Today’s Meeting Purpose

• Where We Are
• The Process
• What We’ve Heard and Findings
• Transit Technologies
• Station Types
• Break-out Session
Where We Are
Questions You May Have:

• Why are we doing this study?

• Hasn’t this been done Before?

• Why don’t you just extend the existing line?
Importance of this Study

- Evaluate feasibility of increased transit service
- Identify potential for high-capacity transit project implementation

Differentiation Between Past Studies

- Focused investment along GA 400 corridor
- Assess land development over past decade
- Consider demographic changes in study area
- Advance planning process from previous studies
Purpose

The purpose of the project is to provide reliable, convenient, efficient, and sustainable transit service in the GA 400 corridor by:

- Providing high capacity transit
- Improving transit linkages and coverage
- Enhancing mobility and accessibility
Need

Travel demand - Increased travel demand and traffic congestion is expected to result from population, employment, and households.

Transit mobility - There is inadequate transit including: east-west travel; and limited north-south roadway connectivity across the Chattahoochee River.
Connect 400 Alternatives Analysis Schedule

- **Discovery**
  - 2011 Winter
  - Goals and Objectives
  - Purpose and Need
  - Existing Conditions

- **Discussion**
  - 2012 Spring
  - Evaluation Methodology
  - Definition of Alternatives
  - Refine Ridership Model

- **Development**
  - 2012 Summer-Winter
  - Evaluation of Alternatives
  - Identify Locally Preferred Alternative
  - Develop Financial Plan
  - Develop Implementation Plan

- **Documentation**
  - 2013 Spring
  - Final Alternatives Analysis Report

We are Here
The Process
**Technical Screening Process**

**Fatal Flaw Analysis** considers at a high level:
- Purpose & Need
- Constructability & right-of-way impacts
- Generalized Technology Assessment

**Defined alternatives (combinations of alignment & transit technology) for Screen 1**

**Screen 1** applies both quantitative & qualitative evaluation criteria to reduce the number of alternatives

**Smaller set of alternatives advance into Screen 2**

**Screen 2** involves a more in-depth analysis using additional performance measures

**Screen 2 identifies the LPA**

**MARTA Board to Adopt LPA**
What We’ve Heard & Findings
Overview of Fatal Flaw Analysis

Step 1: Technology Assessment
• Review of 6 transit types
• Most appropriate - Bus Rapid Transit (BRT); Light Rail/Streetcar (LRT/SC); Heavy Rail (HRT)

Step 2: Universe of Alternatives
• 3 transit types + 9 alignments along GA 400 & SR 9

Step 3: Fatal Flaw Results
• Reduce ‘universe’ to a smaller set for Screen 1
• High-level based on purpose/need & constructability
• GA 400 1 (A,B,C,D): BRT, LRT, or HRT
• GA 400 3: BRT
• GA 400 6: BRT
• SR 9 – 2: BRT
Survey Results:

- Respondents were asked to review Newsletter Number 2 and a presentation prior to taking the survey.
- The electronic survey was open between December 12, 2012 till January 17, 2013.
- 136 people began the survey.
- 119 people completed the survey (87.5%).
Key Observations:

• 82% of respondents chose **GA 400 Alternative 1A** as the “most appropriate”.

• GA Alternative 3 scored the lowest of all alternatives.

• **Heavy Rail** was the preferred mode choice.

• Concern about the need for true **Transit Oriented Development** and the quality of the last mile.
Screen 1 Analysis

Georgia 400 - 3

Alignment
- 15.1 Miles Long
- North Springs Station – GA 400 – SR140 – SR9 – Mansell – North Point - Windward

Transit Technology
- Bus Rapid Transit

Key Assumptions
- Use of GDOT transit ROW*
- Dedicated lanes where feasible on arterials
- Congestion on SR 140
- Grade issues on Mansell crossing GA 400
- Integration with other regional transit projects

* GDOT ROW availability on GA 400 to be determined based on Managed Lanes Study
Alignment
• 14.7 miles long
• North Springs Station - GA 400 - SR 140 - SR 9 - Windward

Transit Technology
• Bus Rapid Transit

Key Assumptions
• Use of GDOT transit ROW*
• Dedicated lanes where feasible on arterials
• Grade, topography, roadway alignment & ROW issues on SR 9
• Integration with other regional transit projects

* GDOT ROW availability on GA 400 to be determined based on Managed Lanes Study
Alignment
• 19.6 miles long
• Dunwoody Station - Hammond - SR 9 - Mansell - North Point Pkwy – Windward

Transit Technology
• Bus Rapid Transit

Key Assumptions
• Dedicated lanes where feasible on arterials
• Grade, topography, roadway alignment & ROW issues on SR 9
• Integration with other regional transit projects
Screen 1 Analysis

Georgia 400 – 1 (A, B, C, D)

Alignment
• 11.9 to 12.7 Miles Long
• North Springs Station – Windward via GA 400

Transit Technology
• Bus Rapid Transit
• Light Rail/Streetcar
• Heavy Rail

Key Assumptions
• Use of GDOT transit ROW*
• Most direct route
• Fewer community impacts
• Integration with other regional transit projects

* GDOT ROW availability on GA 400 to be determined based on Managed Lanes Study
Screen 1 Analysis

Georgia 400 – 1 (A)

Alignment
• 11.9 to 12.7 Miles Long
• North Springs Station – Windward via GA 400

Transit Technology
• Bus Rapid Transit
• Light Rail/Streetcar
• Heavy Rail

Key Assumptions
• Use of GDOT transit ROW*
• Most direct route
• Fewer community impacts
• Integration with other regional transit projects

* GDOT ROW availability on GA 400 to be determined based on Managed Lanes Study
Screen 1 and Outreach Summary

• **Methodology/Assumptions**
  - Qualitative and quantitative analysis
  - Performance Measures based on Purpose & Need Goals and Objectives
  - Station-related measures normalized for number of stations

• **Results**
  - GA 400-1 (all modes) and GA 400-3 (BRT) alternatives scored highest
    - Fewer potential community and environmental impacts
    - More population and employment access per-station

• **Holiday Outreach input**
  - GA 400-3 screened out due to concerns regarding potential length and time of transit trips, as well as impacts along arterials (Mansell Road and SR 140)
Transit Technologies
Transit Considerations

- BUS
- BUS RAPID TRANSIT
- LIGHT RAIL TRANSIT
- AUTOMATED GUIDEWAY
- DIESEL MULTIPLE UNIT
- HEAVY RAIL TRANSIT

passenger demand/capacity and level of service
Transit Modes
Station Types
Elements of Station Area Planning

**Transit Station** – Designing the elements of a transit station to meet their functional requirements within the greater context

**Land Use** – Determining and planning for the proper intensity and mix of uses surrounding the transit station

**Mobility** – Designing for all the ways that people get around the station area; on foot, by car, by bus, by bike, etc…

**Urban Design** – Making sure the elements interact with each other and make the station area a memorable place
Elements of Station Area Planning
Station Function & Service Area

½ - Mile Service Area

- Only serve a localized area immediately around the station
- Stations can be grouped to provide better service area overlay in the densest of areas
- Locate near minor thoroughfare

1 - Mile Service Area

- Most common transit stations
- Reliant on bus connections to the station
- Some customers will arrive by car - need for adequate parking and Kiss & Ride areas
- Locate near thoroughfare

3 - Mile Service Area

- Access by a more limited feeder bus network and a larger number of private vehicles
- Provide adequate facilities for all modes of travel
- Locate near major thoroughfare

5 - Mile Service Area

- Typically the station's toward the end of the line
- Access primarily by private vehicles
- Access to major thoroughfare or freeways
Land Use Context

**High Intensity Urban Core**
- Downtown cores - most accessible place in the region
- Well-established and connected street pattern
- Densities supportive of transit
- Transit ranges from small local stations to large multi-modal stations
- Strong Transit Oriented Development (TOD) market

**Established Urban Neighborhoods & Historic Communities**
- Includes old streetcar suburbs and historic towns
- All have individual character built-up over time
- All feature a connected block system and transit-supportive densities
- TOD market varies, may need assistance.

**Established Suburban Neighborhoods**
- Most common built form
- These areas are well developed, but lack orientation to the public realm
- Access usually comes from a fewer large roads
- Densities tend to be below transit-supportive levels.
- Few centers of activity
- TOD market varies, may need assistance

**New Suburban and Greenfields**
- Outermost edge of the transit region
- Areas are quickly developing
- Connections are limited; but opportunities abound
- Densities are well below transit-supportive levels
- Stations located here will attract riders from a larger area
- No existing centers of activity
- TOD market varies
Learning from the Mall

¼ Mile

500 feet
A Journey to Transit
A Journey to Transit
Characteristics of Transit-Friendly Communities

Accessible
Comfortable
Connected
Convenient
Engaging
Vibrant
Characteristics of Transit-Friendly Communities

Accessible
Comfortable

Characteristics of Transit-Friendly Communities
Characteristics of Transit-Friendly Communities

Convenient
Characteristics of Transit-Friendly Communities

Connected
Engaging Characteristics of Transit-Friendly Communities
Characteristics of Transit-Friendly Communities

Vibrant
Break Out Sessions
Station Types

Urban Stations
(1/2 - Mile Service Area)

- Only serve a localized area immediately around the station
- Stations can be grouped to provide better service area overlay in the densest of areas
- Locate near minor thoroughfare

Neighborhood Stations
(1 - Mile Service Area)

- Most common transit stations
- Reliant on bus connections to the station
- Some customers will arrive by car - need for adequate parking and Kiss & Ride areas.
- Locate near thoroughfare

Community Stations
(3 - Mile Service Area)

- Access by a more limited feeder bus network and a larger number of private vehicles
- Provide adequate facilities for all modes of travel
- Locate near major thoroughfare

Regional Stations
(5 - Mile Service Area)

- Typically the station’s toward the end of the line.
- Access primarily by private vehicles
- Access to major thoroughfare or freeways.
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<td>(1/2 Mile Service Area)</td>
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Break Out Session

• Select Transit Typology

• Identify Station Typology for each station
Moving Forward
Next Steps

• Screen 2 Analysis

• Travel Demand Modeling

• Public Outreach – Early Summer
Connect 400 Contact

Jason Morgan, MARTA Project Manager

Connect400@itsmarta.com

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