Dumbarton Corridor

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Growth Imbalance

- Jobs-housing imbalance
- Major employers driving growth
- Congestion, lengthy and unpredictable travel times
- Gaps in transportation network, limited options
Bridge Use/Travel Markets

• Almost 77,000 average daily trips
• Work trips dominate transbay travel
• Buses account for 5-6% of peak period use
  – Private shuttles account for 70% of bus ridership
• Competitive travel markets:
  – Fremont to Palo Alto (including Stanford)
  – Ardenwood Park-and-Ride to Palo Alto
• Higher density in East Palo Alto, Redwood City, Union City
• Peninsula study area to increase by 200,000 people (25%) by 2040
• East Bay study area to increase by 155,000 (28%) by 2040
• Existing higher density pockets in Fremont, Palo Alto, Redwood City
• Peninsula “hot spots”
• Peninsula study area jobs to increase by 140,000 (28%) by 2040
• East Bay study area jobs to increase by 62,000 (24%) by 2040
Background

- Dumbarton Rail Corridor Alternatives Study completed in 2011
- Environmental review process on hold due to high costs and lack of funding
- Bay Area has since experienced job growth, increased congestion and greater jobs-housing imbalance
Transportation Study

- Initiated due to recent growth
- Study partners:
  - SMCTA
  - ACTC
  - AC Transit
  - Facebook
- Kicked off in March
  - 15-month schedule
Scope of Work

• Study mobility improvements on highway bridge, approach arterials and rail bridge

• Focus on short-term (2020) and long-term (2030) improvements and phasing
5 Stages of Project Development

- Existing Conditions
- Evaluation Methodology
- Initial Screening
- Refine Alternatives
- Comparative Analysis
- Phasing and Finance Plan

Alternatives Analysis / Feasibility Study

Environmental Clearance
Engineering
Construction
Transportation Improvements
Outreach

• Outreach at major milestones:
  − May 2016: Existing conditions, goals and evaluation metrics, initial alternatives
  − September 2016: Initial screening, alternatives carried forward
  − May 2017: Evaluation of alternatives carried forward, funding plan
• **Enhance mobility**
  - Capacity (benefitting transit for highway alternatives)
  - Ability to serve regional travel markets (transit alternatives only)
  - Service frequency (transit alternatives only)

• **Cost effective improvements with return on investment**
  - Capital and operating costs
Goals, Evaluation Metrics

• Minimize environmental impacts, financial risk and maximize safety
  - Environmental impacts
  - Financial risk
  - Safety

• Ensure local communities are protected from adverse impacts
  - Disproportionate burden on low-income populations
  - Disparate impacts on minority populations
• Dumbarton Express enhancements
• Managed lanes (carpool, toll or bus-only) configurations that fall into three categories:
  - Utilize existing cross section
  - Convert existing bike/ped to vehicle lane with bike/ped replaced on rail bridge
  - Convert existing bike/ped to vehicle lane with bike/ped replaced on cantilevered deck
Initial Approach Alternatives

• Improvements to:
  – Make tolling more efficient
  – Improve carpool connections
  – Manage and/or increase park-and-ride capacity
  – Provide additional capacity/improve flow on key arterials and at intersections
  – Improve connections to US 101
Initial Rail Bridge Alternatives

- Transit modes:
  - Bus Rapid Transit (BRT)
  - Commuter Rail
  - Bike/ped
  - Light Rail Transit (LRT)
  - Bay Area Rapid Transit (BART)
  - Personal and Group Rapid Transit
  - People Mover
  - Hyperloop
  - Tunnel (BRT, LRT, Commuter Rail)
  - Ferry
  - Gondola
Initial Screening Process

• Step 1:
  - Scored highway configurations for highway bridge
  - Identified approach improvement packages that prioritize transit in long-term
  - Scored transit modes for rail bridge

• Step 2:
  - Scored best performing transit modes with consideration for operating plans

• Carried forward all short-term options
Highway Bridge Alternatives Carried Forward

- **Short-term**: enhanced Dumbarton Express service
- **Long-term**: 3 managed lane options
Highway Bridge Alternatives Carried Forward

- Contraflow managed lane in median with movable barrier
Highway Bridge Alternatives Carried Forward

- Reversible managed lanes in median with fixed barriers
• Managed lane in each direction
Approach Packages

• **Short-term:**
  - Bike/ped approach improvements
  - Manage/expand park-and-ride
  - Carpool/toll direct access ramp at Newark
  - Extension of FasTrak lane eastward
  - Open road tolling at FasTrak lanes
  - Transit signal priority or queue jump lanes on Decoto and at Bayfront/Willow, Bayfront/University
  - Bus lanes on Bayfront
Approach Packages

• Long-term:
  − All electronic tolling for cash lanes
  − Add eastbound carpool/toll from toll plaza to Decoto
  − Managed lanes on US 101
  − Carpool/toll direct access ramp at US 101/Marsh
  − Grade separations at Bayfront/Willow and Bayfront/University
  − Willow Express lanes
  − I 880/SR 84 direct connector ramps
Rail Bridge Alternatives Carried Forward

• Short-term:
  - Bike/ped on peninsula

• Long-term:
  - BRT from Union City BART to Redwood City Caltrain
  - Commuter Rail from Union City BART to Redwood City
Next Steps

• September – December: Further study alternatives carried forward
  – Conceptual engineering
  – Ridership modeling
  – Financial analysis including public-private partnerships

• January: Comparative alternatives analysis

• February: Recommend phasing and financial plan
Opportunities to Comment

- Stakeholder/public meetings
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