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

1. Management & Outreach
   - Study Team
   - ARC Freight Advisory Task Force (FATF)
   - Trucker’s Industry Survey
   - Stakeholder Survey
   - Interviews

2. Planning Needs, Goals & Objectives
   - Federal legislation, regulations and studies
   - Peer region studies
   - Atlanta area freight studies

3. Existing Conditions Analysis
   - Data inventory (locations/utilization)
   - Potential areas for additional parking
   - Summary of existing supply
   - GIS Database

4. Needs Assessment
   - Demand assessment
   - Interviews
   - Innovative and cost-effective assessment
   - Summarize existing and future needs

5. Recommendations
   - Review peer best practices
   - Interviews
   - Develop recommendations comprised of infrastructure and policy components

6. Final Document Development
   - Development Draft document & input
   - Complete final report and packaging of data
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 construc-tion E ective Engineer. Local 106 in Albany, and tractor trailers for many

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 construc-tion E ective Engineer. Local 106 in Albany, and tractor trailers for many own vehicle cleaning...
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 Requirements
  - Compliance date of 12/18/17
  - Device can be an app on smartphone or a portable device
  - Records must be maintained for six (6) months
  - Driver privacy must be protected by carriers
  - Drivers of rented/leased vehicles or those domiciled in Mexico or Canada NOT exempt

**Bottom-Line:**

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

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

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

<table>
<thead>
<tr>
<th>County</th>
<th>Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fulton</td>
<td>698</td>
</tr>
<tr>
<td>Bartow</td>
<td>575</td>
</tr>
<tr>
<td>Butts</td>
<td>450</td>
</tr>
<tr>
<td>Carroll</td>
<td>360</td>
</tr>
<tr>
<td>Haralson</td>
<td>332</td>
</tr>
<tr>
<td>Jackson</td>
<td>309</td>
</tr>
<tr>
<td>Morgan</td>
<td>259</td>
</tr>
<tr>
<td>Coweta</td>
<td>165</td>
</tr>
<tr>
<td>DeKalb</td>
<td>114</td>
</tr>
<tr>
<td>Clayton</td>
<td>105</td>
</tr>
<tr>
<td>Barrow</td>
<td>85</td>
</tr>
<tr>
<td>Henry</td>
<td>40</td>
</tr>
<tr>
<td>Walton</td>
<td>25</td>
</tr>
<tr>
<td>Douglas</td>
<td>20</td>
</tr>
<tr>
<td>Hall</td>
<td>19</td>
</tr>
<tr>
<td>Forsyth</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>3,561</td>
</tr>
</tbody>
</table>
Atlanta Regional Commission

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

<table>
<thead>
<tr>
<th>Corridor</th>
<th>2012</th>
<th>2045</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-20 West</td>
<td>(368)</td>
<td>37</td>
</tr>
<tr>
<td>I-85 South</td>
<td>(96)</td>
<td>110</td>
</tr>
<tr>
<td>I-75 South</td>
<td>(87)</td>
<td>223</td>
</tr>
<tr>
<td>I-285 West</td>
<td>21</td>
<td>349</td>
</tr>
<tr>
<td>I-675</td>
<td>50</td>
<td>106</td>
</tr>
<tr>
<td>I-20 East</td>
<td>88</td>
<td>413</td>
</tr>
<tr>
<td>I-285 South</td>
<td>97</td>
<td>307</td>
</tr>
<tr>
<td>I-75 North</td>
<td>147</td>
<td>695</td>
</tr>
<tr>
<td>I-85 North</td>
<td>303</td>
<td>830</td>
</tr>
<tr>
<td>I-285 NE</td>
<td>456</td>
<td>802</td>
</tr>
</tbody>
</table>
Atlanta Regional Truck Parking Assessment Study

Future Truck Parking Demand

2045 Parking:
- Yellow: Up to 100 space Deficit
- Orange: Up to 150 space Deficit
- Red: Up to 300 space Deficit
- Purple: Up to 900 space Deficit
- Black: Current Truck Parking

Expressways:
- Light Blue: MPO Boundary
- Green: Key Adjacent Counties

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

Date: July 2017
### Estimated Corridor Truck Parking Utilization

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Estimated Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-20 W</td>
<td>2,290</td>
</tr>
<tr>
<td>I-75 S</td>
<td>1,710</td>
</tr>
<tr>
<td>I-75 N</td>
<td>1,800</td>
</tr>
<tr>
<td>I-285 W</td>
<td>990</td>
</tr>
<tr>
<td>I-85 S</td>
<td>860</td>
</tr>
<tr>
<td>I-20 E</td>
<td>880</td>
</tr>
<tr>
<td>I-85 N</td>
<td>850</td>
</tr>
<tr>
<td>I-285 S</td>
<td>420</td>
</tr>
<tr>
<td>I-675</td>
<td>170</td>
</tr>
<tr>
<td>I-985</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10,020</strong></td>
</tr>
</tbody>
</table>

---

Estimated Truck Parking Utilization

Midnight to 4am Average Trucks Parked:
- **> 1,000**
- **500 - 1,000**
- **200 - 500**
- **1 - 500**
- **0**

- **Current Truck Parking**
- **Expressways**
- **MPO Boundary**
- **Key Adjacent Counties**

*Source: July 2017*

- Study Team, ATRI
- ARC, GDOT, EPS
- Jason’s Law, Company Websites
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 Truck Parking Assessment Study

Outreach Activities Overview
Outreach Activities

- **Meetings**
  - Freight Advisory Task Force (FATF)
  - ARC Committees

- **Surveys**
  - Truck Drivers
  - Stakeholders
    - Local Jurisdictions & CID
    - 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

<table>
<thead>
<tr>
<th>Length of Haul</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local (less than 100 miles)</td>
<td>0.0%</td>
</tr>
<tr>
<td>Regional (100-499 miles per trip)</td>
<td>22.3%</td>
</tr>
<tr>
<td>Inter-Regional (500-999 miles per trip)</td>
<td>49.3%</td>
</tr>
<tr>
<td>Long-Haul (1,000+ miles per trip)</td>
<td>28.4%</td>
</tr>
</tbody>
</table>

- 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?

<table>
<thead>
<tr>
<th>Length of time</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 15 minutes</td>
<td>1.3%</td>
</tr>
<tr>
<td>15 – 30 minutes</td>
<td>6.5%</td>
</tr>
<tr>
<td>30 minutes – 1 hour</td>
<td>41.3%</td>
</tr>
<tr>
<td>More than 1 hour</td>
<td>51.0%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Location</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public rest stops</td>
<td>80.8%</td>
</tr>
<tr>
<td>Private truck stops</td>
<td>88.5%</td>
</tr>
<tr>
<td>Shipper / Receiver</td>
<td>71.8%</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Truck Drivers</th>
<th>Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-285 North and East (I-75 north to I-20 east)</td>
<td>91%</td>
<td>62%</td>
</tr>
<tr>
<td>I-285 West (I-85 south to I-75 north)</td>
<td>90%</td>
<td>62%</td>
</tr>
<tr>
<td>I-285 South (I-20 east to I-85 south)</td>
<td>89%</td>
<td>64%</td>
</tr>
<tr>
<td>I-85 North</td>
<td>79%</td>
<td>29%</td>
</tr>
<tr>
<td>I-20 East</td>
<td>76%</td>
<td>36%</td>
</tr>
<tr>
<td>I-85 South</td>
<td>74%</td>
<td>29%</td>
</tr>
<tr>
<td>I-75 South</td>
<td>73%</td>
<td>50%</td>
</tr>
<tr>
<td>I-20 West</td>
<td>73%</td>
<td>36%</td>
</tr>
<tr>
<td>I-75 North</td>
<td>69%</td>
<td>46%</td>
</tr>
<tr>
<td>I-675</td>
<td>68%</td>
<td>69%</td>
</tr>
</tbody>
</table>
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 / CID - 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?
  - Yes: 38%
  - No: 62%

- What are the programs, policies, and/or strategies?
  - Zoning: 64%
  - Signage and Enforcement: 21%
  - Private property: 14%
13 separate respondents provided 39 different responses (locations)
- Local Jurisdictions / CID's: 31 responses
- Law Enforcement: 8 responses

Unauthorized truck parking locations
- Where?
- How Often?
Stakeholder Interviews Overview

Study Team

- Carriers / Distribution Centers
- Truck Stop Owners / Operators
- Law Enforcement
- Solution Implementation
- Drivers
## Stakeholder Interviews

### Common Issues

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

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

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

Educate communities about the need for truck parking near industrial areas.

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

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.

Drivers

Carriers / Distribution Centers

Truck Stop Owners / Operators

Law Enforcement
Recommendations from Interviews
Solutions Implementation

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

Mid-America Freight Coalition / FDOT / CISCO
- 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
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
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 Truck Parking Assessment Study

Questions?