

Geary Corridor Bus Rapid Transit

Institute of Transportation Engineers
Luncheon Meeting
October 17, 2013



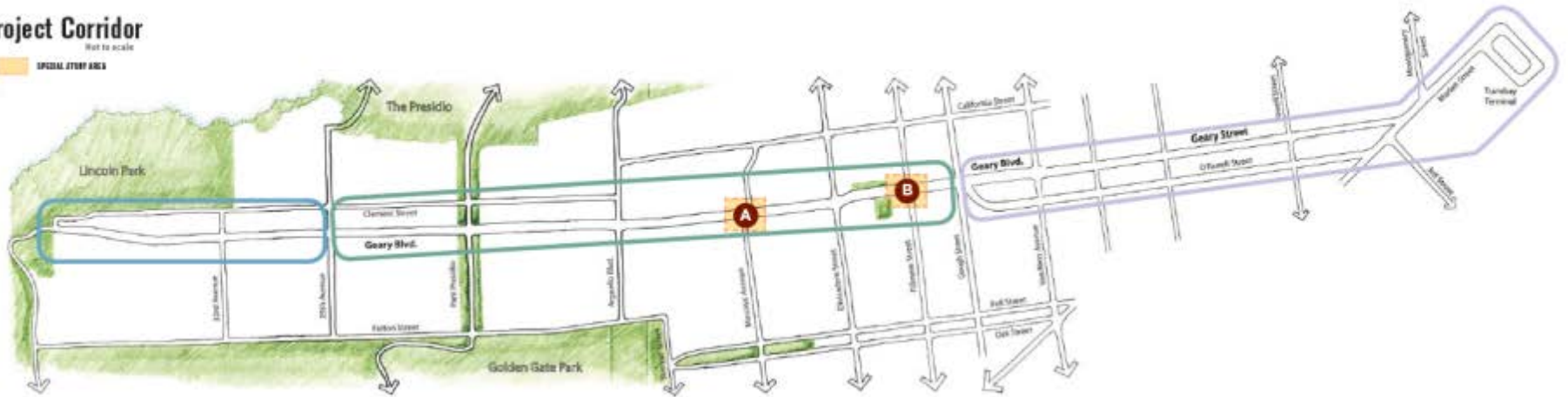
SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY
SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY

Geary Corridor Bus Rapid Transit Project

Project Corridor

Not to scale

SPECIAL STUDY AREA





Current Phase of Work:

- Environmental Impact Analysis
- Preliminary Engineering



SFCTA and SFMTA

Agency	Role in Project
	<p>Environmental lead agency</p> <p>After preliminary engineering, project will be transferred to SFMTA</p>
	<p>Will prepare final engineering design, construct, and operate BRT</p>



Background: Need for Geary Improvements

- 6.5 mile corridor
- More than 50,000 passengers / day
- During peaks, 38 & 38L routes each operate at 6-min headways (3-min combined)
- End to end,
38 Local - 60+ mins
38L Limited - 45+mins



BRT: Transforming Geary



Existing



Proposed



Core Transit Features

- Dedicated bus lanes
- Higher quality, longer, and wider bus stops
- Level boarding
- Adjusted stop spacing
- New low-floor buses
- Signal priority for buses
- Left turn adjustments
- Improved pedestrian access



BRT Benefits

- Reduced travel time
- Increased user reliability
- Improved passenger experience
- Improved system cost effectiveness
- Improved pedestrian access and safety



Los Angeles Metro Rapid Bus
Photo credit: Raymond Yu



Alternative Configurations



Side-Running



Center-Running

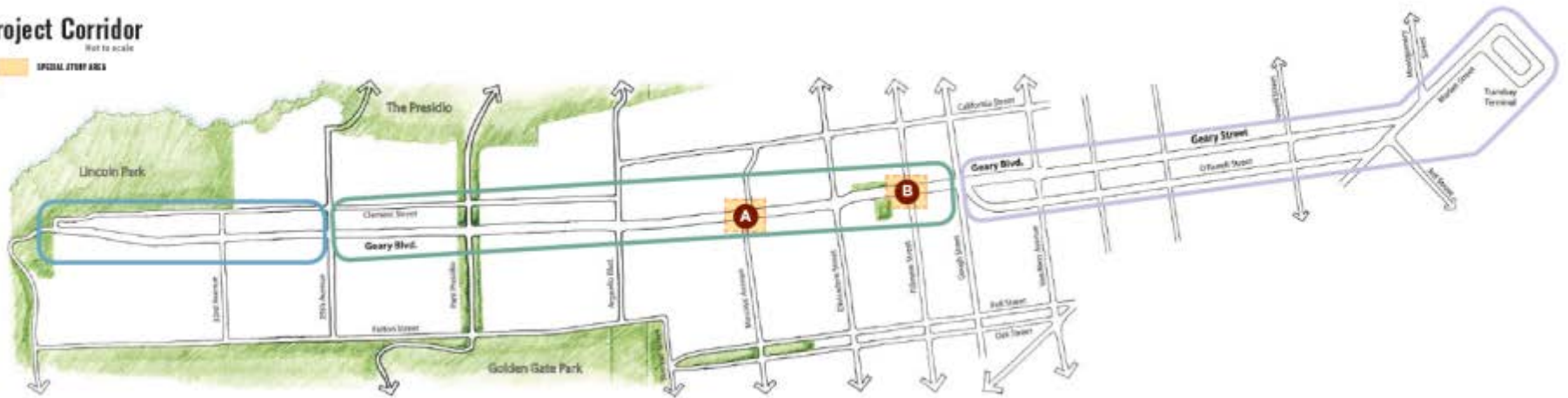


Project Development Status: Nodes and Segments

Project Corridor

Not to scale

SPECIAL STUDY AREAS



Underpasses: Existing Constraints



Fillmore



Masonic



Fillmore Side-Lane Option



Side-Lane BRT Stations and Overpass - Looking East



Geary Boulevard - Plan



Masonic Side-Lane Option

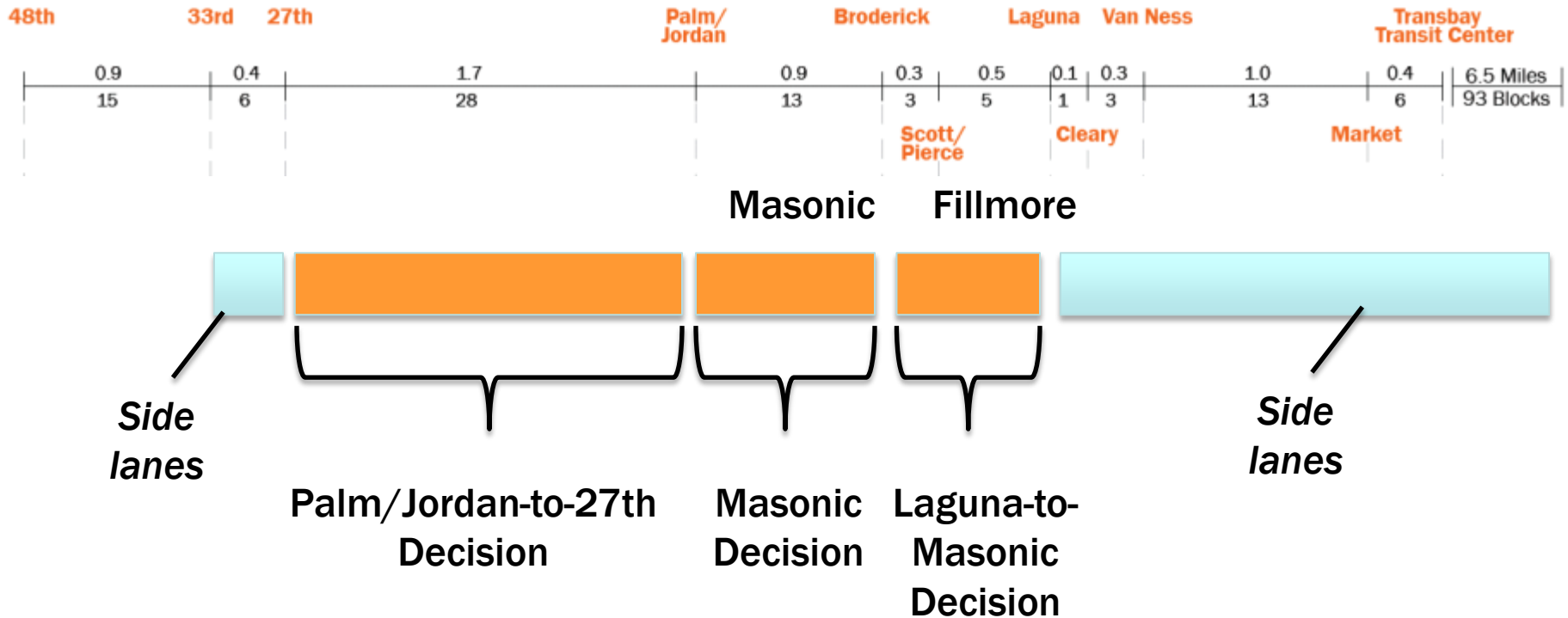


Side-Lane BRT Stations and Tunnel Portal - Looking West



Selecting a Locally Preferred Alternative: Segments – Mix-and-Match

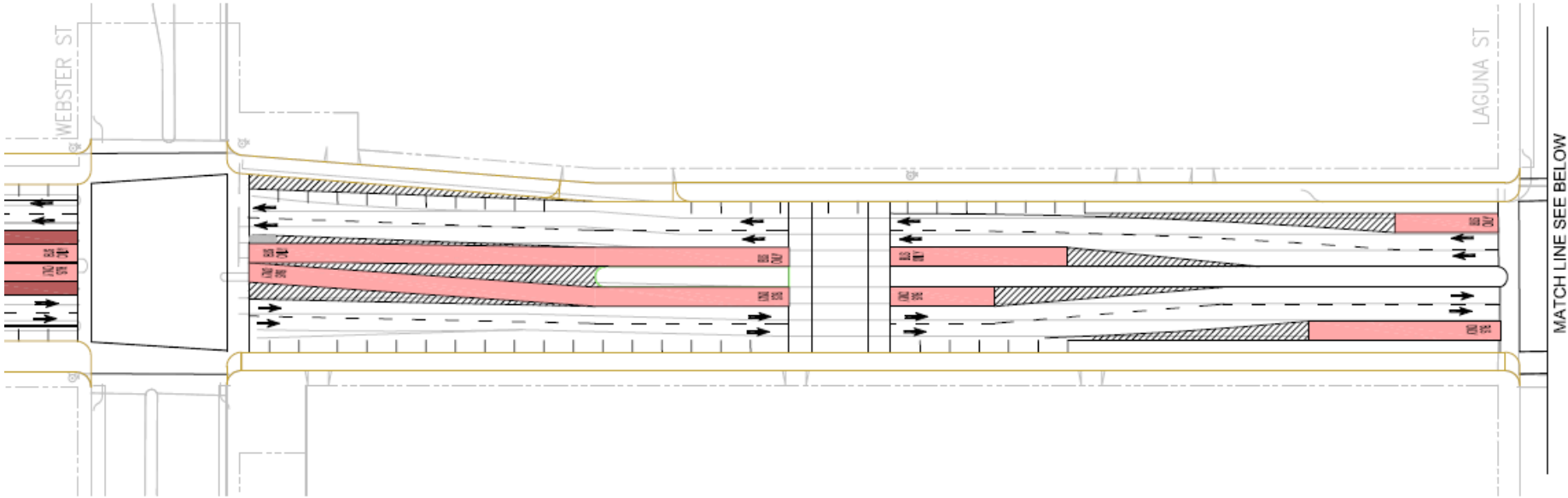
- **Right- vs. Left-Side Loading (Alt 4)**



- **Service: Local/BRT vs. Consolidated**



Transition Design



Schedule

Milestone	Timeframe
Initiate LPA discussion	Fall 2013
Draft EIS/R	Summer 2013
Final EIS/R	End of 2014
Design engineering	2014-2016
Construction	2016-2018
BRT Service	2018



SFMTA Fleet Issues



Geary BRT – SFMTA Fleet Management Issues Related to Alternative 4

5-door 60' Articulated Bus in the U.S.

- New Flyer and NABI produced prototypes for the North America market - only New Flyer sold buses
- Less than 50 in the U.S. / 0 in Canada

NABI

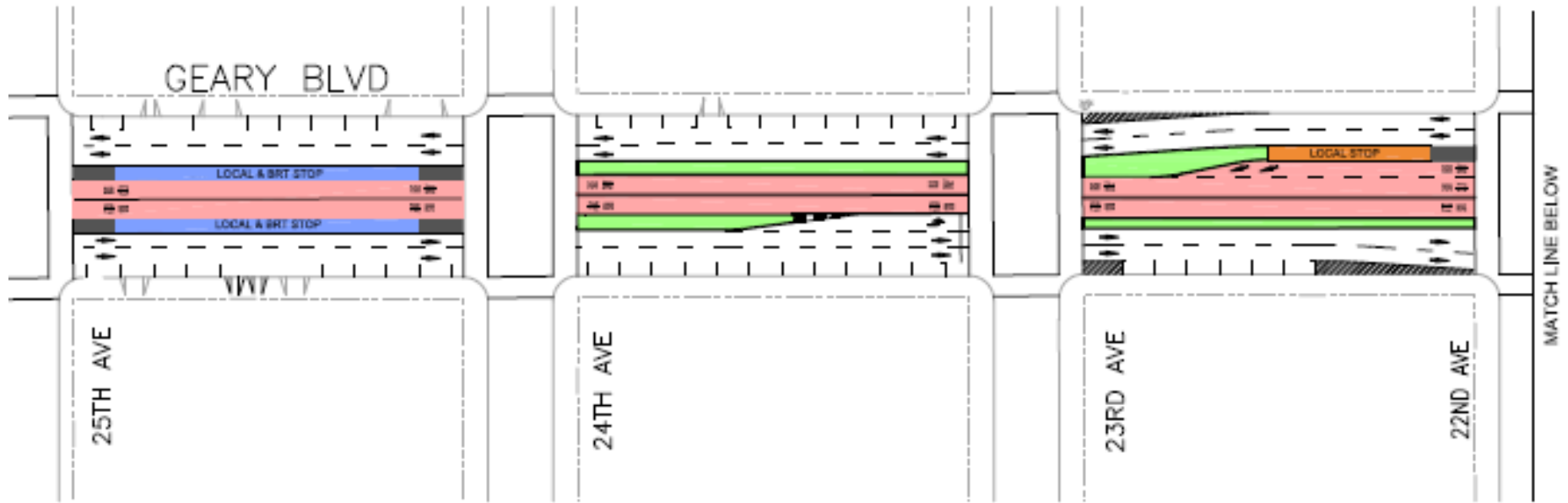


New Flyer



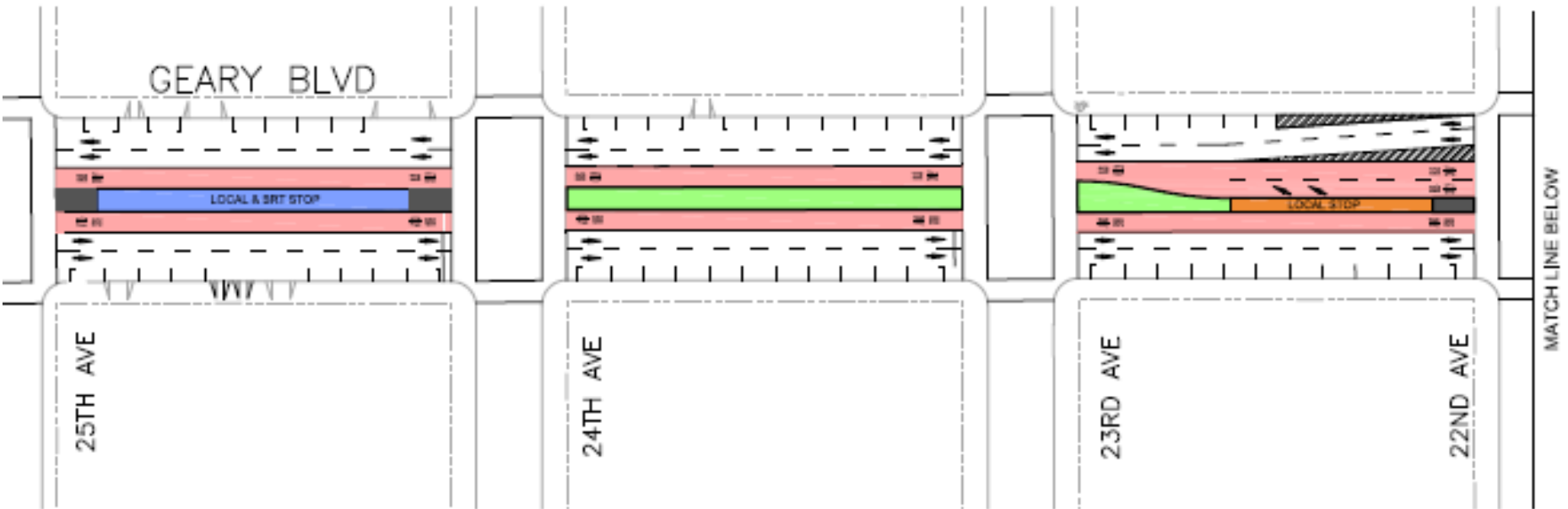
Geary BRT – SFMTA Fleet Management Issues Related to Alternative 4

Alt 3: Center-Side Option



Geary BRT – SFMTA Fleet Management Issues Related to Alternative 4

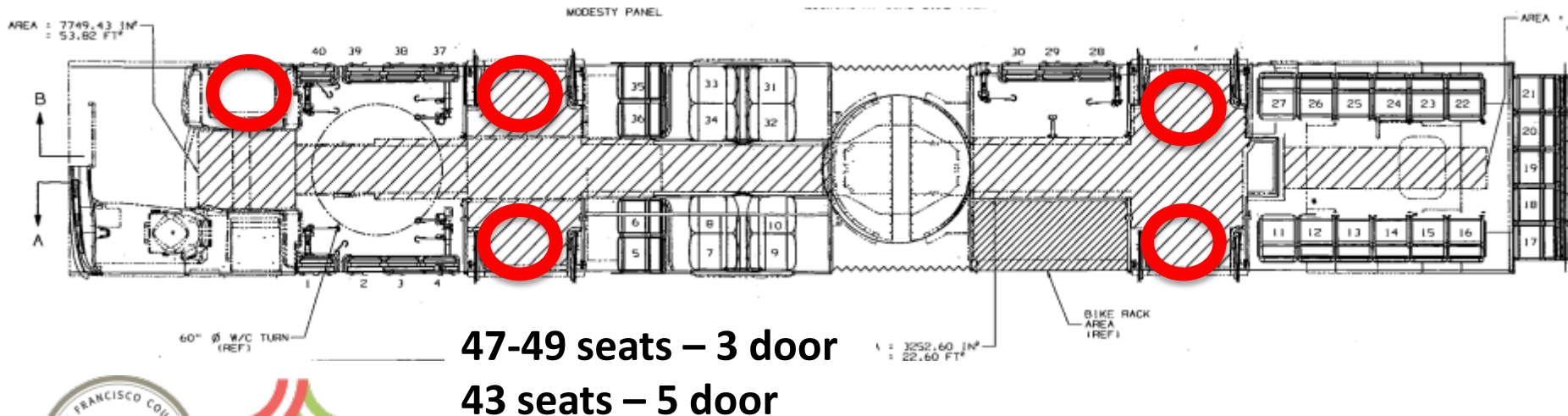
Alt 4: Center-Center Option



Geary BRT – SFMTA Fleet Management Issues Related to Alternative 4

Vehicle Performance

- **5-door bus loading – 2 doors on left, 3 doors on right**
 - Time (stopped at station) is 20%-30% of total run time
 - 2 doors vs. 3 doors is estimated at 25%-50% slower loading
 - Use of 2 doors likely = 2-6 minutes of added run time
- **A 5-door bus will have 4-6 less seats than a 3 door bus**



Geary BRT – SFMTA Fleet Management Issues Related to Alternative 4

Durability Concerns – Buses must last 12 yrs.

No transit agency with ridership and operations issues similar to Geary Blvd. has used 5-door buses for 12 years

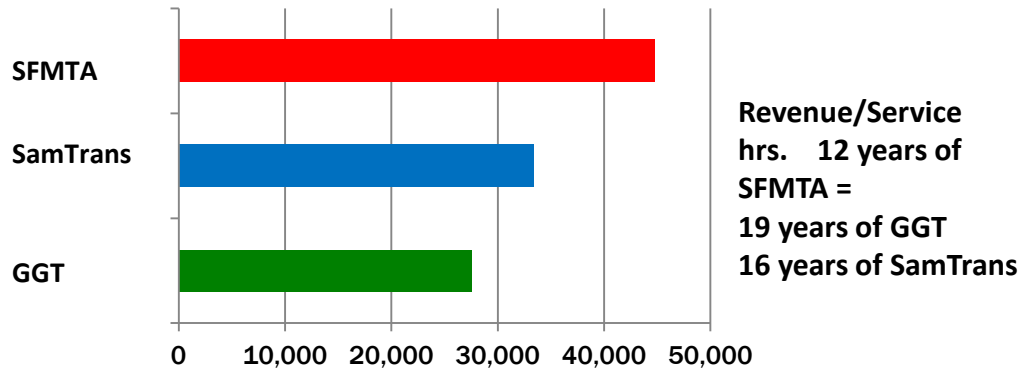
- Eugene, OR (6.5 years) – 5,000 passengers per day – flat terrain
- Cleveland, OH (5.0 years) – 15,000 passengers per day – flat terrain
- Geary (SF, CA) (N/A) – 50,000+ passengers per day – flat + grades



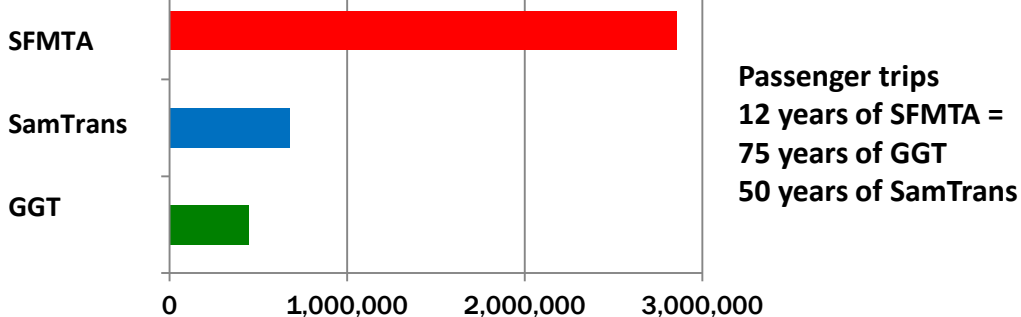
Geary BRT – SFMTA Fleet Management Issues Related to Alternative 4

Durability Concerns – Buses must last 12 yrs.

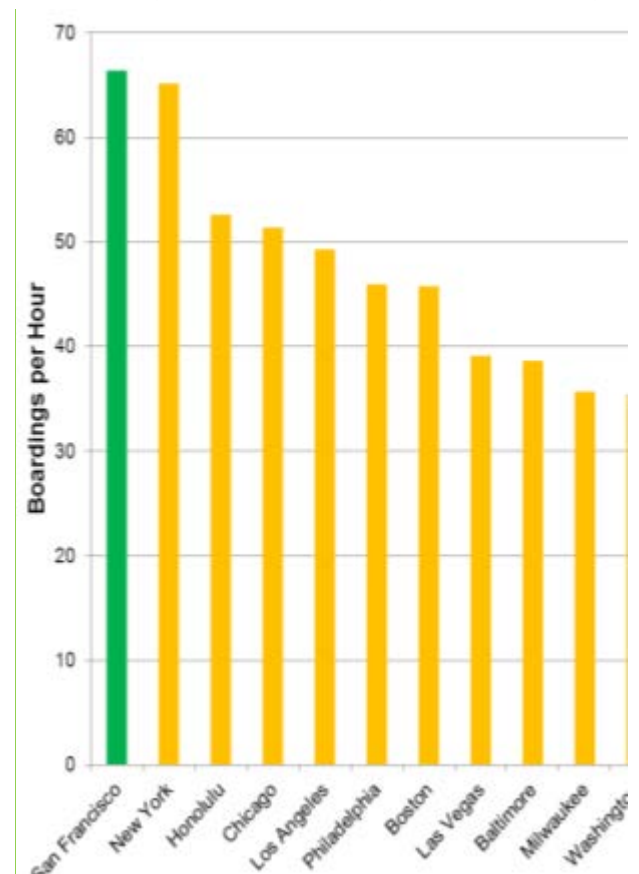
Revenue/Service hrs. – 12 yr. bus lifespan



Passenger Trips – 12 yr. bus lifespan



Comparative Hourly Bus Boarding Rate



Geary BRT – SFMTA Fleet Management Issues Related to Alternative 4

SFMTA Flexible Fleet Operations

- Facilities are too old, too cramped, and not equipped to manage sub-fleets
- Maintenance of a Geary BRT sub-fleet doesn't fit into general strategy

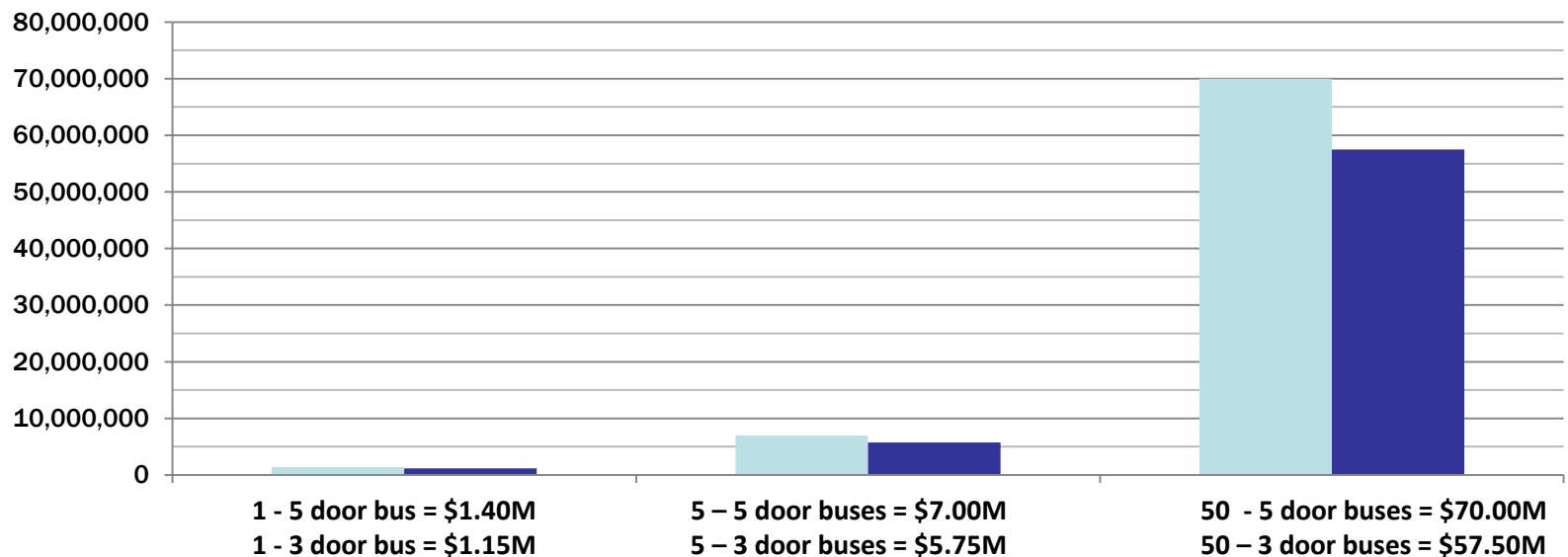
Division	Year Open & Renovations	Vehicle Type & Size	Number Present	Capacity	Real Estate Vision Plan
Presidio	1912 1950	40' Trolleybus	165	73	Replacement
Potrero	1914 1949	40' Trolleybus 60' Trolleybus	45 73	45 73	Replacement
Kirkland	1950	40' Motor bus	135	127	Replacement
Woods	1974 1991	30' Motor bus 40' Motor bus	224 (30' + 40' + 40' reserve)	30 160	Major Renovation
Green - Beach	1978	75' Breda LRV Hist. Streetcar	<100* <50*	110 55	Renovation
Cable Car	1890s 1984	Hyde St. car California St. car	28 12	28 12	OK
Flynn	1989	60' Motor bus	130	102	Minor Renovation
Metro East	2007	75' Breda LRV Hist. Streetcar	50* 25*	125 25	OK - fully furnish w/ equipment
Islais Creek	2013 2016	40' Motor bus 60' Motor bus	50-70* 0	70 or 160 70 or 0	Modification to accept 60' underway
* = Numbers are approximate.					
			Red boxes = overcrowding and/ or need for renovation or replacement		
			Lavender box = still under construction		



Geary BRT – SFMTA Fleet Management Issues Related to Alternative 4

Cost of Vehicles

A 5-door bus from New Flyer (bus supplier) will cost approximately \$250,000 more than a similar 3-door bus offered by New Flyer



6 3 door buses can be purchased
for the cost of 5 5 door buses

60 3 door buses can be purchased
for the cost of 50 5 door buses



For More Information:
www.gearybrt.org



GEARY CORRIDOR BUS RAPID TRANSIT | PROJECT UPDATE