Welcome

Agenda:

- BRT Project Management Team Update .............................................. 10 min
- Project Process & Schedule .................................................................... 20 min
- Goals & Objectives/Preliminary Purpose & Need ................................. 20 min
- Conceptual Alternatives Development ................................................... 15 min
  - Breakout Discussions ......................................................................... 45 min
  - Discussion and Sharing ...................................................................... 30 min
- Additional Q&A ...................................................................................... 10 min
BRT Project Management Team Update

• MCDOT, SHA, MTA partnership continues uninterrupted
• Management of US 29 and MD 355 Corridor Studies transferred from SHA to MTA
  • SHA has seen increase in highway related projects, straining resources
  • MTA has available resources
  • MTA brings additional transit-related expertise
• All consultant teams will remain involved
Questions?

✓ BRT Project Management Team Update

✓ Q&A

• Project Process & Schedule
• Goals & Objectives/Preliminary Purpose & Need
• Conceptual Alternatives Development
  • Breakout Activity
  • Discussion and Sharing
• Additional Q&A
Corridor Planning Process

Existing Conditions and Data Collection → Corridor Goals/Pre-Purpose and Need → Conceptual Alternatives Development

→ Project Introduction
→ Public Meeting

→ Preliminary Analysis of Conceptual Alternatives

→ Alternatives Public Workshop

Alternatives Retained for Detailed Study (ARDS)

We are here
## MD 355 Milestone Schedule

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*Note: CAC meetings through ARDS. Future meetings TBD based upon outcome of ARDS.*
Planning Timeline

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Project Begins
Identification of Needs and Conceptual Alternatives

Alternatives Retained for Detailed Study

Selection of Locally Preferred Alternative

Entry Into Federal Approval Process (Begin NEPA)

Federal Approvals Granted (NEPA Complete)

Federal Approval Process (NEPA)

Project Complete

Preliminary Purpose and Need

Purpose and Need
Questions?

✓ BRT Project Management Team Update
✓ Project Process & Schedule
  ✓ Q&A
  • Goals & Objectives/Preliminary Purpose & Need
  • Conceptual Alternatives Development
    • Breakout Activity
    • Discussion and Sharing
  • Additional Q&A
Development of Goals and Objectives

CAC Input

• CAC Meeting #2
  • Corridor Planning Study
    • Overview
    • Needs and Values Exercise

• CAC Meeting #3
  • Draft Preliminary Purpose and Need language
    • Purpose
    • Need
  • Existing and Projected Traffic & Transit Conditions
Development of Goals and Objectives
CAC Input – Meeting #2 Exercise
Development of Goals and Objectives

Inputs

MCDOT

RTS Steering Committee

MTA

M-NCPPC

SHA

PUBLIC & CAC

Measures of Effectiveness

Goals

Objectives

Needs
Development of Goals and Objectives

CAC Input

**CAC Needs**

- Provide Competitive, Predictable Service
- Encourage Ridership
- Maximize User Experience

**Quantifiable Objectives**

- Make Trips Faster and More Reliable
- Increase Transit Ridership
- Provide appealing transit service that will attract new riders
Goal

Improve Quality of Transit Service

Objectives

- Make Bus Trips Faster
- Make Door-to-Door Transit Travel Time Competitive with Door-to-Door Auto Travel
- Increase Transit Ridership
- Provide an Appealing Transit Service that will Attract New Riders
Goal
Develop Transit Services that Enhance Quality of Life

Objectives
- Provide Premium Transit Service Convenient to Households and Jobs within the Corridor
- Minimize Private Property Impacts
- Serve Transit Dependent Populations
- Engage Public in Process
Development of Goals and Objectives

CAC Input

CAC Needs

- Create Multi-Modal Opportunities
- Create Neighborhood Connections
- Encourage Long Distance Commuter Use

Quantifiable Objectives

- Create Direct Modal Transfers
- Enhance Bike/Ped Access and Feeder Bus
- Provide Parking at Key Stations
Goal

Improve Mobility Opportunities and Choices

Objectives

- Serve as Many Travelers as Possible by Efficiently Utilizing the Right-of-Way
- Balance Travel Times for Automobile and Transit Users
- Enhance Pedestrian and Bicycle Options in the Corridors
- Create Direct Transfers Between Premium Bus and Other Modes
Goal

Develop Transit Services that Support Master Planned Development

Objectives

1. Improve Alternative Transportation Service to and Between Activity Centers
2. Increase Trips by Non-Automobile Modes to Support Development in the Master Plan
3. Select station locations that support infill and redevelopment
Support Sustainable and Cost Effective Transportation Solutions

Maintain Environmental Quality

Minimize Cost of Building and Operating Transportation Services
Purpose and Need

Purpose and Need = WHAT and WHY

Purpose

• WHAT are the major goals and objectives?
• WHY will they be addressed by this project?

Need

• WHAT are the existing or forecasted problems?
• WHY are these problems occurring?

These fundamental questions provide support for later phases:

• Conceptual alternatives analysis: options for how to address the what and why
• Recommendations: the “best” options for how to satisfy the what and why
Purpose and Need Development

Preliminary Purpose and Need

Role:
• Living document
• Basis for alternatives evaluation
• Follows NEPA guidelines
• Saves time in formal NEPA process

NEPA Purpose and Need

Role:
• Basis for Selected Alternative Evaluation
• Provide consensus between regulatory agencies
• Adopted by federal lead agency
Preliminary Purpose and Need Process

Utilizes quantifiable data to identify problem(s) that require attention and further study.

Acknowledges problems have multiple potential solutions.

Forms baseline for comparison of future evaluations.

Drives conceptual alternatives discussion.

Supports recommendation of alternatives for detailed study.

WE ARE HERE
Preliminary Purpose and Need Document Next Steps

• **CAC Member Review and Comment**
  
  • Facilitators will email link to Draft Document in mid-December
  
  • Provide comments by end of January 2016
  
  • CAC Member comments will be combined with comments from the Spring public meetings
Questions?

✓ BRT Project Management Team Update
✓ Project Process & Schedule
✓ Goals & Objectives/Preliminary Purpose & Need
  ✓ Q&A
• Conceptual Alternatives Development
  • Breakout Activity
  • Discussion and Sharing
• Additional Q&A
Conceptual Alternatives Development Process

• Work completed
  • Existing conditions evaluation
  • Goals and Objectives
  • Needs identification

• Next Steps
  • Obtain CAC Member Input
  • Complete Draft Preliminary Purpose and Need
  • Develop conceptual alternatives
  • Present conceptual alternatives for public input
What makes a Conceptual Alternative?

• Components:
  1. Running way
     • Physical location and interaction with surrounding environment for the BRT
  2. Station locations
     • Specific location of BRT stops
  3. Service plan
     • BRT operational characteristics (headways, hours of service, bus routing)
Conceptual Alternative Component
BRT Running Way

- Running Way options have been identified for consideration
- The proposed options can be mixed and matched along different segments of the corridor to best fit within the surrounding area
- Location and dimensions of proposed roadway elements will vary throughout the corridor
- **NOT EVERY OPTION IS APPROPRIATE FOR EVERY SEGMENT OF THE MD 355 CORRIDOR**
Conceptual Alternative Component
BRT Running Way

Considerations:

• BRT operations (speed, reliability)
• Traffic operations
• Visibility
• Connectivity
• Potential impacts
BRT in Mixed Traffic

Brampton, Canada
BRT Queue Jump

Queue Jump Concept
Reversible / Bi-Directional BRT Lane

Eugene, Oregon
Bi-Directional BRT Lane

Eugene, Oregon
Dedicated Median BRT Lanes

Alexandria, Virginia

Chicago, Illinois (Concept)
Dedicated Curb BRT Lanes

Snohomish County, Washington

Chicago, Illinois (Concept)
Conceptual Alternative Component Station

• Began with station locations as proposed in the Countywide Transit Corridors Functional Master Plan

• Made revisions to station locations based on further study by the City of Gaithersburg and input from the City of Rockville and the Montgomery County Department of Transportation

• Considerations:
  • Adjacent land use
  • Proposed development
  • Ease of access (vehicles, bicycles, pedestrians)
  • Connectivity to existing and proposed transit service
Station Configuration – Median Running

Eugene, Oregon

Changzhou, China
Station Configuration – Curb Running

Brooklyn, New York
Conceptual Alternative Component Operations Plan

Considerations:
• Bus Routing (Spurs)
• Transfer Points
• Headways/Frequencies
• Number of Buses
Conceptual Alternative Component
Sample Operations Plan

Bethesda Metro

10 buses per hour
6 min headways

Shady Grove
Metro

10 buses per hour
6 min headways

10 buses per hour
12 min headway

Lake Forest
Transit Center

15 buses per hour
4 min headways

5 buses per hour
12 min headways

Clarksburg
Conceptual Alternatives Development Breakout Activity

Three Topics to Discuss:

1. **Running Way** - What running way(s) may be appropriate for this segment of MD 355?

2. **Station locations, surroundings, and access** - What station locations may be appropriate for this segment of MD 355?

3. **Service and operations** - What activity centers should the BRT system serve?
Questions?

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- Additional Q&A
Additional Questions
Adjournment