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...

- **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.)

- **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**

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

- 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

Stakeholder Coordination
Key Considerations

- 2010: Atlanta Regional Managed Lane System Plan
- 2012: Georgia Competitiveness Initiative
- 2013: Warner Robins MPO’s Fiscal Year 2014-2017 TIP
- 2014: Warner Robins MPO’s Fiscal Year 2015-2018 TIP
### Key Considerations (Cont’d.)

#### Summary of Relevant **Roadway** Transportation Issues/Needs

<table>
<thead>
<tr>
<th>GDOT Statewide Freight Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analysis: I-75 Capacity Deficiency by the Year 2040</strong></td>
</tr>
<tr>
<td>• <strong>Recommended I-75 widening</strong> (1 lane each direction), south metro Atlanta to north metro Macon (2031-2040 timeframe)</td>
</tr>
<tr>
<td>• Increasing Truck Volumes Statewide</td>
</tr>
<tr>
<td>• Especially Within the <strong>I-75 South Corridor Study</strong> area</td>
</tr>
<tr>
<td><strong>I-16/I-75 “Bottleneck”</strong> (Identified by national trucking assoc.)</td>
</tr>
</tbody>
</table>

**Truck Accommodations**

---

*Georgia Statewide Freight & Logistics Action Plan*
Summary of Relevant Rail Transportation Issues/Needs

<table>
<thead>
<tr>
<th>GDOT Statewide Freight Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statewide, ‘Through’ Freight Shipments Projected To Increase 30% By Year 2040</td>
</tr>
<tr>
<td>Increasing Freight Rail Traffic Partly Due to Ongoing and Forecasted Growth at Georgia’s Ports</td>
</tr>
</tbody>
</table>
Key Considerations (Cont’d.)

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

<table>
<thead>
<tr>
<th>Macon MPO’s Long Range Transportation Plan (adopted 2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconstruct Bass Road @ I-75 interchange</td>
</tr>
<tr>
<td>Operational improvement:</td>
</tr>
<tr>
<td>Riverside Drive @ I-75 interchange</td>
</tr>
<tr>
<td>Reconstruct “I-75 @ I-16” (which include mainline &amp; I-16 interchanges)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Warner Robins MPO’s Long Range Transportation Plan (adopted 2010)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Widen I-75 from south of Sardis Church Road to Watson Boulevard</td>
</tr>
<tr>
<td>Key Considerations (Cont’d.)</td>
</tr>
<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td><strong>Atlanta Regional Managed Lane System Plan (year 2010) &amp; Implementation Plan (year 2014)</strong></td>
</tr>
<tr>
<td>Increasing Travel Times Projected By The Year 2030</td>
</tr>
<tr>
<td>Improve Travel Reliability and Safety</td>
</tr>
<tr>
<td>Need for Mobility Options</td>
</tr>
<tr>
<td>Support Transit (GRTA Xpress Bus)</td>
</tr>
<tr>
<td>I-75 Express Lane (southern limit at State Route 155)</td>
</tr>
</tbody>
</table>
### GRTA Direct Xpress Service Plan

<table>
<thead>
<tr>
<th>Key Considerations</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need to connect employees with major employment centers</td>
<td>✓</td>
</tr>
<tr>
<td>Identifying growing congestion in Metro Atlanta during rush hours</td>
<td>✓</td>
</tr>
<tr>
<td>Maximize tax dollars through low operating costs</td>
<td>✓</td>
</tr>
<tr>
<td>Consolidation and adding of routes near major employment centers</td>
<td>✓</td>
</tr>
</tbody>
</table>
## Key Considerations (Cont’d.)

<table>
<thead>
<tr>
<th>Georgia State Rail Plan DRAFT (2015 update)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continued Collaboration with Stakeholders:</td>
</tr>
<tr>
<td>• On Regional Issues</td>
</tr>
<tr>
<td>• For Solutions to Freight Needs</td>
</tr>
<tr>
<td>• For Solutions to Passenger Rail Needs</td>
</tr>
<tr>
<td>Support Goods Movement”</td>
</tr>
<tr>
<td>• To Ensure Diverse and Robust Transportation Network</td>
</tr>
<tr>
<td>• To Maintain Economic Competitiveness</td>
</tr>
</tbody>
</table>
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)

Source: Study analysis using Atlanta & Macon MPO’s computerized travel demand models, and GDOT’s statewide travel demand model.
Traffic Trends (2006-2014)

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

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

Source: GDOT
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

<table>
<thead>
<tr>
<th>Counties</th>
<th>2010</th>
<th>2040</th>
<th>Projected Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clayton, Henry &amp; Central Spalding Co.</td>
<td>535,326</td>
<td>179,148</td>
<td>853,808</td>
</tr>
<tr>
<td>Portion: Spalding, Butts, Lamar &amp; Monroe</td>
<td>102,340</td>
<td>28,327</td>
<td>165,027</td>
</tr>
<tr>
<td>Bibb &amp; Jones Co.</td>
<td>168,657</td>
<td>107,070</td>
<td>184,037</td>
</tr>
<tr>
<td>Houston County</td>
<td>137,808 (2006)</td>
<td>50,332 (2006)</td>
<td>218,812 (2035)</td>
</tr>
<tr>
<td>Peach County</td>
<td>24,836 (2006)</td>
<td>9,341 (2006)</td>
<td>38,520 (2035)</td>
</tr>
<tr>
<td>Total</td>
<td>968,967</td>
<td>374,218</td>
<td>1,460,204</td>
</tr>
</tbody>
</table>

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
I-75 South Corridor

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

Stakeholder Coordination

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
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
‘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

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

Northern Half

Southern Half

Interim/Localized Capacity & Operational Needs

Map of the 75 South Corridor showing Northern and Southern halves with key points and lanes.
“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

<table>
<thead>
<tr>
<th>Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Widening</td>
<td>$371 M</td>
</tr>
<tr>
<td>Auxiliary Lane “Interim” Improvement</td>
<td>$57 M</td>
</tr>
</tbody>
</table>

Source: GDOT Costs – TPro; Study Costs – Study Team
I-75 Major Improvement: Project Costs and Comparison (South Segment)

<table>
<thead>
<tr>
<th>Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Widening</td>
<td>$657 M</td>
</tr>
<tr>
<td>Auxiliary Lane “Interim” Improvement</td>
<td>$16 M</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>I-75 Exit Numbers</th>
<th>Improvement</th>
<th>Location</th>
<th>2015-2022</th>
<th>2023-2030</th>
<th>2030-2040</th>
<th>In Other Plans?</th>
<th>Status (June 2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>n/a</strong></td>
<td>Widen US 19/41 (Tara Boulevard)</td>
<td>From Flint River Road to Tara Road (P.I. 722030, Network Year 2030)</td>
<td>●</td>
<td></td>
<td></td>
<td>A.R.C. Plan 2040 and T.I.P.</td>
<td>ROW FY2017 CST FY2019</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From State Route 81 to State Route 20 (Woolsey Road)</td>
<td></td>
<td></td>
<td></td>
<td>A.R.C. Plan 2040’s “Aspirations”</td>
<td>‘Aspirations’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From Laprade Road in Spalding County to State Route 20 in Henry County</td>
<td></td>
<td></td>
<td></td>
<td>A.R.C. Plan 2040’s Aspirations”</td>
<td>‘Aspirations’</td>
</tr>
</tbody>
</table>
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**
Questions?

www.dot.ga.gov/I75South
Thank You!

Tom McQueen, AICP
Assistant Administrator
GDOT Office of Planning

tmcqueen@dot.ga.gov

www.dot.ga.gov/I75South