement an Off-Peak Delivery Pilot Program promoting off-peak deliveries in key commercial areas.
- Enhance bottleneck interchanges on the Regional Freight Priority Network through redesign, operational improvements, and capacity expansions such as grade-separations.
- Work with governments and the private sector to mitigate issues associated with crossings including reducing the number of at-grade crossings. This includes grade separation and crossing consolidation.
- Develop truck friendly lanes on intermodal connectors for key freight generators throughout the region.
- Invest in expanding the region's highway system through the most feasible combination of a regional bypass system and enhancements to the region's Priority Freight Highway Network.
- Invest in rail capacity to meet the projected increase in rail freight and to encourage the diversion of truck traffic to rail.



Next Steps

The goal of the Atlanta Regional Freight Mobility Action Plan is to simultaneously implement recommendations from the operational, policy and infrastructure strategies to ensure a comprehensive approach to accommodating freight mobility while mitigating negative impacts. The final report provides short, medium and long term implementation plans. The next steps, which include recommendations from the short term implementation plan, include:

- Expand the Georgia Navigator system by developing a freight mobility program that distributes the traffic information to regional and local carriers.
- Develop a region wide truck route plan and ensure adequate signage for all regional truck routes and intermodal facilities and on the regional priority freight network.
- Develop and implement freight supportive land use guidelines at the local level starting with the development of a freight zoning and regulation quick reference guide for local planners.
- Preserve existing freight intensive land use areas such as Fulton Industrial Boulevard and Fort Gillem for freight intensive uses.
- Implement a pilot program for off-peak delivery in one or more key commercial districts or corridors
- Enhance the freight priority network via truck friendly improvements including enhancing signal timing, ensuring adequate signage, and truck appropriate geometrics.
- Coordinate with neighboring states in establishing an I-75 Commerce Corridor Coalition modeled after the National I-10 Freight Corridor.
- Continue to organize peer exchanges for regional leaders with leaders from other metro areas with significant freight activity and for staff planners from across the state.
- Develop and implement freight specific performance measures and project prioritization criteria for use in the planning process (TIP Blueprint).
- Add a seat on the TCC and TAQC committees for a representative for the Atlanta Freight Task Force. (ex-officio)
- Implement a regional at-grade rail crossing program





Atlanta Regional Commission

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