- Slow speeds and unreliable service shift some customers to driving, which increases congestion
- Existing transit network does not meet SF’s evolving employment and housing needs
Muni’s Challenges
<table>
<thead>
<tr>
<th>Systemwide Improvements</th>
<th>Customer Amenities</th>
<th>TEP Proposals</th>
</tr>
</thead>
<tbody>
<tr>
<td>• All door boarding</td>
<td>• Clipper</td>
<td>• Establish Rapid Network</td>
</tr>
<tr>
<td>• Vehicle replacement and rehabilitation</td>
<td>• New shelters</td>
<td>• Route restructuring and increased service on crowded routes</td>
</tr>
<tr>
<td>• Real-time supervision</td>
<td>• NextMuni</td>
<td>• Travel time reduction proposals on Rapid Network</td>
</tr>
<tr>
<td>• Route performance audits</td>
<td>• Customer First grants</td>
<td></td>
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<tr>
<td>• Scheduling efficiencies</td>
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</tbody>
</table>
Transit Effectiveness Project

• First comprehensive review of Muni in a generation, aims to transform Muni service to better meet customer needs

• TEP objectives:
  – Improve service reliability
  – Reduce transit travel time
  – Improve customer experience
  – Deliver more efficient service

• Recommendations based on unprecedented data analysis and extensive community outreach
TEP Recommendations

Improve Customer Experience and Grow Ridership

• Establish a tiered service network to guide service delivery and capital investments

• Restructure service and increase service hours up to 10 percent

• Reduce travel time on key corridors by up to 20 percent
Key TEP Anticipated Outcomes

The Travel Time improvement proposals for 16 corridors (20 routes) will improve travel time by up to 20% for more than 50% of Muni Riders.

Based on current pilots and analysis of existing corridor issues, reliability, safety and crowding would significantly improve along the corridors.

**Church and Duboce Pilot:** Transit experienced a significant improvement on reliability.
TEP Service Improvements

- Increase total transit service up to 10% to better meet existing and near-term demand
- Redesign routes to better match travel patterns
- Modify or discontinuing low ridership routes or segments of routes
- Increase service frequency on busy routes
- Expand limited-stop service
- Decrease service frequency on some routes with low passenger volumes
Rapid Network TEP Improvements

- Lane modifications
- Traffic signal and stop sign changes
- Transit stop changes
- Parking and turn restrictions
- Pedestrian improvements
TEP Pilots: Building on Small Successes

76X Marin Headlands Express (on-going)

Church Street Red Carpet (on-going)

5L Fulton Limited (planned)
TEP CEQA Milestones

• Initial Study published Jan 23, 2013
  – Discloses potential impacts across 18 environmental review categories

• DEIR Released July 10, 2013 (http://tepeir.sfplanning.org)
  – Reports **impacts** on air quality, noise and transportation (NOT a decision document)
  – No Significant and Unavoidable Impacts were found related to Air Quality and Noise.
5 Fulton Existing Overview

- Daily ridership ~ 19,500
- Average speed ~ 9 mph
- Average travel time ~ 50 minutes each way
- 48 stops in each direction
5 Fulton Existing Ridership
5 Fulton Existing Speed
5/5L Pilot Project Overview

- New limited-stop service to reduce travel time
- Increased frequency in the inner part of the route to reduce crowding
- Low-cost capital improvements to further reduce travel time and improve safety
**5/5L Pilot Service Proposal**

- Electric buses make all stops at all times
  - Electric buses skip local stops weekdays until 7pm and make all stops at other times
  - Motor buses make all stops weekdays until 7pm and do not operate at other times
- Local Stops
- Limited Stops
### 5/5L Pilot Service Increase – Headways

<table>
<thead>
<tr>
<th></th>
<th>Beach to 6&lt;sup&gt;th&lt;/sup&gt; Avenue</th>
<th>6&lt;sup&gt;th&lt;/sup&gt; Avenue to Downtown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing</td>
<td>Proposed</td>
</tr>
<tr>
<td>AM Peak</td>
<td>5-8 min</td>
<td>6 min</td>
</tr>
<tr>
<td>Midday</td>
<td>8 min</td>
<td>10 min</td>
</tr>
<tr>
<td>PM Peak</td>
<td>4.5-9 min</td>
<td>7.5 min</td>
</tr>
</tbody>
</table>
5/5L Pilot Benefits

- Reduced crowding east of 6th Avenue
- 7% time savings for 5 Local
- 11% time savings for 5L Limited
  - 17% savings between 6th Avenue and Market Street
- Improved transit and pedestrian safety with longer bus zones
- Improved safety for all modes with road diet
5/5L Pilot Tradeoffs

- Customers west of 6th Avenue need to transfer to access local stops east of 6th Avenue
- ~9% of customers would need to walk to a different bus stop
- Net parking removal ~30 spaces
TOOLKIT - Bus Zone Extensions

- Faster boarding when buses can pull to curb
- Allows both 5 and 5L to arrive at limited stops at same time
- Allows 5L to pass 5 at local stops
23 Proposed Bus Zone Extensions
TOOLKIT - Bus Stop Optimizations

- Reduces the number of times a bus must stop
- Improves pedestrian safety at uncontrolled intersections
13 Proposed Bus Zone Optimizations
TOOLKIT - Right-Turn Pockets

- Helps buses bypass congestion
5 Proposed Right-Turn Pockets
TOOLKIT - Bus Stop Removals

• Proposed removal of 8 stops in each direction

• Stop Spacing between La Playa and Arguello
  • Existing = 2.3 blocks (710’)
  • Proposed = 3 blocks (930’)

• Stop Spacing between Arguello and Market
  • Existing = 1.5 blocks (720’)
  • Proposed = 2 blocks (960’)

• ~9% of customers impacted by stop removals
16 Proposed Bus Stop Removals
Proposed Tow-Away on Central
Proposed Fulton Road Diet

• Redesign roadway between Central and Stanyan
• Provide traffic calming adjacent to USF
• Address collision history for Muni and other modes
Fulton Road Diet

- Street approximately 50’ wide
- 2 lanes each direction with parking both sides

Buses straddle narrow lanes
2008-12 Collision History

- 70% of 51 Muni collisions in past 5 years were sideswipes
Fulton Road Diet

Existing, facing west

Proposed, facing west
Proposed Bus Bulbs and Traffic Signals

- Proposed with 2014 paving project west of 25th Avenue
- Bus bulbs proposed at 7 intersections
- Traffic signals proposed at 2 intersections with stop signs