Existing Transit Stop Spacing

• **~3,700** bus and rail stops citywide

• High transit stop density provides high level of access, but contributes to slow operating speeds

• Dwell at stops accounts for **~20%** of travel time on 15 heaviest-used bus routes
Proposed Stop Consolidation

• Focus on five high-ridership bus routes with potential for significant travel time savings
  – 9 San Bruno, 14 Mission, 28 19th Avenue, 30 Stockton, 71 Haight-Noriega

• Reduce travel time for most customers
• Maintain access at transfer points and key destinations
• Reduce vehicle requirements and operating costs
• Walking distance increased for ~10% of customers on selected routes
9 San Bruno

Existing – 750’ spacing
- 129 stops IB & OB
- 25,000 daily ons + offs

Proposed – 875’ spacing
- 19 stops removed
- 2 stops added
- 3 stops optimized (nearside/farside)
- 2,000 daily ons + offs impacted by removed stops
- 5 minutes (4%) peak period travel time savings
- 13% outbound travel time savings between 16th and 24th
- 1 vehicle saved during AM/PM peaks and evening
14 Mission

Existing – 800’ stop spacing
• 107 stops IB & OB
• 66,000 daily ons + offs

Proposed – 975’ stop spacing
• 25 stops removed
• 6 stops added
• 3 stops optimized (nearside/farside)
• 9,000 daily ons + offs impacted by removed stops
• 6 minutes (5%) peak period travel time savings
• 11-14% travel time savings between 16\textsuperscript{th} and 24\textsuperscript{th}
• 1 vehicle saved all day
28 19th Avenue

Existing – 975’ spacing*
• 79 stops IB & OB
• 25,000 daily ons + offs

Proposed – 1250’ spacing*
• 16 stops removed
• 11 stops optimized (nearside/farside)
• 2,000 daily ons + offs impacted by removed stops
• 7 minutes (7%) peak period travel time savings
• 18-19% travel time savings between Lincoln and Ocean
• 1 vehicle saved during AM/PM peaks and midday

*Excludes limited-access portions of route
Existing – 650’ spacing
• 89 stops IB & OB
• 50,000 daily ons + offs

Proposed – 825’ spacing
• 20 stops removed
• 5 stops optimized (nearside/farside)
• 4,000 daily ons + offs impacted by removed stops
• 5 minutes (6%) peak period travel time savings
• 10-11% travel time savings between Marina and North Beach
• 1 vehicle saved during AM/PM peaks and evening
71 Haight-Noriega

Existing – 750’ spacing
  • 115 stops IB & OB
  • 21,000 daily ons + offs

Proposed – 925’ spacing
  • 24 stops removed
  • 5 stops added
  • 6 stops optimized (nearside/farside)
  • 3,000 daily ons + offs impacted by removed stops
  • 4 minutes (4%) peak period travel time savings
  • 1 vehicle saved during AM/PM peaks
## Proposed Stop Changes Summary

<table>
<thead>
<tr>
<th>Route</th>
<th>Existing Stops</th>
<th>Stops Removed</th>
<th>Stops Added</th>
<th>Stops Optimized (near/farside)</th>
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</thead>
<tbody>
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<td>9 San Bruno</td>
<td>129</td>
<td>19</td>
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<tr>
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<td>25</td>
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<td>3</td>
</tr>
<tr>
<td>28 19th Avenue</td>
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<td>16</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>30 Stockton</td>
<td>89</td>
<td>20</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>71 Haight-Noriega</td>
<td>115</td>
<td>24</td>
<td>5</td>
<td>6</td>
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<tr>
<td><strong>Totals</strong></td>
<td><strong>519</strong></td>
<td><strong>104</strong></td>
<td><strong>13</strong></td>
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</table>

Preliminary recommendations to be revised based on intersection-level analysis and community feedback.
## Vehicle Savings Summary

<table>
<thead>
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<th>Route</th>
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<th>Base</th>
<th>PM Peak</th>
<th>Evening</th>
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<td>1</td>
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<tr>
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<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>28</td>
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<td>1</td>
<td>1</td>
<td>0</td>
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<tr>
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<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>71</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>
Traffic Engineering Changes

• Combined with stop consolidation, low-cost street design changes can further reduce transit travel times by clearing bottlenecks
  – Add or extend turn pockets
  – Modify meters and color curb zones
  – Optimize signal timing
  – Add traffic signal actuation