CONNECT 400
GA 400 TRANSIT INITIATIVE

Project Steering Committee
November 19, 2014
Today’s Agenda

- Project Status
- ARC Economic Analysis Results
- Analysis Activities to Inform the Locally Preferred Alternative (LPA)
- Discussion Items
  - Alignments
  - Technology
- Next Steps
- Q&A
Re-initiated efforts in Spring of 2014 to:
- Conduct a second phase of Early Scoping
- Initiate the preliminary New Starts evaluation
- Recommend / adopt a LPA
- Begin environmental documentation (DEIS) 
  *(Begins in Winter 2015)*
### ARC Economic Study Findings *

<table>
<thead>
<tr>
<th>GA 400 Corridor</th>
<th>Fulton</th>
<th>DeKalb</th>
<th>Rest of MPO</th>
<th>Rest of RDC</th>
<th>MPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>2040 Total Employment (Thousands of jobs)</td>
<td>9.283</td>
<td>1.72</td>
<td>6.22</td>
<td>4.528</td>
<td>16.365</td>
</tr>
<tr>
<td>2040 Gross Regional Product (Billions of fixed (2005) dollars)</td>
<td>$0.511</td>
<td>$0.161</td>
<td>$0.624</td>
<td>$0.479</td>
<td>$1.221</td>
</tr>
<tr>
<td>2040 Population (Thousands)</td>
<td>4.305</td>
<td>2.92</td>
<td>16.01</td>
<td>10.892</td>
<td>22.124</td>
</tr>
</tbody>
</table>

* Documentation will be finalized by December 2014.
Background on Analysis for LPA Identification

**Goal:** to inform the identification of an LPA through additional analysis of potential:

1. Environmental Impacts (quantitative)
2. Transportation Impacts (qualitative)
3. Costs (order of magnitude costs based on planning-level assumptions)

The LPA will define a technology for advancement into the DEIS and refine alignment assumptions for further study.
Alternatives Considered

- East Only HRT
- East Only BRT
- West Only HRT
- West Only BRT
- East-West-East HRT
- East-West-East BRT
- BRT in Managed Lanes*

*- assumes joint implementation
Analysis Process

Data Collection
GIS Base Mapping
Refine Alignments
Site Selection
Station Footprints
Crossover Identification
Right-of-Way Assumptions
Impact Assessment/Costs
Conclusions
Station Assumptions – Footprint

- **Topography**
  - Land Profile

- **Station Area**
  - Required land area

- **Quadrant**
  - Preferred locations, development, value

- **Type**
  - At-Grade, Aerial, Cut and Cover

- **Size**
  - Typical sections and acreage (from GA 400 Alternatives Analysis)
## Station Assumptions - Parking

<table>
<thead>
<tr>
<th>Parking Estimates</th>
<th>Required land area / proximity to station</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ridership</td>
<td>Alternatives Analysis travel forecasts</td>
</tr>
<tr>
<td># of Spaces</td>
<td>Capacity / utilization at existing stations</td>
</tr>
<tr>
<td>Size</td>
<td>Space size assumptions (GA 400 AA)</td>
</tr>
</tbody>
</table>
Station Assumptions - Site Selection

- **Site Selection**
  - Parcel identification at desired station locations

- **Footprint**
  - Station + parking, bus bays, access, pedestrian and vehicular circulation

- **Parcel Selection**
  - Minimum running width
  - Size and value
## Refinements Since Alternatives Analysis

<table>
<thead>
<tr>
<th>Alternatives Analysis</th>
<th>Current Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generalized station location</td>
<td>Station footprint located for purposes of impact analysis</td>
</tr>
<tr>
<td>Standard station cost</td>
<td>Station footprints, type, and parking structures included</td>
</tr>
<tr>
<td>Standard structures cost</td>
<td>Major/minor structure assumptions based on length and typical section</td>
</tr>
<tr>
<td>Total land acquisition cost</td>
<td>Land acquisition cost based on land value at footprint location and typical section width</td>
</tr>
<tr>
<td>5% Cost Contingency</td>
<td>30% Cost Contingency (30% is based on professional experience for planning level assumptions).</td>
</tr>
</tbody>
</table>
Evaluation Criteria

- Transportation Impacts
  - Accessibility / network impacts
  - Population / employment access
  - Proximity to attractors
  - Consistency with existing plans / Early Scoping feedback

- Environmental Impacts
  - Displacements
  - Wetlands
  - Parklands
  - Community facilities
  - Environmental Justice

- Capital Costs
## Evaluation Results – HRT Summary

<table>
<thead>
<tr>
<th>Criteria</th>
<th>East Only HRT</th>
<th>West Only HRT</th>
<th>East-West-East HRT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Range</td>
<td>High Range</td>
<td>Low Range</td>
</tr>
<tr>
<td>Transportation Impacts</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Environmental Impacts</td>
<td>Medium</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Capital Costs</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Aggregate Score</td>
<td>5</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

*Higher score means indicates greater relative impacts.*
## Evaluation Results – BRT Summary

<table>
<thead>
<tr>
<th>Criteria</th>
<th>East Only BRT</th>
<th>West Only BRT</th>
<th>East-West-East BRT</th>
<th>BRT in ML**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Range</td>
<td>High Range</td>
<td>Low Range</td>
<td>High Range</td>
</tr>
<tr>
<td>Transportation Impacts</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Environmental Impacts</td>
<td>Medium</td>
<td>High</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>Capital Costs</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Aggregate Score</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

*Higher score means indicates greater relative impacts.

**Assumes joint project implementation.
## Capital Cost Estimates

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>East Only HRT</td>
<td>$2.167 B</td>
<td>$2.326 B</td>
</tr>
<tr>
<td>East Only BRT</td>
<td>$807 M</td>
<td>$858 M</td>
</tr>
<tr>
<td>West Only HRT</td>
<td>$2.191 B</td>
<td>$2.262 B</td>
</tr>
<tr>
<td>West Only BRT</td>
<td>$817 M</td>
<td>$889 M</td>
</tr>
<tr>
<td>East-West-East HRT</td>
<td>$2.157 B</td>
<td>$2.243 B</td>
</tr>
<tr>
<td>East-West-East BRT</td>
<td>$882 M</td>
<td>$1.019 B</td>
</tr>
<tr>
<td>BRT in Managed Lanes**</td>
<td>$522 M</td>
<td></td>
</tr>
</tbody>
</table>

\* Year of Expenditure dollars (2028)

** Includes stations and structures (no guideway)
Key Findings

- Crossovers add about a 1%-2% increase to total project cost.
- HRT alignments are approximately 2.5 times the cost of their corresponding BRT alignment. Impacts are similar.
- BRT Managed Lane alternative has lower cost but high impact due to anticipated right of way requirements (based on GA 400 Managed Lanes Feasibility Study).
- No GA 400 ROW is anticipated as available for use in the HRT and BRT fixed guideway alternatives based on future Managed Lanes plan.
Discussion – LPA Recommendation

- **Technology**
  - BRT or HRT?

- **Refined Alignment Assumptions**
  - Crossover south of Spalding?

- **Managed Lanes Considerations**
  - GDOT project is long range
  - Could be considered as a comparative alternative in the DEIS
Next Steps

- Finalize LPA recommendation for MARTA Board (December 2014/January 2015)
- Recommend LPA to the MARTA Board (February 2015)
- Initiate Draft EIS (March 2015)
Questions?

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