Introduction to Transit, PAG’s High Capacity Transit Study, and Bus Rapid Transit (BRT)

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Presentation Overview

• Current Transit on Broadway Blvd.
• Potential Options – High Capacity Transit
  – Bus Rapid Transit
• PAG/RTA BRT Implementation Analysis
• Questions And Answers
Current Transit on Broadway

• Two Routes
  – Route 8
  – Route 108 Express
Current Transit on Broadway

• Route 8
  – Runs Broadway Blvd. & South 6\textsuperscript{th} Ave. at 15 min. freq. (trunk); Branches at Broadway & Wilmot at 30 min. freq.
  – Highest ridership route in Sun Tran system
    • 3,182,789 million boardings in FY11-12
    • About 55\% (1,733,666) boardings along Broadway Blvd.
    • Broadway segment 2\textsuperscript{nd} highest in Sun Tran system behind Route 16 – 12\textsuperscript{th} Ave/Oracle
    • About 9 \% of total Sun Tran ridership
Current Transit on Broadway

• Route 108 Express
  – 3 trips in A.M., 3 trips in P.M.
  – Limited stops
  – 22,596 boardings in FY11-12
  – Performs at average of Sun Express system
  – The only express route with parallel Sun Tran service along entire route
Potential Transit Options

• 2009 High Capacity Transit System Plan
  – High Capacity Transit (HCT)
    • High volume of passengers
    • Fast and convenient service
  – Types
    • Express Bus
    • Modern Streetcar
    • Bus Rapid Transit
    • Light Rail
    • Commuter Rail
Potential Transit Options

• 2009 High Capacity Transit System Plan
  – Sixteen Initial Corridors Identified
  – Eight Selected Corridors for Evaluation:
    • Ridership
    • Right of Way Availability
    • Potential Capital and Operating Costs
  – Two Priority Corridors Identified:
    • Broadway Blvd.
    • 6th Avenue/Nogales Highway
Broadway HCT Options

- Bus Rapid Transit in Near Term, 0-10 years
- Streetcar between Downtown and El Con Mall in Mid Term, 10 to 20 Years
- Light Rail in Long Term > 20 years
Bus Rapid Transit

“Bus Rapid Transit can best be described as a combination of facility, systems, and vehicle investments that convert conventional bus services into a fixed-facility transit service, greatly increasing their efficiency and effectiveness to the end user.”

BRT Benefits to Passengers

• Reduced transit travel time
• Increased trip reliability
• Improved transit connections and more direct service
• Decreased station stop dwell times and waiting times
• Enhanced system identity
• Increased travel comfort
BRT Systems

• Started in Curitiba, Brazil in 1974
• Applied world wide in major urban areas
• 20 systems in U.S.
• 5 systems (Cleveland, Eugene, Los Angeles, Pittsburg and Las Vegas) rated as bronze by Institute of Transportation and Development Policy
BRT Elements

- Running ways
- Stations
- Vehicles
- Fare Collection
- Intelligent Transportation Systems (ITS)
- Service Structure
- Branding
Running Way

• Defines BRT travel parameters
• Most critical component in determining system performance
• Important to public perception and identity
• Characteristics of running ways
  – Running way type
  – Running way markings
  – Running way guidance
Running Way – Mixed Flow
Running Way – On Street Bus Lane
Running Way – Grade Separated
# BRT Spectrum

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*RTA, City of Tucson, Pima County, Arizona*
PAG/RTA Broadway BRT Analysis

• Transit Working Group

• Sketch level Planning
  – Using FTA Guidelines
  – Broadway Corridor – Houghton to Downtown (Euclid)

• Modeling Three Implementation Alternatives
  – At-Grade, Separated Center Lane
PAG/RTA Broadway BRT Analysis

• Modeling Three Implementation Alternatives
  – Outside Lane On-Street/Mixed Traffic
    • On-Street Bus Lane (Existing + Euclid to Country Club)
    • Mixed Traffic (County Club to Columbus & Camino Seco to Houghton)
  – Hybrid
    • Center lane (Euclid to Country Club)
    • Mixed Traffic (Country Club to Columbus)
    • Outside On Street Bus Lane (Columbus to Camino Seco)
    • Mixed Traffic (Camino Seco to Houghton)
PAG/RTA Broadway BRT Analysis

• Model outcome – travel time and ridership estimates between alternatives

• Potential Transit Working Group Recommendation on Preferred Running Way and Information to help Broadway Blvd design alternatives and preserve opportunity for BRT and other HCT options
Thank you

Questions?