Speeding Up Transit Does Not Require BRT

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San Francisco Municipal Transportation Agency
Transit in San Francisco

Local operator, Muni, 8th largest in U.S.
Unlike big city peers, 70% of riders on buses
Light rail, mostly in street
Supplemented with regional partners
Most transit is in mixed-flow environment

Congestion impacts

• Muni average speed: 7.4 mph
• On-time performance: ~55%

The San Francisco Muni is turning 100 this year. And in that century of great technological progress, in which an aircraft broke the sound barrier in 1947 and a supersonic car did the same in 1997, Muni has actually become slower.

In 1920, the F-Stockton streetcar carried passengers from the Financial District at Market and Stockton Streets all the way to the Marina at Chestnut and Scott Streets in a zippy 17 minutes. Today a very similar trip on the 30-Stockton, the successor to the F-Stockton, takes a half-hour if the stars are properly aligned.

“Streetcars ruled the road, and there wasn’t much getting in the way — no car traffic — and we didn’t have all the traffic lights and stop signs,” said Peter Straus, a retired Muni service planner. “Back then it was basically ‘load and go,’ ” he added, “and there was nothing to slow them down.”

San Franciscans were not shocked to learn that Muni ran faster 100 years ago.

“I wouldn’t be surprised if a horse-drawn carriage got there faster than Muni,” Angie Murphy, a regular Muni commuter, said recently as she waited for a bus in the rain in the Financial District.
As congestion increases in areas where transit does not have traffic priority measures, transit service becomes slower and more expensive to provide.

**EXAMPLE: Cost to Provide 10-Minute Bus Frequency, 6 AM – 12 AM, daily**

<table>
<thead>
<tr>
<th>Travel Time (Minutes)</th>
<th>Buses Required</th>
<th>Annual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>![Buses for 30 minutes]</td>
<td>$3.9 million</td>
</tr>
<tr>
<td>45</td>
<td>![Buses for 45 minutes]</td>
<td>$5.9 million</td>
</tr>
<tr>
<td>60</td>
<td>![Buses for 60 minutes]</td>
<td>$7.9 million</td>
</tr>
<tr>
<td>75</td>
<td>![Buses for 75 minutes]</td>
<td>$9.9 million</td>
</tr>
</tbody>
</table>

*Assumes operating cost of $200/hour per vehicle. Actual costs vary by mode.*
BRT vs Transit Priority Projects

Bus Rapid Transit
• International application to provide high level of priority to bus transit
• Relatively high cost and high construction impacts
Muni Forward

- **Improved reliability**: Over 50 miles of new reliability improvements, such as red transit lanes, bus bulbs and traffic signals that stay green for transit
- **Rapid Network**: More Rapid lines and expanded frequency
- **More service**: Multiple service increases and new connections since 2015
- **Brand new fleet**: All-new bus and rail vehicles
- **Equity**: A focus on improving service in Equity Strategy neighborhoods
Transit Priority Features

More than 25 features to transform our streets and make your ride safer, more reliable, and comfortable!
Little Things Add Up
Little Things Add Up
Little Things Add Up
Transit Quick-Build

• Quicker safety and reliability improvements
• Improvements are reversible/adjustable, such as:
  – Turn pockets
  – Stop optimization or consolidation
  – Stop safety upgrades
  – Queue jumps
• Can complement larger capital projects to get benefits on the ground faster
Rolling out the Red Carpet
Rolling out the Red Carpet
Muni Forward Results

Ridership increased 14% on Rapid bus from 2016 to 2018
- 8 Bayshore corridor: +12%
- Mission/Van Ness corridor: +9%
- Geary corridor: +8%
- 19th Ave corridor: +19%

Time savings of 10% or more
- Church Street: 15%
- 5R Fulton Rapid: 9-12%
- Mission: 13%
- 16th Street quick-build phase: 10%
- Potrero: 20%
- Two-Way Haight: Over 20%
- Sansome: Over 20%

Sales tax revenue increases
- Mission, Taraval (outperformed city)
Then....COVID

Morning peak westbound traffic on the Bay Bridge
• Due to fewer cars on the road, we are seeing travel time savings between 15% and 50% on our lines
• Routes without transit only lanes experienced a larger decrease in travel time than routes with transit only lanes.
Travel Time Savings During Shelter In Place

Time Savings
- 10% Savings
- 20% Savings
- >30% Savings

Time savings represent the greatest percent reduction observed in each segment across all directions and times of day (AM or PM Peak).
Looking towards the future

- As businesses reopen, expect an increase in congestion, but San Francisco doesn’t have additional traffic capacity.
- Transit priority projects reduce travel time and allow transit to provide more service without increasing resources.