



# I-75 South Corridor and Subarea Master Planning Study

Study Recap and Recommendations

June 30, 2015





# Agenda

## Welcome and Introductions

## Study Recap

## Study Context

- Approach
- Key Considerations / Other Issues in Corridor
- Traffic & Transportation Trends
- Potential Corridor Impacts

## Study Analysis

- Freight 'Hot Spots'
- Future-Year Traffic Conditions & Needs

## Study Recommendations

- Potential Improvements
- Project Timeline Considerations
- Policy Suggestions and Tools

## Q&A / Wrap-Up



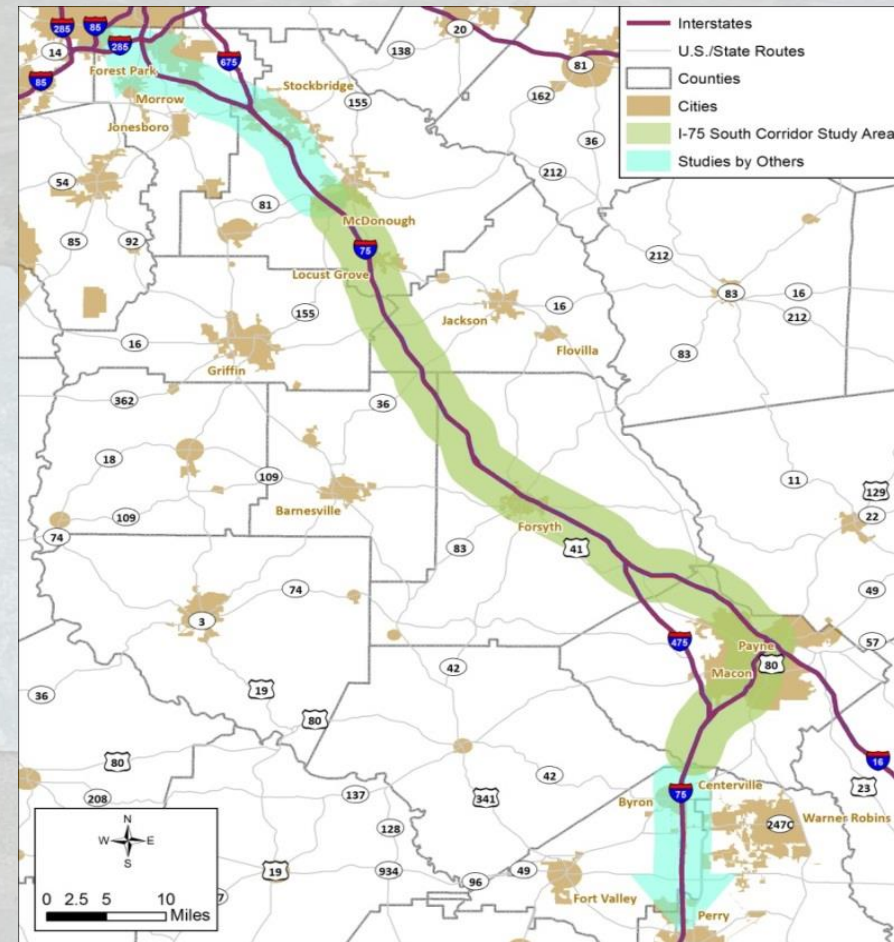
# Study Recap

*In addition to serving “local” traffic, the **I-75 South Corridor Study** area (between SR 155 and Warner Robins) is one of the busier and more vital transportation corridors in Georgia...*

I-75 South Corridor

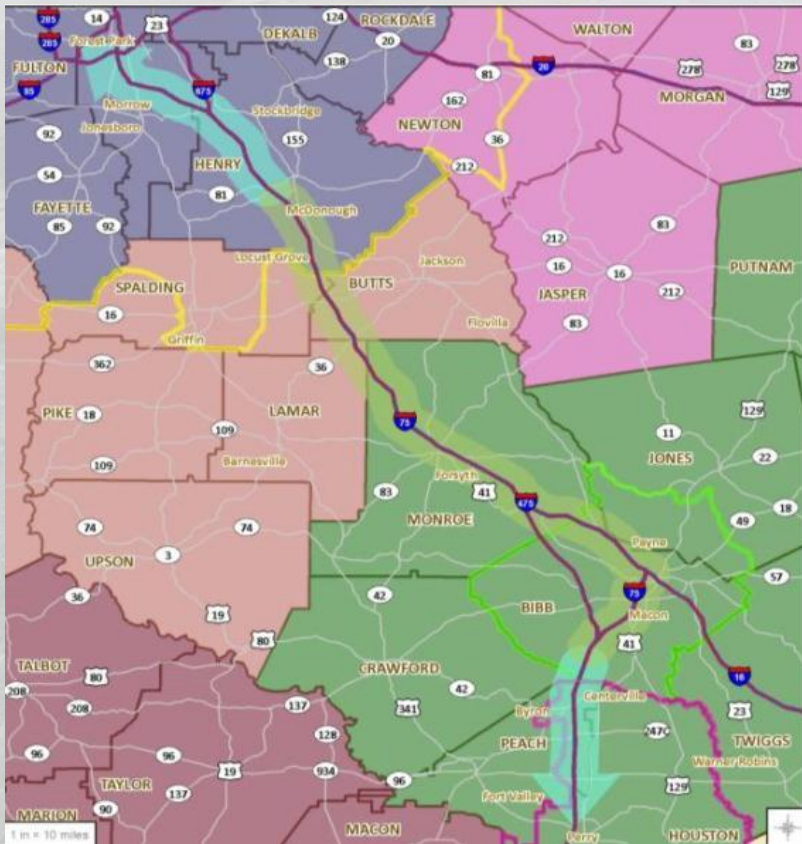
- **Key Connections:**

- Between the growing urban areas of Middle Georgia and metro Atlanta
- To the Atlantic coastal region and Georgia's Ports
- Movement of people and goods through the Southeast.





# Study Recap (Cont'd.)



Sources: Atlanta Regional Commission, Bureau of Transportation Statistics, U.S. Census Bureau

## • MPO Areas

- Atlanta Regional Commission
- Macon Area Transportation Study
- Warner Robins Area Trans. Study

## • Non-MPO Counties & Associated Cities

- Butts
- Lamar
- Monroe
- Spalding

## • Regional Commissions

- Atlanta Regional
- Middle Georgia
- Three Rivers

## • Other Interested Parties



# Study Recap (Cont'd.)

## Study Components

**Stakeholder Coordination**

**Compile Existing Localized Plans & Data Collection**



**Assess Existing- and Future-Year Traffic Conditions**



**Assess Existing- and Future-Year Transportation Needs**



**Analyze Road System & Evaluate Future-Year Scenarios**



**Improvement Recommendations and Timeframes**



**Finalize Study Report**



# Study Recap (Cont'd.)

## Project Steering Committee and Project Stakeholder Committee

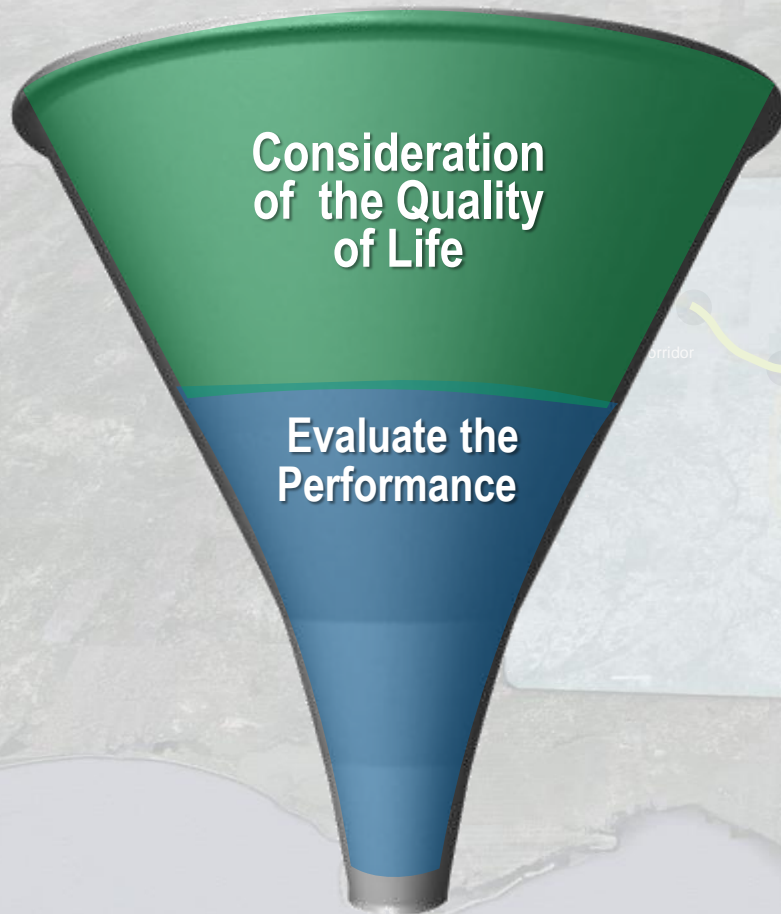
- Met periodically to offer feedback, develop study goals and performance measures, and provide insight -- *from a local perspective.*





# Study Recap (Cont'd.)

## Identified Goals and Performance Measures



### Goals\*: Quality of Life

- Enhance / Maintain Quality of Life
- Enhance Natural, Historic, and Community Resources
- Maintain Community Character
- Improve Intergovernmental Coordination
- Enhance Facility Function

### Goals\*: Performance-Based

- Mobility for People and Goods
- Connectivity / Accessibility to Regional Activity Centers
- Safety
- Enhance Multimodal Transportation Options
- Support Economic Sustainability
- Expand State's Role as Major Logistics Hub

Source: Consensus of the I-75 South Corridor Study's Steering Committee and Stakeholder Committee

(\*Goals **Not** in Priority Order)



# Study Recap (Cont'd.)

## Study Components

Stakeholder Coordination

Compile Existing Localized Plans & Data Collection

Assess Existing- and Future-Year Traffic Conditions

Assess Existing- and Future-Year Transportation Needs

Analyze Road System and Evaluate Future-Year Scenarios

Improvement Recommendations and Timeframes

Finalize Study Report

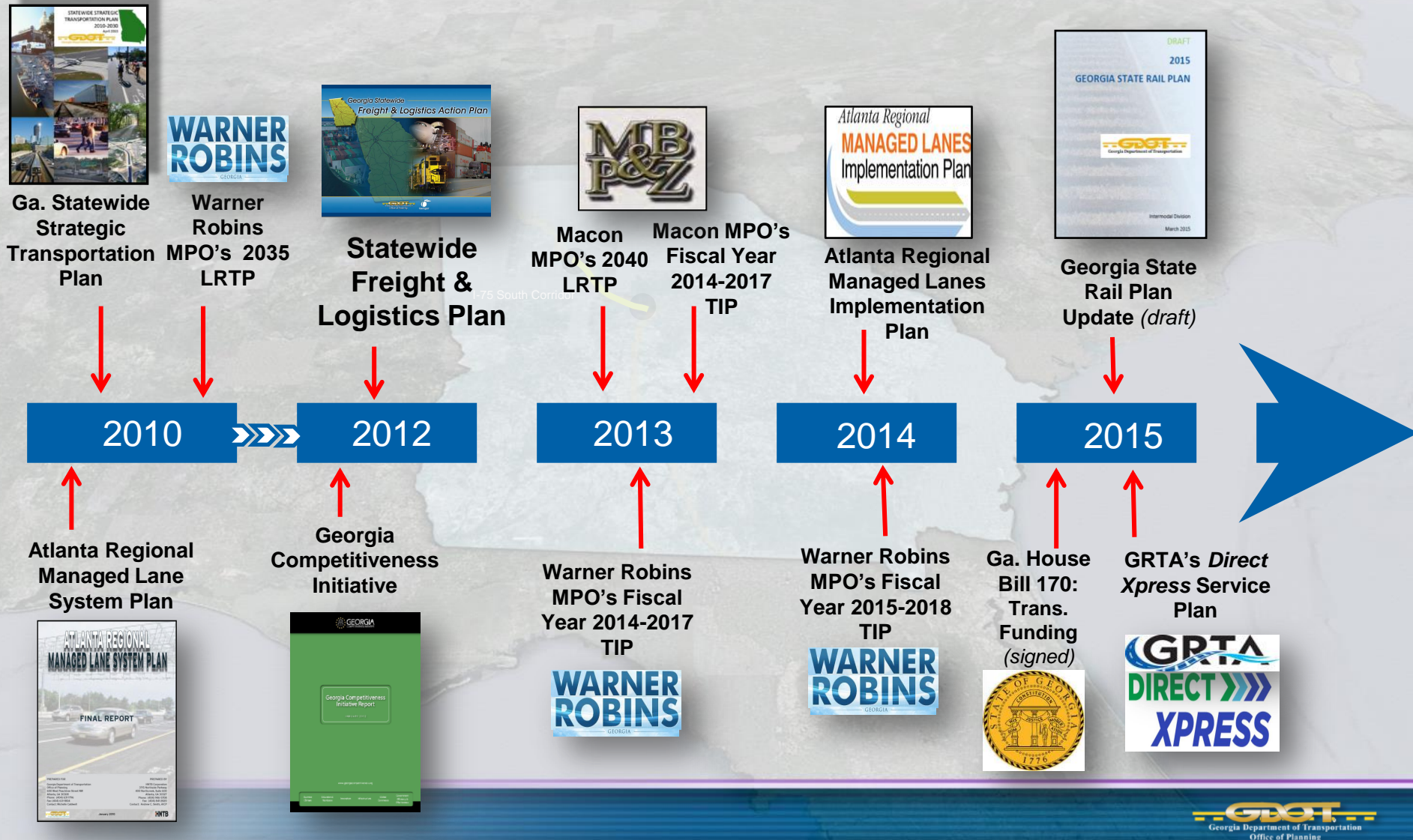
Other Plans, Reports, and Studies

Traffic and Transportation Trends

Potential Corridor Impacts



# Key Considerations



# Key Considerations (Cont'd.)

## Summary of Relevant Roadway Transportation Issues/Needs

### GDOT Statewide Freight Plan

#### Analysis: I-75 Capacity

#### Deficiency by the Year 2040

- Recommended I-75 widening (1 lane each direction), south metro Atlanta to north metro Macon (2031-2040 timeframe)

- Increasing Truck Volumes Statewide

- Especially Within the I-75 South Corridor Study area

#### I-16/I-75 “Bottleneck”

(Identified by national trucking assoc.)

#### Truck Accommodations





# Key Considerations (Cont'd.)

## Summary of Relevant Rail Transportation Issues/Needs

### GDOT Statewide Freight Plan

Statewide, 'Through' Freight Shipments Projected To Increase 30% By Year 2040



Increasing Freight Rail Traffic Partly Due to Ongoing and Forecasted Growth at Georgia's Ports



# Key Considerations (Cont'd.)

## Macon & Warner Robins Metropolitan Planning Organizations (“MPO”): *Long Range Transportation Plans*

### **Macon MPO’s Long Range Transportation Plan** *(adopted 2013)*

**Reconstruct Bass Road @ I-75 interchange**



**Operational improvement:  
Riverside Drive @ I-75 interchange**

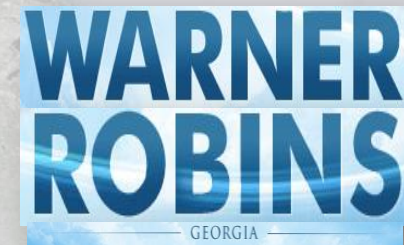


**Reconstruct “I-75 @ I-16” (which include mainline & I-16 interchanges)**



### **Warner Robins MPO’s Long Range Transportation Plan** *(adopted 2010)*

**Widen I-75 from south of Sardis Church Road to Watson Boulevard**





# Key Considerations (Cont'd.)

## Atlanta Regional Managed Lane System Plan (year 2010) & Implementation Plan (year 2014)

Increasing Travel Times Projected  
By The Year 2030



Improve Travel Reliability and  
Safety



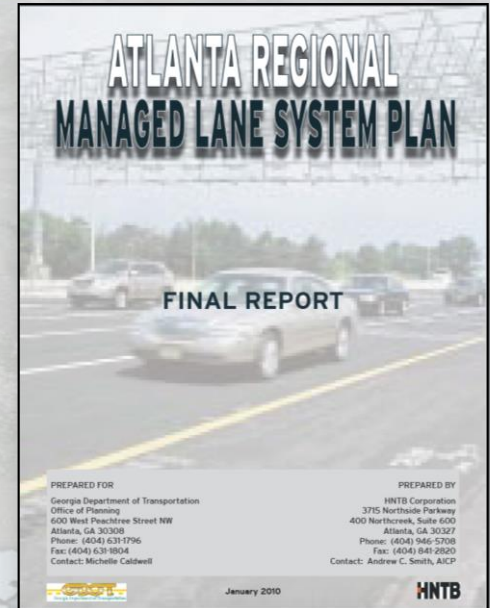
Need for Mobility Options



Support Transit (*GRTA Xpress Bus*)



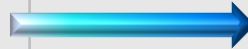
I-75 Express Lane (southern  
limit at State Route 155)



# Key Considerations (Cont'd.)

## GRTA Direct Xpress Service Plan

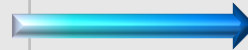
**Need to connect employees with major employment centers**



**Identifying growing congestion in Metro Atlanta during rush hours**



**Maximize tax dollars through low operating costs**



**Consolidation and adding of routes near major employment centers**





# Key Considerations (Cont'd.)

## Georgia State Rail Plan DRAFT (2015 update)

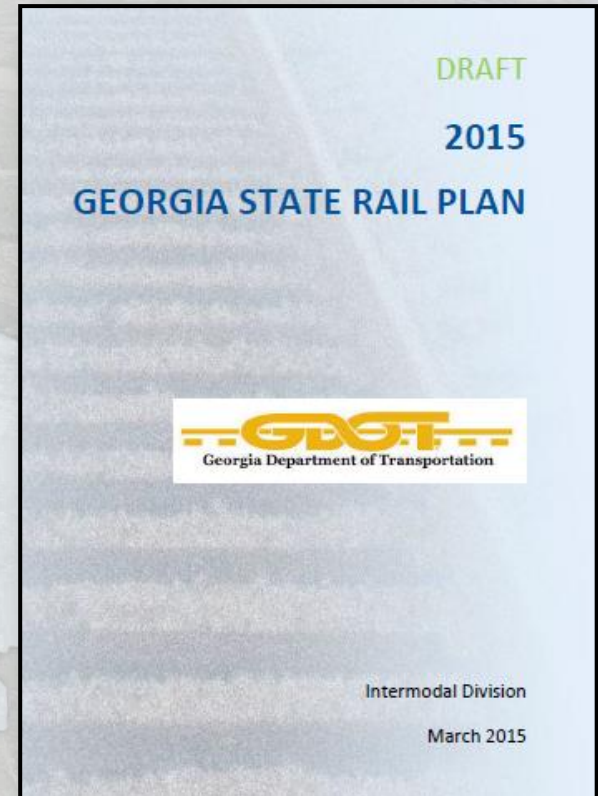
### Continued Collaboration with Stakeholders:

- On Regional Issues
- For Solutions to Freight Needs
- For Solutions to Passenger Rail Needs



### Support Goods Movement”

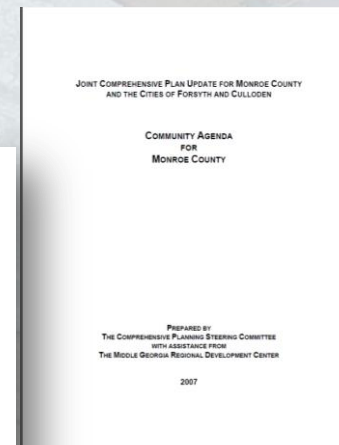
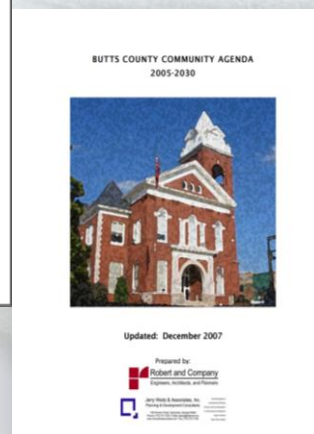
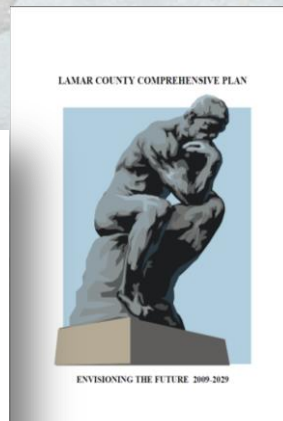
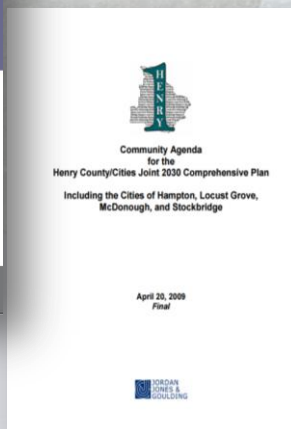
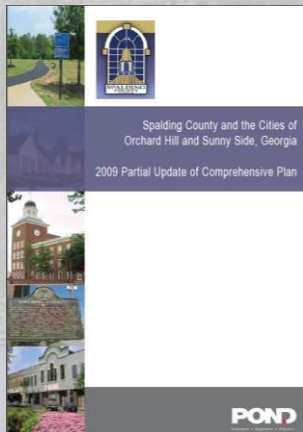
- To Ensure Diverse and Robust Transportation Network
- To Maintain Economic Competitiveness



# Key Considerations (Cont'd.)

## Locally-Adopted Land Use Policies and Strategies

- Current and future land use development trends
- Used to identify local impacts on travel patterns along the corridor
  - Operational efficiency of interchanges
  - Accessibility and connectivity to interstate system





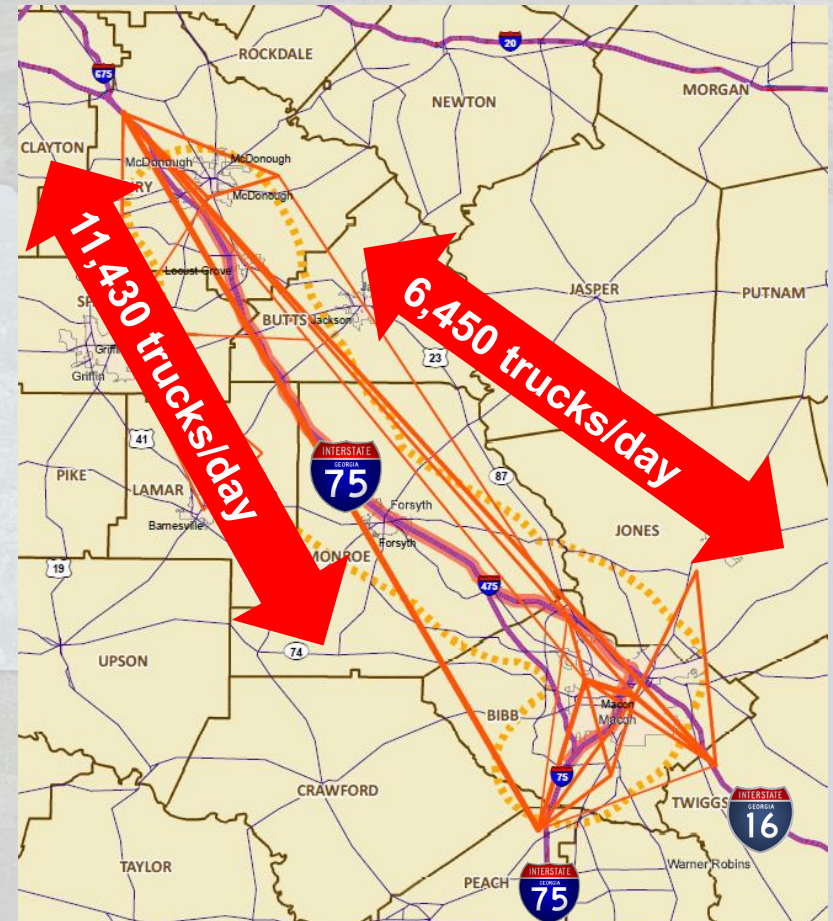
# Corridor Traffic Trends

## Travel Demand (year 2010)

### Passenger Cars



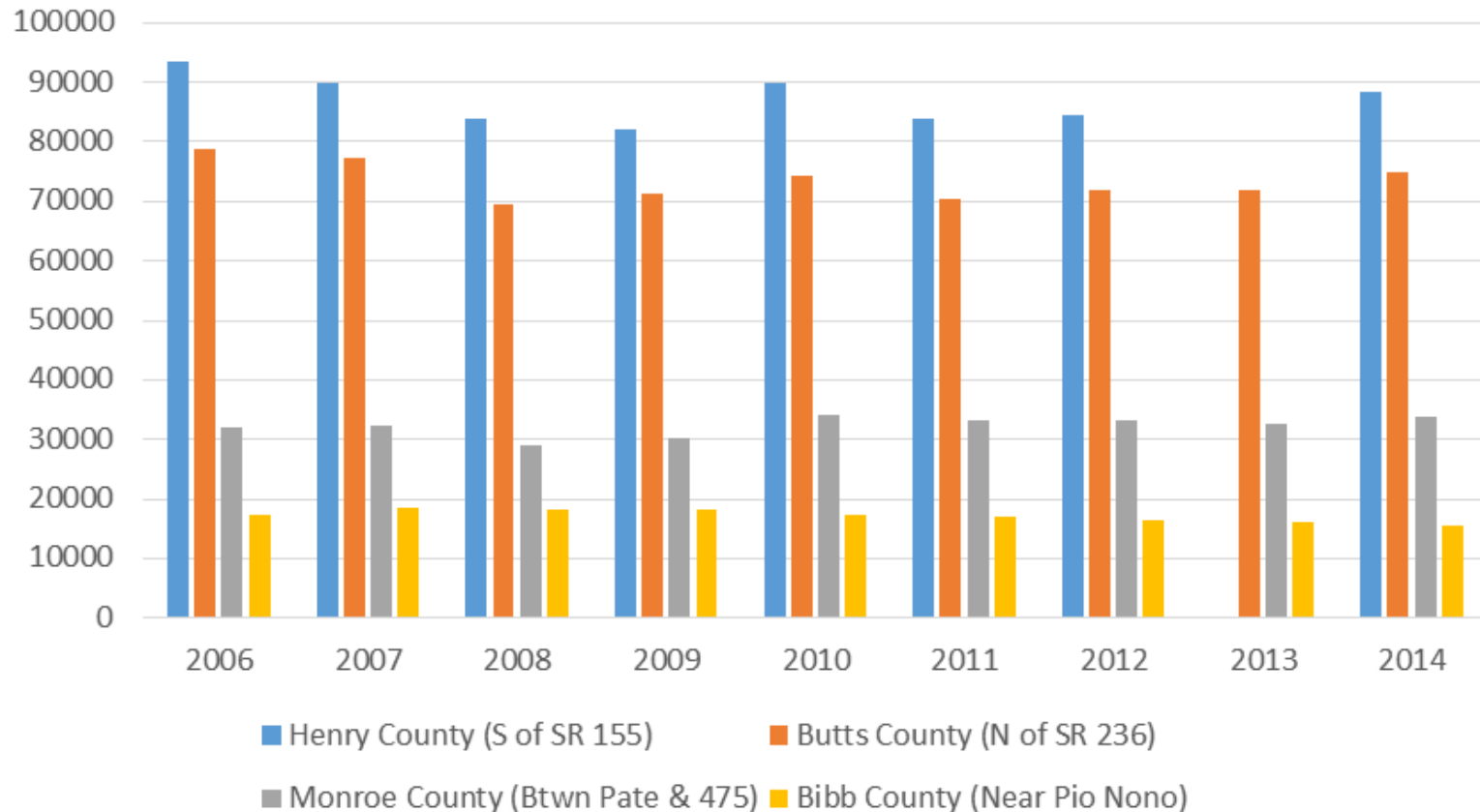
### Trucks



Source: Study analysis using Atlanta & Macon MPO's computerized travel demand models, and GDOT's statewide travel demand model.

# Traffic Trends (2006-2014)

## I-75 South Traffic Trends



Source: GDOT

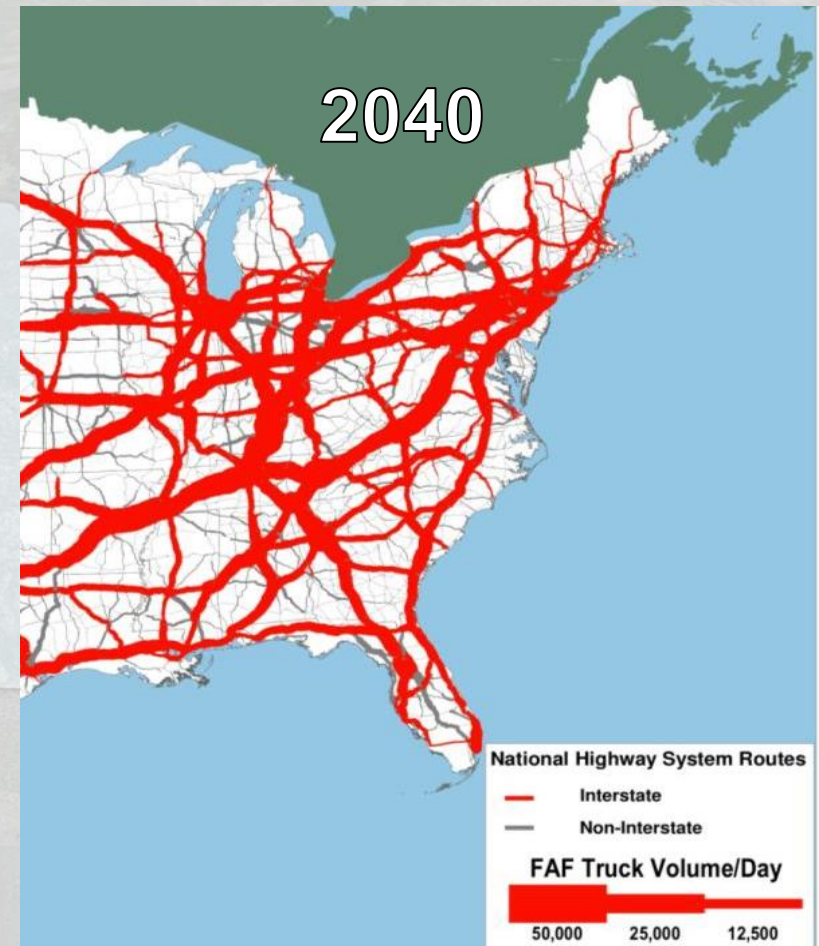
**Total Number of Vehicles** ("Average Annual Daily Traffic – AADT")

**Note:** Data not available in 2013 for the Henry County location



# National Traffic Trends

## Federal Highway Administration: “Increasing Truck Traffic”



Source: Federal Highway Administration (FHWA)

# Growing “Intermodal” Trends

## Truck-to-Rail: *Feasibility of Diversion?*

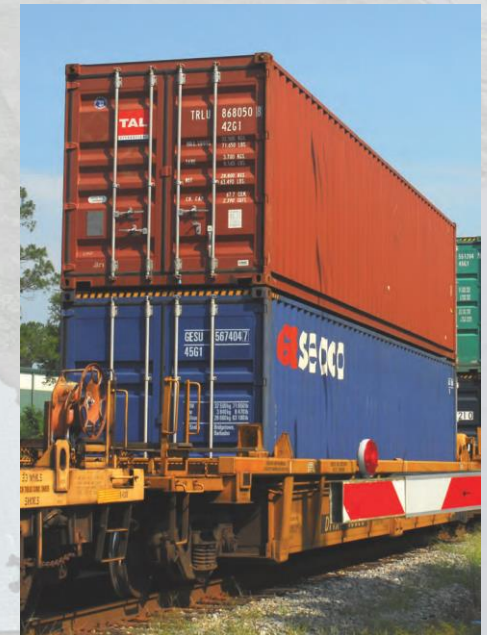
- *Travel Distances (general 500 mile ‘breakpoint’)*
- *Commodity Type Characteristics?*
- *Geographies?*
- *Availability of Existing Infrastructure/Facilities?*



## NETWORK GEORGIA

### Zones:

1. SW Georgia - Cordele
2. NW Georgia
3. Port Atlanta
4. I-95 Corridor - North
5. I-95 Corridor - South
6. Middle Georgia





# Potential Corridor Impacts

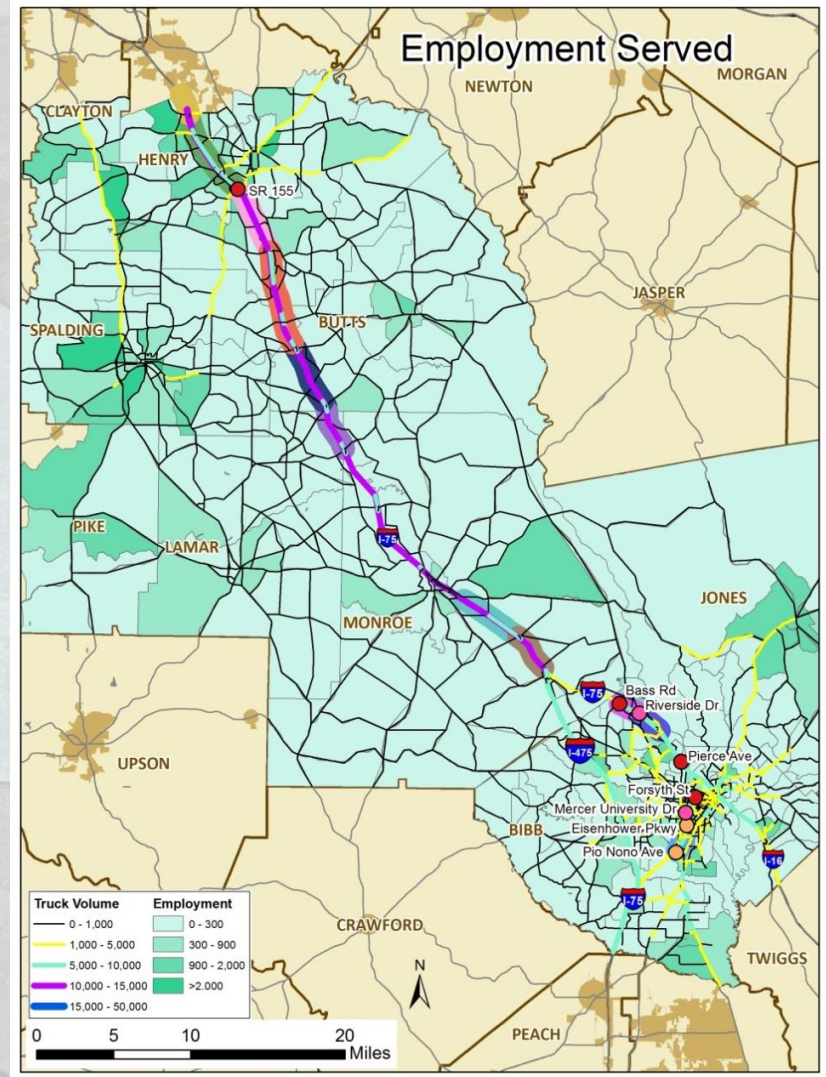
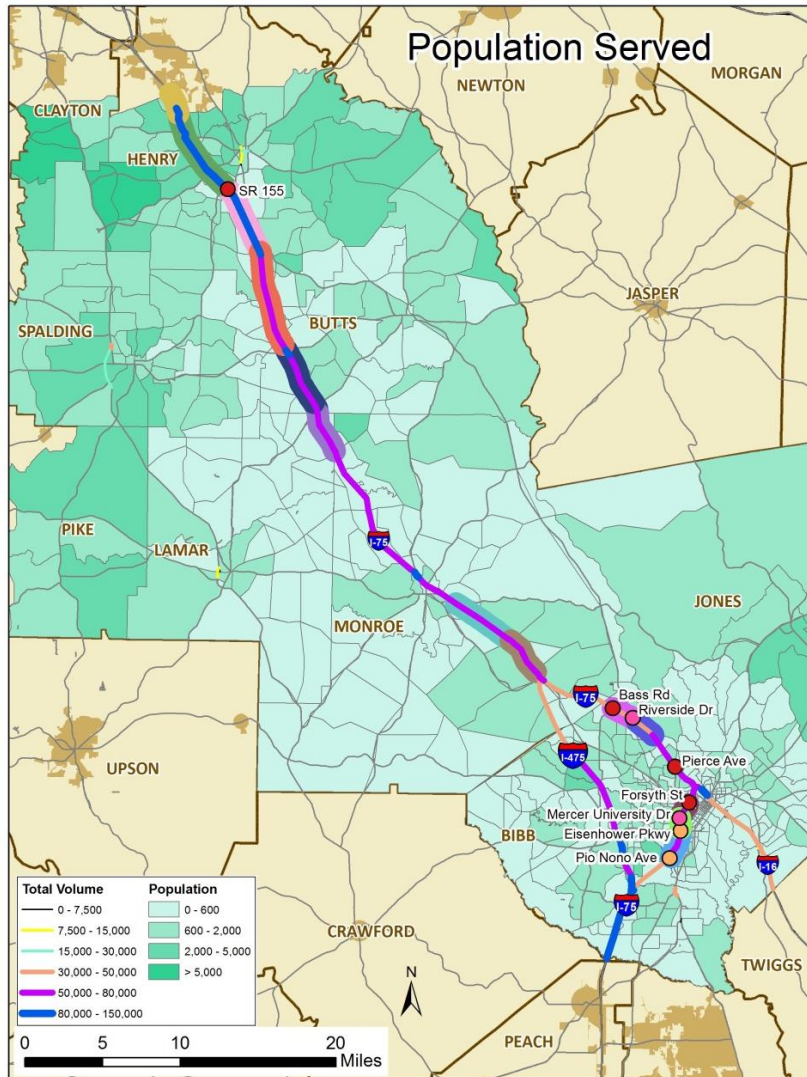


## Population and Employment

| Counties                                 | 2010           |                | 2040             |                | Projected Growth |            |
|--|----------------|----------------|------------------|----------------|------------------|------------|
|  | Population     | Employment     | Population       | Employment     | Population       | Employment |
| Clayton, Henry & Central Spalding Co.    | 535,326        | 179,148        | 853,808          | 303,636        | 59%              | 69%        |
| Portion: Spalding, Butts, Lamar & Monroe | 102,340        | 28,327         | 165,027          | 44,050         | 61%              | 56%        |
| Bibb & Jones Co.                         | 168,657        | 107,070        | 184,037          | 156,553        | 9%               | 46%        |
| Houston County                           | 137,808 (2006) | 50,332 (2006)  | 218,812 (2035)   | 80,649 (2035)  | 59%              | 60%        |
| Peach County                             | 24,836 (2006)  | 9,341 (2006)   | 38,520 (2035)    | 14,475 (2035)  | 55%              | 55%        |
| <b>Total</b>                             | <b>968,967</b> | <b>374,218</b> | <b>1,460,204</b> | <b>599,363</b> | <b>51%</b>       | <b>60%</b> |

Sources: U.S. Census Bureau, Atlanta Regional Commission (ARC), Macon Area Transportation Study (MATs), Warner Robins Area Transportation Study (WRATS) and GDOT

# Potential Corridor Impacts





**Stakeholder Coordination**

**Compile Existing Localized Plans & Data Collection**



**Assess Existing- and Future-Year Traffic Conditions**



**Assess Existing- and Future-Year Transportation Needs**



**Analyze Road System & Evaluate Future-Year Scenarios**



**Improvement Recommendations and Timeframes**



**Finalize Study Report**

**Integrated Corridor Freight  
Planning (ICFP)**

**Potential Freight 'Hot Spots'**

# Integrated Corridor Freight Planning



- Freight Intensive Land Uses
- Assess and optimize overall transportation system performance by **simultaneously** planning improvements for **integrated multimodal systems**
- Unlike conventional planning where improvements are identified **independently** by mode and then compete for limited available funding





# Integrated Corridor Freight Planning: *Methodology*



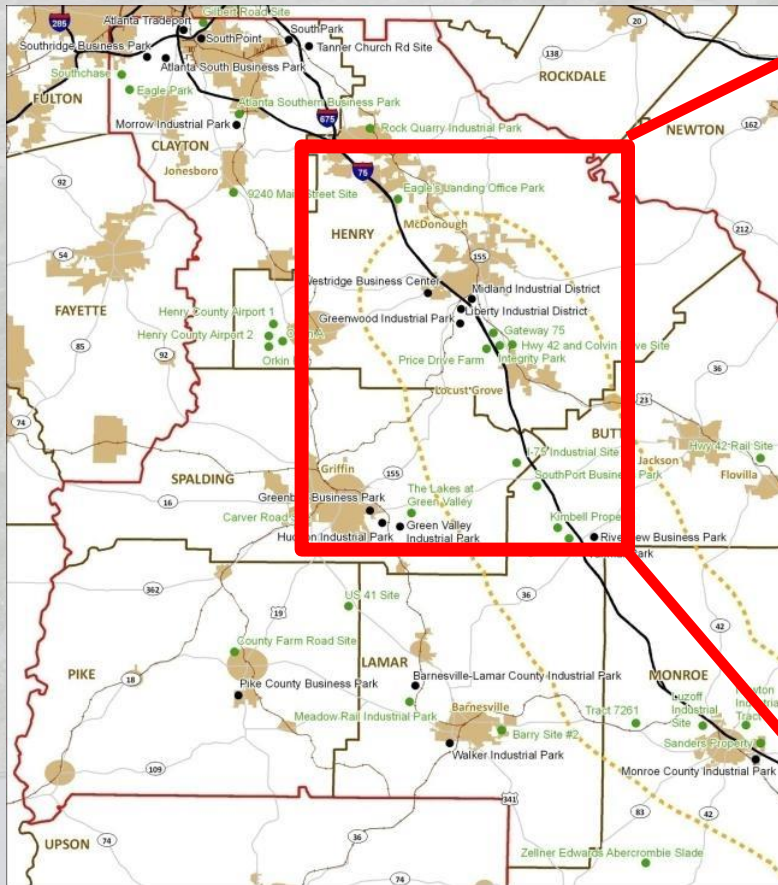
**Identify Freight  
Hotspots**

**Identify  
Existing/Future  
Deficiencies**

**Assess Truck  
Freight Routing**

**Develop  
Recommendations**

# Potential 'Freight Hotspot' Identification



## Economic Development Sites Northern Influence Area

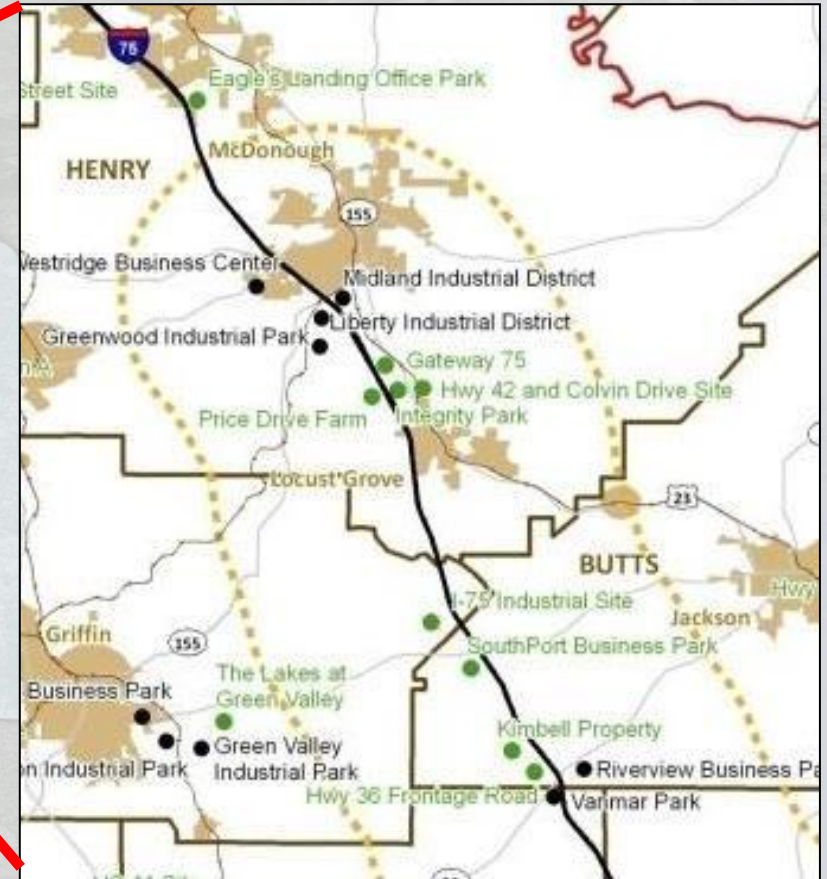
### Proposed Industrial Sites

- Existing Industrial Park
- Greenfield Location

- Interstates
- US/State Routes
- Study Area
- Influence Area
- Cities
- Counties

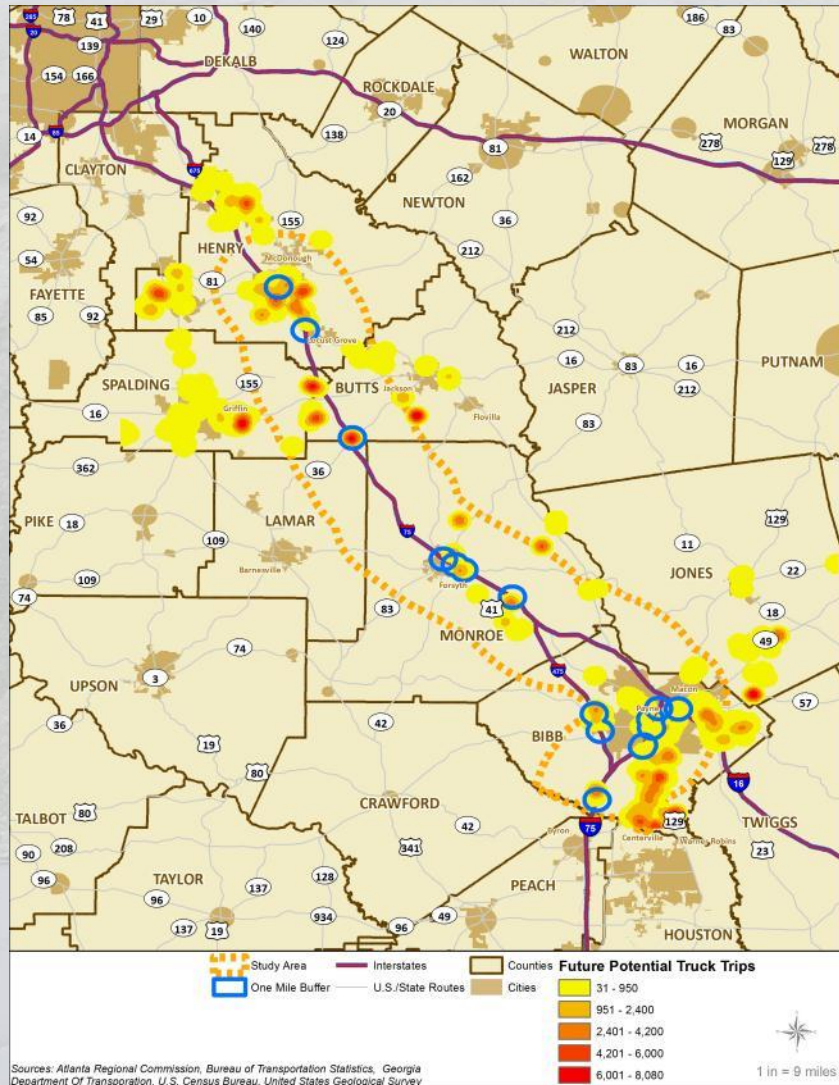
Sources: Jones County Development Authority, Macon Economic Development Commission, Middle Georgia Regional Commission, Pike County Chamber of Commerce, Spalding County Development Authority, Butts County IDA, Georgia EMC.

1 in = 5 miles





# 'Freight Hotspots' -- Heat Mapping

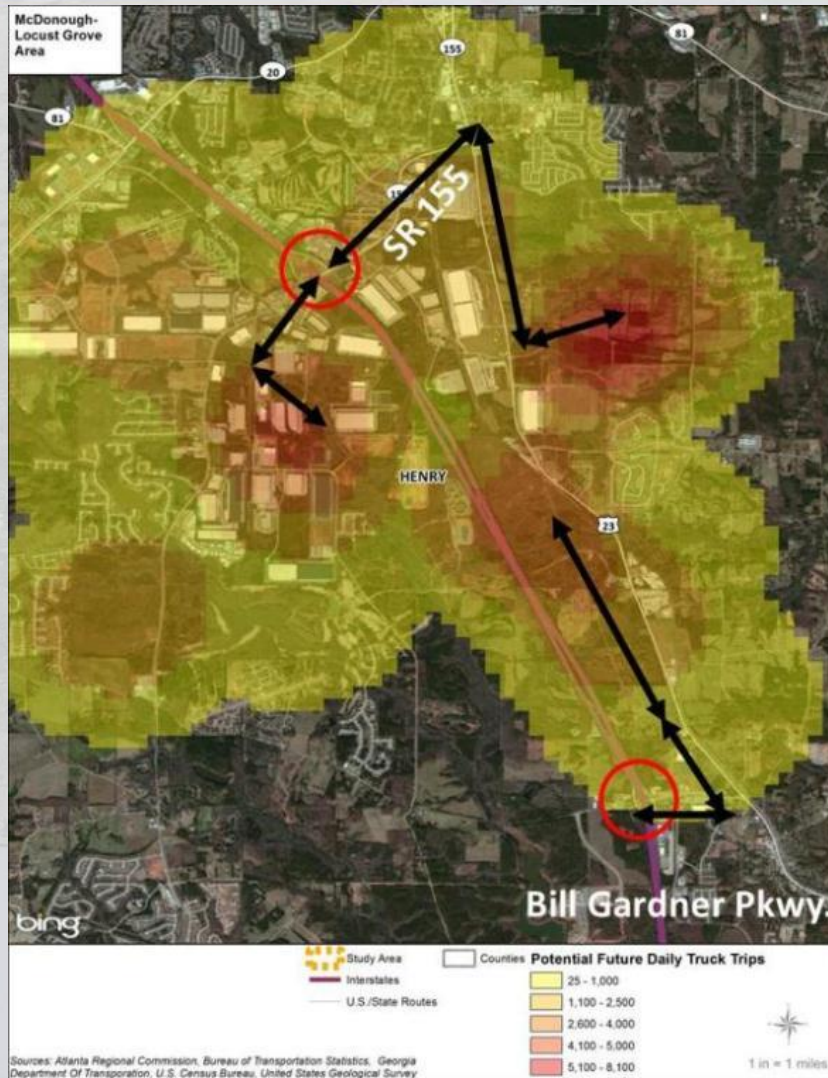


Sources: Atlanta Regional Commission, Bureau of Transportation Statistics, Georgia Department of Transportation, U.S. Census Bureau, United States Geological Survey

1. **Access Locally-Adopted Comprehensive Plans (Land Use)**
  - Areas of Future/Projected Industrial and/or Warehouse Land Uses?
2. **Calculate Potential Buildable Land Areas / Warehouse Sizes**
3. **Estimate Total Daily Truck Trips That Developments Could Generate**

# 'Freight Hotspot'

## Example: South Henry County

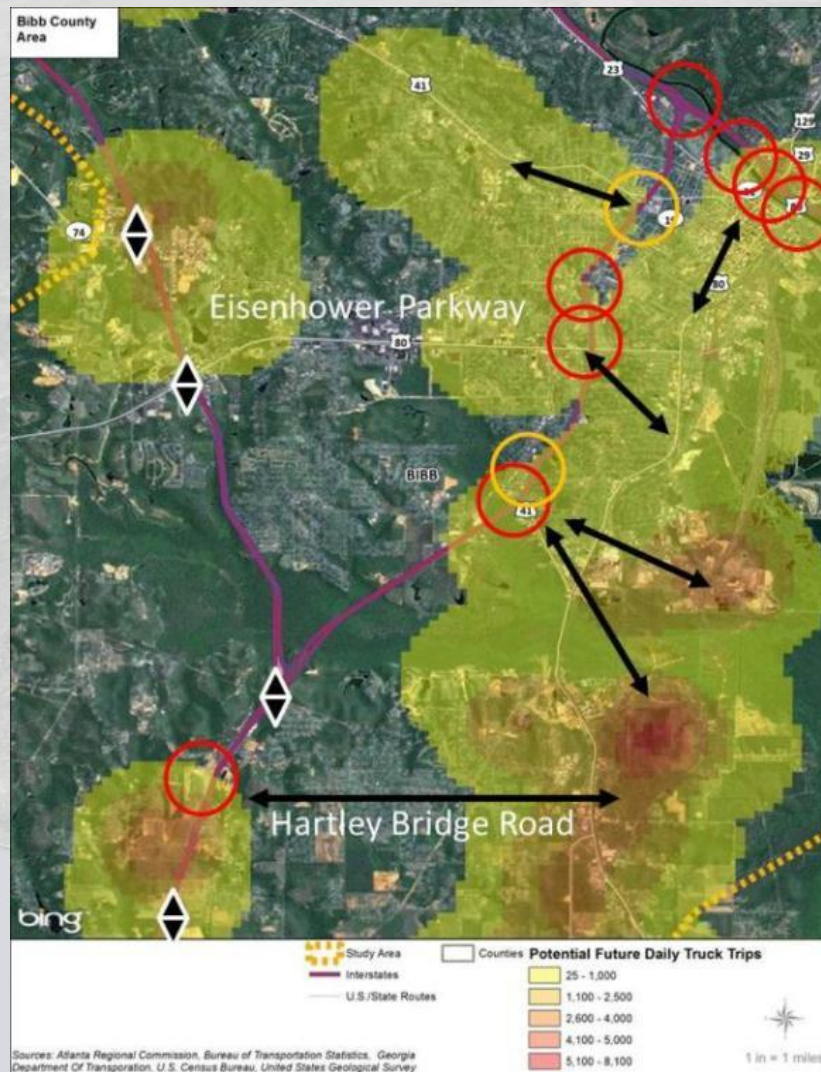


- ↔ Likely route to freight hotspot
- Interchange  $\leq$  LOS D 2040 No-Build Scenario



# 'Freight Hotspot'

## Example: South Macon Area

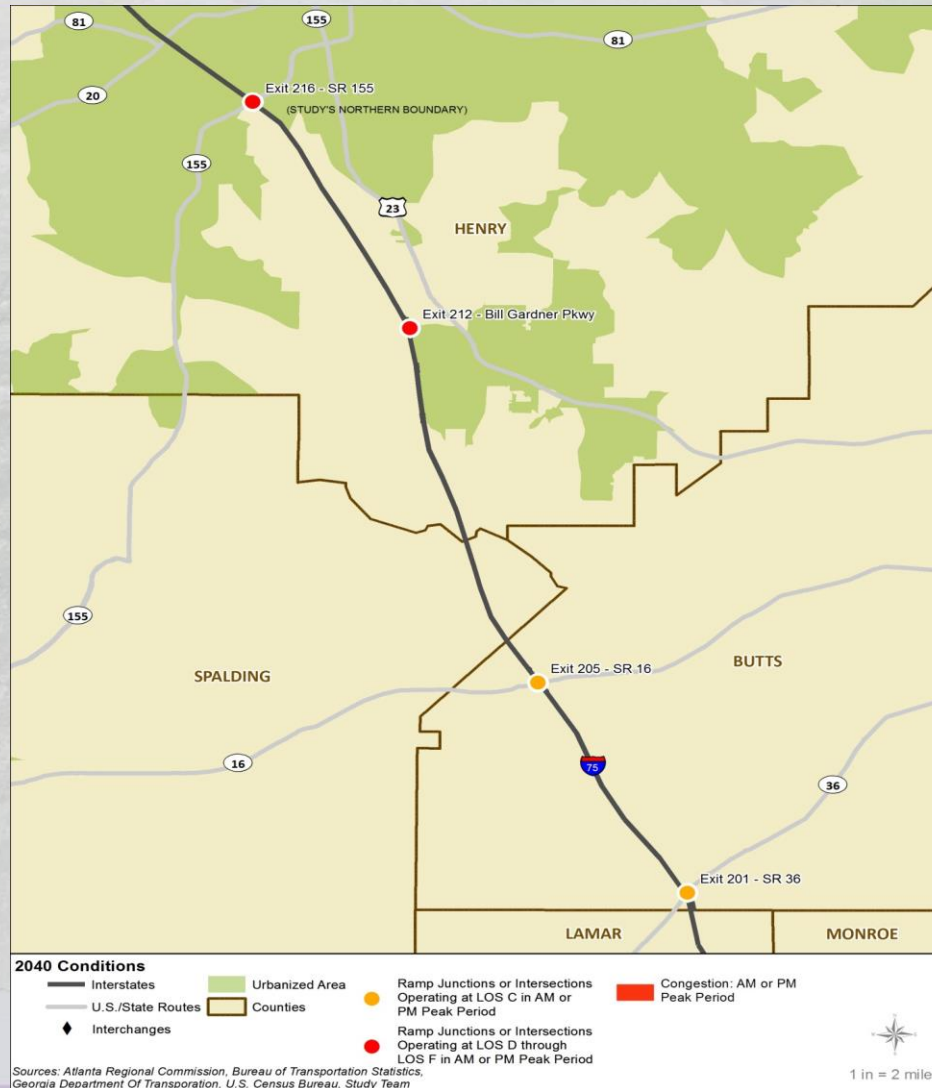


- ↔ Likely route to freight hotspot
- Interchange ≤ LOS D 2040 No-Build Scenario
- Interchange = LOS C 2040 No-Build Scenario

# Year 2040 “No Build” Scenario: Interchange Traffic Conditions



(North Segment)





# Year 2040 “No Build” Scenario: Interchange Traffic Conditions *(Central Segment)*



# Year 2040 “No Build” Scenario: Interchange & I-75 Traffic Conditions (South Segment)



**Note:** “No Build” assumption = does not take into account traffic improvement anticipated by Macon MPO’s “I-16/I-75” project (which includes mainline and I-16 interchange improvements)



**Stakeholder Coordination**

**Compile Existing Localized Plans & Data Collection**



**Assess Existing- and Future-Year Traffic Conditions**



**Assess Existing- and Future-Year Transportation Needs**



**Analyze Road System & Evaluate Future-Year Scenarios**



**Improvement Recommendations and Timeframes**



**Finalize Study Report**



**Potential Improvements**

**Planned & Recommended Projects**

**Project Timeframes**

# Potential Improvements



## Major Facility Improvement

*(Widen I-75: from south metro ATL to north metro Macon)*



Major Facility Improvements

&

Interim/Localized Improvements



# Potential Improvement Packages



## Major Facility Improvements

### Examples

- Add Corridor-Wide Capacity to Interstate (i.e. new lanes) ?
- Interchange Reconstructions ?
- Adding Capacity to Parallel Corridors ?
- Facilitate Freight "Mode Shift" ?
- Passenger Rail ?

## Interim/Localized Improvements

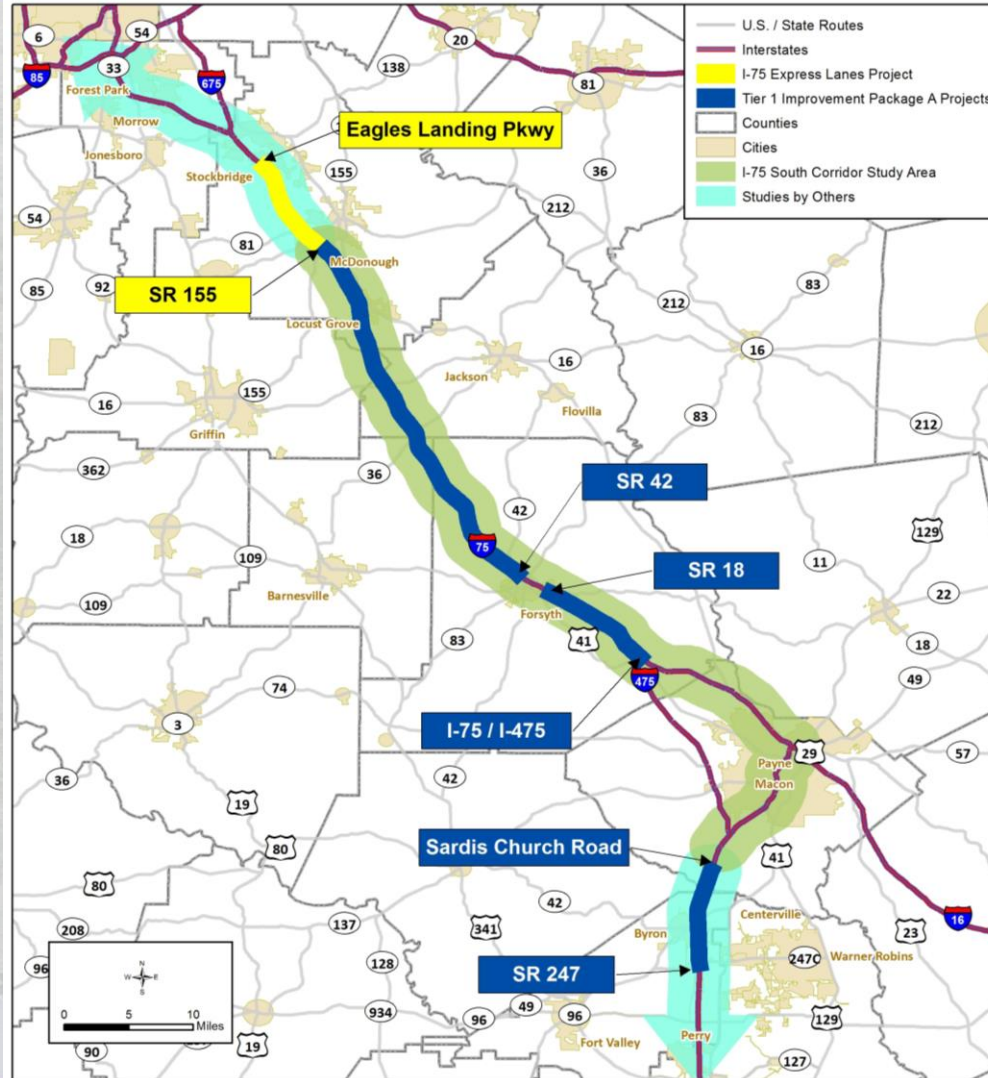
### Examples

- Add Auxiliary Capacity to Interstate (i.e. aux. lanes) ?
- Interchange Improvements ?
- Truck/Freight Accommodations ?
- Transit Enhancements ?
- Access Management ?

# Major Facility Improvement -- Capacity



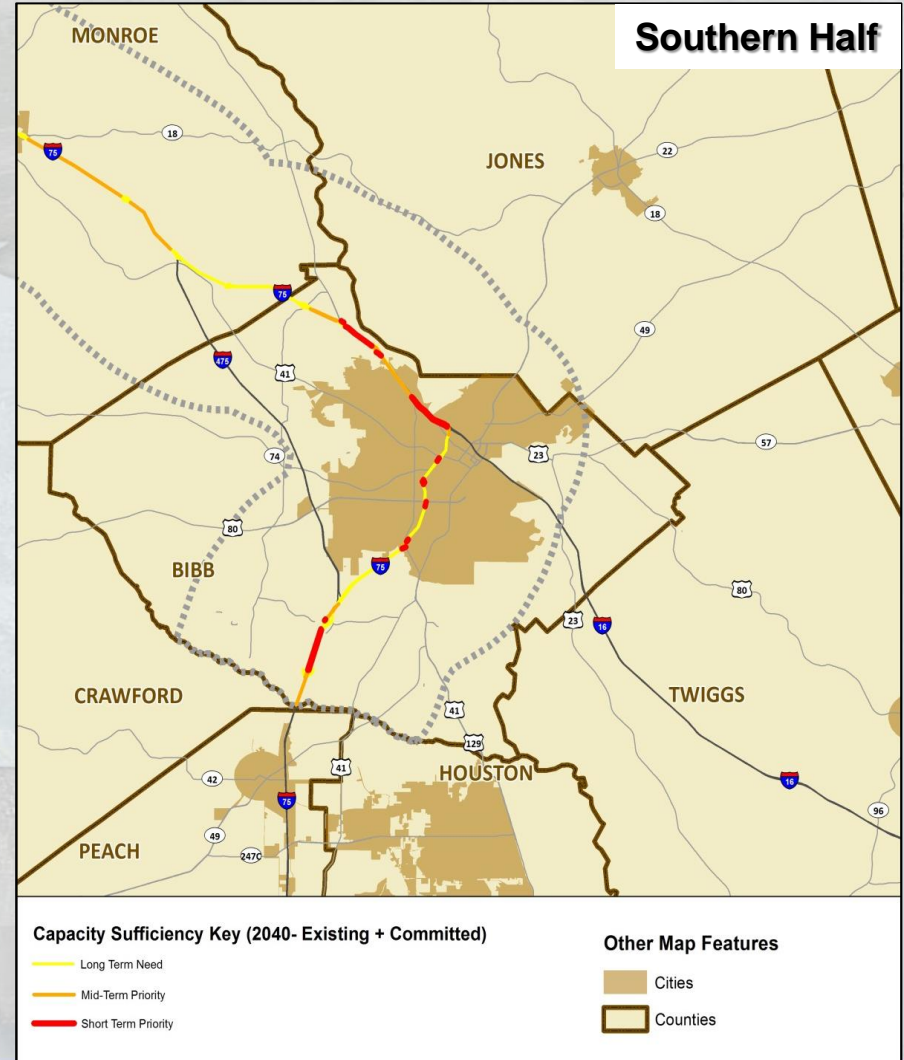
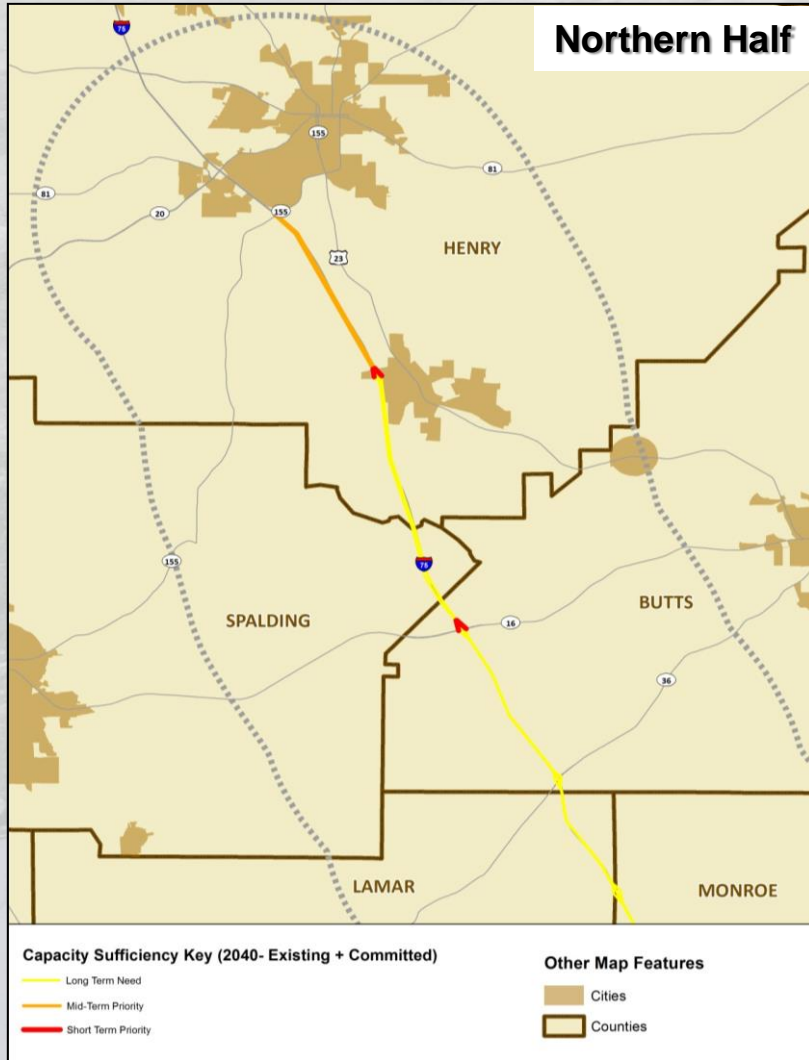
**Major Facility Improvement**  
(I-75 Capacity Needs:  
CORRIDOR-WIDE)





# Major Facility Improvements: Relative Needs

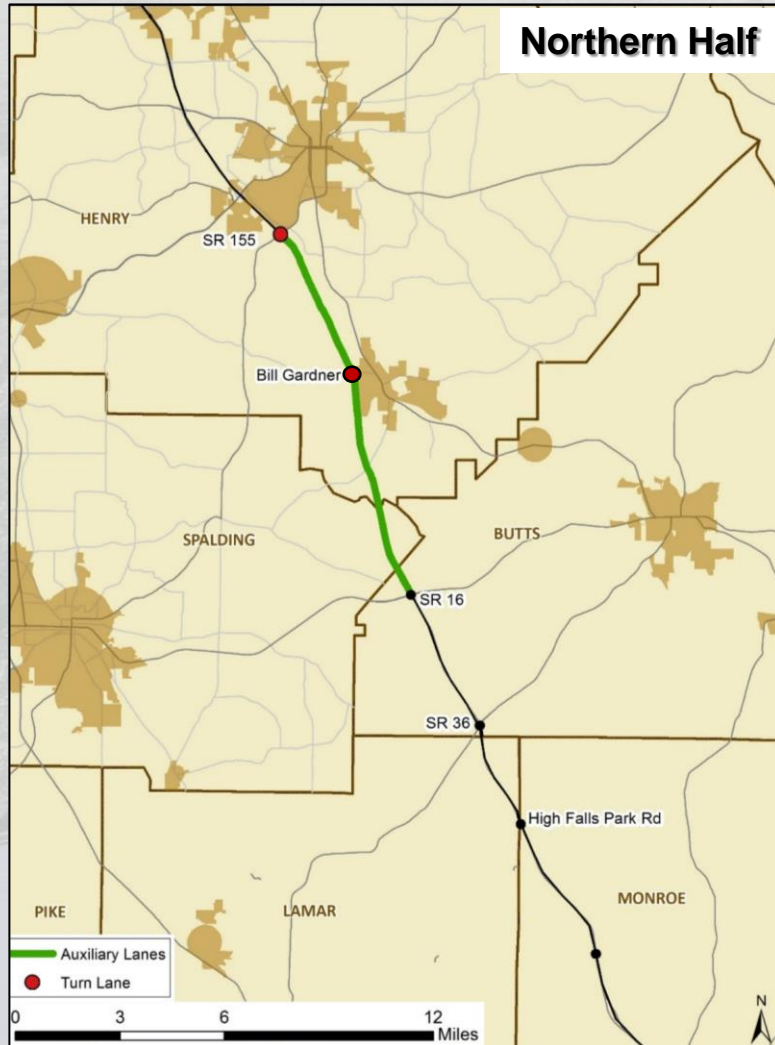
Major Facility  
Improvement



**Note: Maps do not assume Macon TIP's "I-16/I-75" project or completed I-75 project @ Sardis Church Road**

# Interim / Localized Improvements To Consider

Interim/Localized  
Capacity & Operational  
Needs





# “What’s An Auxiliary Lane”?

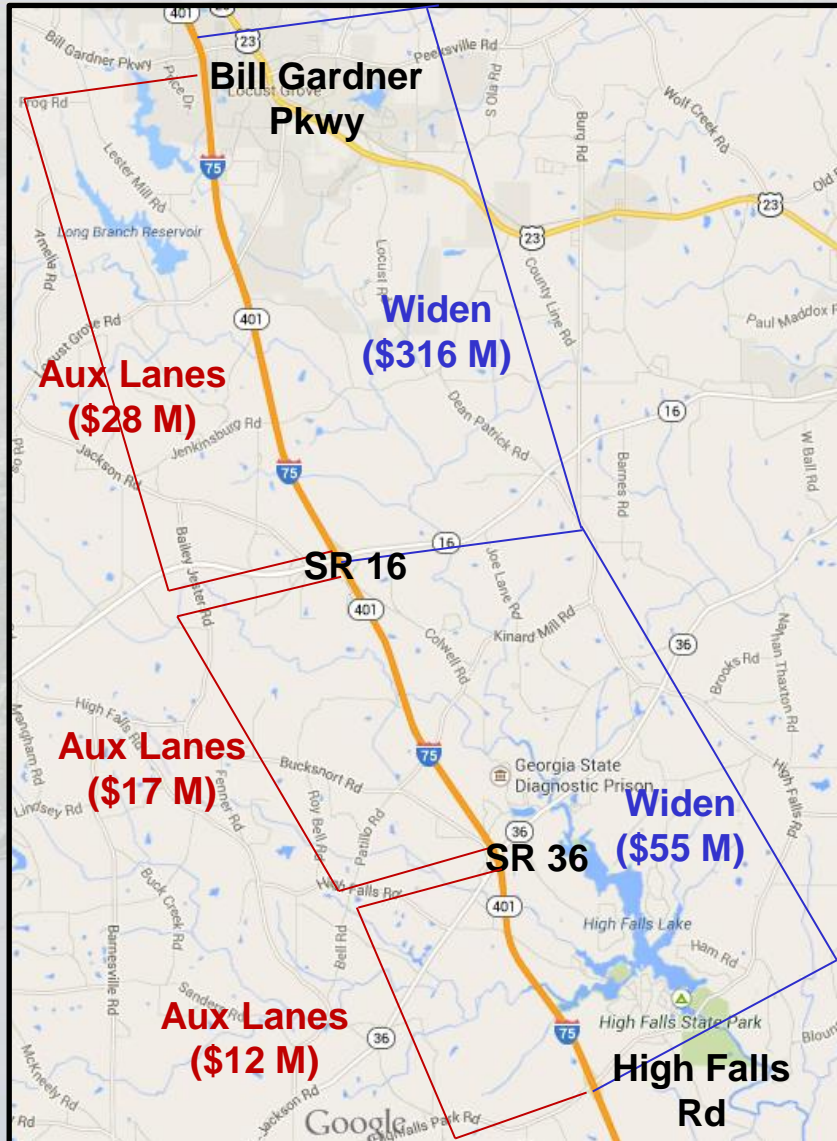
Example on I-75: Arkwright Road to Pierce Ave.





# I-75 Major Improvements: Project Costs and Comparison

(North Segment)



## I-75 Widening versus “Interim” I-75 Auxiliary Lanes

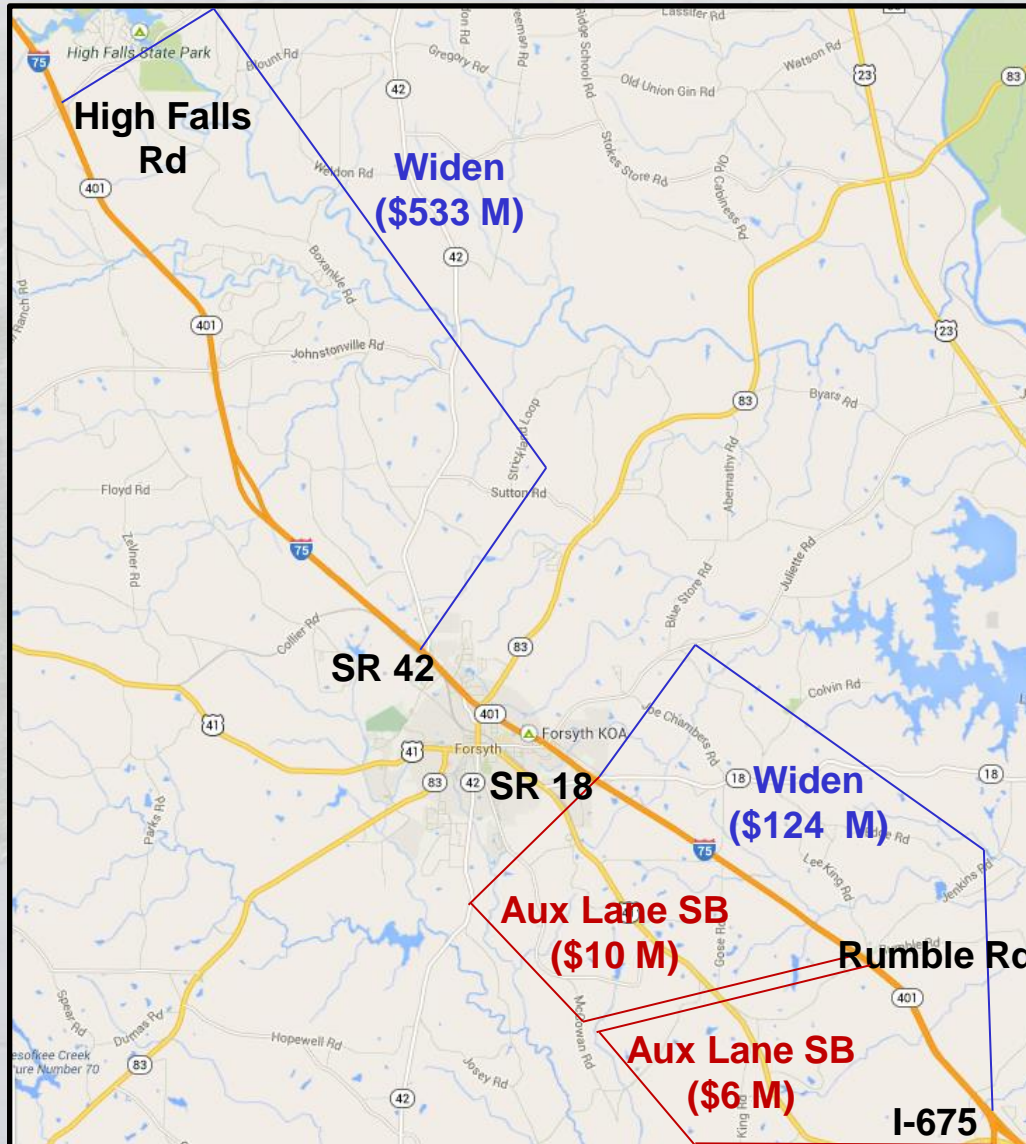
| Description                                 | Estimated Cost  |
|---|-----------------|
| <b>Widening</b>                             | <b>\$ 371 M</b> |
| <b>Auxiliary Lane “Interim” Improvement</b> | <b>\$ 57 M</b>  |



Source: GDOT Costs – TPro; Study Costs – Study Team



# I-75 Major Improvement: Project Costs and Comparison (South Segment)



## I-75 Widening versus “Interim” I-75 Auxiliary Lanes

| Description                                 | Estimated Cost  |
|---|-----------------|
| <b>Widening</b>                             | <b>\$ 657 M</b> |
| <b>Auxiliary Lane “Interim” Improvement</b> | <b>\$ 16 M</b>  |



Source: GDOT Costs – TPro; Study Costs – Study Team

# Timeframe Considerations



- **Safety**

- Project is located on, or adjacent to, interstate segments with above-average crash rate?
- Number of segments with above-average crash rate, and magnitude above the average?

- **Congestion Mitigation**

- Number of congested ramps or mainline segments mitigated?

- **Traffic Volumes**

- Increments, vehicles per day: 40k, 40-50k, 50-70k, 70-80k, 80k+?

- **Freight/Goods Movement**

- Located near potential freight hotspot?

- **Economics Considerations**

- Serves Population?
- Serves Jobs?
- Serves Consumer Markets?
- Serves Industrial Markets?



# Project Recommendations and Timeframes

## (On I-75)



| I-75 Exit Numbers | Improvement Type                               | Location                                     | 2015-2022 | 2023-2030 | 2030-2040 | Other Plans?                   | Status (June 2015) |
|-------------------|--|--|-----------|-----------|-----------|--------------------------------|--------------------|
| 216 to 188        | Turn Lanes                                     | Northbound SR 155 exit ramp                  | •         |           |           | GDOT Traffic Operations        | New GDOT Project   |
|                   | Turn Lanes                                     | Southbound Bill Gardner Pkwy. exit ramp      | •         |           |           | On Approved TIA list (Jan '12) |                    |
|                   | Widen I-75                                     | Through SR 155 interchange                   |           |           | •         |                                |                    |
|                   | I-75 Add Auxiliary Lanes (north- & southbound) | SR 155 ramps to Bill Gardner ramps           |           | •         | •         |                                |                    |
|                   |  | Bill Gardner ramps to SR 16 ramps            |           | •         | •         |                                |                    |
|                   | Widen I-75                                     | Through Bill Gardner & SR 16 Interchanges    |           |           | •         | GDOT Freight Plan              | Unfunded           |
|                   |  | From SR 16 to High Falls Road                |           |           | •         | GDOT Freight Plan              | Unfunded           |
|                   |  | From High Falls Road to SR 42                |           |           | •         | GDOT Freight Plan              | Unfunded           |
| 185 to 177        | Add I-75 Auxiliary Lane (southbound)           | SR 18 ramps to Rumble Road ramps             |           | •         | •         |                                |                    |
|                   |  | Rumble Road ramps to north of I-475          |           | •         | •         |                                |                    |
|                   | Widen I-75                                     | Through Rumble Road Interchange              |           |           | •         | GDOT Freight Plan              | Unfunded           |
| 172 to 167        | Turn Lanes                                     | Bass Road exit ramps                         | •         |           |           |                                |                    |
|                   | Reconstruction                                 | Bass Road interchange                        |           | •         |           | Macon MPO's LRTP               | Unfunded           |
|                   | Add I-75 Auxiliary Lanes                       | Bass Road ramps to Riverside Drive ramps     |           | •         |           |                                |                    |
|                   | Signalize & turn lanes                         | Riverside Drive exit ramps                   |           | •         |           | Macon MPO's LRTP               | Unfunded           |
|                   | Add Auxiliary Lanes                            | Riverside Dr. ramps to Arkwright Road        |           | •         | •         |                                |                    |
|                   | Turn Lanes                                     | Pierce Avenue exit ramps                     | •         |           |           |                                |                    |
| 165               | Interchange                                    | I-16 (includes mainline & I-16 interchanges) | •         | •         |           | Macon MPO's LRTP & TIP         | ROW acquisition    |
| 164 to 160A/B     | Turn Lanes                                     | Forsyth Street exit ramps                    | •         |           |           |                                |                    |
|                   | Add I-75 Auxiliary Lanes                       | Forsyth Street to Mercer University Drive    |           | •         | •         |                                |                    |
|                   | Traffic Signals                                | Mercer Univ. Drive exit ramps                | •         |           |           |                                |                    |
|                   | Add I-75 Auxiliary Lanes                       | Mercer Univ. Drive to Eisenhower Pkwy.       |           | •         | •         |                                |                    |
|                   | Traffic Signals                                | Eisenhower Parkway northbound exit ramp      | •         |           |           |                                |                    |
|                   | Add I-75 Auxiliary Lanes                       | Eisenhower Pkwy to Pio Nono Avenue           |           | •         | •         |                                |                    |
|                   | Traffic Signals                                | Pio Nono Avenue ramps                        | •         |           |           |                                |                    |
| 153 to 146        | Widen I-75                                     | South of Sardis Church Rd. to Watson Blvd.   |           | •         | •         | Warner Robins MPO's LRTP       | Unfunded           |

# Project Recommendations and Timeframes (Off I-75)



| I-75 Exit Numbers | Improvement                     | Location   | 2015-2022 | 2023-2030 | 2030-2040 | In Other Plans?                  | Status (June 2015)       |
|-------------------|---------------------------------|--|-----------|-----------|-----------|----------------------------------|--------------------------|
| n/a               | Widen US 19/41 (Tara Boulevard) | From Flint River Road to Tara Road (P.I. 722030, Network Year 2030)    | •         |           |           | A.R.C. Plan 2040 and T.I.P.      | ROW FY2017<br>CST FY2019 |
|                   |                                 | From State Route 81 to State Route 20 (Woolsey Road)                   |           |           |           | A.R.C. Plan 2040's "Aspirations" | 'Aspirations'            |
|                   |                                 | From Laprade Road in Spalding County to State Route 20 in Henry County |           |           |           | A.R.C. Plan 2040's Aspirations"  | 'Aspirations'            |





# Policy Recommendations

- **Infrastructure design to accommodate truck/freight**
- **Local comprehensive planning / land use / freight oriented overlay districts**
  - Corridor overlay districts
  - Access management policies
  - Freight activity districts
- **Multi-jurisdictional corridor / regional planning council**



An aerial photograph of Georgia with the state's outline highlighted in light blue. A yellow line representing I-75 runs from the north to the south coast. The word "Questions?" is overlaid in large blue font.

# Questions?

[www.dot.ga.gov/I75South](http://www.dot.ga.gov/I75South)



# Thank You!

I-75 South Corridor

**Tom McQueen, AICP**  
Assistant Administrator  
GDOT Office of Planning

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[www.dot.ga.gov/I75South](http://www.dot.ga.gov/I75South)