



ATLANTA REGIONAL COMMISSION

Atlanta Regional Truck Parking Assessment Study



Georgia Planning Association Fall 2017 Conference

Daniel Studdard, AICP, Atlanta Regional Commission

Kai Zuehlke, AICP, PE, RS&H

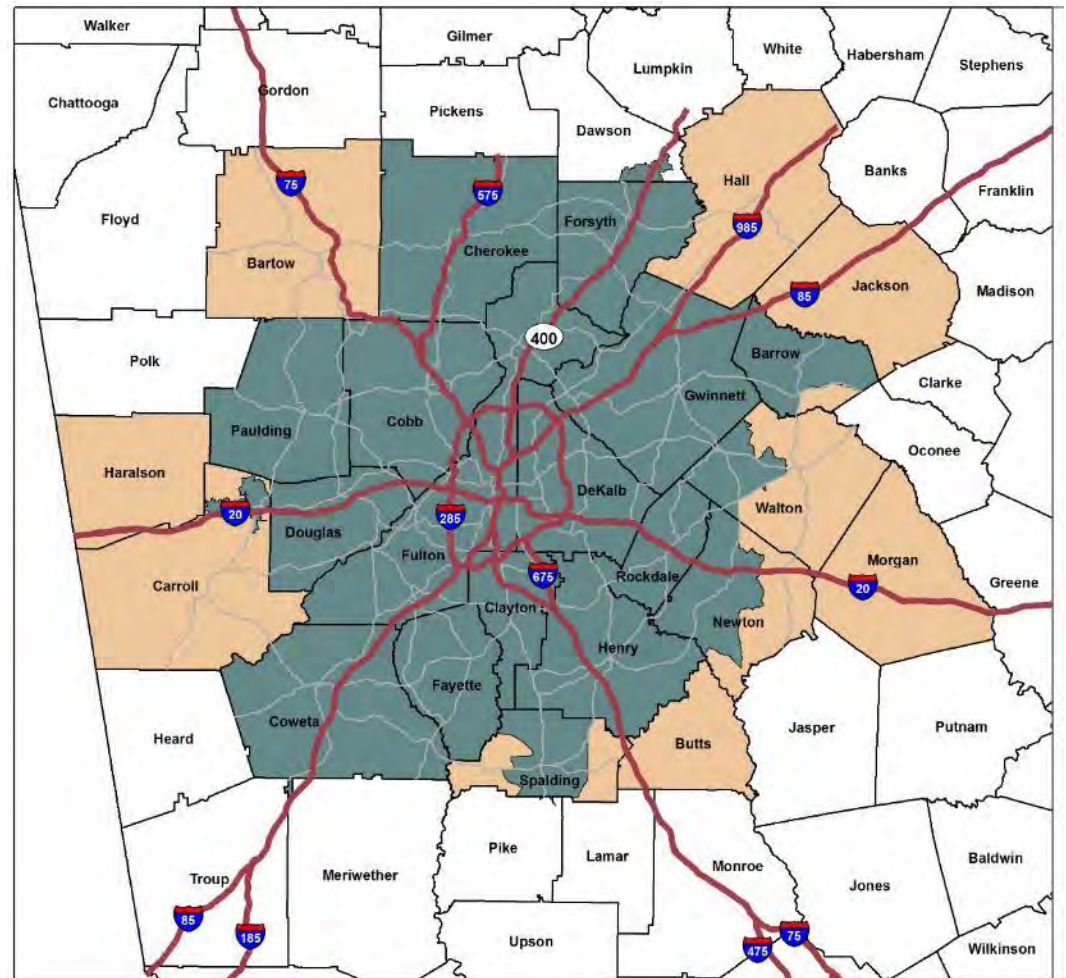
Caroline Evans, AICP, Blue Cypress Consulting

September 27, 2017



Background

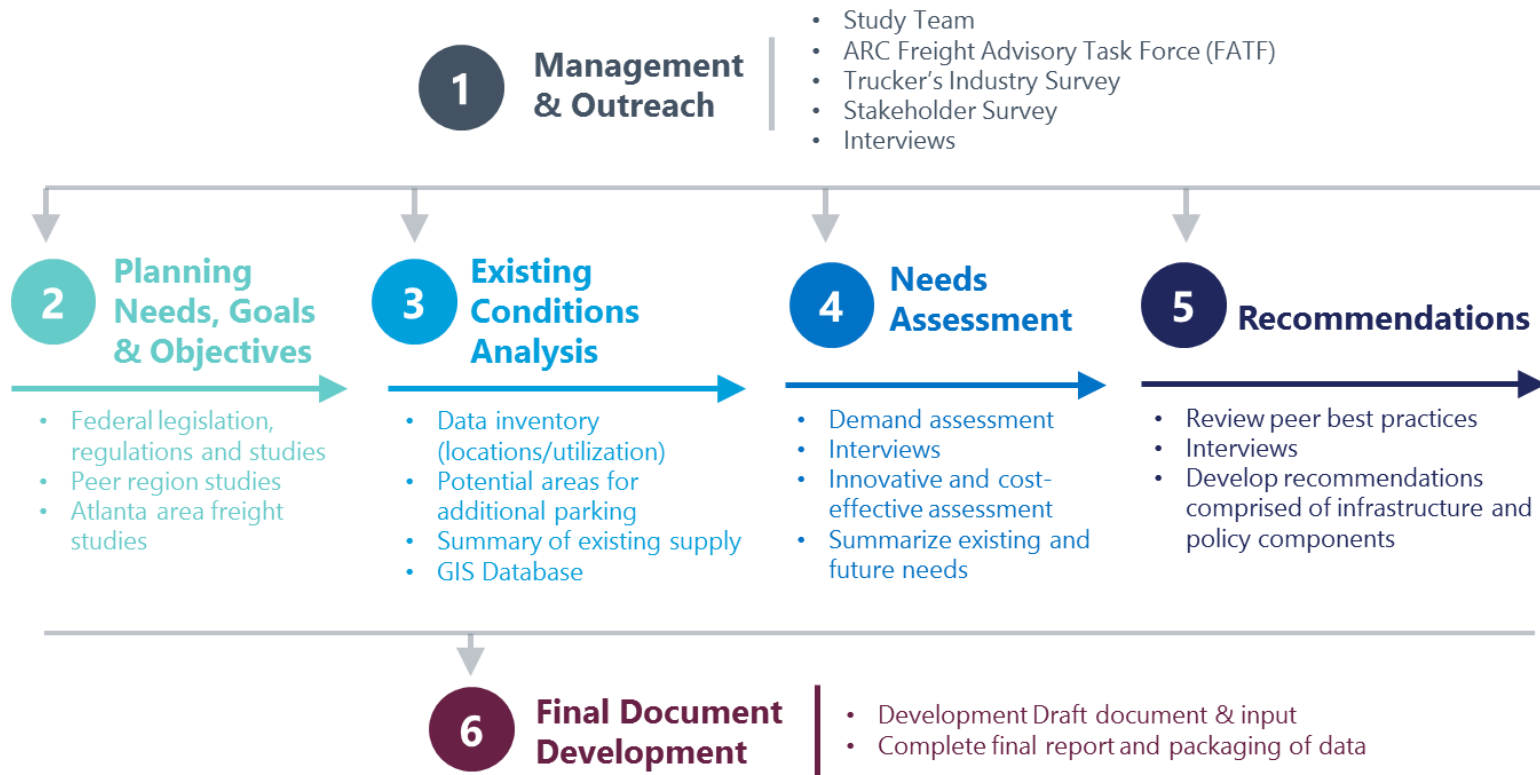
- Existing and Future Truck Parking Needs
- Study Area:
 - ARC MPO
 - Key Adjacent Counties
- Study Completion: Early 2018



Study Approach



Atlanta Regional Truck Parking Assessment Study



Atlanta Regional Freight Mobility Plan Update – June 2016

Recommended Completion of a Regional Truck Parking Assessment Study

- Purpose:
 - Identify and address truck parking needs in the Atlanta Region
- Objectives:
 - Consider long-haul and short-haul truck parking needs
- Factors:
 - Cities and counties must be considered due to the relevance of local codes and zoning ordinances that [may] regulate where trucks can operate, times of operation, and the design of mixed use facilities.

ARC, Atlanta Regional Freight Mobility Plan Update (May 2016)

Federal Regulations

- Section 1401 of MAP-21
"Jason's Law" (10/1/2012)
- "National priority on addressing the shortage of long-term parking for commercial motor vehicles on the National Highway System to improve the safety of motorized and non-motorized users and for commercial motor vehicle operators."

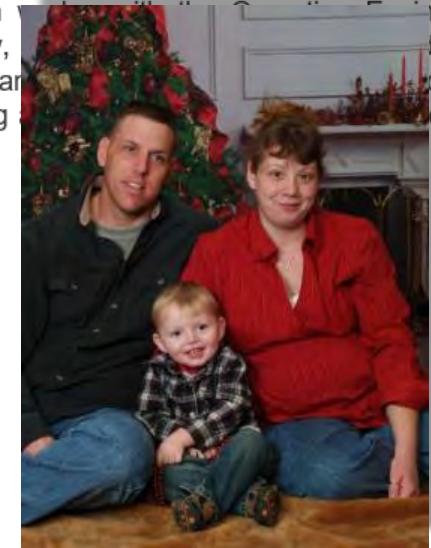
Albany, NY Times Union (3/10/2009)

Jason H. Rivenburg Obituary



Rivenburg, Jason H. FULTONHAM Jason H. Rivenburg, 35, of Tetterbark Rd., died unexpectedly Thursday, March 5, 2009 in Orangeburg, S.C. Jason was born in Cobleskill, N.Y. on October 28, 1973 the son of Dawn (Cater) and Hezekiah Rivenburg Jr.

Jason was a 1991 graduate of Schoharie Central School. He was a construction worker with the Albany, N.Y. chapter of Local 106 in Albany, N.Y. He worked for many years as a tractor trailers for many years and his own vehicle cleaning business.



Hours-of-Service (HOS)

Federal Regulations

- **Effective since 07/01/13: Federal Motor Carrier Safety Administration (FMCSA) Requirements for Commercial Motor Vehicle Drivers:**
 - **Daily Driving Limit / 11-hour Driving Limit:** may drive a maximum of 11 hours after 10 consecutive hours off duty
 - **14-Hour Driving Window / 14-Hour Limit:** may not drive beyond the 14th consecutive hours after coming on duty, following 10 consecutive hours off-duty. Off-duty time does not extend the 14-hour period.
 - **Rest Breaks / 30-Minute Break:** may drive only if eight (8) hours or less have passed since end of driver's last off-duty or sleeper berth period of at least 30 minutes [49 CFR 397.5 mandatory "in attendance" time may be included in break if no other duties performed]
 - **60/70-Hour On-Duty Limit:** may not drive after 60/70 hours on-duty in 7/8 consecutive days. A driver may restart a 7/8 consecutive day period after taking 34 or more consecutive hours off duty.
 - **Sleeper Berth Provision / Team Driving:** drivers using this provision must take at least 8 consecutive hours in the sleeper berth, plus a separate two (2) consecutive hours in the sleeper berth, off duty, or any combination of the two (2).

Electronic Logging Devices (ELDs)

Federal Regulations

- **ELD R**

- Com

-

- Dev

- dev

- Rec

- Dri

- Dri

- don

Bottom-Line:

**Demand for truck parking
will likely increase after
December 2017 when ELDs
are MANDATED**

9

table

nths

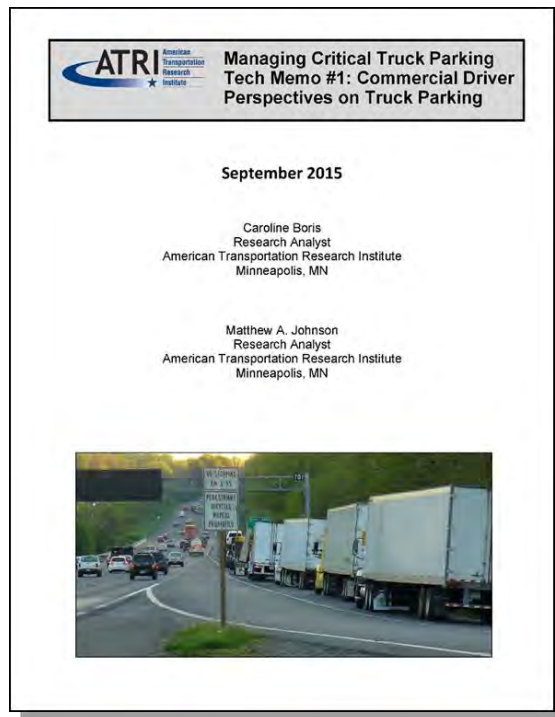
s

ot

AOBRD – Automatic Onboard Recording Device (Less than 20% of existing trucks have AOBRDs per 3/2016 survey by TruckStop.com)

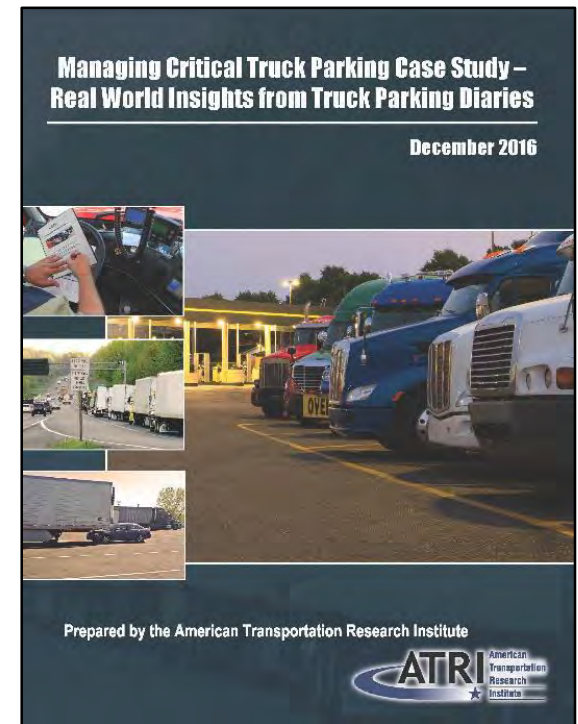
ATRI Surveys

- Driver Surveys: over 1,400 collected
- Impacts of lost capacity



ATRI Diaries

- 148 completed covering 14 days of activity (Jun – Sep 2016)
- 2,035 days of truck parking activity
- 4,763 unique stops
- When, where, how long to find a spot, etc.



ATRI Diaries:

Real Reason for Parking Location

Importance of Factor	Percent of Responses
Proximity to Route / Destination	96.5%
Restroom / Showers	79.8%
Expected Parking Availability	75.5%
Width of Parking Space / Ease of Access	31.9%
Restaurant	30.5%
Security	20.3%
Company Policy / Loyalty Program	18.1%
Internet	6.9%
Laundry	4.0%
Maintenance / Service Center	3.7%
Weather Conditions	3.6%

Anecdotal Data - ATRI Diaries

Exceptions to Private Truck Stops?

"I am reluctant to eat by myself in a sit down restaurant. The women I know would rather think ahead, go grocery shopping and prepare a healthy, quiet meal in the truck while watching our favorite program on DVD. We would also rather use our own porta-potty instead of public facilities, especially at night. So since we have everything we need in our micro homes, all we need is a legal parking space. Rest areas also have more RV dumps and are much quieter at night."

- Female Truckload Driver from Missouri

Lost Time and Revenue?

"I've been kicked out of truck stops due to overcrowding. I've been kicked out of rest areas wondering if I will have a safe haven for my 10-hour break. It is the most stressful aspect of the job."

Flatbed Driver from Alabama



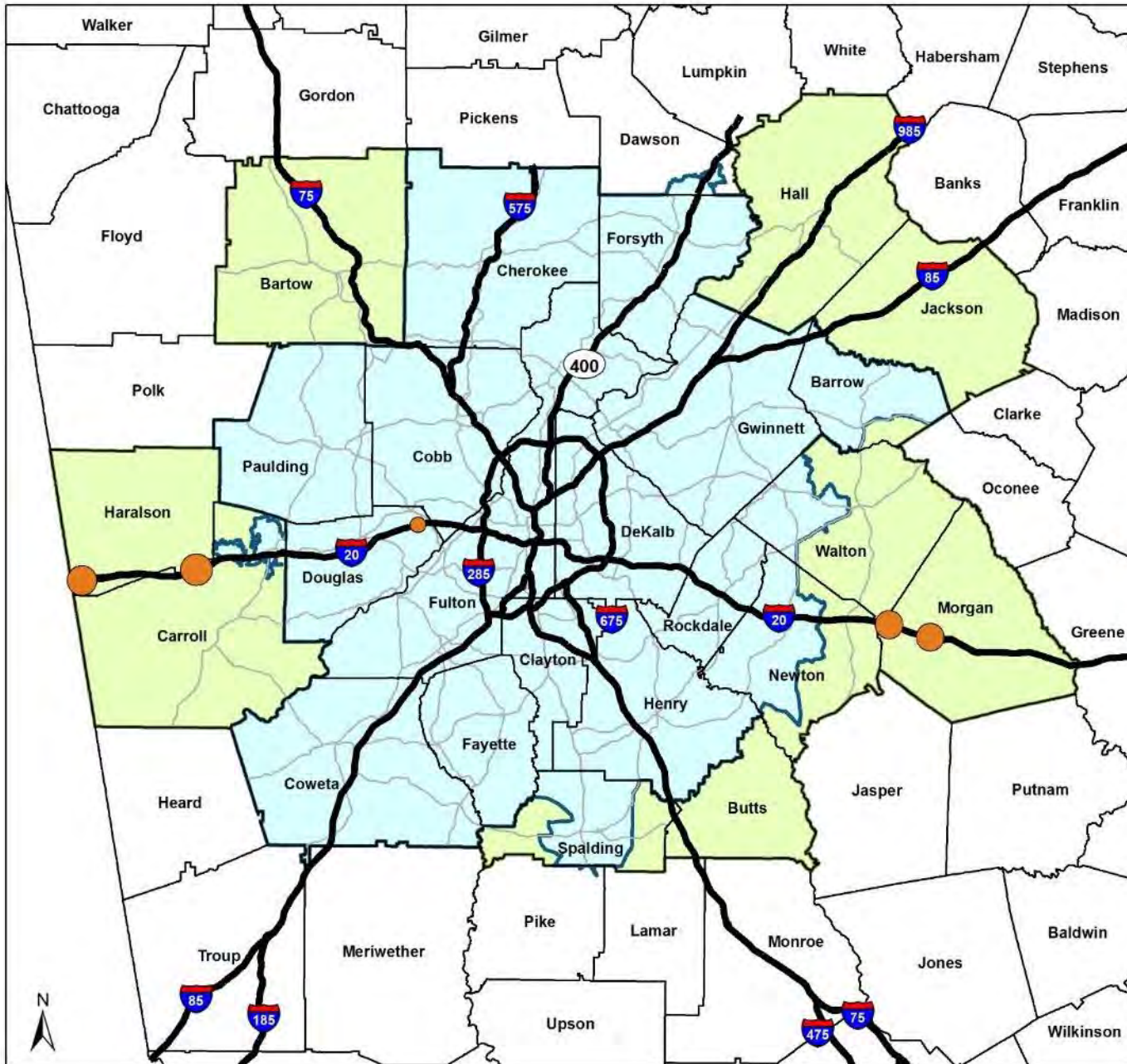
Driver Perspectives - Parking Issues

- Seeking parking is primarily motivated by **Hours-of-Service** compliance
- Common issues:
 - Parking only available in **unsafe locations**
 - Parking only available on **road shoulders/ramps**
- Finding available parking is **difficult at public rest areas and private truck stops**
- Finding parking is most difficult during the **evening (7PM – midnight)**, followed by **early morning (midnight – 5 AM)**



Driver Perspectives: Technology and Truck Parking

- Smartphones are the most commonly used technology for accessing the internet
- Preferred mechanism for receiving parking availability information:
 - 1) Smartphone applications
 - 2) Dynamic roadside signs
- Drivers prefer to receive parking availability information 20 miles ahead of a parking location

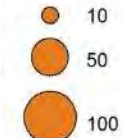


ATLANTA REGIONAL COMMISSION

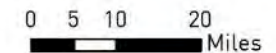
Atlanta Regional Truck
Parking Assessment Study

**Public
Truck Parking
Facilities
(Tier 1) by
Number of Spaces**

Number of Spaces



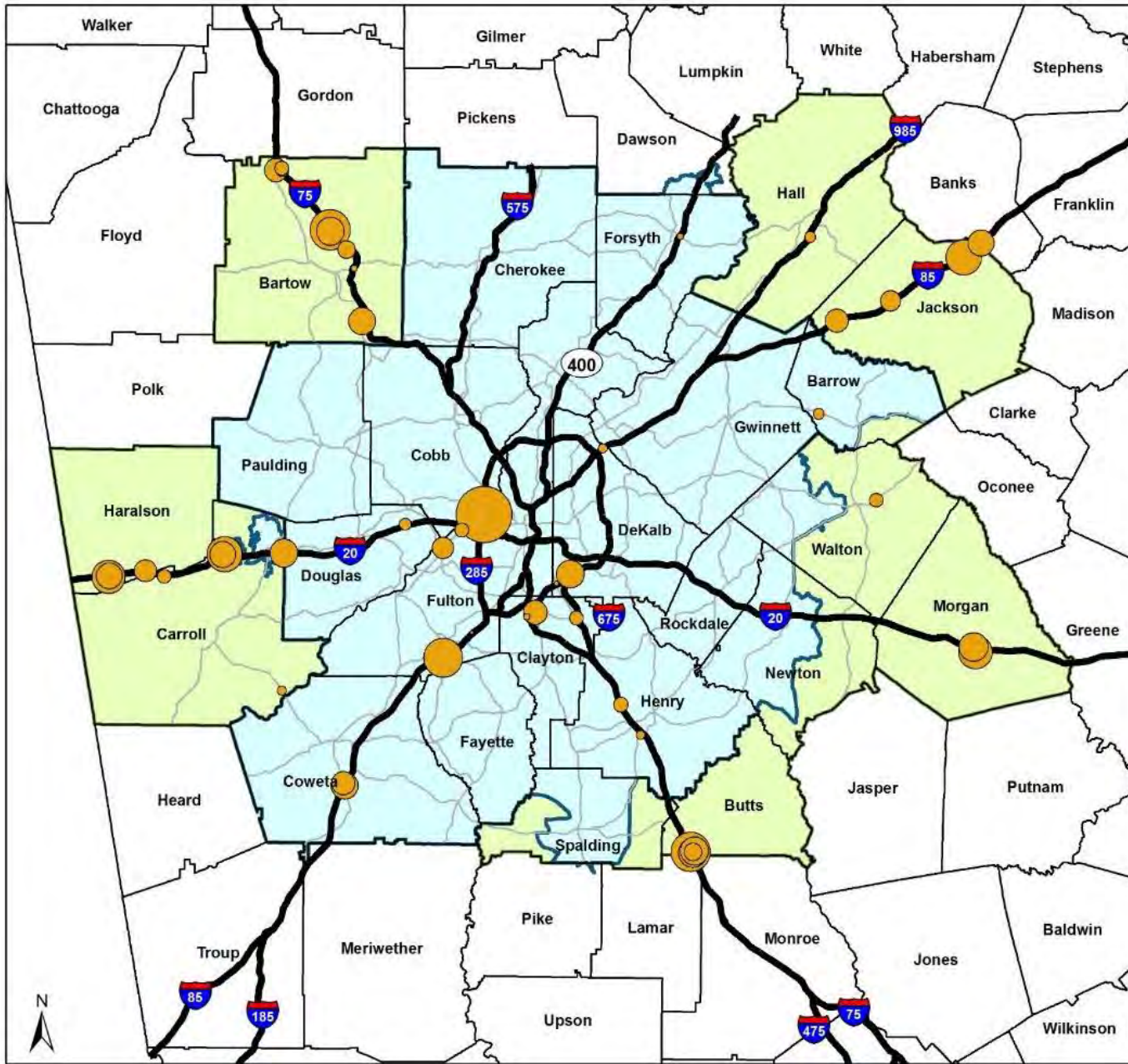
- Expressways
- Regional Truck Routes
- MPO Boundary
- Key Adjacent Counties



Date: May 2017

Sources: ARC, GDOT, EPD,
Jason's Law, Company Websites





ATLANTA REGIONAL COMMISSION

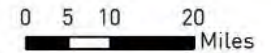
Atlanta Regional Truck Parking Assessment Study

Primary Privately-Owned Truck Parking Facilities (Tier 2a) by Number of Spaces

Number of Spaces

- 1
- 10
- 100

- Expressways
- Regional Truck Routes
- MPO Boundary
- Key Adjacent Counties



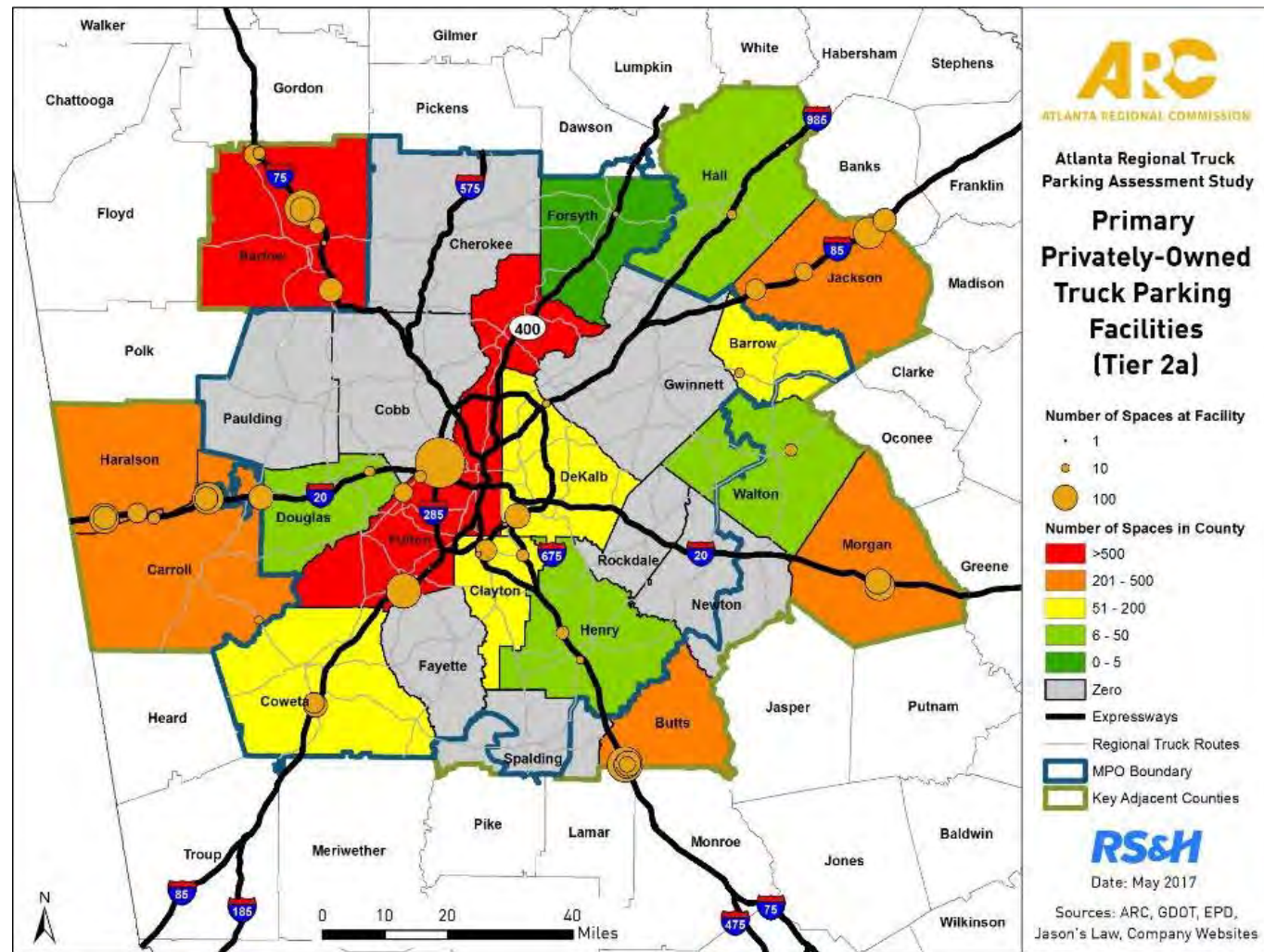
Date: May 2017

Sources: ARC, GDOT, EPD, Jason's Law, Company Websites



Private Spaces by County

County	Spaces
Fulton	698
Bartow	575
Butts	450
Carroll	360
Haralson	332
Jackson	309
Morgan	259
Coweta	165
DeKalb	114
Clayton	105
Barrow	85
Henry	40
Walton	25
Douglas	20
Hall	19
Forsyth	5
Total	3,561





ATLANTA REGIONAL COMMISSION

Atlanta Regional Truck Parking Assessment Study

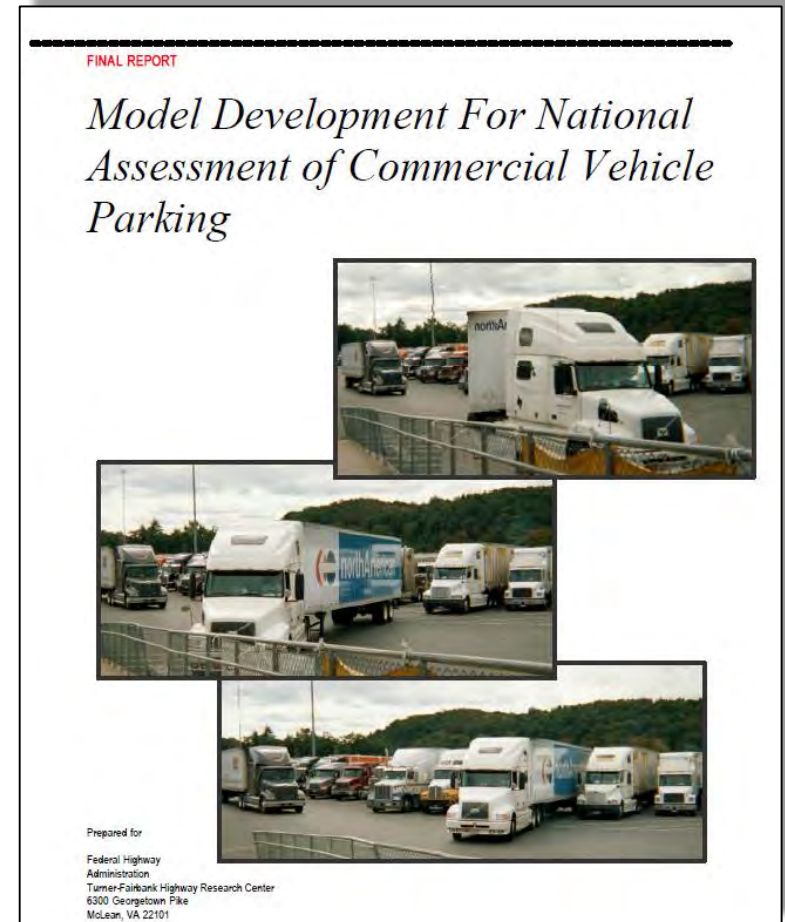


Needs Assessment

- **Demand**
- **Utilization**
- **Flows**






FHWA Truck Parking Demand Model

- Estimates corridor-level truck parking demand
- Input
 - Volumes
 - Corridor segment length
 - Speed
- Parameters
 - Truck driver service hour limits
 - Long haul parameters

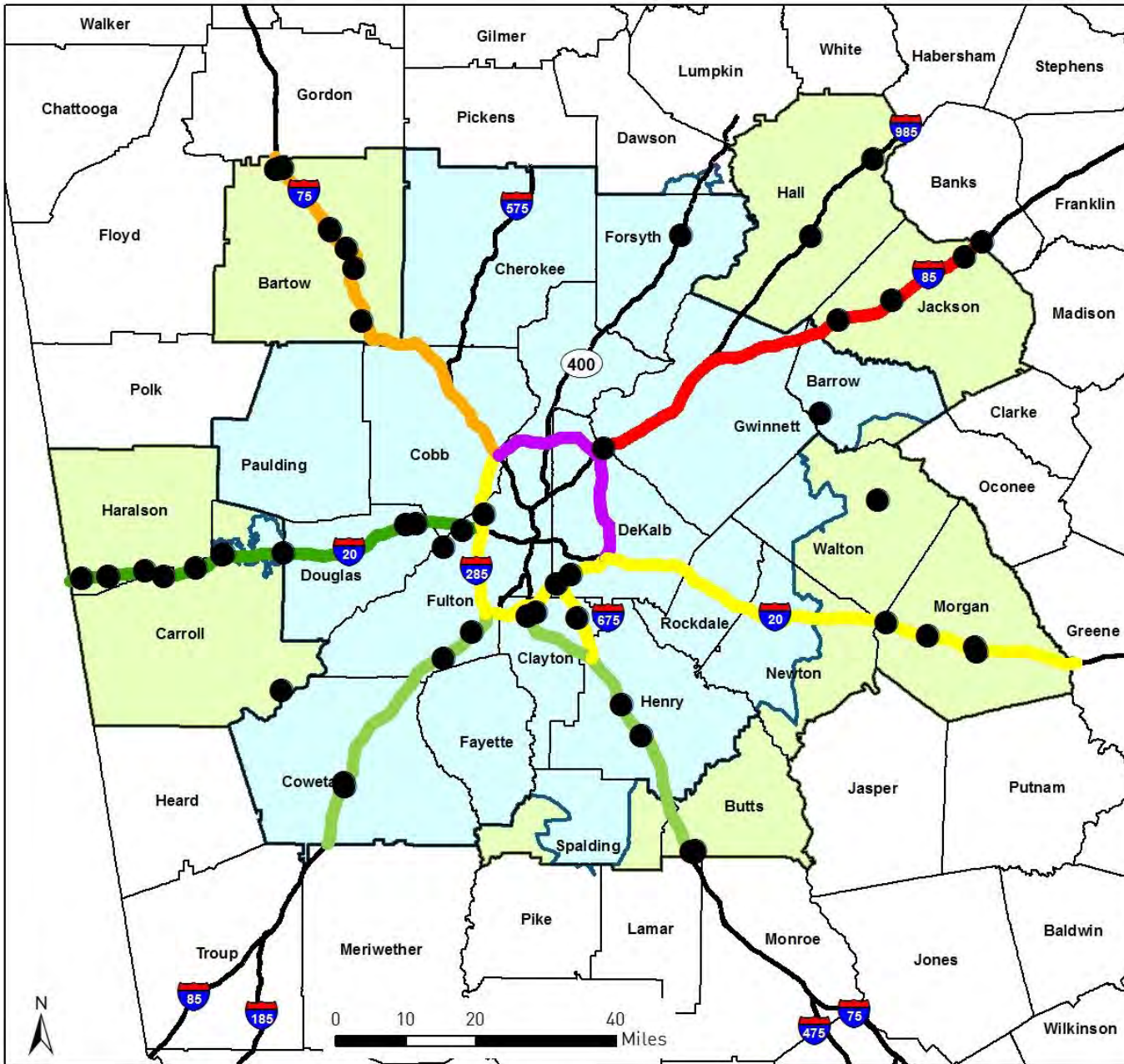


FHWA Truck Parking Demand Model

Result: Between 2012 and 2045 truck parking demand is estimated to increase by approximately **76%**.

Legend - Corridor Level Results	
	Up to 400 space Surplus
	Up to 100 space Surplus
<hr style="border-top: 1px dashed blue;"/>	
	Up to 100 space Deficit
	Up to 150 space Deficit
	Up to 300 space Deficit
	Up to 450 space Deficit

Parking Surplus or Deficit		
Corridor	2012	2045
I-20 West	(368)	37
I-85 South	(96)	110
I-75 South	(87)	223
I-285 West	21	349
I-675	50	106
I-20 East	88	413
I-285 South	97	307
I-75 North	147	695
I-85 North	303	830
I-285 NE	456	802



ATLANTA REGIONAL COMMISSION

Atlanta Regional Truck
Parking Assessment Study

Base Year Truck Parking Demand

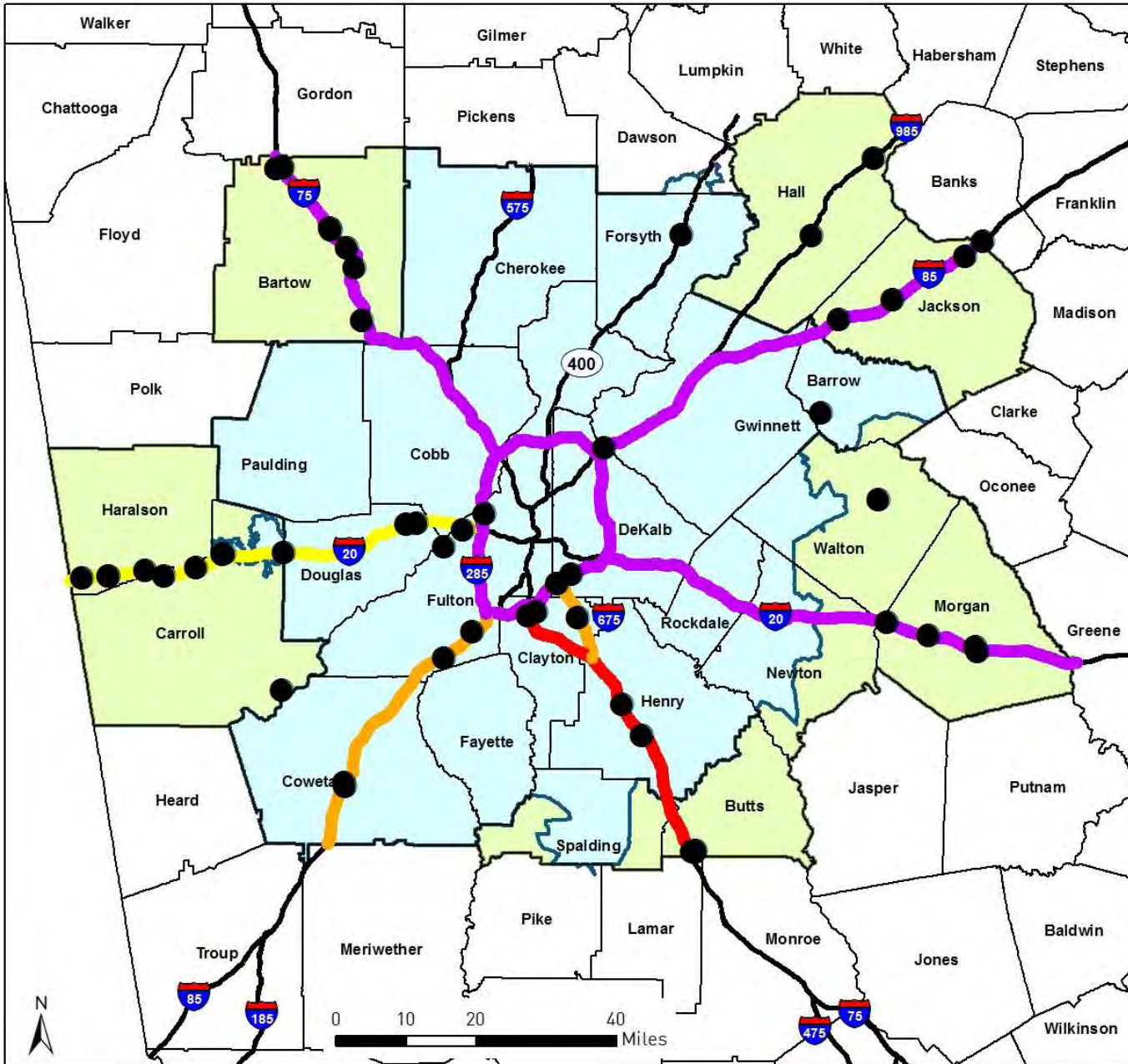
2012 Parking

- █ Up to 400 space Surplus
- █ Up to 100 space Surplus
- █ Up to 100 space Deficit
- █ Up to 150 space Deficit
- █ Up to 300 space Deficit
- █ Up to 450 space Deficit
- Current Truck Parking
- Expressways
- MPO Boundary
- Key Adjacent Counties



Date: July 2017

Sources: Study Team, FAF,
ARC, GDOT, EPD,
Jason's Law, Company Websites



ATLANTA REGIONAL COMMISSION

Atlanta Regional Truck
Parking Assessment Study

Future Truck Parking Demand

2045 Parking

- Up to 100 space Deficit
- Up to 150 space Deficit
- Up to 300 space Deficit
- Up to 900 space Deficit
- Current Truck Parking
- Expressways
- MPO Boundary
- Key Adjacent Counties

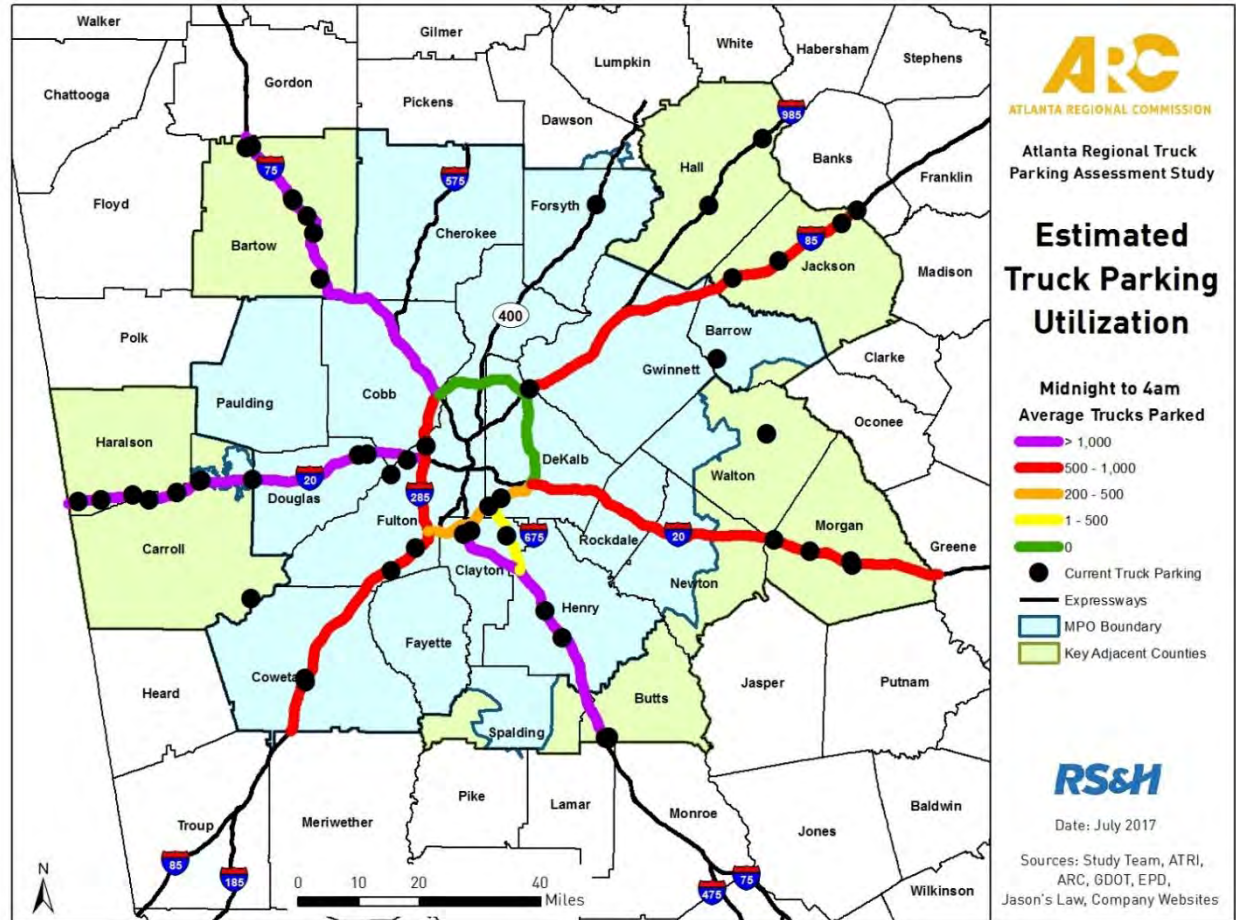


Date: July 2017

Sources: Study Team, FAF,
ARC, GDOT, EPD,
Jason's Law, Company Websites

Estimated Corridor Truck Parking Utilization

Corridor	Estimated Utilization
I-20 W	2,290
I-75 S	1,710
I-75 N	1,800
I-285 W	990
I-85 S	860
I-20 E	880
I-85 N	850
I-285 S	420
I-675	170
I-985	50
Total	10,020



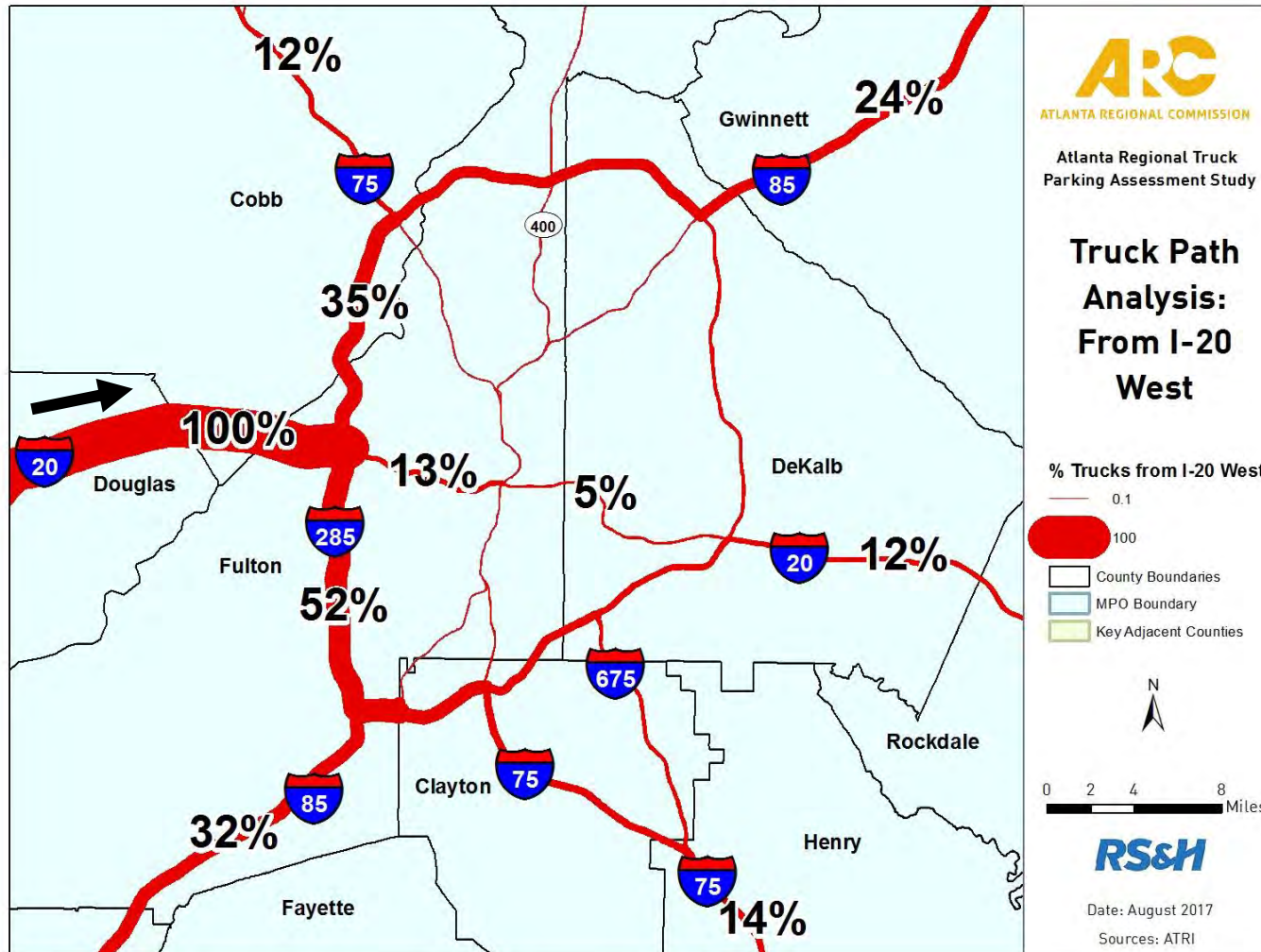
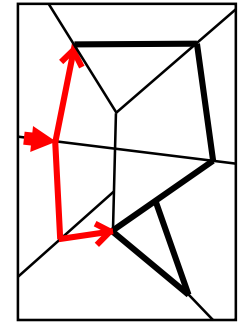
Example Specific Truck Parking Utilization

I-75 N at Cass White Rd near Cartersville in Bartow County
TA and Pilot Truck Stops



Truck Flows

I-20 from the West





ATLANTA REGIONAL COMMISSION

Atlanta Regional Truck Parking Assessment Study



Outreach Activities Overview

Outreach Activities



■ Meetings

- Freight Advisory Task Force (FATF)
- ARC Committees

■ Surveys

- Truck Drivers
- Stakeholders

- Local Jurisdictions & CIDs
- Law Enforcement Officials
- Truck Stop Owners/Operators
- Shippers/Receivers & Private Fleets



■ Stakeholder Interviews

Meetings

- **ARC Freight Advisory Task Force**
 - 4 presentations
 - March, May, August, November
- **ARC Transportation Coordinating Committee**
 - 3 presentations
 - May, August, TBD/November
- **ARC Land Use Coordinating Committee**
 - 3 presentations
 - May, August, TBD/November

Truck Driver Survey Results

- 277 Respondents
- Average Length of Haul

Length of Haul	Response
Local (less than 100 miles)	0.0%
Regional (100-499 miles per trip)	22.3%
Inter-Regional (500-999 miles per trip)	49.3%
Long-Haul (1,000+ miles per trip)	28.4%

- How often do you need to temporarily park in the Atlanta Region for staging before a scheduled pick-up and/or drop-off time?
 - **84% of respondents**

Truck Driver Survey Results

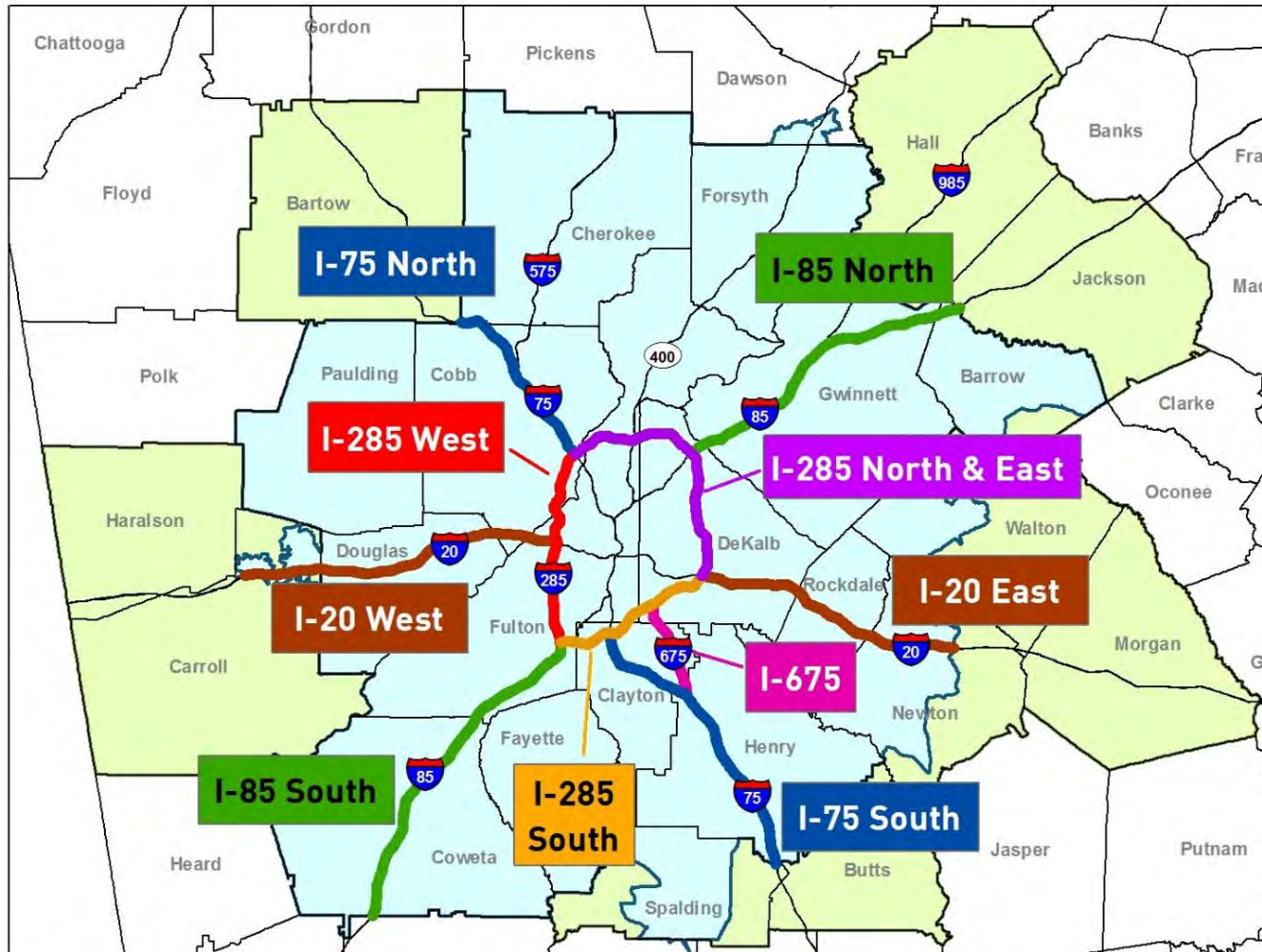
- How long does it usually take you to find truck parking in the Atlanta region?

Length of time	Response
Less than 15 minutes	1.3%
15 – 30 minutes	6.5%
30 minutes – 1 hour	41.3%
More than 1 hour	51.0%

- When parking in the Atlanta region, where is it more difficult to find available truck parking?

Location	Response
Public rest stops	80.8%
Private truck stops	88.5%
Shipper / Receiver	71.8%

Truck Driver Survey Results - Corridor Designations

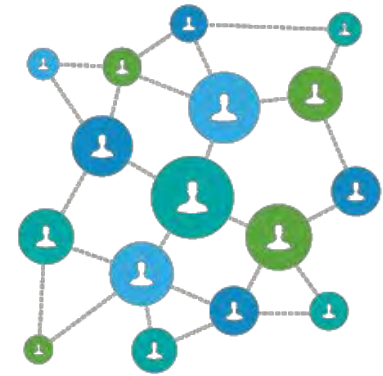


Truck Driver Survey Results - Corridor Designations

Percentage of Respondents Who Consider Truck Parking to be Limited/Rarely Available or Not Available

Corridor	Truck Drivers	Stakeholders
I-285 North and East (I-75 north to I-20 east)	91%	62%
I-285 West (I-85 south to I-75 north)	90%	62%
I-285 South (I-20 east to I-85 south)	89%	64%
I-85 North	79%	29%
I-20 East	76%	36%
I-85 South	74%	29%
I-75 South	73%	50%
I-20 West	73%	36%
I-75 North	69%	46%
I-675	68%	69%

Stakeholder Survey



■ **Distribution**

- ARC Transportation Coordinating Committee (TCC)
- ARC Land Use Coordinating Committee (LUCC)
- ARC Transportation & Air Quality Committee (TAQC)
- ARC Freight Advisory Task Force (FATF)
- Interviewees and their networks
- Georgia Tech Supply Chain & Logistics Institute

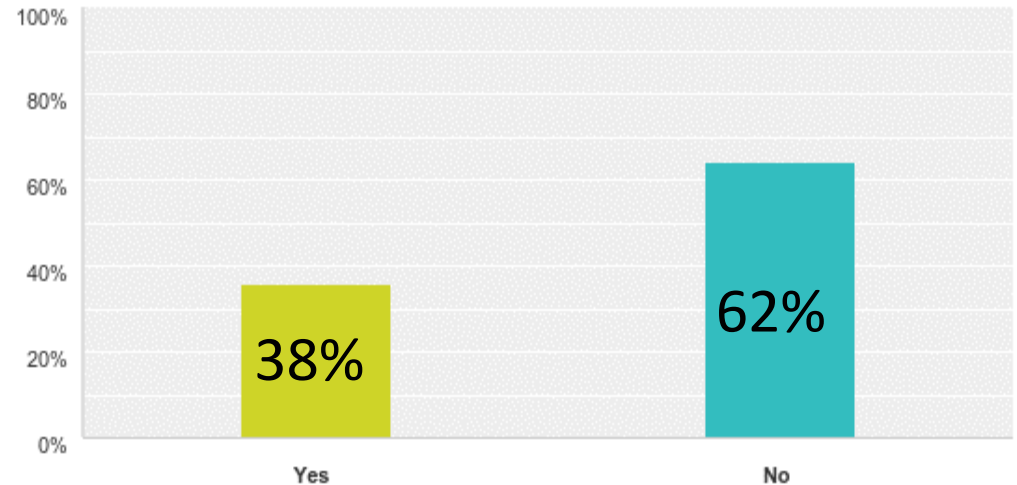
■ **97 Responses**

- Local Jurisdictions / CIDs - 45 responses
- Trucking Companies / Shippers - 27 responses
- Law Enforcement - 19 responses
- Truck Stop Owner / Operators - 6 responses

Survey open from 5/15/2017 to 7/17/2017

Stakeholder Survey Results

- Does your jurisdiction have any programs, policies, or strategies in place to address truck parking?



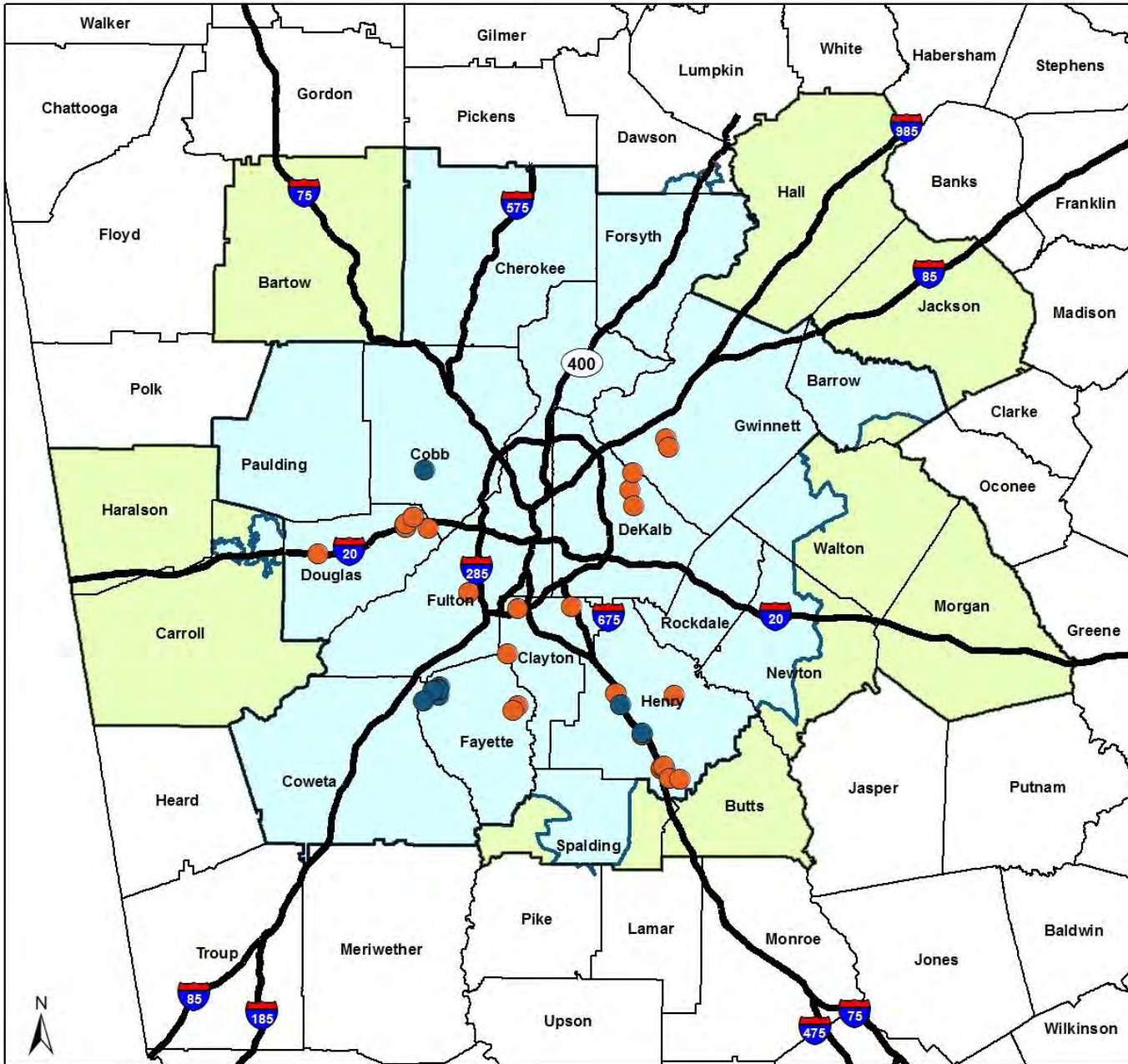
- What are the programs, policies, and/or strategies?
 - Zoning 64%
 - Signage and Enforcement 21%
 - Private property 14%

Stakeholder Wikimapping[©]

Unauthorized Parking

- **13 separate respondents** provided **39 different** responses (locations)
 - Local Jurisdictions / CIDs 31 responses
 - Law Enforcement 8 responses
- Unauthorized truck parking locations
 - Where?
 - How Often?



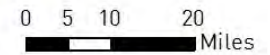


ATLANTA REGIONAL COMMISSION

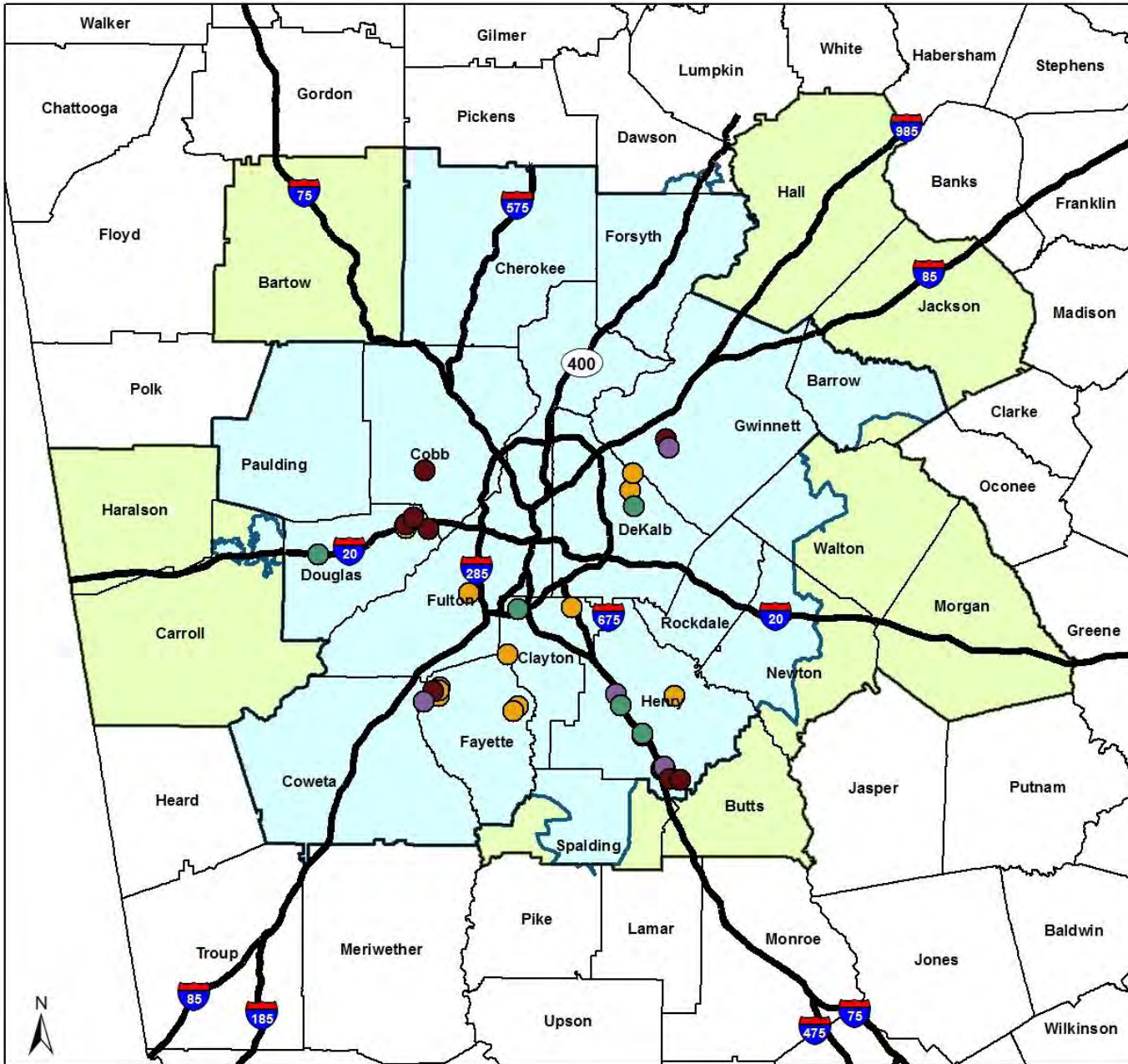
Atlanta Regional Truck
Parking Assessment Study

Unauthorized Parking Locations by Input Source

- Law Enforcement
- Local Jurisdictions
- Expressways
- MPO Boundary
- Key Adjacent Counties



Date: July 2017
Sources: ARC, GDOT
Stakeholder Surveys

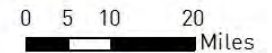


ATLANTA REGIONAL COMMISSION

Atlanta Regional Truck
Parking Assessment Study

Unauthorized Parking Locations by Type

- Highway on/off ramp
- Other
- Side of road
- Vacant lot/building
- Expressways
- MPO Boundary
- Key Adjacent Counties

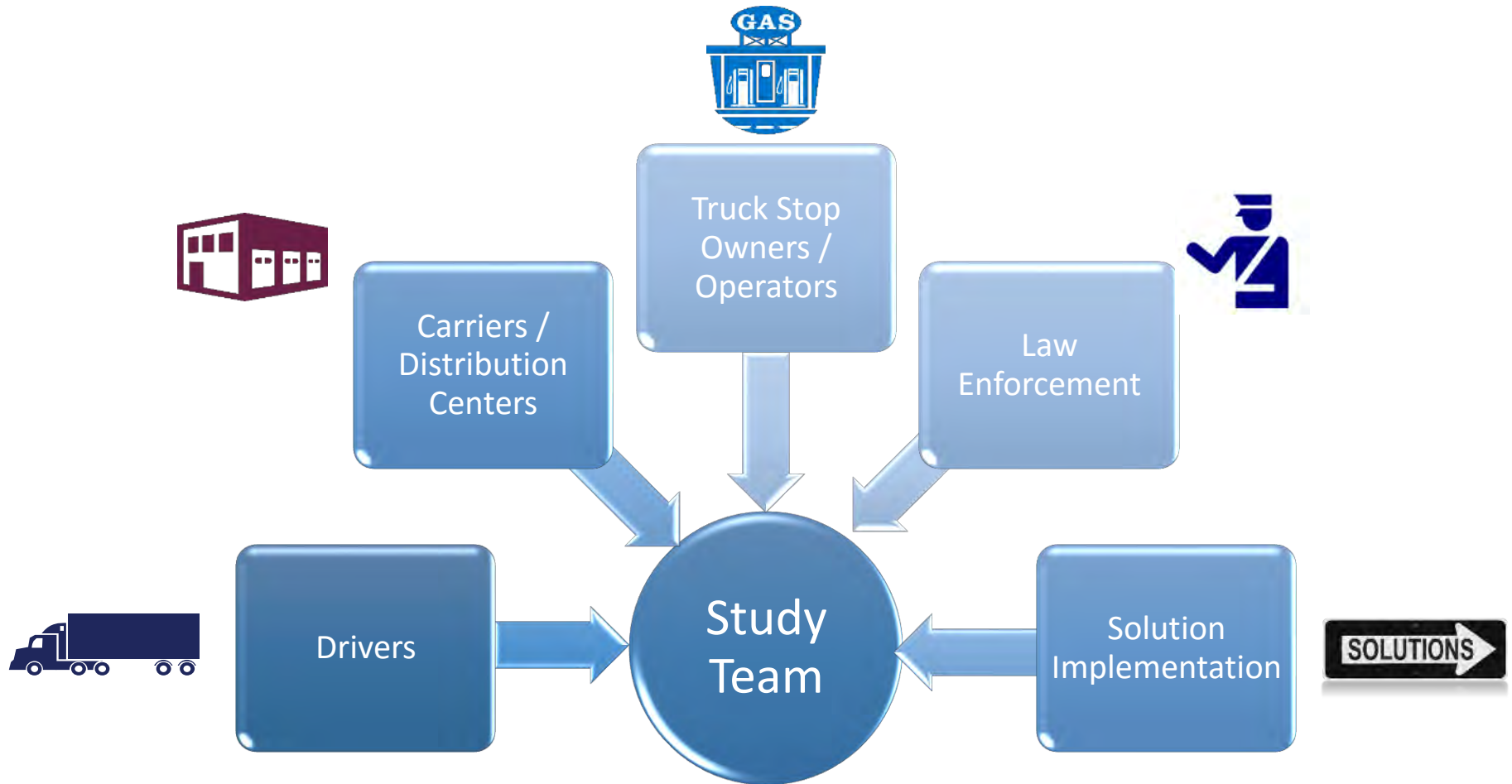


Date: July 2017

Sources: ARC, GDOT
Stakeholder Surveys







Stakeholder Interviews Overview







Stakeholder Interviews

Common Issues

Issues				
	Drivers	Carriers / Distribution Centers	Truck Stop Owners / Operators	Law Enforcement
Finding Safe and Authorized Parking is a Challenge	X	X	X	
Zoning, Land Use, and Noise Ordinances are an impediment to finding and siting truck parking	X	X	X	
Truck parking demand is greater than supply of parking spaces, which creates issues with traffic and staging for delivery	X	X	X	X
Lack of parking results in less driving time and impacts to bottom-line as substantial time is spent searching for safe, authorized parking.	X	X		

Stakeholder Interviews

Common Findings

Issues				
	Drivers	Carriers / Distribution Centers	Truck Stop Owners / Operators	Law Enforcement
Most truckers just need a clean restroom, and well-lit, safe, parking area - most carry their own food and supplies.	X	X	X	
Finding parking is mostly handled by drivers through GPS, apps, and local knowledge	X	X	X	
The most common truck parking violations are those parking on interstate ramps and in emergency lanes				X
Industrial areas bring increased truck traffic; many communities want the increased tax revenue, but don't realize the side effects	X	X	X	
Electronic Logging Device (ELD) requirements will increase truck parking challenges	X	X	X	X

Recommendations from Interviews

Zoning, Land Use & Noise Issues



Local, state, and Federal governments need to work together to find a solution to the problem

Allow real-time, accurate signage about available parking

Drivers



Educate law enforcement about noise levels for Aux Power Units (APUs)

Educate communities about the need for truck parking near industrial areas

Carriers / Distribution Centers



Large corporate chains may employ staff who help navigate zoning, land use, and noise issues / permitting during development of new locations

Truck Stop Owners / Operators



Sees most of the problems in the Atlanta suburban ring counties (Henry, Gwinnett, Douglas) not as much in the urban counties of Fulton and DeKalb

Law Enforcement

Recommendations from Interviews

Solutions Implementation

- Multi-level agency collaboration
- Public-private collaboration
- Educational component
- Importance of technology

FHWA

- Rapid technology advances challenge investment level
- Sharing culture / WAZE effect
- Innovative solutions using existing assets
- Data availability: public vs. private
- Small investments by many versus large investments by few

Mid-America Freight Coalition / FDOT / CISCO



ATLANTA REGIONAL COMMISSION

Atlanta Regional Truck Parking Assessment Study



Summary of Needs and Recommendations

Summary of Needs

- Lack of parking supply throughout region
- ELDs, industrial growth will increase demand
- Zoning constrains expansion of parking supply
- Proposed solutions vary based upon perspective
- Solutions must:
 - Include coordination
 - Maximize use of technology
 - Be adaptable / flexible
 - Leverage existing assets



Potential Recommendations

Coordination

- Education
- Needs and Concerns
- Solutions
- Who?
 - Truck drivers
 - Freight industry
 - Government agencies
 - Development industry



Potential Recommendations

Example: Distributor Parking Program



- Drivers Must:
 - Wear safety vests at all times
 - Carry a flashlight at night
 - Follow safety rules
 - De-couple tractor from trailer
 - May not move tractor
 - Preferential treatment for no-idle cabs

Potential Recommendations

Maximize Use of Technology

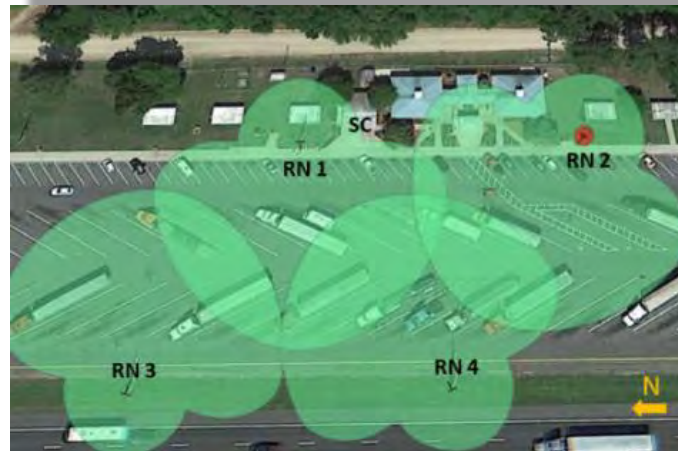


Parking sensors headed to truck stops; to be tested in Orlando

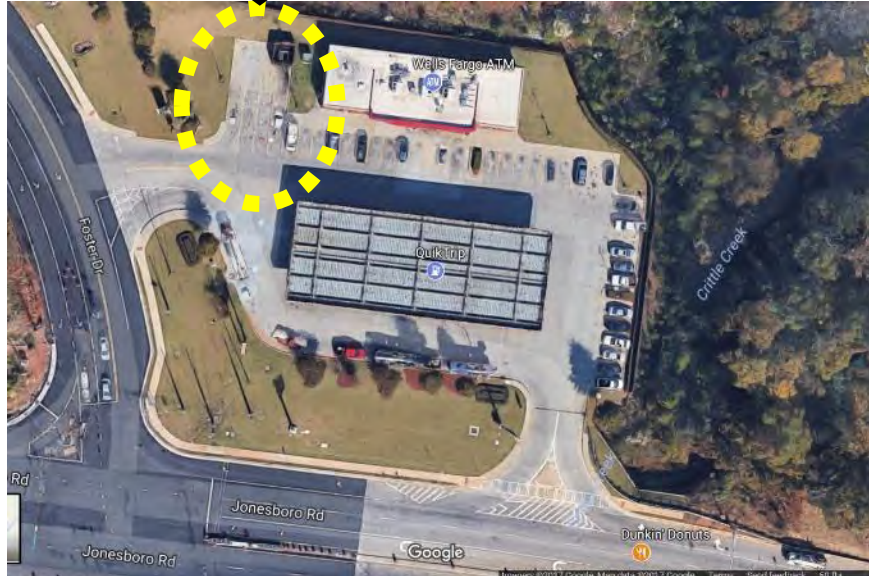
Jul 26, 2017, 2:41pm EDT
Subscriber-Only Article Preview | For full site access: [Subscribe Now](#)

The Florida Department of Transportation has issued a request for proposals for a firm to design and test the technology.

Veronica Brezina
Staff Writer
Orlando Business Journal



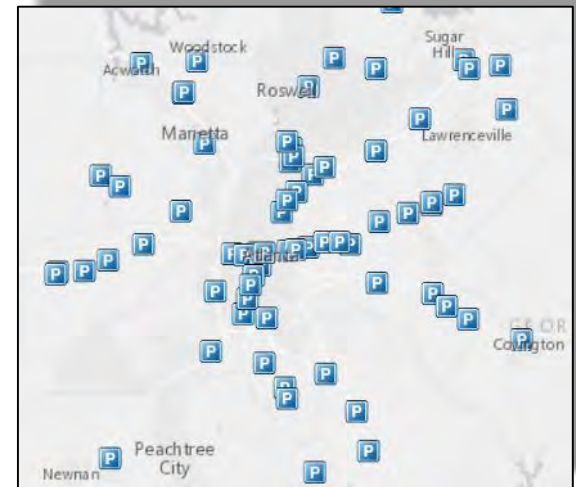
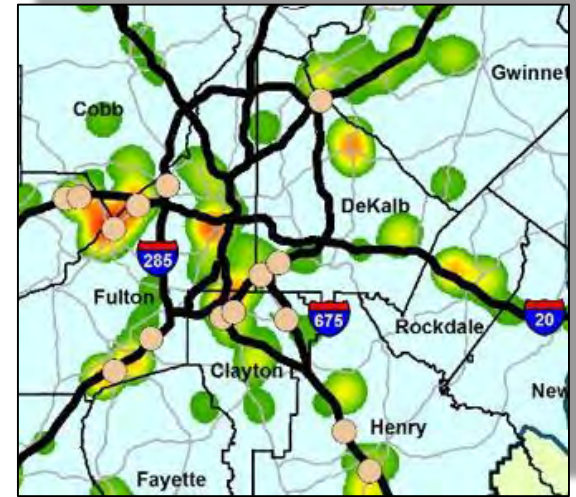
Potential Recommendations Adaptable / Flexible Solutions



QT Store Truck Parking Jonesboro Road at Foster Place, Henry County

Potential Recommendations Leverage Existing Assets

- Vacant Industrial Space
- Brownfield Sites
- Industrial Parks
- Existing or closed rest areas
- Park-and-ride lots (PM only)





ATLANTA REGIONAL COMMISSION

Atlanta Regional Truck Parking Assessment Study



Questions?