What is Bus Rapid Transit?

• Rapid Bus
  – Mixed-flow operations
  – Skip-stop service
  – Signal/street priority

• Full BRT
  – Dedicated lanes
  – Enhanced stations
  – Rail-like operations
  – High capital outlay
  – Challenges
Background

• **Caltrans 2013 Planning Grant**
  – Focus is long-term BRT implementation phasing plan
  – Short-term Rapid Bus service opportunities
  – Build off SSP, Grand Boulevard Initiative

• **An opportunity to**
  – Improve experience for current customers
  – Attract new riders
  – Support planned growth per the Grand Blvd. Initiative
  – Improve options for Caltrain riders

• **Feasibility study, no binding results**
Phasing Plan

- Short-term operating plan focused on Rapid service
- Potential long-term operating plan focused on intensive “Full BRT” service
Study Goals

- Essential system components
- Impacts to customer
- Ridership forecasts
- Capital and operating costs
- Funding strategy
• How many stops?
• How frequent?
• What about ECR?
• Maximum ridership, minimize costs
Rapid Bus Alternatives

- ECR: 102-104 stops in each direction
- Service concepts
  - Overlay Rapid over current ECR
    - Full Overlay with 37 stops (Daly City – Palo Alto)
    - Truncated Overlay with 32 stops (Daly City – Redwood City)
    - Truncated Overlay with 23 stops (San Bruno – Redwood City)
  - Hybrid Route (ECR with fewer stops)
    - Hybrid A: 76 stops, 10 to 12 minute frequency
    - Hybrid B: 50 stops, 7.5 to 12 minute frequency
Key Study Findings

• Ridership Forecasts
  – Fewer stops = reduced travel time
    o Can save 15-30 minutes per trip
  – Transit priority at signals
    o Can save up to 15 minutes per trip
    o Technologically viable

• Rapid Service can reduce travel times by 25%
Rapid Overlay of ECR

- **ECR ridership in 2020**
  - 16,600 daily boardings
  - $14.5 million annual net operating cost
    - 15% of fixed-route system

- **Impact of Rapid Bus overlay**
  - Ridership grows 19% to 34%
    - 19,700 to 22,200 daily boardings
    - 3,100 to 5,600 new daily boardings
  - Operating costs increase 34% to 59%
    - $5.7 million to $10.3 million annually
  - Capital costs potentially minimal
Rapid Hybrid Replaces ECR

- Hybrid bus ridership
  - 25% to 50% fewer stops
  - Ridership grows 6% to 35%
    - 17,700 to 22,500 daily boardings
    - 1,100 to 5,900 new daily boardings
  - Operating costs increase 8% to 51%
    - $1.3 million to $8.4 million annually
  - Capital costs potentially minimal

- Difference with Rapid overlay
  - Ridership growth similar
  - 18% to 77% lower in operating costs
Rapid Bus Capital Costs

• Optional features
  − Enhanced stops ($11 million)
    o Canopy, benches, windscreen, lighting, signage
    o Real-time information
    o About $150,000 per stop
  − Transit signal priority ($2.4 million)
    o 120 signals
    o Reduces travel time by another 15 minutes
Full BRT Concept

• Potential long-term option
  – Exclusive bus lanes in each direction
  – Queue jumps, transit signal priority
  – 37 stops, maintain ECR
  – 15-minute frequency for both ECR and BRT

• Ridership grows 27% over 2040 ECR
  – 33,800 daily boardings in 2040

• Operating costs increase $6.9 million annually

• Capital costs $100 million for bus lanes, $47 million for 74 enhanced stops

• Engineering and other challenges
Next Steps

• Public input
  – Public meetings
    o Nov 13 – South San Francisco Council Chambers
    o Nov. 18 – SamTrans
  – GBI Task Force and Working Committee
  – SamTrans CAC
  – Cities and others upon request

• Transit signal priority
  – Ongoing coordination with Caltrans, C/CAG
  – Pursue grants

• Monitor system performance and consider within context of Strategic Plan
Questions?