



SUSTAINABILITY & MULTIMODAL PLANNING WORKSHOP

#APTAsmp19





Increasing Ridership with Transit-Priority Streets in San Francisco

**Steve Boland | San Francisco Municipal Transportation Agency
2019 APTA Sustainability & Multimodal Planning Workshop**

Today's Presentation

- Transit in San Francisco
- The Muni Forward Program
- Transit-Priority Toolbox
- How to Build Support
- Results



Transit in San Francisco

- Local operator, Muni, 8th largest in U.S.
- Unlike big city peers, 70% of riders on buses
- Legacy light rail, mostly in street



Traffic in San Francisco

- 2010-2016: peak arterial speeds declined 25%
- Uber & Lyft = 15% of intra-SF vehicle trips (9% of person trips)



Transit & Traffic in San Francisco

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

The New York Times

After 100 Years, Muni Has Gotten Slower

By ZUSHA ELINSON MARCH 31, 2012

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.

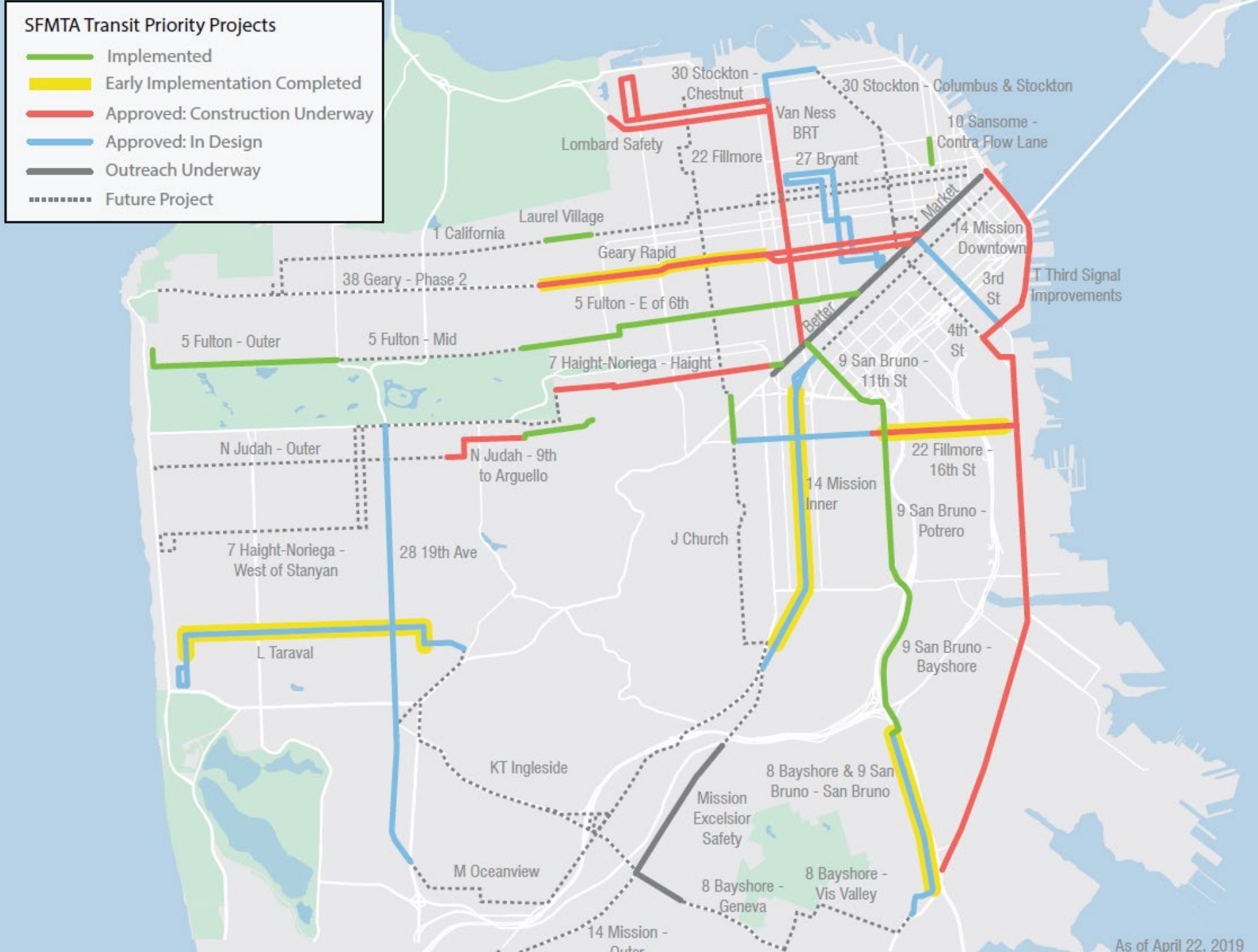
“I wouldn’t be surprised if a horse-drawn carriage got there faster than Muni,” Angie Murphy, a regular Muni commuter, said recently as she waited for a bus in the rain in the Financial District.

Muni Forward

- Service, capital & equipment upgrades
- Transit priority systemwide

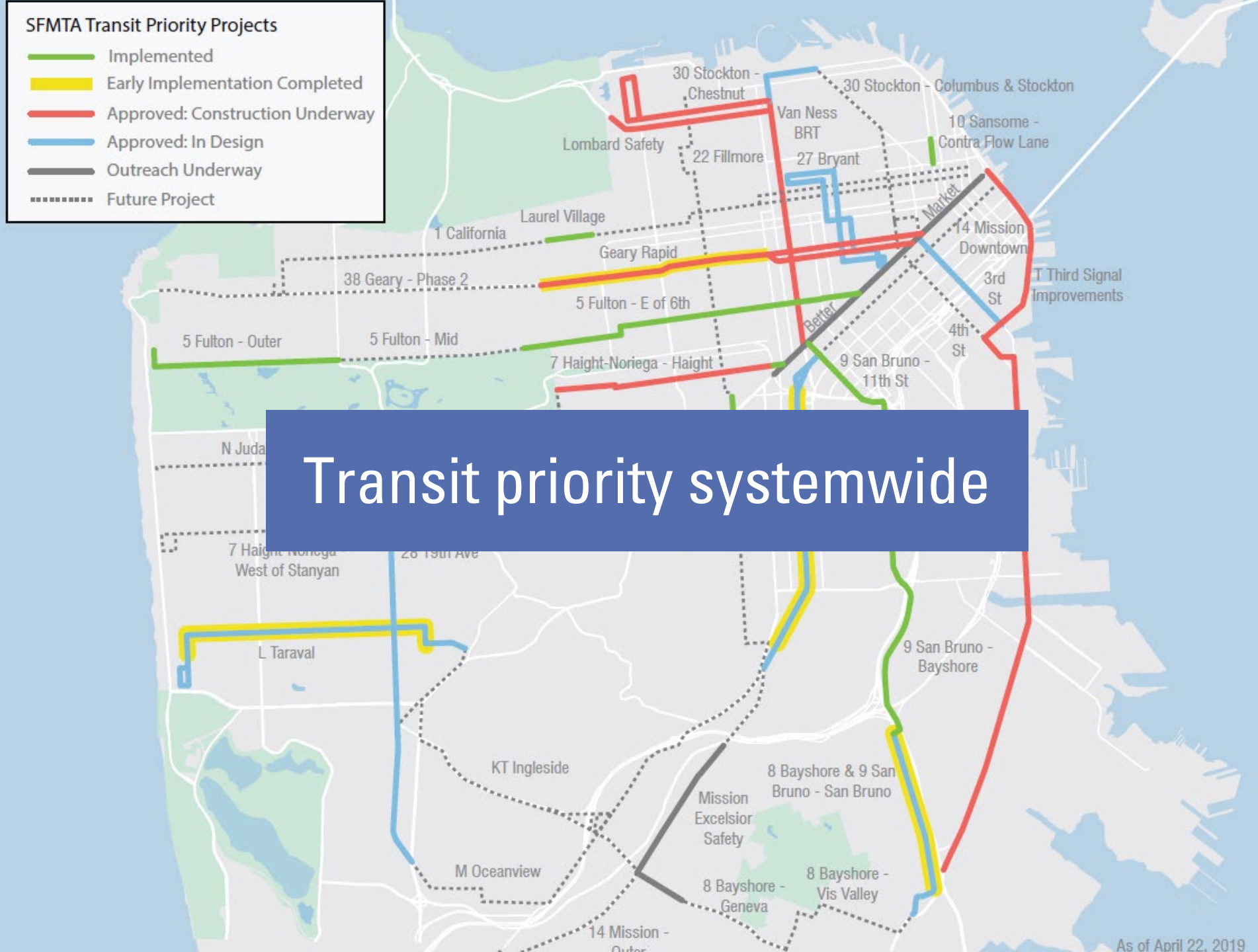


Muni Forward

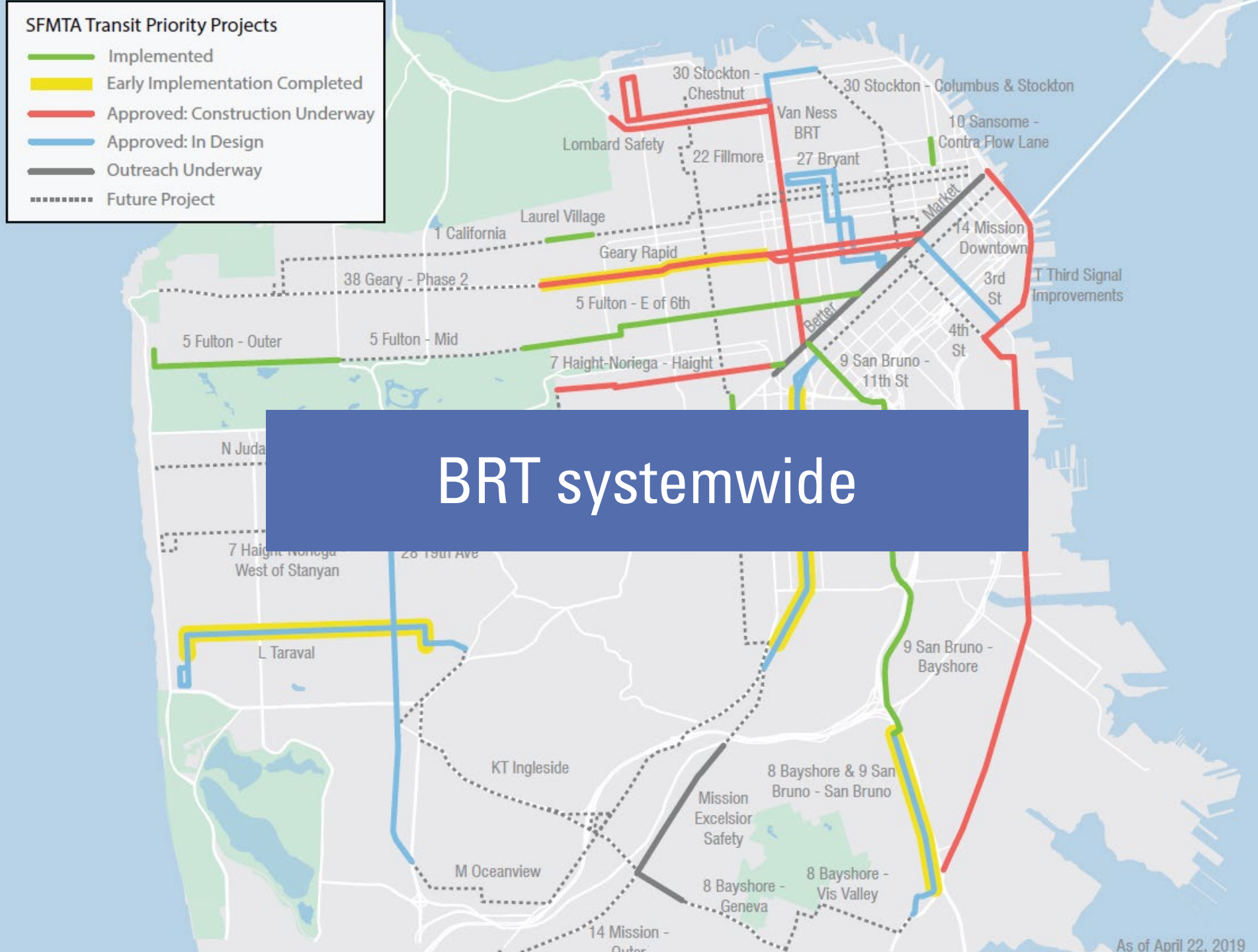


As of April 22, 2019

Muni Forward



Muni Forward



Transit Priority Toolbox

GET ON
BOARD
MUNIFORWARD.COM



Transit Priority Features

More than **25** features to transform our streets and make your ride **safer**, more **reliable**, and **comfortable**!

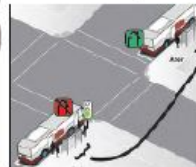
Features Legend

	Striping		Signals & Rules		Transit: Add Stop
	Concrete		Curb		Transit: Remove Stop

Transit Stop Changes



Relocate Stops



At intersections with stop signs:
Places the stop next to the stop sign so Muni only has to stop once while at an intersection, saving time.

At intersections with traffic lights:
Places the stop on the other side of the traffic light, so that Muni can get through the intersection prior to loading and unloading customers. This saves time and makes Muni more reliable.



Adjusting Stop Spacing



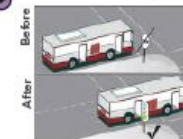
New Stop
Adding stops evenly spaces stops along a route. Even spacing provides a balance between time spent walking to or from a stop and time spent riding the bus.

Remove Stop
Fewer stops along the route means Muni can travel the same distance in less time. Stops are removed in places where another stop is nearby.

Signals & Rules



New Traffic Signal



Reduces the amount of stops the bus makes along its route and makes it possible to introduce transit signal priority (TSP) at intersections.



Bus-Only Signal



A bus-only signal gives Muni a green light before the rest of traffic, allowing Muni to bypass a long line of cars.



Turn Restrictions



Cars waiting to turn block the intersection for through traffic, including Muni. Prohibiting turns at the intersection reduces Muni delays.



Extend Transit Lane Hours

By extending transit lane hours, Muni is able to bypass congestion at any time of day while eliminating confusing lane restrictions.



Remove Stop Sign

Removing a stop sign at intersections saves time by eliminating an extra stop from the route. This is done in addition to traffic calming measures to slow down speeding cars without affecting Muni.

Pedestrian Enhancements



New Transit Bulb



Transit bulbs provide a safe place to wait for and board Muni. They also reduce delays by eliminating the need for Muni vehicles to merge in and out of traffic while picking up and dropping off customers.



Extend Bulb

Enables bulb to handle more than one vehicle at a time, ensuring arriving Muni vehicles do not have to wait to pick up and drop off customers.



Extend Boarding Island

Enables boarding island to handle more than one vehicle at a time, ensuring arriving Muni vehicles do not have to wait to pick up and drop off customers.



Pedestrian Island and Pedestrian Bulb



Pedestrian islands or bulbs increase safety by shortening the distance to cross an intersection while reducing the wait time at intersections for Muni vehicles.



Widen Sidewalk

A widened sidewalk provides more space for pedestrian amenities such as benches, trees, and transit shelters in addition to improving access to Muni.



New Crosswalk

Crosswalks provide a safe place for pedestrians to cross the street and access transit, thus encouraging transit use.



Boarding Island



Boarding islands provide safe waiting areas with direct boarding to Muni vehicles to increase efficiency and reliability.



Lane Reconfiguration



New Transit Lane



A transit only lane gives Muni vehicles their own lane separate from regular traffic. This helps Muni bypass congestion and remain on schedule.



Reconfigure Lanes



Widens travel lanes, reducing the number of times Muni is blocked by a vehicle in an adjacent travel or parking lane.



Traffic Calming



Traffic calming measures used instead of stop signs reduce Muni travel times while slowing down the speed of vehicle traffic and encouraging transit use.



New Bike Lane



A separate bike lane increases safety for bicyclists and provides space for Muni and other vehicles to pass each other with less friction.



New Turn Pocket



Gives turning vehicles their own dedicated lane, freeing up travel lanes and reducing delays for Muni and other vehicles.

Curb Space



New Peak Hour Tow Away Zone



Tow Away Zones create an additional lane for traffic in peak periods which relieves traffic congestion and makes Muni more reliable.



New Loading Zone

A loading zone provides space for commercial vehicles to pull over, preventing them from double parking when making deliveries and blocking Muni.



Remove Loading Zone

Removing loading zones create an additional lane for traffic which relieves congestion and reduces Muni delays.



Extend Loading Hours

Extended loading hours allow more deliveries in the same space, preventing double parking in travel lanes while making deliveries and blocking Muni.



New Bus Zone



New bus zones allow customers to safely board Muni directly from the sidewalk without having to navigate through the street and parked cars.



Extend Tow Away Hours

Extending tow away hours relieves congestion on crowded streets and reduces Muni delays.



Extend Bus Zone

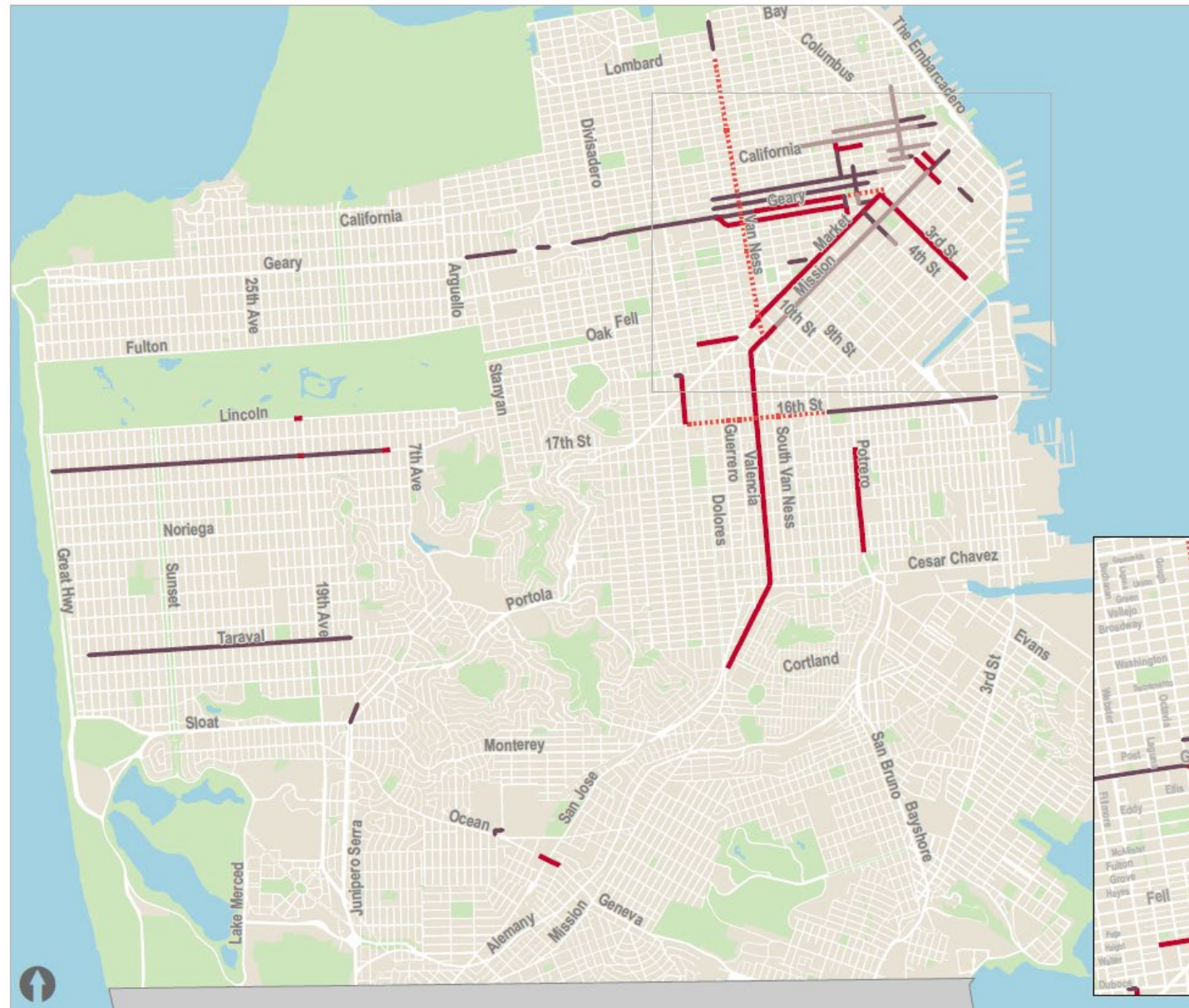
Enables bus stop to handle more than one bus at a time, ensuring arriving buses do not have to wait to pick up and drop off passengers.



New No Parking Anytime Zone

Removing parking creates an additional lane of traffic on congested streets, reducing Muni delays.

Rolling Out the Red Carpet




Transit Only Lanes

Active and under construction


January 2019

Current transit only lanes in San Francisco. This map includes red painted transit only lanes, non-red transit only lanes which are active full-time, and non-red transit only lanes which are active part time. Red transit only lanes must be active at all times.

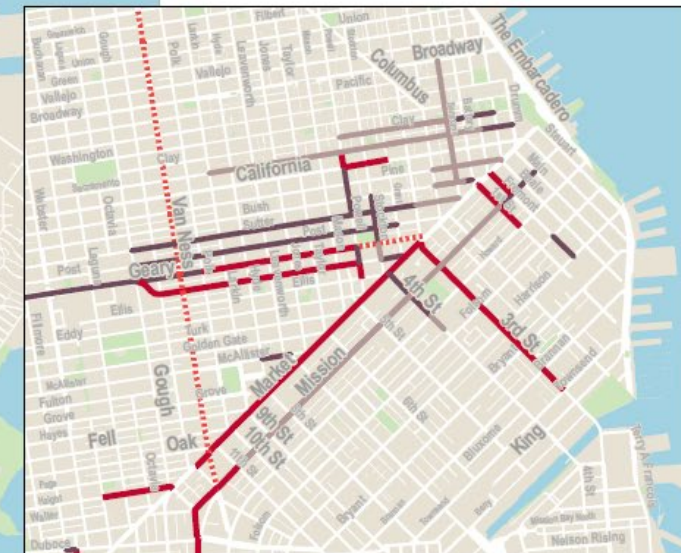
 Under construction

 Red lanes

 No red, 24 hours

 No red, Part time

By downloading this map, you are agreeing to the following disclaimer: "The City and County of San Francisco ("City") provides the following data as a public record and no rights of any kind are granted to any person by the City's provision of this data. The City and County of San Francisco ("City") makes no representation regarding and does not guarantee or otherwise warrant the accuracy or completeness of this data. Anyone who uses this data for any purpose whatsoever does so entirely at their own risk. The City shall not be liable or otherwise responsible for any loss, harm, claim or action of any kind from any person arising from the use of this data. By accessing this data, the person accessing it acknowledges that she or he has read and does so under the condition that she or he agrees to the contents and terms of this disclaimer."



Scale 1:44,308

Rolling Out the Red Carpet

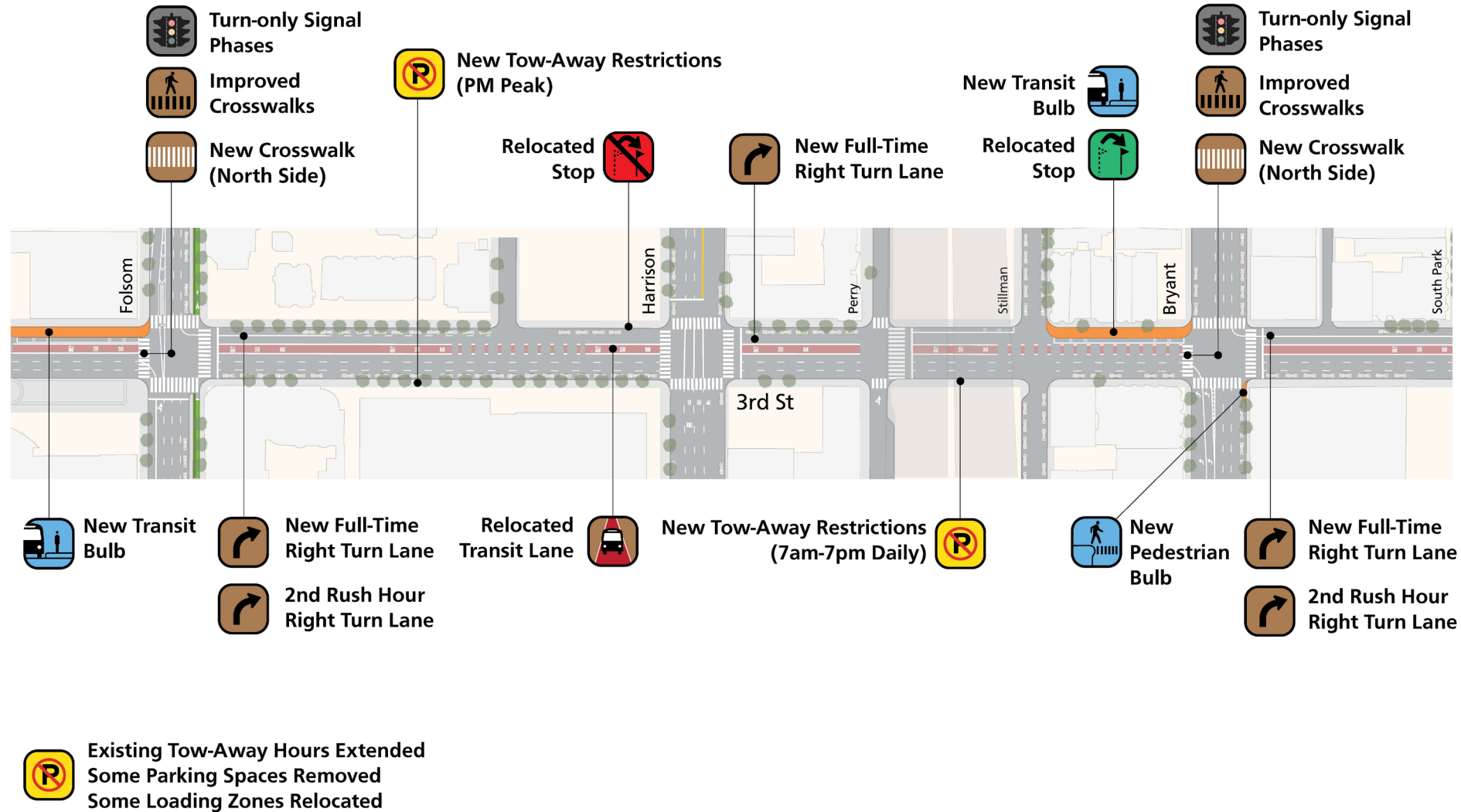


Rolling Out the Red Carpet



Little Things Add Up

3rd St, from Folsom to Bryant



Little Things Add Up



Little Things Add Up

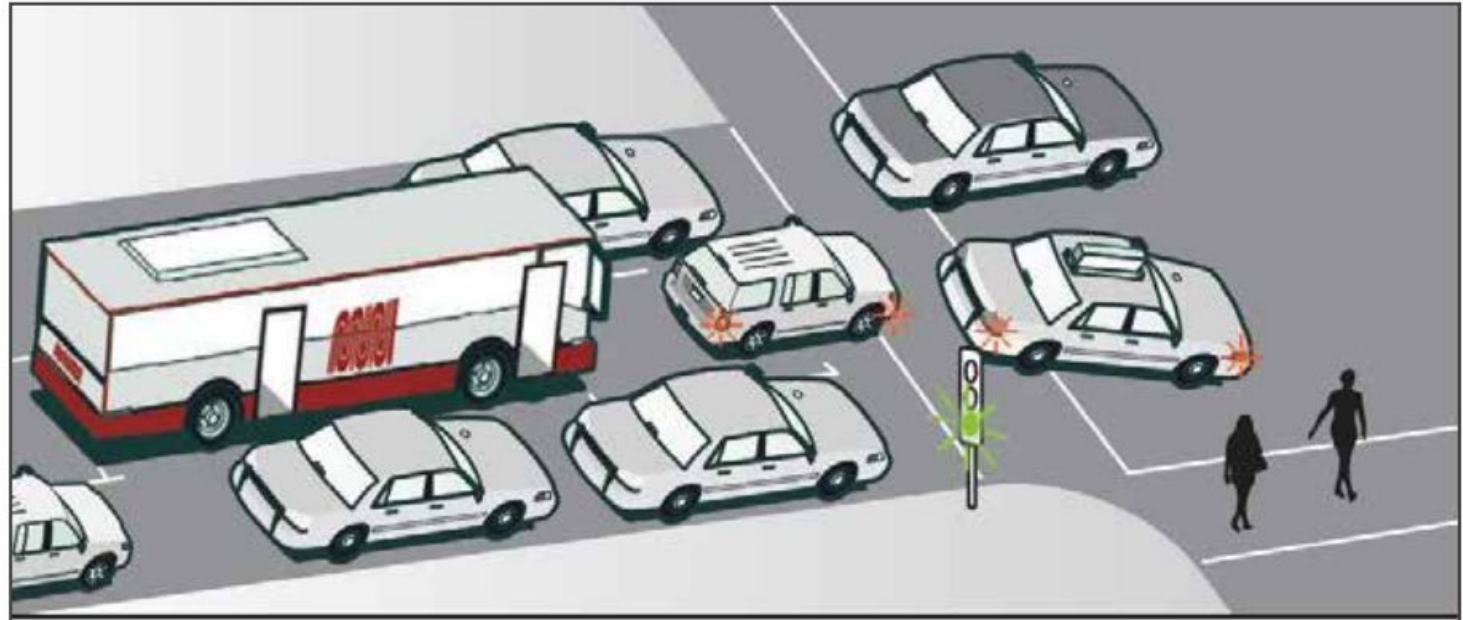


Little Things Add Up

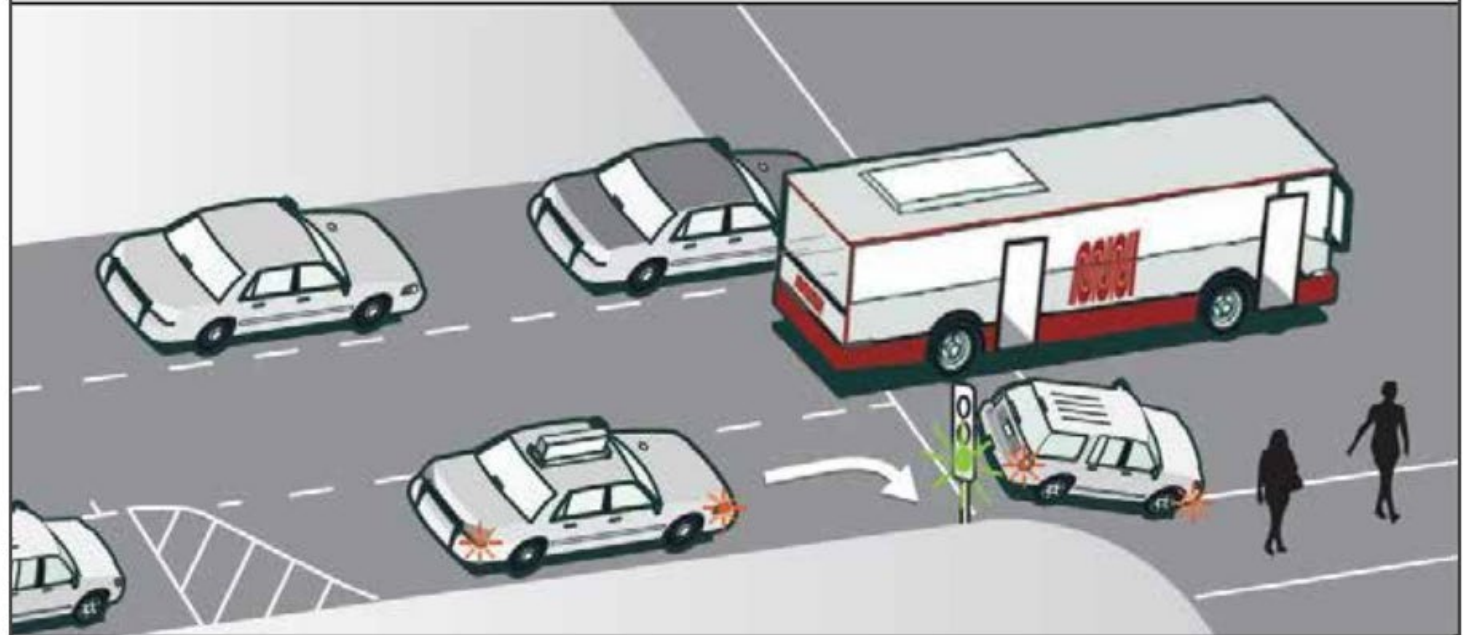


Little Things Add Up

Before



After



Little Things Add Up



Bobby Lu @BobbikeLu · Feb 18

My life suddenly is much brighter!! This is awesome! @MuniForward



1



OK ... But How?



Policy

- Transit-First Policy
- Stop Spacing Guidelines
- Vision Zero



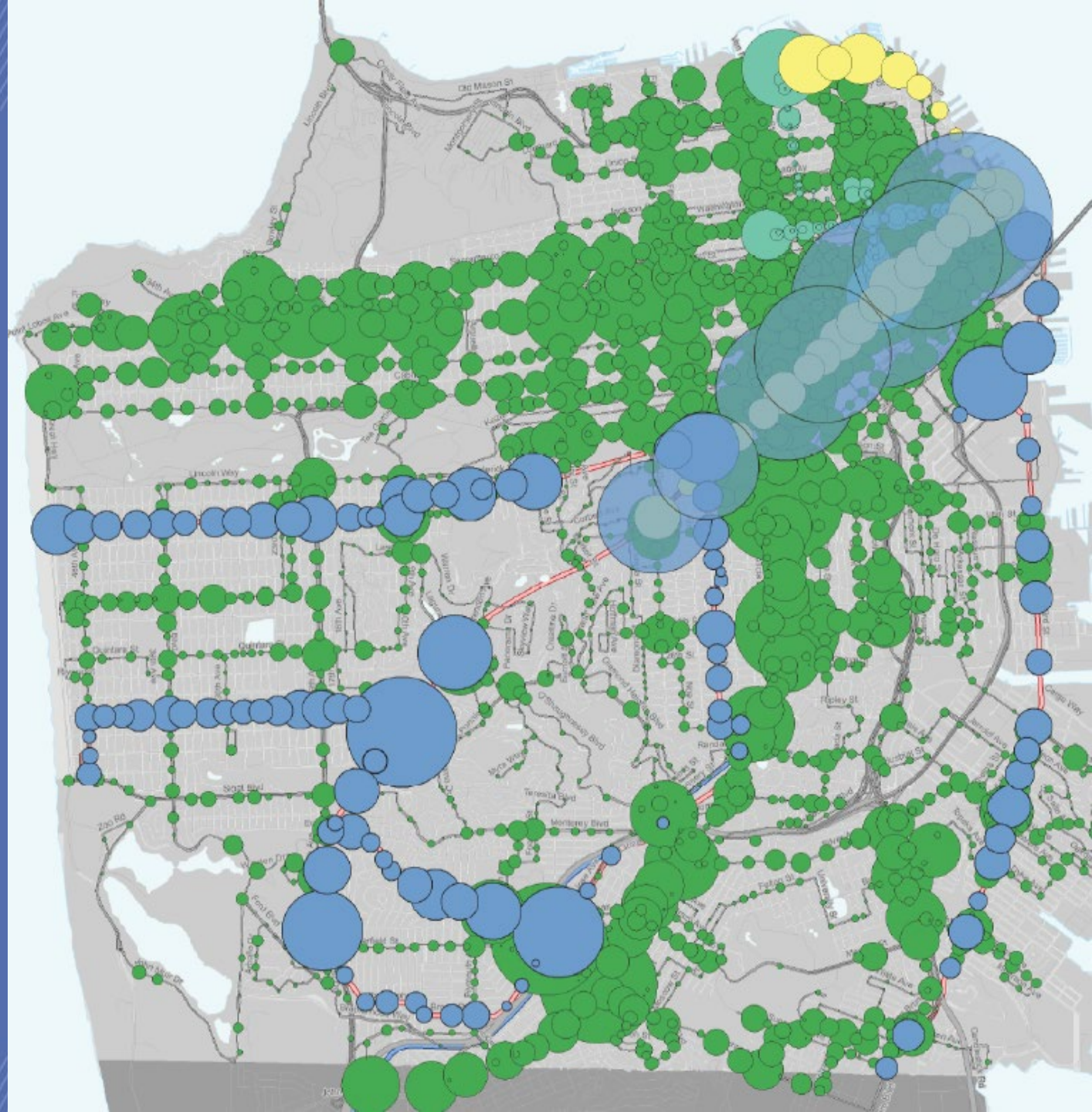
Organization

- SFMTA = transit operator + DOT
- Independent Board



Planning

- System restructure incl. capital elements



Engagement & Branding

MUNIFORWARD

We heard you

*Delivering more service
on more lines every day*



**GET ON
BOARD**
MUNIFORWARD.COM

Funding

PROPOSITION A

*Will Improve Pedestrian Safety,
Make Muni More Reliable and Reduce Congestion
— Without Raising Taxes*



VOTE

YES ON A

KEEP SF MOVING

Approval

San Francisco Chronicle

LOCAL // BAY AREA & STATE

Muni gets best-yet satisfaction ratings in annual survey



Michael Cabanatuan

| Dec. 6, 2016

| Updated: Dec. 6, 2016 5:36 p.m.



SAN FRANCISCO

CITIES ▾

TOPICS ▾

NEIGHBORHOODS

SAN FRANCISCO TRANSPORTATION

70% of riders say they're happy with Muni

That's an all-time record, and probably a surprise for anyone who rides Muni

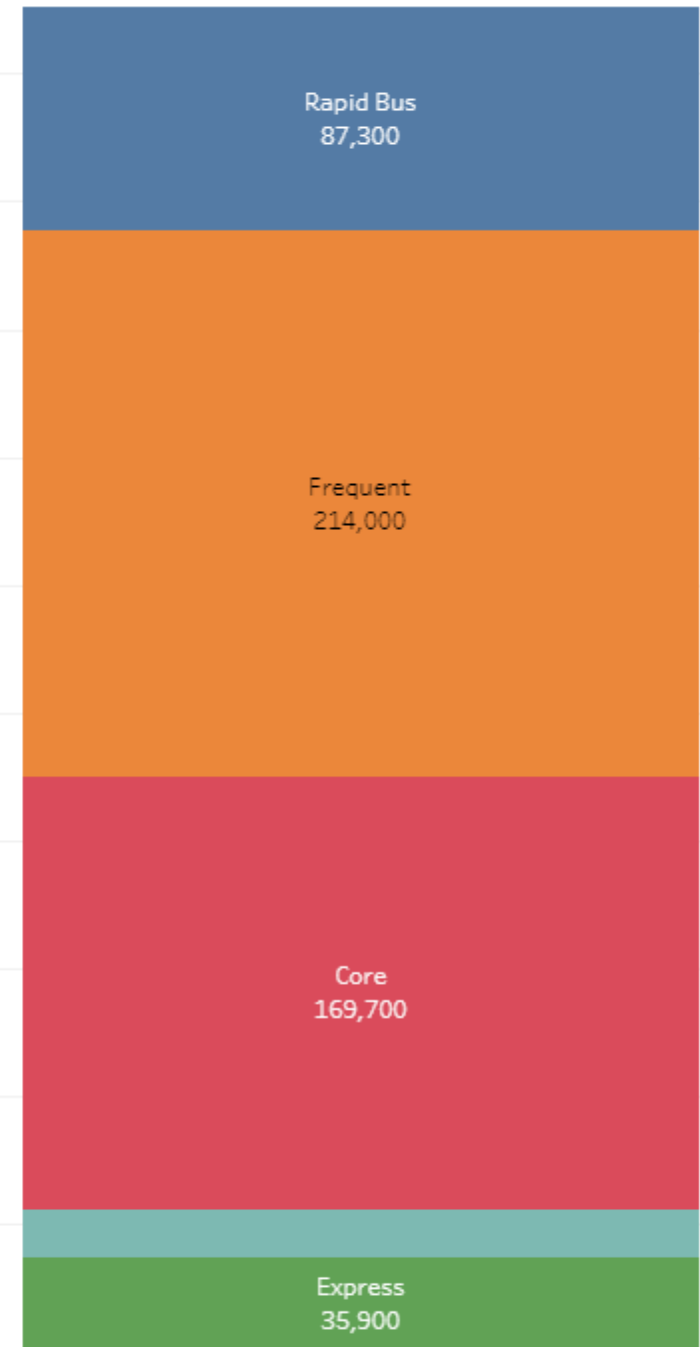
By Adam Brinklow | Dec 6, 2016, 2:28pm PST

Ridership

- Rapid bus ridership > 22% in 3 years
- ... at same time ridership decreasing elsewhere



Fall 2015



Fall 2018

Bayshore Corridor (Up 11%)



■ 8BX-Bayshore B Express
■ 8-Bayshore
■ 8AX-Bayshore A Express

Geary Corridor (Up 6%)



■ 38-Geary
■ 38R-Geary Rapid
■ 38BX-Geary B Express
■ 38AX-Geary A Express

Mission/Van Ness Corridor (Up 11%)



■ 14-Mission
■ 14R-Mission Rapid
■ 49-Van Ness/Mission
■ 47-Van Ness
■ 14X-Mission Express

Case Studies: 3rd, Church

- First-generation red lanes (2014)



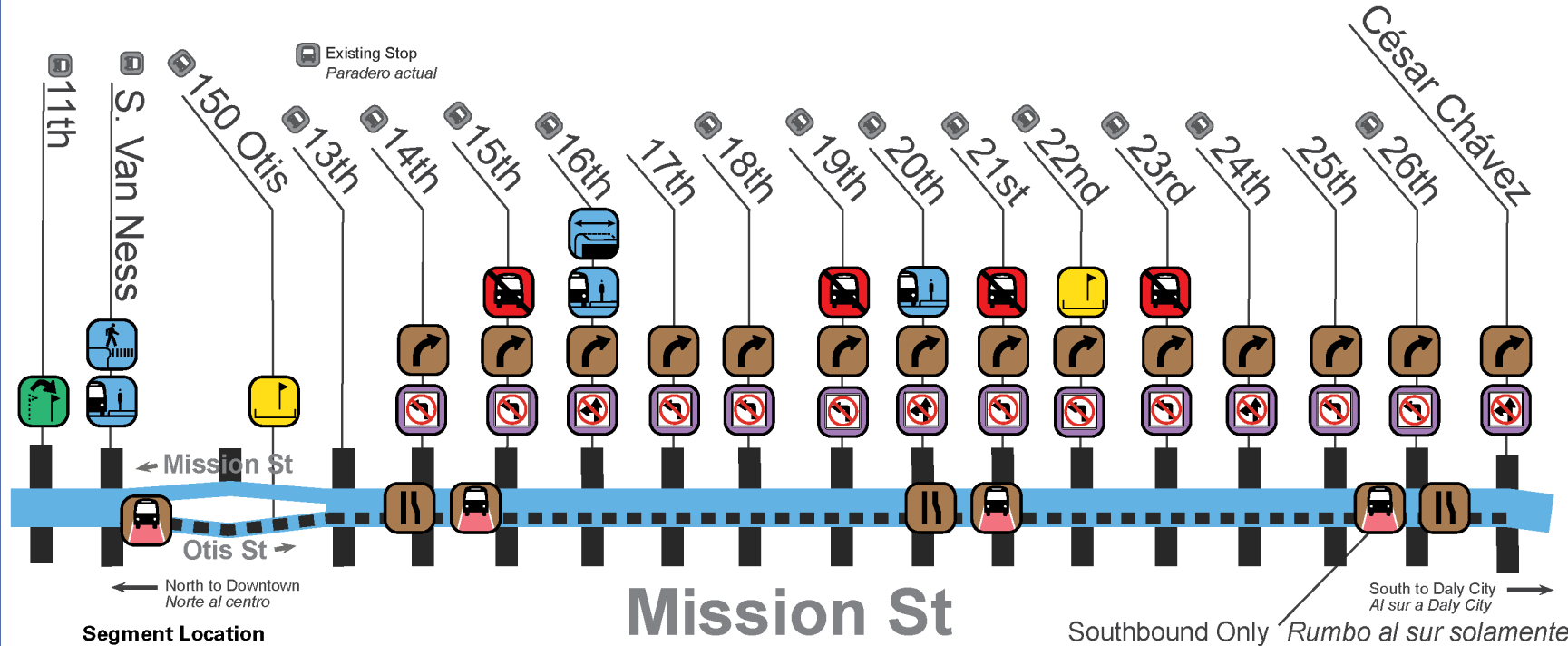
Case Study: Mission

- Perceived time savings: 10 mins

14/14R Mission

MUNI FORWARD

Proposal Summary: 11th St to Cesar Chávez



Summary of Proposals | Resumen de propuestas



New Pedestrian Bulbs
Nuevas salientes de la acera para peatones

New Transit Bulbs
Nuevas salientes de la acera para el transporte público

Extend Transit Bulbs
Extender las salientes de la acera para el transporte público

Stop Removal
Eliminación de paradero

New Turn Pockets
Nuevos espacios para voltear

Lane Reduction
(from 4 lanes to 3 lanes)
Reducción de carriles
(de 4 carriles a 3 carriles)

Transit-Only Lane
(southbound only)
Carril exclusivo para el transporte público
(rumbo al sur solamente)

Right Turn Only (northbound) & No Left Turn (southbound)
Solo para voltear a la derecha (rumbo al norte) y No voltear a la izquierda (rumbo al sur)

Convert Bulb to Bus Zone
Convertir una saliente en zona para autobuses

No Left Turn (both directions)
No voltear a la izquierda (ambas direcciones)

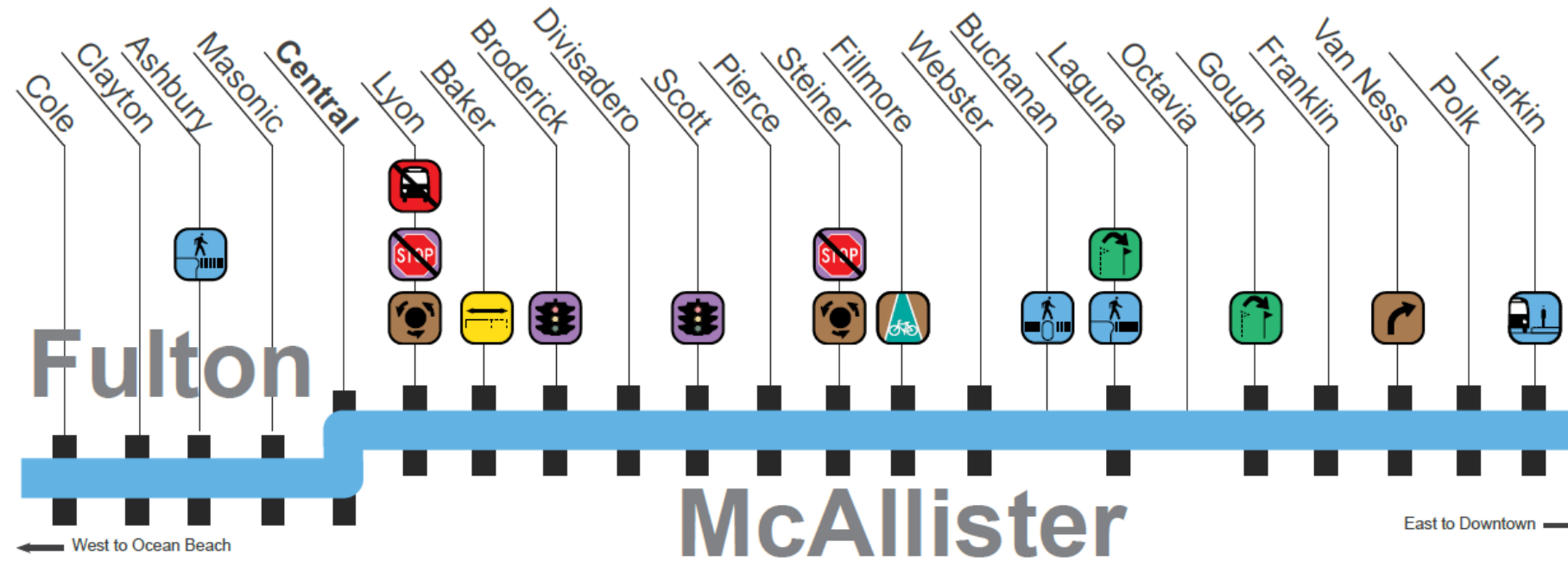
Case Study: Fulton

- Ridership increase: 60%

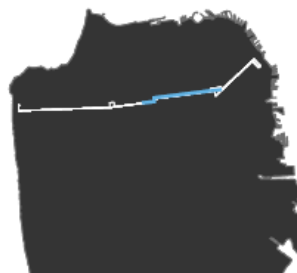
5 / 5 R Fulton Rapid Project

MUNI FORWARD

Proposal Summary: Cole to Larkin



Segment Location



Summary of Proposals

Stop Relocation	New Pedestrian Bulbs	Bicycle Improvement
New Transit Stop	New Transit Bulbs	New Traffic Signal
Remove Transit Stop	New Right Turn Pocket	New Traffic Circle
New Pedestrian Island and Flashing Beacon	Extended Bus Zone	Remove Stop Signs

Rolling Out the Red Carpet

- Preformed thermoplastic vs. epoxy-modified acrylic spray
- Both durable (5+ yrs), good friction
- Thermoplastic 3-4x costlier but faster to install



Thank You

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