# **Appendices - Peninsula Shuttle Study**

**Appendix A: SMCTA-C/CAG Shuttle Call for Projects Update** 

**Appendix B: City Shuttle Profiles** 

**Appendix C: Route Ridership Profiles** 

**Appendix D: Shuttle Program Data** 

# Appendix A. SMCTA-C/CAG Shuttle Call for Projects Evaluation Update

Table A-1. Previous Call for Projects Evaluation Criteria

Criteria	Description	Percentage of Score (Existing Routes   New Routes)
Need	Provides service to an area underserved by other public transit Provides congestion relief in San Mateo County Provides transportation services to special populations (e.g. low income/transit dependent, seniors, disabled, other) and connects to the services used by these populations Letters of support from stakeholders	20%   25%
Readiness	<ul> <li>Solid service plan in place describing how the shuttle service will be delivered for the 2-year funding period including:</li> <li>Service area (routes/maps, destinations served)</li> <li>Service plan development</li> <li>Specific rail stations, ferry or major SamTrans transit centers served</li> <li>Schedule (days, times, frequency) - show coordination with scheduled transit service</li> <li>Marketing plan/activities (advertising, outreach, signage, etc.)</li> <li>Service Provider</li> <li>Administration and oversight (whom?)</li> <li>Monitoring/evaluation plan/activities (performance data, complaints/compliments, surveys)</li> <li>Co-sponsors/stakeholders (roles?)</li> <li>Ridership characteristics: e.g. commuter/ employees, seniors, students, etc</li> <li>Any significant changes to existing service</li> <li>Incorporation of any changes to the service plan as a result of the required technical assistance consultation with SamTrans operations planning or Commute.org staff for existing underperforming shuttles</li> <li>Planning process for shuttles, including actions taken as a result of the required technical assistance consultation with SamTrans operations planning or Commute.org staff for new shuttles</li> <li>Solid funding plan with budgeted line items for:</li> <li>Contractor (operator/vendor) cost. (inc. fuel surcharge if applicable)</li> </ul>	15%   25%

**Table A-1. Previous Call for Projects Evaluation Criteria** 

Criteria	Description	Percentage of Score (Existing Routes   New Routes)
	<ul> <li>Administrative (Staff oversight)</li> <li>Other direct costs (e.g. marketing)</li> <li>Total operating cost</li> <li>Notes/exceptions (e.g. projected differences between the 1st/2nd year costs)</li> </ul>	
Effectiveness	Annual average operating cost per passenger for the prior 12 months  Annual average passengers per revenue vehicle hour of service for the prior 12 months  Projected ridership, operating costs, and revenue vehicle hours of shuttle service to be provided in the first and second years of shuttle service. (State assumptions and document justification where possible)  Service links with other fixed route transit (more points for higher ridership routes)  Improves access from transit oriented development to major activity nodes  Reduces single occupant vehicle (SOV) trips and vehicle miles traveled (VMT), state assumptions and methodology used for Any calculations	35%   15%
Funding Leverage	Shuttles w/ min. 25% match requirement:  • 25 to < 50% - 5 to 10 points  • 50 to < 75% - 10 to 15 points  • 75 or greater - 15 to 18 points  Shuttles w/ min. 50% match requirement:  • 50% or greater - 5 to 10 points  Private sector funding proposed (supports less public subsidy) – 2 points	20%   20%
Policy Consistency	Proposed shuttle is included in an adopted local, special area, county or regional plan (e.g. community-based transportation plan, general plan, Grand Blvd. Initiative, MTC Priority Development Area, etc.) Supports jobs and housing growth/economic development Use of clean fuel vehicle(s) for service Shuttle accommodates bicycles	10%   15%

Source: Fehr & Peers, 2021

Table A-2. Updated Shuttle Evaluation Criteria

Criteria	Description	Grading		Total Points
Equity				25 points
Serves residents in a SamTrans Equity Zone	Shuttle serves residents in an Equity Zone as identified by Reimagine SamTrans	No Yes	0 points 10 points	10 points
Serves lower income riders	Percent of riders potentially qualifying for very low income housing assistance	0% to 19% 20% to 39% 40% to 59% 60% to 79% 80% to 100%	2 points 4 points 6 points 8 points 10 points	10 points
Assessment of equity need	Staff review of how the proposed shuttle would serve low income communities, communities of color, seniors, or other vulnerable populations.	Scores up to 5 points based on rapplications	ankings of	5 points
First/Last Mile Need				25 points
Overlaps with existing bus and shuttle services	Staff review of proposed shuttle relative to existing bus or shuttle service in the proposed service area	Serves similar geographic area; similar span of service/headways; similar connections	0 points	
		Serves similar geographic area but more or substantially different service (e.g. more frequent peak period service)	5 points	10 points
		Does not serve similar geographic area & provides new or substantially different service	10 points	
Leverages matching funds	1 point for meeting the minimum match amount; 1 point for each additional match tier	25 to 29% match 30 to 34% match 35 to 39% match 60 to 64% match 65 to 70% match More than 70% match	1 point 2 points 3 points 8 points 9 points 10 points	10 points
Assessment of first/last mile need	Staff review of how the proposed shuttle would address first/last mile gaps between regional transit and employment centers, residential areas, and/or activity centers	Scores up to 5 points based on rapplications	ankings of	5 points

Table A-2. Updated Shuttle Evaluation Criteria

Criteria	Description Grading			Total Points
Ridership Need				50 points
Daily ridership	Based on ridership data from the previous six months	Scores up to 10 points based on rapplications	ankings of	10 points
Productivity	Passengers per revenue hour, based on ridership and service data from the previous six months	Scores up to 10 points based on rapplications	ankings of	10 points
Cost efficiency	Net subsidy per passenger for TA-C/CAG funds, based on data from previous six months. Calculation excludes matching funds.	Scores up to 10 points based on rapplications	ankings of	10 points
VMT reduction	Shuttles reduce vehicle miles traveled	Scores up to 10 points based on rapplications	ankings of	10 points
Assessment of ridership growth potential	Staff review of a shuttle's potential to grow ridership.	Scores up to 10 points based on rapplications	ankings of	10 points
Bonus				Up to 10 points
		Less than 60% of stops located on-street with sidewalk access	0 points	
Sidewalk connectivity	Most shuttle stops are provided on-street/in public right-of-way connected to sidewalks	60 to 79% of stops located on- street with sidewalk access	2 points	4 Points
	connected to sidewalks	More than 80% of stops located on-street with sidewalk access	4 points	
Off-peak service	Shuttle provides off-peak service (i.e., midday)	Service is provided outside of typical peak periods from 6am- 10am and 3pm-7pm and shuttle provides greater than 8 hours of service per day	4 points	4 points
Clean fuel vehicles	Shuttle does not use diesel, gasoline, or natural gas	Clean fuel vehicles are used	1 point	1 point
Private sector match	Shuttle includes private sector match	Private sector match is included	1 point	1 point

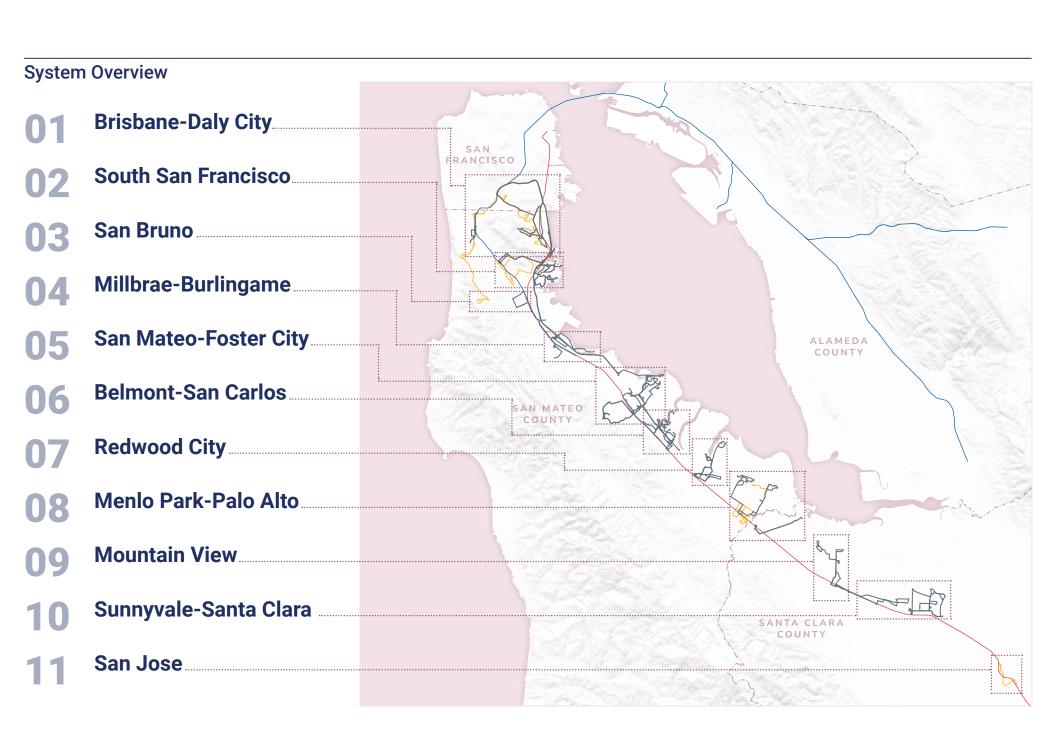
Source: Fehr & Peers, 2021

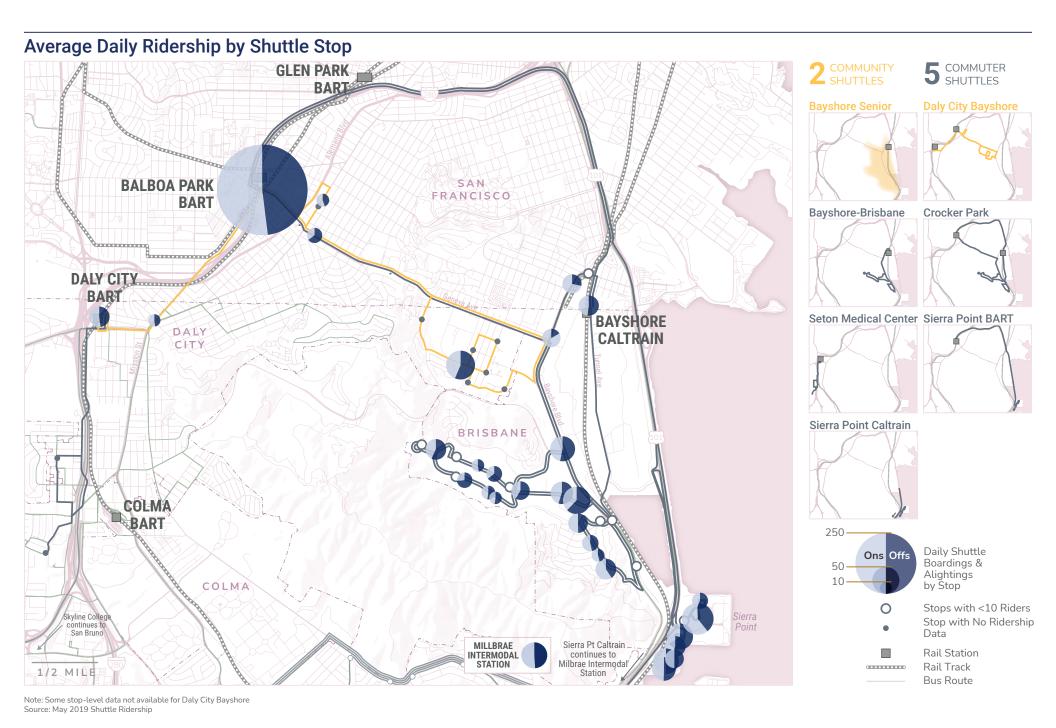
# **Appendix B: City Shuttle Profiles**

The following city profiles illustrate shuttle ridership patterns, performance metrics, and demographics along with near-term changes to regional transit service and development activity.

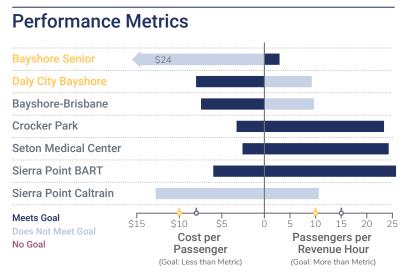
Key topics covered in these profiles include:

- Each shuttle has a different management structure and funding mix.
- Some shuttles are more ridership-oriented (linear, highly productive, serving key residential and employment hubs) while others are more coverage-oriented (circuitous, less productive, often serving stops with few or no riders). Some have experienced substantial ridership losses in recent years, while others have seen steady gains.
- Shuttles operate in a range of operating environments, some of which do not include access to sidewalks and marked stops.
- Shuttles serve different types of riders and trip purposes.
- A few shuttle service areas are expected to grow substantially in the near-term (such as Brisbane, South San Francisco, Redwood City, Mountain View, Sunnyvale, and Santa Clara) while others have less development in the pipeline. Planned changes in Caltrain service levels similarly vary by station and will affect shuttles differently.



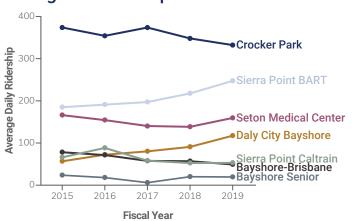


Shuttle Overvi	ew			Serv	ice Levels		Funding Sources	
Shuttle Route	Avg. Daily Ridership	Manager	Sponsor	Trips	Weekday Span of	Service	Employers SMCTA TFCA Caltrain SamTrans City Funds	Employer Funded %
Bayshore Senior	19	SamTrans	SamTrans	On- Demand				0%
Daly City Bayshore	117	SamTrans	City of Daly City	23	0 00 00 00	$\infty$		0%
Bayshore-Brisbane	49	Commute.org	Caltrain	8	00 0 0	0000		0%
Crocker Park	332	Commute.org	Commute.org	16	0000000	00 0000 0		25%
Seton Medical Center	159	Seton	SamTrans	20	0000000000	00000000000000000		28%
Sierra Point BART	247	Sierra Point Owners Assn.	SamTrans	15	000000000	000000000		75%
Sierra Point Caltrain	53	Sierra Point Owners Assn.	Caltrain	10	00000	0 0 0 0 0		69%
Total Ridership:	976				6 AM 8 AM 10 AM  AM Peak	12 PM 2 PM 4 PM 6 PM 8 PM Midday PM Peak	\$0 \$100K \$200K \$300K \$400K Annual Funding	



Crocker Park, Seton Medical Center, and Sierra Point BART were among the best performing shuttle routes in the program. Routes to BART stations tended to outperform routes to Caltrain stations.

### **Change in Ridership Over Time**



Overall, ridership stayed relatively consistent over the past five years. The Sierra Point BART and Daly City Bayshore shuttles experienced sustained growth over time, while ridership fell on other routes in the area.

### **Key Statistics**





**change** in shuttle **ridership** since 2015





of stops have more than **20 daily boardings & alightings** 





of stops are located **on-street** 





of stops have sidewalk access





of stops have a **shuttle sign** 



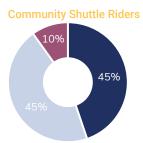


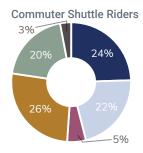
of trips have more than **10 riders on-board** 

# **Brisbane-Daly City**

### **Shuttle Rider Profile**

### **County of Residence**

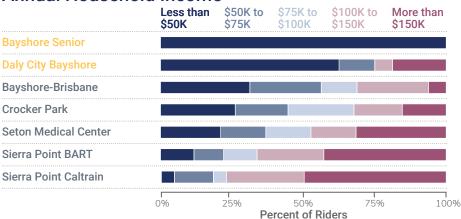




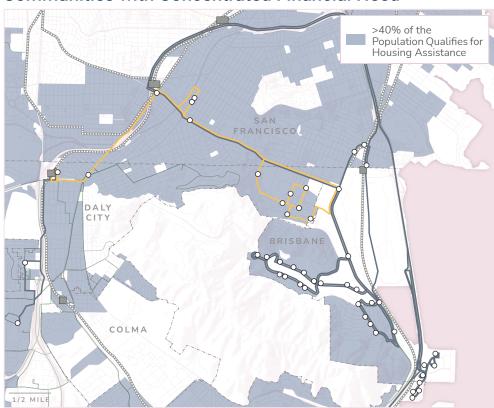
### San Mateo San Francisco

Santa Clara Alameda Contra Costa Other

### **Annual Household Income**



### **Communities with Concentrated Financial Need**



Note: Households qualify for housing assistance if they earn less than 400% of the federal poverty level

Trip Purpose			Rider Feedback: Priorities for Improvement				
	Percent Work Trips	Top Destinations and Sectors	Frequency	Reliability	Service Hours	Transfer Timing	Travel Time
Bayshore Senior		Shopping	_	_	_	_	_
Daly City Bayshore		Lee Mah Electronics					
Bayshore-Brisbane		Shopping, School					
Crocker Park		Birite Foodservice	•	•			
Seton Medical Center		Seton Medical Center					
Sierra Point BART		UCSF, Pharmaceutical, Biotech	•		•		
Sierra Point Caltrain		Pharmaceutical, Biotech					

### **New Developments**

(Approved or In Progress, Nov. 2019)

- Office Development
- Residential
   Development





### Within 1/2 Mile of a Shuttle Stop

	Existing	Growth	Change
Jobs:	20,200	5,400	+27%
Population:	94,500	9,300	+10%

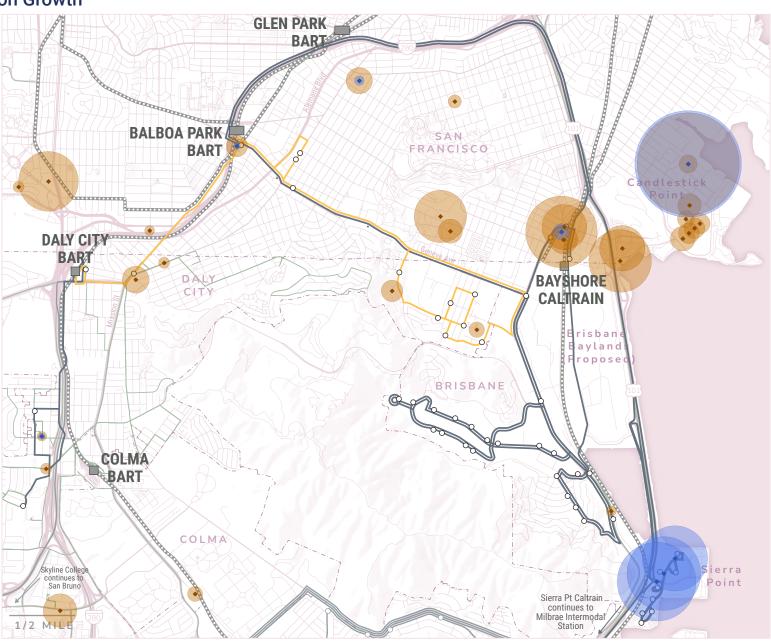
Other Nearby Growth

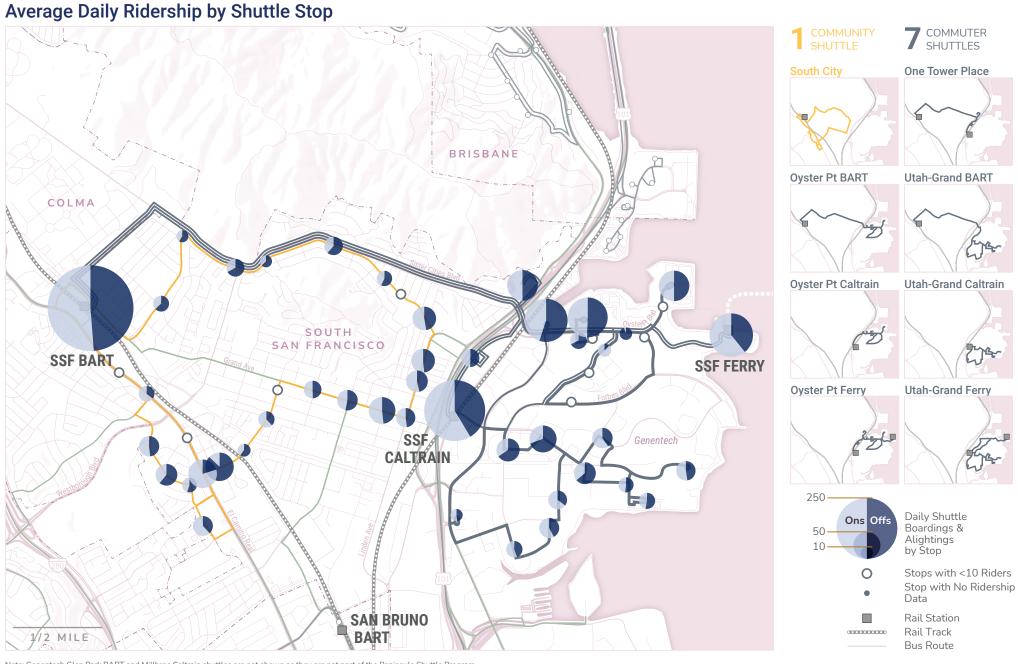
**Jobs:** 3,800 **Population:** 12,900

### **Peak Hour Service Levels**

(Trains per Hour)

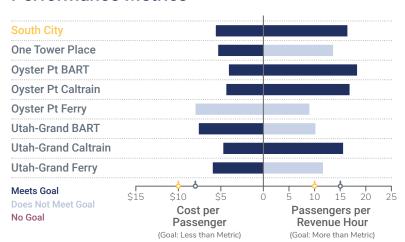
(Trains per 110	ai)	
	Existing	Future
Bayshore Caltrain	1	2 (Early 4 (Late 2020s)
Glen Park BART	20	20
Balboa Park BART	20	20
Daly City BART	20	20
Colma BART	8	8





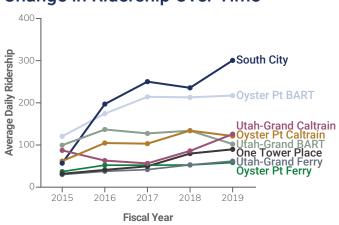
Shuttle Overview		Serv	vice Levels		Funding Sources			
Shuttle Route	Avg. Daily Ridership	Manager	Sponsor	Trips	Weekday Span of Se	ervice	Employers SMCTA TFCA Caltrain SamTrans City Funds	Employer Funded %
South City	301	City of SSF	City of SSF	28				0%
One Tower Place	90	Commute.org	Commute.org	12	00000	00000		50%
Oyster Pt BART	217	Commute.org	Commute.org	18	0 00000000	000000		25%
Oyster Pt Caltrain	121	Commute.org	Commute.org	14	00000	∞ 00000		25%
Oyster Pt Ferry	58	Commute.org	Commute.org	7	0000	0 0 0		40%
Utah-Grand BART	102	Commute.org	Commute.org	15	0000000	000000	<b>I</b>	25%
Utah-Grand Caltrain	126	Commute.org	Commute.org	15	0 0 0000 00	∞ 00000		25%
Utah-Grand Ferry	62	Commute.org	Commute.org	7	00 00	0 0 0		40%
Total Ridership: Other Nearby Shuttles:		h Glen Park BART h Millbrae Caltrain			6 AM 8 AM 10 AM :	12 PM 2 PM 4 PM 6 PM 8 PM  Midday PM Peak	\$0 \$100K \$200K \$300K \$400K Annual Funding	•

### **Performance Metrics**



Half of South San Francisco's shuttle routes met both performance goals. A majority of East of 101 area riders used Genentech's Glen Park BART and Millbrae Caltrain shuttles in lieu of Commute.org's services.

### **Change in Ridership Over Time**



Ridership steadily increased across all routes. Significant employment growth is expected to further increase ridership in the next five years. The South City Shuttle saw substantial ridership gains since increasing service in 2018.

### **Key Statistics**



**change** in shuttle **ridership** since 2015



of stops have more than 20 daily boardings & alightings





of stops are located **on-street** 





of stops have sidewalk access





of stops have a **shuttle sign** 



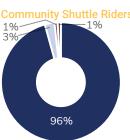


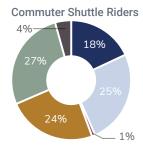
of trips have more than 10 riders on-board

# **South San Francisco**

### **Shuttle Rider Profile**

### **County of Residence**

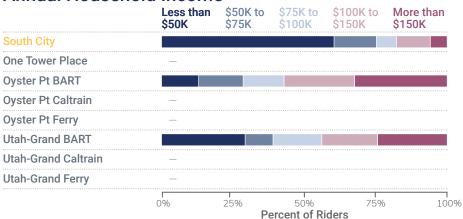




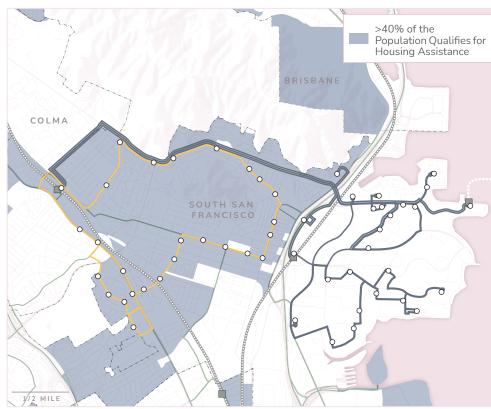
### San Mateo

San Francisco Santa Clara Alameda Contra Costa Other

### **Annual Household Income**



### **Communities with Concentrated Financial Need**



Note: Households qualify for housing assistance if they earn less than 400% of the federal poverty level

### **Trip Purpose**

Trip i dipooc			itiac
	Percent Work Trips	Top Destinations and Sectors	Freque
South City		_	
One Tower Place	_	_	
Oyster Pt BART		Amgen	
Oyster Pt Caltrain	_	Amgen	
Oyster Pt Ferry	_	Pharmaceutical, Biotech	
Utah-Grand BART		Genentech	
Utah-Grand Caltrain	_	_	
Utah-Grand Ferry	_	_	_

### Rider Feedback: Priorities for Improvement

' '	-		Transfer Timing		
			•		
_	_	_	_	_	

New Developments (Approved or In Progress, Nov. 2019)

Office Development

Residential Development





### Within 1/2 Mile of a Shuttle Stop

	Existing	Growth	Change
Jobs:	45,100	24,800	+55%
Population:	41,300	4,000	+10%

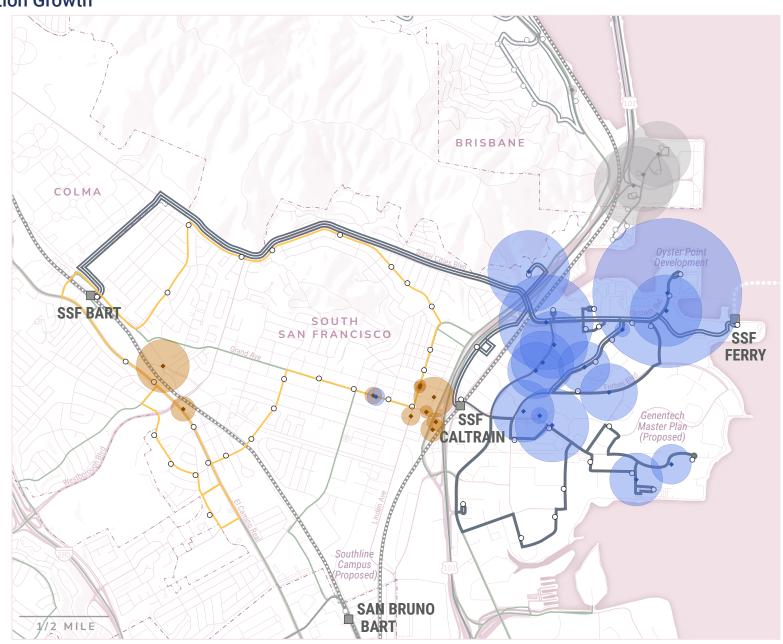
Other Nearby Growth

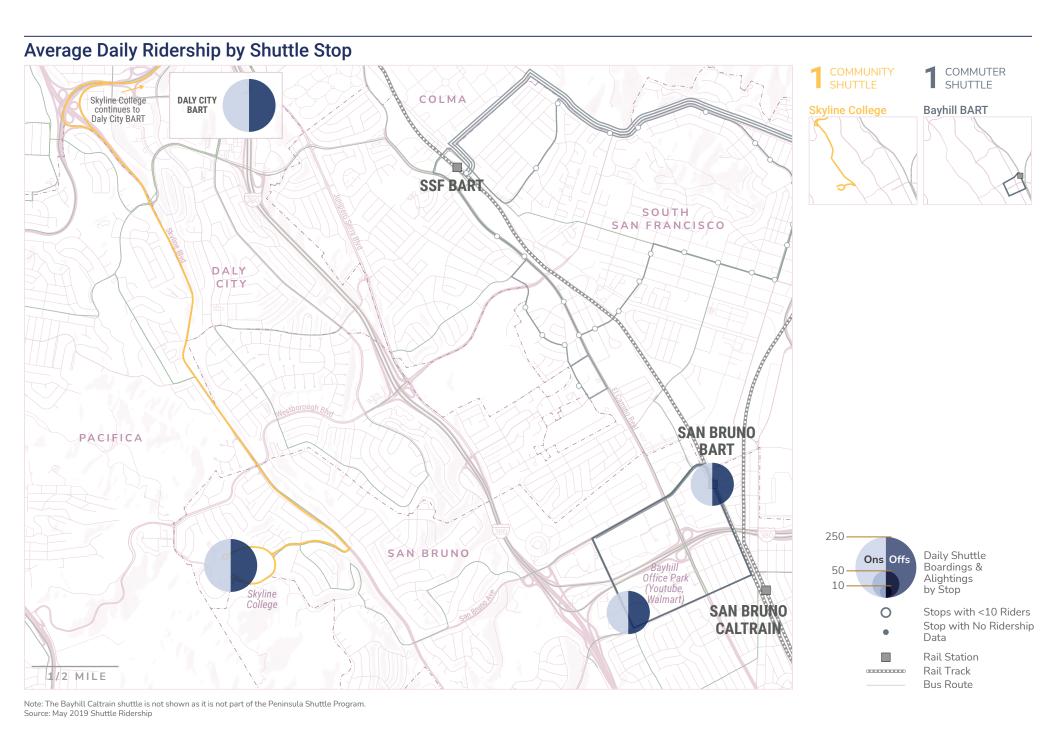
Jobs: Population: 0

### **Peak Hour Service Levels**

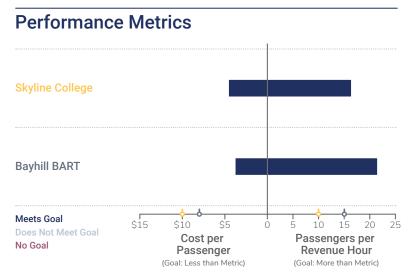
(Trains or Boats per Hour)

(Trains or Doa	co per mour,	
SSF Caltrain	Existing 2 (Peak Direction) 1 (Reverse Peak)	<b>Future</b> 4 (Early 2020s) 8 (Late 2020s)
SSF BART	8	8
San Bruno BART	8	8
SSF Ferry	1	2 (Mid 2020s)



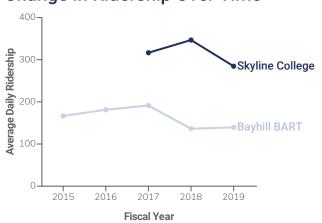


Shuttle Overvio	ew			Serv	ice Levels	Funding Sources
Shuttle Route	Avg. Daily Ridership	Manager	Sponsor	Trips	Weekday Span of Service	Employers SMCTA TFCA Employer Caltrain SamTrans City Funds Funded %
Skyline College	284	Skyline College	San Mateo Community College District	11	• • • • • • • • •	50%
Bayhill BART	139	Walmart eCommerce	SamTrans	23	()))))))))))))))))))))))))))))))))))))	33%
Total Ridership: Other Nearby Shuttles:		altrain (126 riders)			6 AM 8 AM 10 AM 12 PM 2 PM 4 PM 6 PM  AM Peak Midday PM Peak	8 PM \$0 \$100K \$200K \$300K \$400K  Annual Funding



Each shuttle serving San Bruno exceeded both performance goals. The Bayhill BART shuttle was among the best performing shuttles in the program despite a relatively small share of ridership from the area's largest employer, YouTube.

### **Change in Ridership Over Time**



Ridership declined on both routes. However, the proposed Bayhill Specific Plan has the potential to increase ridership demand over time.

### **Key Statistics**





**change** in shuttle **ridership** since 2015





of stops have more than **20 daily boardings & alightings** 





of stops are located **on-street** 





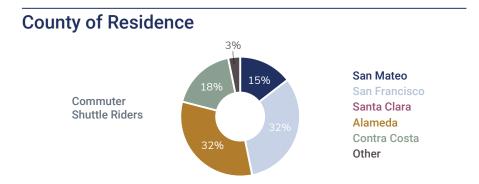
of stops have sidewalk access

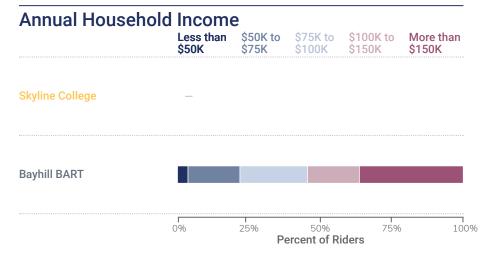




of stops have a **shuttle sign** 

### **Shuttle Rider Profile**







# **Communities with Concentrated Financial Need**



Note: Households qualify for housing assistance if they earn less than 400% of the federal poverty level

### Rider Feedback: Priorities for Improvement

Frequency	Reliability	Service Hours	Transfer Timing	Travel Time
riequency	Reliability	Service Hours	Transier infilling	IIavei IIIIie

**Skyline College** 

**Bayhill BART** 



Walmart









New Developments (Approved or In Progress, Nov. 2019)

- Office Development
- Residential Development





### Within 1/2 Mile of a Shuttle Stop

	Existing	Growth	Change
Jobs:	6,100	200	+3%
Population:	8,800	100	+1%

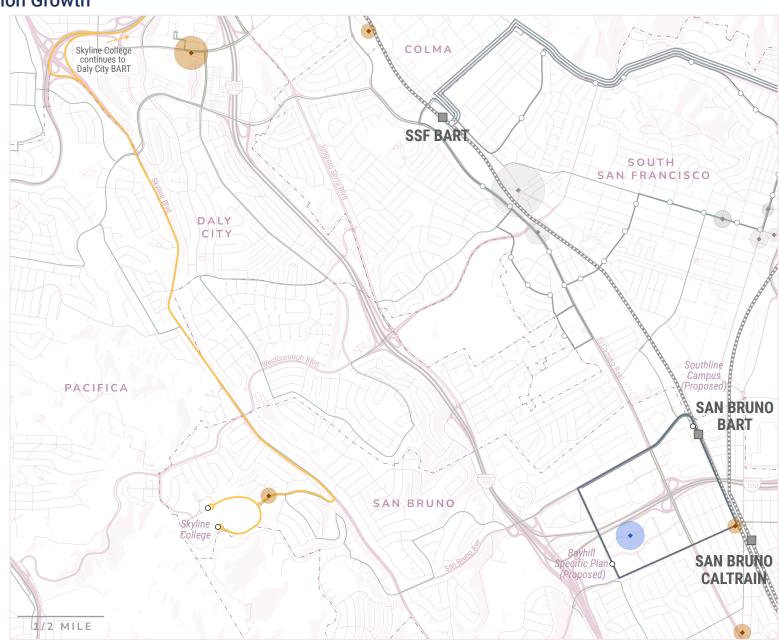
Other Nearby Growth

Jobs: Population: 300

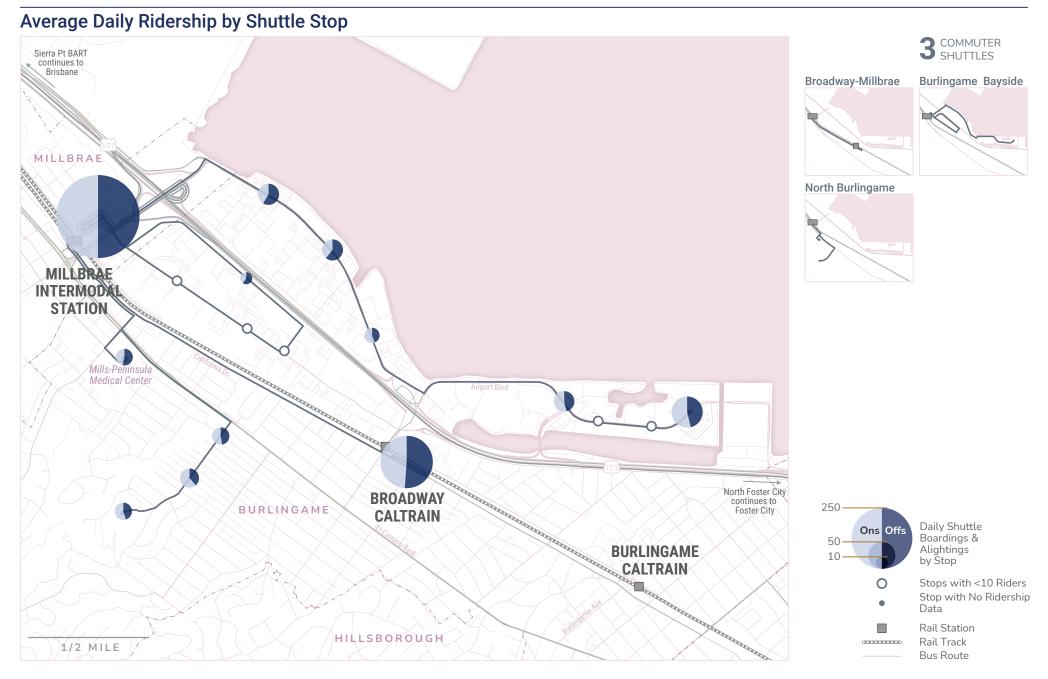
### **Peak Hour Service Levels**

(Trains per Hour)

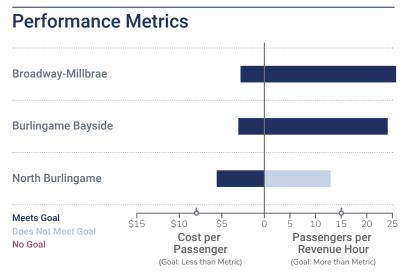
	Existing	Future	
San Bruno Caltrain	2	2 (Early 4 (Late 2020)	s)
San Bruno BART	8	8	



# Millbrae-Burlingame

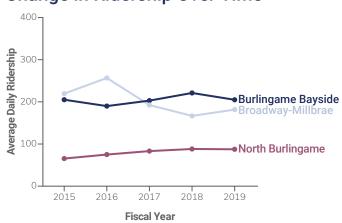


Shuttle Overvi	ew			Service Levels			Funding Sources	
Shuttle Route	Avg. Daily Ridership	Manager	Sponsor	Trips	Weekday Span of Service	3	Employers SMCTA TFCA Caltrain SamTrans City Funds	Employer Funded %
Broadway-Millbrae	182	Caltrain	Caltrain	42				0%
Burlingame Bayside	205	Commute.org	Caltrain	17	0 0000000	00000000		0%
North Burlingame	87	Commute.org	Commute.org	16	000 00 000	0000000		0%
Total Ridership:	474			-	6 AM 8 AM 10 AM 12 PM  AM Peak Mid	l 2PM 4PM 6PM 8PM day PM Peak	\$0 \$100K \$200K \$300K \$400K <b>Annual Funding</b>	<u> </u>



Broadway-Millbrae and Burlingame Bayside were among the best performing routes in the shuttle program, while the North Burlingame route did not meet either performance goal.

### **Change in Ridership Over Time**



Ridership remained relatively constant over time. Approximately three-quarters of ridership was associated with BART trips, while one quarter was associated with Caltrain trips.

### **Key Statistics**





**change** in shuttle **ridership** since 2015





of stops have more than **20 daily boardings & alightings** 





of stops are located **on-street** 





of stops have sidewalk access





of stops have a **shuttle sign** 

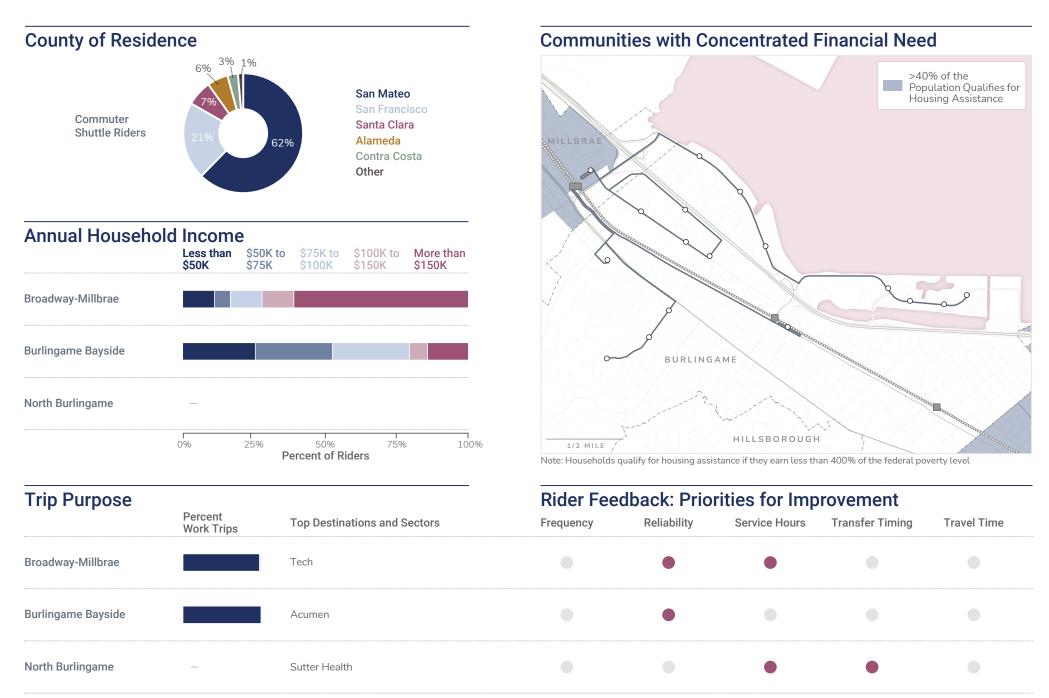




of trips have more than **10 riders on-board** 

# Millbrae-Burlingame

### **Shuttle Rider Profile**



### **New Developments**

(Approved or In Progress, Nov. 2019)

Office Development

Residential Development



1,000 Net New Residents 250 per Development

### Within 1/2 Mile of a Shuttle Stop

	Existing	Growth	Change
Jobs:	34,000	3,700	+11%
Population:	17,500	800	+5%

Other Nearby Growth

Jobs: 1,900 Population: 1,900

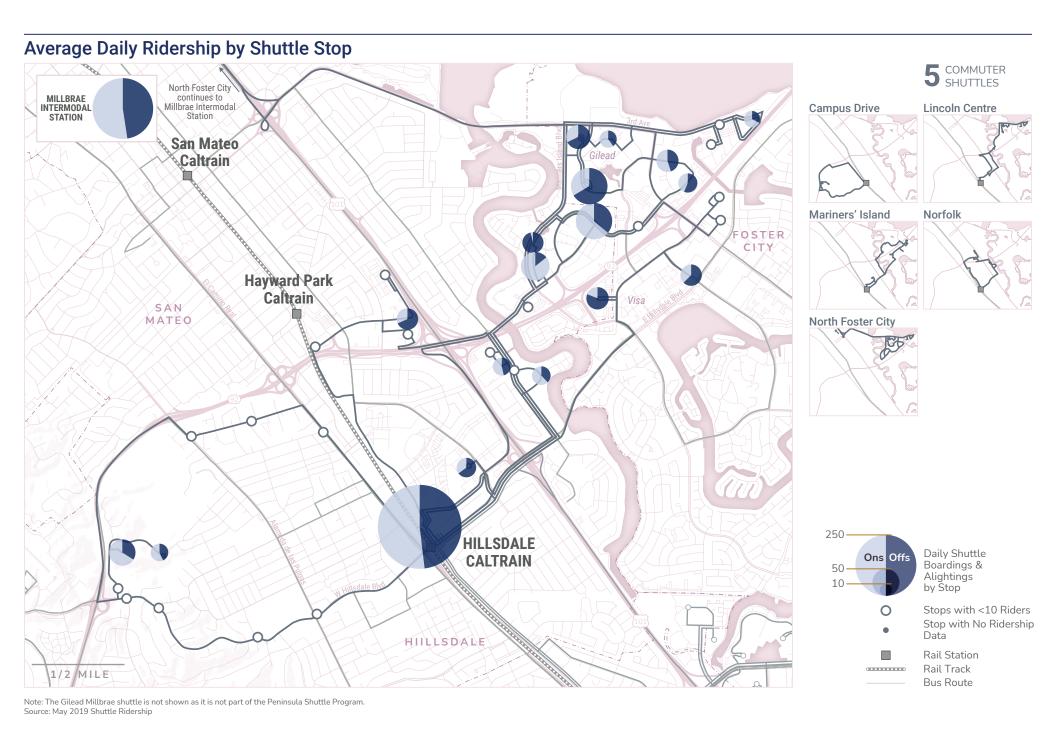
### **Peak Hour Service Levels**

(Trains per Hour)

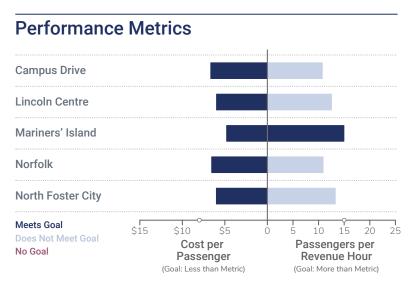
Millbrae Caltrain	Existing 4	Future 6 (Early 2020s)	8 (Late 2020s)
Broadway Caltrain	0	2 (Early 2020s)	2 (Late 2020s)
Burlingame Caltrain	2	2 (Early 2020s)	2 (Late 2020s)
Millbrae BART	4	4	



# San Mateo-Foster City

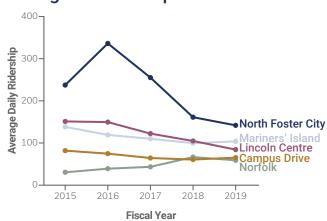


Shuttle Overvi	ew			Serv	rice Levels		Funding Sources	
Shuttle Route	Avg. Daily Ridership	Manager	Sponsor	Trips	Weekday Span of Servi	ce	Employers SMCTA TFCA Caltrain SamTrans City Funds	Employer Funded %
Campus Drive	65	Commute.org	Caltrain	10	∞∘∘∘	00 0 0 0		0%
Lincoln Centre	84	Commute.org	Caltrain	10	0000	00 0 0 0		25%
Mariners' Island	104	Commute.org	Caltrain	10	0000	0000		25%
Norfolk	59	Commute.org	Caltrain	11	<b>®</b> 0000	00000		25%
North Foster City	142	Commute.org	Commute.org	16	0000000	∞∞∞∞ 0		25%
Total Ridership: Other Nearby Shuttles:		altrain		-	6 AM 8 AM 10 AM 12 F AM Peak M	M 2 PM 4 PM 6 PM 8 PM idday PM Peak	\$0 \$100K \$200K \$300K \$400 Annual Funding	K



Only one route met both performance goals. A majority of shuttle stops serve fewer than 10 boardings and alightings per day.

### **Change in Ridership Over Time**



Ridership declined on all but one route over time. The North Foster City route experienced the most significant decline due to the introduction of competing service by Gilead, the area's largest employer.

### **Key Statistics**





**change** in shuttle **ridership** since 2015





of stops have more than **20 daily boardings & alightings** 





of stops are located **on-street** 





of stops have sidewalk access





of stops have a **shuttle sign** 

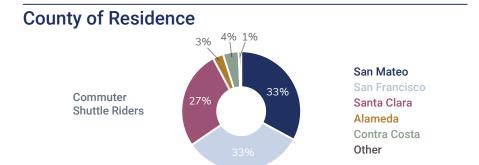


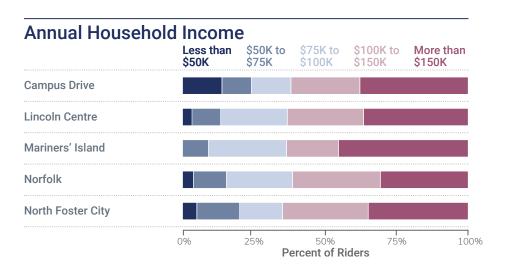


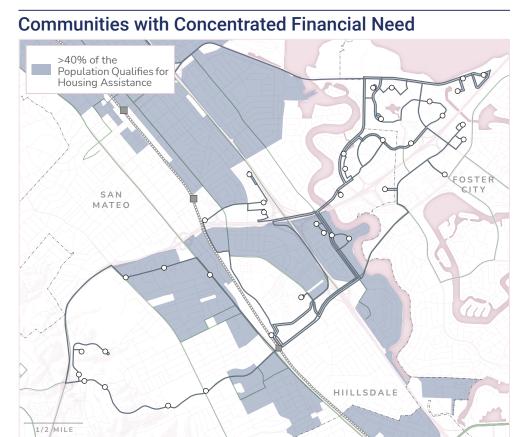
of trips have more than **10 riders on-board** 

# San Mateo-Foster City

### **Shuttle Rider Profile**







Note: Households qualify for housing assistance if they earn less than 400% of the federal poverty level

Trip Purpose			Rider Feedback: Priorities for Improvement				
	Percent Work Trips	Top Destinations and Sectors	Frequency	Reliability	Service Hours	Transfer Timing	Travel Time
Campus Drive		Biotech, Tech, Government	•			•	•
Lincoln Centre		Gilead Sciences, Tech	_	_	_	_	_
Mariners' Island		Tech	•		•		
Norfolk		Rakuten Medical, Exabeam	•	•			
North Foster City		Gilead Sciences	•	•			•

New Developments (Approved or In Progress, Nov. 2019)

Office Development

Residential Development





### Within 1/2 Mile of a Shuttle Stop

	Existing	Growth	Change
Jobs:	53,000	4,800	+9%
Population:	52,300	5,100	+10%

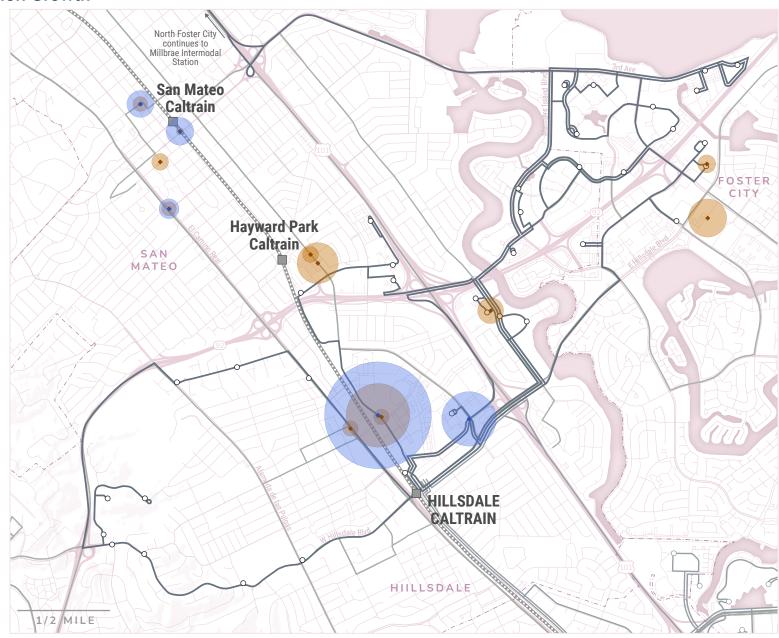
Other Nearby Growth

Jobs: 600 Population: 400

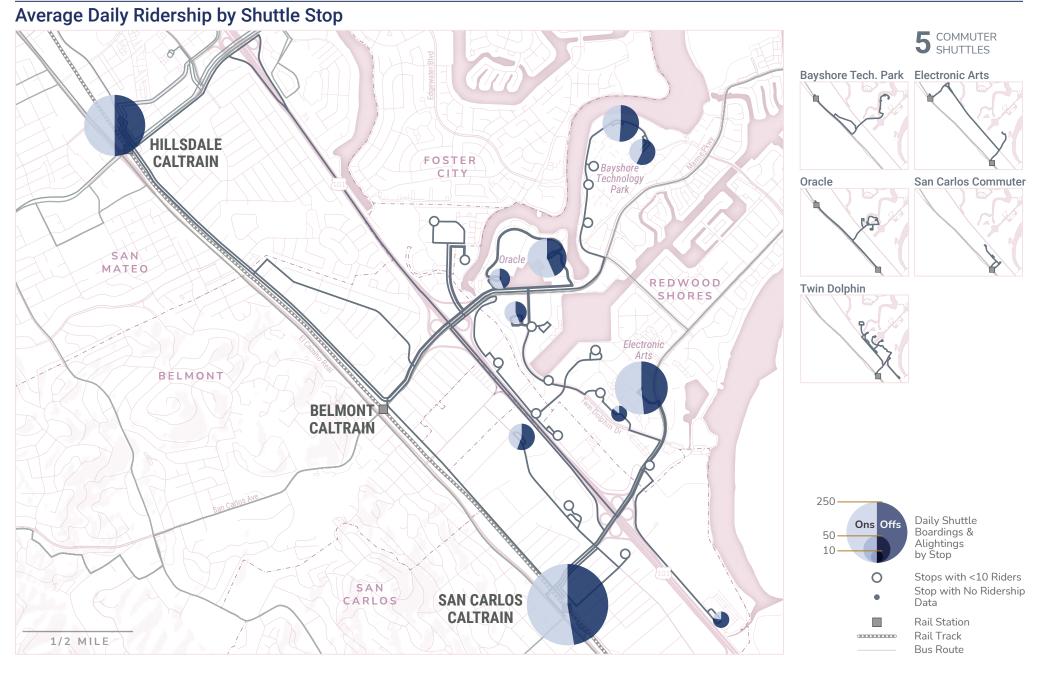
### **Peak Hour Service Levels**

(Trains per Hour)

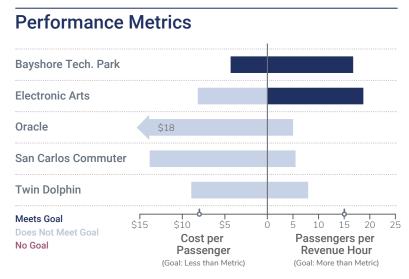
	Existing	Future
San Mateo Caltrain	3	4 (Early 8 (Late 2020s)
Hayward Park Caltrain	1	2 (Early 4 (Late 2020s)
Hillsdale Caltrain	4 (Peak Direction)	4 (Early 8 (Late 2020s)



# **Belmont-San Carlos**

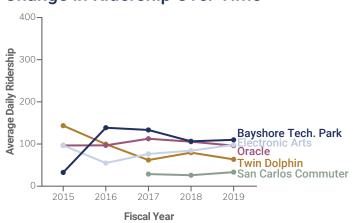


Shuttle Overview				Serv	ice Levels		Funding Sources	
Shuttle Route	Avg. Daily Ridership	Manager	Sponsor	Trips	Weekday Span of Service		Employers SMCTA TFCA Caltrain SamTrans City Funds	Employer Funded %
Bayshore Tech. Park	110	Commute.org	Commute.org	13	00000	000000		50%
Electronic Arts	98	Electronic Arts	Caltrain	15	∞ ∞ ∘ ∘	000 000000		62%
Oracle	96	Oracle	Caltrain	24	0000000000	00000000000		81%
San Carlos Commuter	33	Commute.org	City of San Carlos	19	00000000	<b>600 00000 00</b>		20%
Twin Dolphin	64	Caltrain	Caltrain	10	00000	0 0 0 0 0		25%
Total Ridership:	401				6 AM 8 AM 10 AM 12 PM AM Peak Midda	2 PM 4 PM 6 PM 8 PM ay PM Peak	\$0 \$100K \$200K \$300K \$400K Annual Funding	



Four of five routes did not meet both performance goals; however, employer contributions by Oracle and Electronic Arts are amongst the highest in the shuttle program. A majority of shuttle stops serve fewer than 10 boardings and alightings per day.

### **Change in Ridership Over Time**



Ridership was relatively constant over time with the exception of the Twin Dolphin route. This is due in part to service cuts.

### **Key Statistics**





**change** in shuttle **ridership** since 2015





of stops have more than **20 daily boardings & alightings** 





of stops are located **on-street** 





of stops have sidewalk access





of stops have a **shuttle sign** 

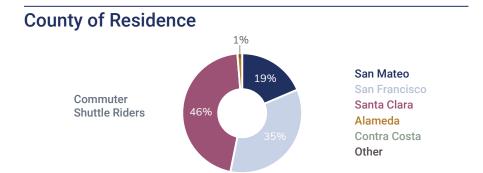


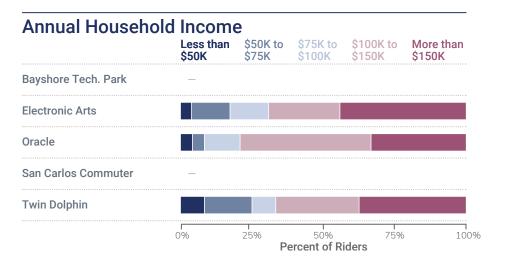


of trips have more than **10 riders on-board** 

# **Belmont-San Carlos**

### **Shuttle Rider Profile**





# Communities with Concentrated Financial Need >40% of the Population Qualifies for Housing Assistance REDWOOD SHORES SAN CARLOS

Note: Households qualify for housing assistance if they earn less than 400% of the federal poverty level

Trip Purpose			Rider Feedback: Priorities for Improvement					
	Percent Work Trips	Top Destinations and Sectors	Frequency	Reliability	Service Hours	Transfer Timing	Travel Time	
Bayshore Tech. Park	_	Shutterfly, Proteus Digital Health						
Electronic Arts		Electronic Arts, Poshmark, Auris Health				•		
Oracle		Oracle				•		
San Carlos Commuter	_	Sutter Health, Natera		•				
Twin Dolphin		MarkLogic	•		•		•	

### **New Developments**

(Approved or In Progress, Nov. 2019)

Office Development

Residential
 Development





### Within 1/2 Mile of a Shuttle Stop

	Existing	Growth	Change
Jobs:	31,400	2,100	+7%
Population:	16,600	0	0%

Other Nearby Growth

Jobs: 0 Population: 500

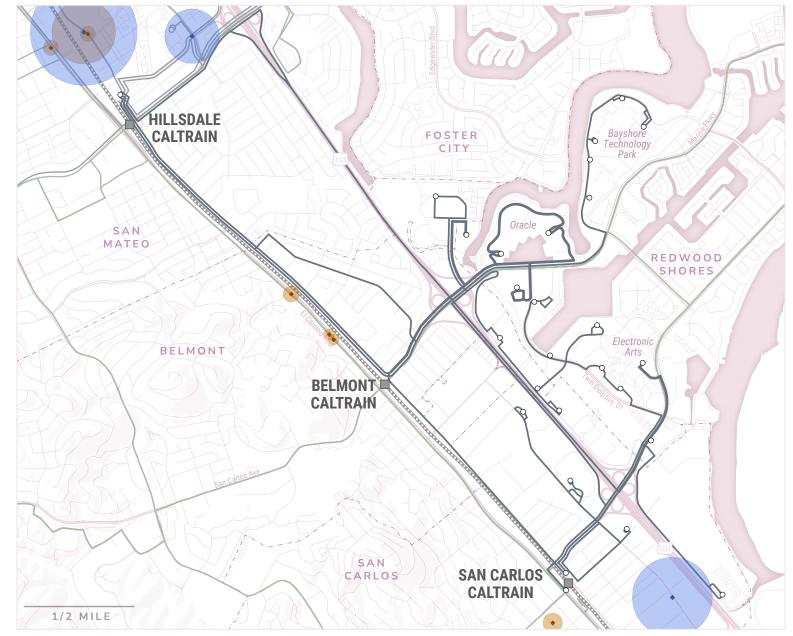
### **Peak Hour Service Levels**

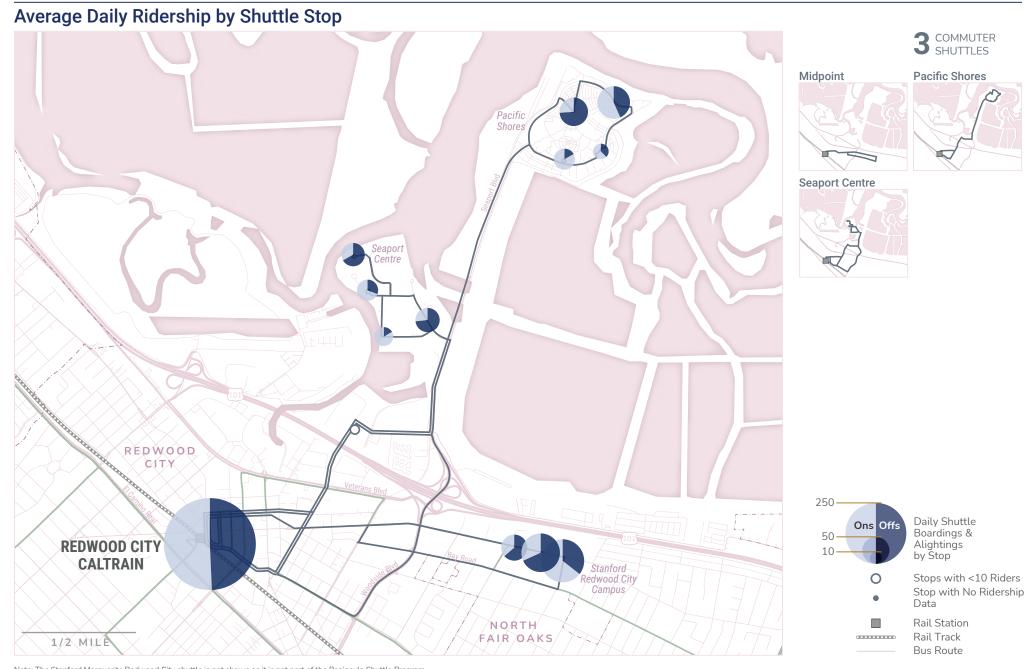
(Trains per Hour)

Caltrain

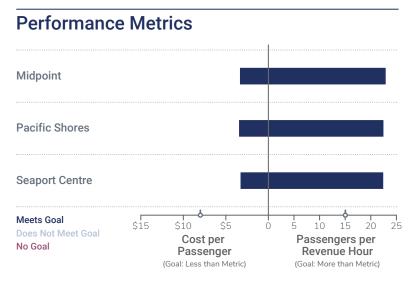
Hillsdale Caltrain	Existing 4 (Peak Direction) 3 (Reverse Peak)	<b>Future</b> 4 (Early 2020s) 8 (Late 2020s)	
Belmont Caltrain	1	2 (Early 2 (Late 2020s)	
San Carlos	2 (Peak Direction)	2 (Early 2 (Late 2020s)	

3 (Reverse Peak)



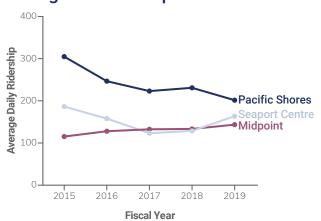


Shuttle Overview			Serv	ice Levels	Funding Sources			
Shuttle Route	Avg. Daily Ridership	Manager	Sponsor	Trips	Weekday Span of Service		Employers SMCTA TFCA Caltrain SamTrans City Funds	Employer Funded %
Midpoint	164	Commute.org	Commute.org	22				36%
Pacific Shores	202	Google C/O CBRE	Caltrain	14	0 0 000 000	••••		25%
Seaport Centre	144	Commute.org	Commute.org	14	00 0 0000	0000000		50%
Total Ridership: Other Nearby Shuttles:	510 Stanford	Marguerite Redwo	ood City (167 riders)	_	6 AM 8 AM 10 AM 12 PM 2 PN AM Peak Midday	и 4 PM 6 PM 8 PM PM Peak	\$0 \$100K \$200K \$300K \$400K Annual Funding	



All three shuttles exceeded performance goals and are among the best performing routes in the shuttle program. Stanford recently began supplementing the Midpoint shuttle with its own Marguerite service to augment capacity.

### **Change in Ridership Over Time**



Ridership declined on Pacific Shores and Seaport Centre over the past five years. While not captured in the FY 2019 data, ridership on the Midpoint Shuttle recently doubled after Stanford's Redwood City campus opened.

### **Key Statistics**





**change** in shuttle **ridership** since 2015





of stops have more than **20 daily boardings & alightings** 





of stops are located **on-street** 





of stops have sidewalk access





of stops have a **shuttle sign** 



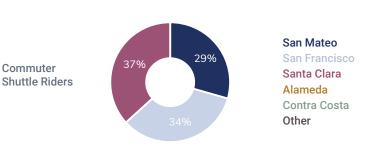


of trips have more than **10 riders on-board** 

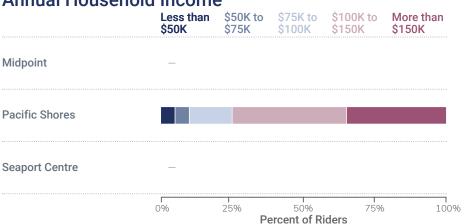
# **Redwood City**

### **Shuttle Rider Profile**

### **County of Residence**



### **Annual Household Income**



### **Communities with Concentrated Financial Need**



Note: Households qualify for housing assistance if they earn less than 400% of the federal poverty level

Trip Purpose		
	Percent Work Trips	Top Destinations and Sectors
Midpoint	_	Stanford University, Stanford Health Care
Pacific Shores		Google, Tech

Genomic Health, Guardant Health

### Rider Feedback: Priorities for Improvement

			Transfer Timing	
•	•	•	•	
	•	•	•	
•	•	•	•	

Seaport Centre

New Developments (Approved or In Progress, Nov. 2019)

Office Development

Residential Development



Net New Jobs per Development



### Within 1/2 Mile of a Shuttle Stop

	Existing	Growth	Change
Jobs:	12,100	5,000	+41%
Population:	8,500	1,300	+15%

Other Nearby Growth

Jobs: 1,800 Population: 2,300

### **Peak Hour Service Levels**

(Trains per Hour)

**Existing** 

Redwood City 4 (Peak Direction) Caltrain

3 (Reverse Peak)

**Future** 

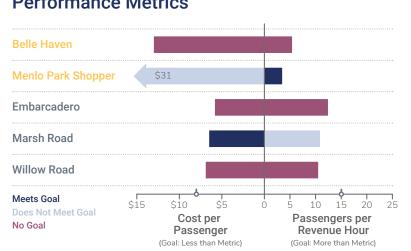
6 (Early 8 (Late 2020s)





Shuttle Overvi	ew			Serv	ice Levels		Funding Sources		
Shuttle Route	Avg. Daily Ridership	Manager	Sponsor	Trips	Weekday Span of S	ervice	Employers SMCTA TFCA Caltrain SamTrans City Funds	Employer Funded %	
Belle Haven	57	City of Menlo Park	City of Menlo Park	7	0 0 0	0 0 0 0		0%	
Menlo Park Shopper	9	City of Menlo Park	City of Menlo Park	On- Demand*				0%	
Embarcadero	139	Caltrain	Caltrain	17	<b>3000 00 00</b>	000000000		0%	
Marsh Road	81	City of Menlo Park	City of Menlo Park	13	00000	∞ ∞ ∞		0%	
Willow Road	56	City of Menlo Park	City of Menlo Park	8	0 0 0 0	<b></b>		0%	
Total Ridership: Other Nearby Shuttles:	Stanford		nnon Shuttle (148 riders), Shuttle (188 riders),	*Operates <b>–</b> Tues, Wed, and Sat	6 AM 8 AM 10 AM  AM Peak	12 PM 2 PM 4 PM 6 PM 8 PM Midday PM Peak	\$0 \$100K \$200K \$300K \$400K Annual Funding	-	

Performance Metrics

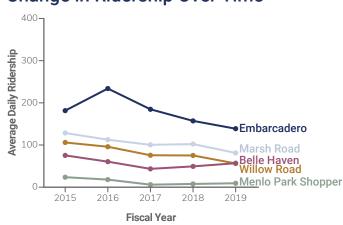


Stanford Marguerite (6,359 riders),

Facebook, Palo Alto Crosstown Shuttle

Shuttles in Menlo Park and Palo Alto experienced lower productivity. A majority of shuttle stops in Menlo Park serve fewer than 10 boardings and alightings per day.

#### **Change in Ridership Over Time**



Ridership has declined on all routes over time, in part due to direct competition from shuttles by Facebook and Stanford Hospital.

#### **Key Statistics**

funding from the TFCA.





**change** in shuttle **ridership** since 2015

Note: Stanford Marguerite receives \$195K in





of stops have more than **20 daily boardings & alightings** 





of stops are located **on-street** 





of stops have sidewalk access





of stops have a **shuttle sign** 



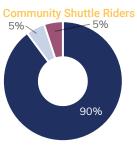


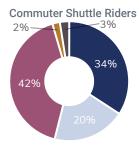
of trips have more than **10 riders on-board** 

# Menlo Park-Palo Alto

#### **Shuttle Rider Profile**

#### **County of Residence**

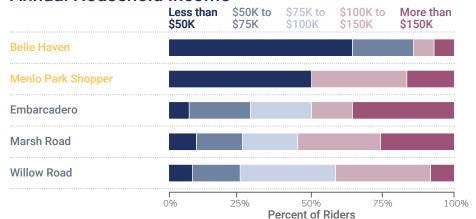




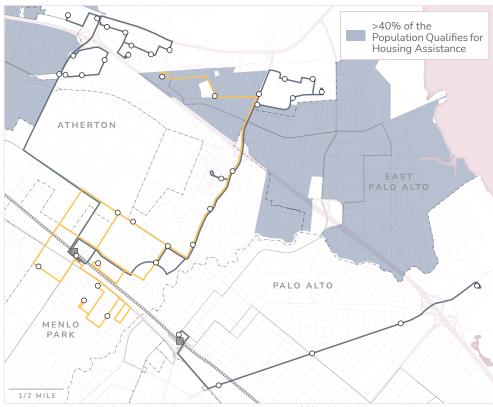
#### San Mateo

San Francisco Santa Clara Alameda Contra Costa Other

#### **Annual Household Income**



#### **Communities with Concentrated Financial Need**



Note: Households qualify for housing assistance if they earn less than 400% of the federal poverty level

Trip Purpose		
	Percent Work Trips	Top Destinations and Sectors
Belle Haven		Shopping, Social/Recreational
Menlo Park Shopper		Shopping
Embarcadero		Stanford University, Stanford Health Care
Marsh Road		Stanford Children's Hospital, Orrick, Herrington, & Suttcliffe
Willow Road		School, Grail, Hexagon Bio, USGS

#### Rider Feedback: Priorities for Improvement

			Transfer Timing		
_	_	_	_	_	
•	•				

## **Near-Term Job and Population Growth**

New Developments (Approved or In Progress, Nov. 2019)

Office Development

Residential Development





#### Within 1/2 Mile of a Shuttle Stop

	Existing	Growth	Change
Jobs:	42,500	4,500	+11%
Population:	60,100	2,200	+4%

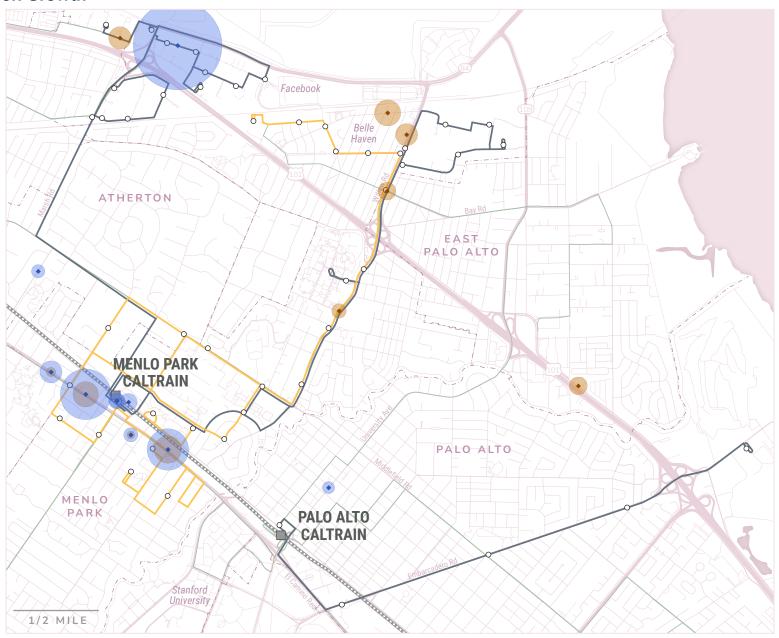
Other Nearby Growth

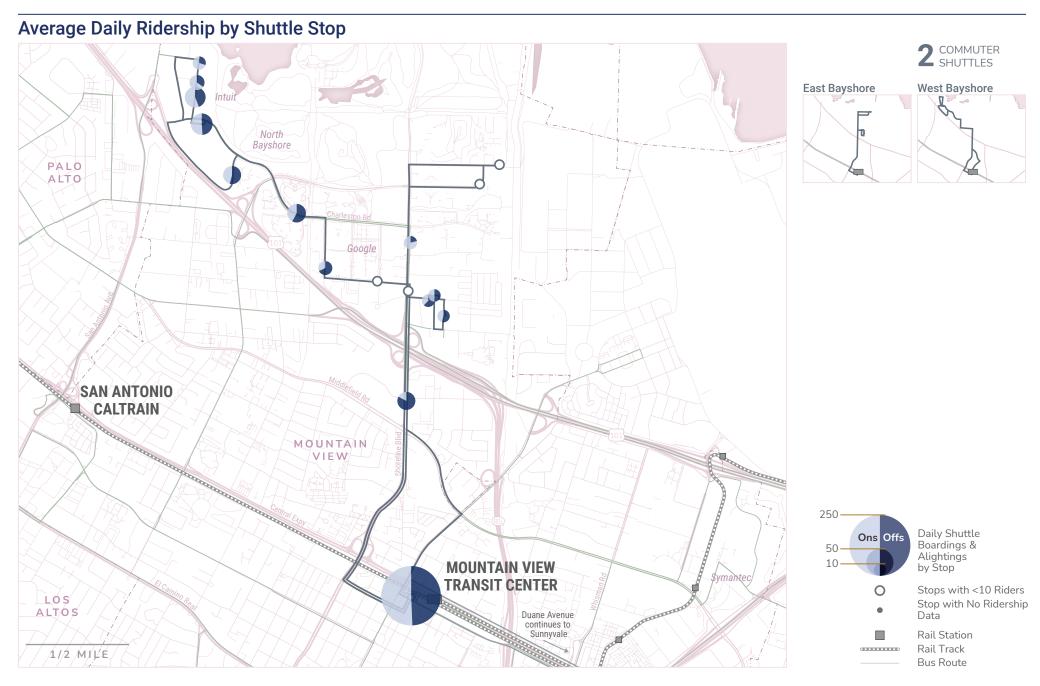
Jobs: 100 Population: 200

#### **Peak Hour Service Levels**

(Trains per Hour)

	Existing	Future		
Menlo Park Caltrain	3 (Peak Direction) 2 (Reverse Peak)	2 (Early 2020s)	4 (Late 2020s)	
Palo Alto	5 (Peak Direction)	6 (Early 2020s)	8 (Late 2020s)	





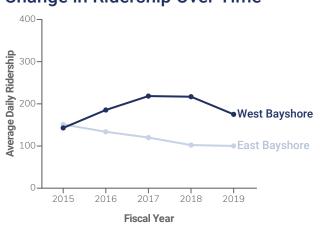
Shuttle Overvio	ew			Serv	ice Levels		Funding Sources		
Shuttle Route	Avg. Daily Ridership	Manager	Sponsor	Trips	Weekday Span of Service	е	Employers SMCTA Caltrain SamTrans	TFCA City Funds	Employer Funded %
East Bayshore	100	MVGo	Caltrain	18	000000000000	<b>••</b> ••••••			86%
West Bayshore	175	MVGo	Caltrain	22	00000000	<b>∞∞</b> ∞∞∞ ∞ ∞ ∞			77%
Total Ridership: Other Nearby Shuttles:	275 East Wh	isman Shuttle (1	79 riders),		1 1 1 1 6 AM 8 AM 10 AM 12 PN AM Peak Mic	л т т т т т т т т т т т т т т т т т т т	\$0 \$100K \$200K \$		

#### **Performance Metrics East Bayshore** West Bayshore **Meets Goal** \$5 15 \$10 10 20 **Does Not Meet Goal** Cost per Passengers per No Goal Passenger Revenue Hour (Goal: Less than Metric) (Goal: More than Metric)

Mountain View Community Shuttle, Mountain View Transit Station Shuttle

Both shuttles experienced lower productivity. However, these metrics are skewed by the high level of service provided. The employer contribution on both routes is among the highest in the Peninsula Shuttle Program.

#### **Change in Ridership Over Time**



Despite the ongoing growth around the Google Campus, the East Bayshore shuttle saw ridership decline over the past five years. West Bayshore, which served a higher proportion of Intuit employees, saw ridership increase.

#### **Key Statistics**





**change** in shuttle **ridership** since 2015





of stops have more than **20 daily boardings & alightings** 





of stops are located **on-street** 





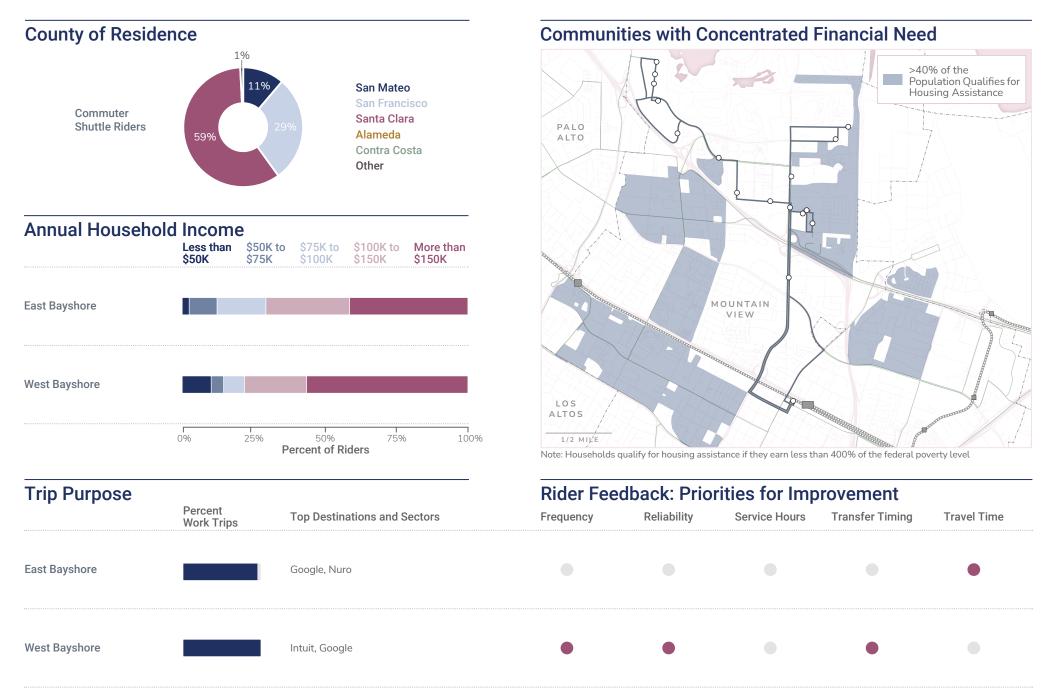
of stops have sidewalk access





of stops have a shuttle sign

#### **Shuttle Rider Profile**



## **Near-Term Job and Population Growth**

New Developments (Approved or In Progress, Nov. 2019)

Office Development

Residential Development





#### Within 1/2 Mile of a Shuttle Stop

	Existing	Growth	Change
Jobs:	22,700	3,900	+17%
Population:	7,200	3,500	+49%

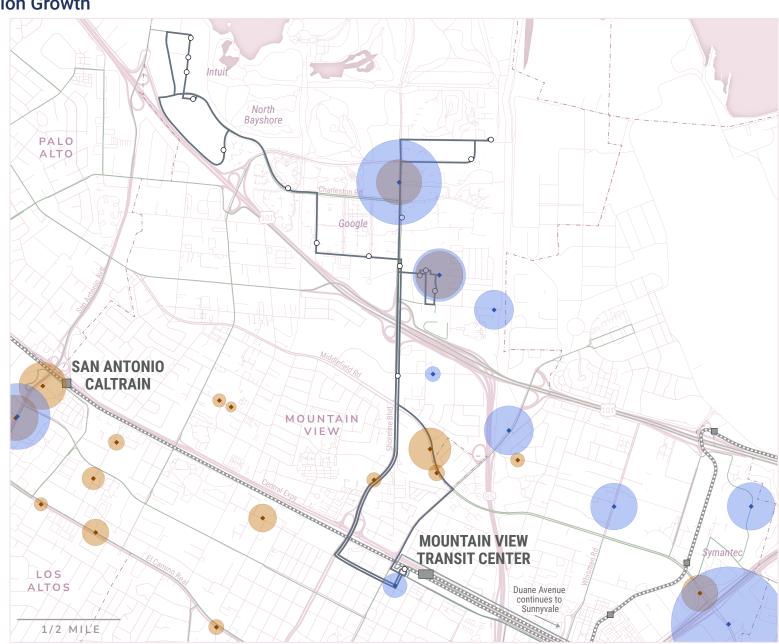
Other Nearby Growth

Jobs: 8,300 Population: 5,600

#### **Peak Hour Service Levels**

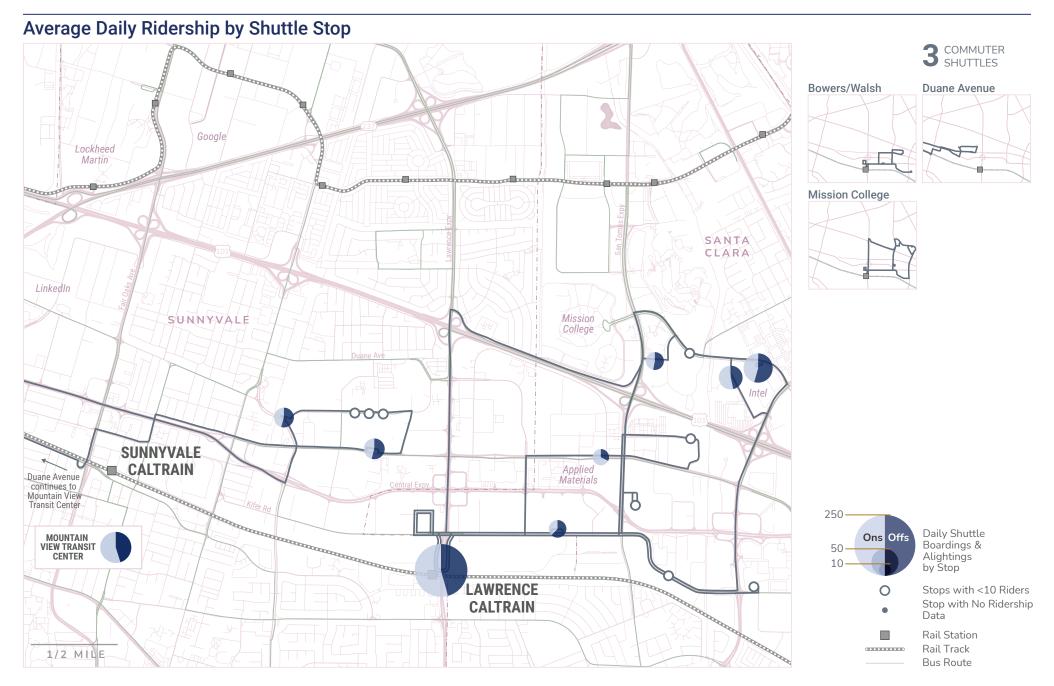
(Trains per Hour)

	Existing	Future
San Antonio Caltrain	1	2 (Early 4 (Late 2020s)
Mountain View Caltrain	4	6 (Early 8 (Late 2020s)

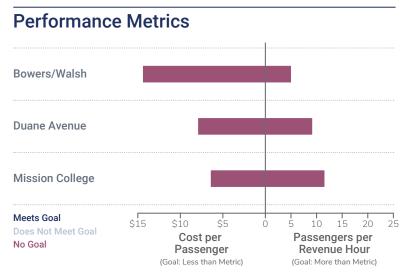


# Sunnyvale-Santa Clara

#### Shuttle Ridership, Performance, and Financials

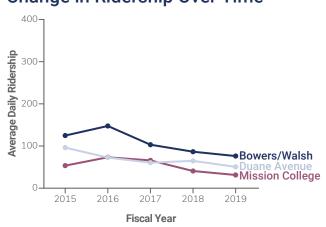


Shuttle Overvi	iew			Serv	vice	Levels		Funding Sources		
Shuttle Route	Avg. Daily Ridership	Manager	Sponsor	Trips	We	ekday Span of Serv	ice	Employers SMCTA TFCA Caltrain SamTrans City Funds	Employer Funded %	
Bowers/Walsh	31	Caltrain	Caltrain	8	(		• • •		34%	
Duane Avenue	51	Caltrain	Caltrain	6		0 0 0	•• •		0%	
Mission College	76	Caltrain	Caltrain	10	0	00000	• • • •		27%	
Total Ridership:	158				6 AM	8 AM 10 AM 12 AM Peak N	PM 2 PM 4 PM 6 PM 8 PM lidday PM Peak	\$0 \$100K \$200K \$300K \$400K Annual Funding		



All three shuttles experienced lower productivity. A majority of shuttle stops serve fewer than 10 boardings and alightings per day.

#### **Change in Ridership Over Time**



Ridership has declined substantially over the past five years on all three routes.

#### **Key Statistics**





**change** in shuttle **ridership** since 2015





of stops have more than **20 daily boardings & alightings** 





of stops are located **on-street** 





of stops have sidewalk access





of stops have a **shuttle sign** 





of trips have more than **10 riders on-board** 

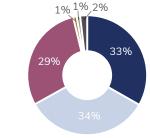
# Sunnyvale-Santa Clara

#### **Shuttle Rider Profile**

# **County of Residence**

Commuter

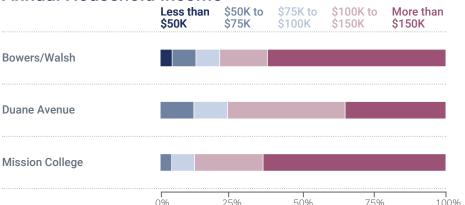
**Shuttle Riders** 



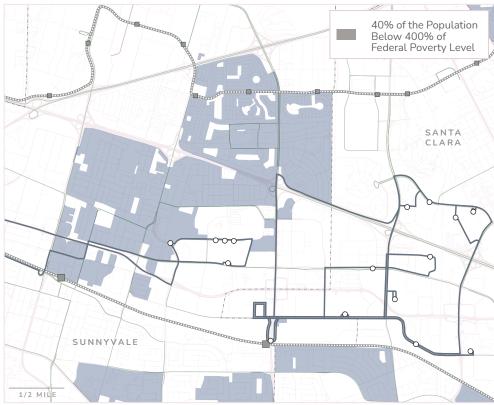
San Mateo San Francisco Santa Clara Alameda Contra Costa

Other

#### **Annual Household Income**

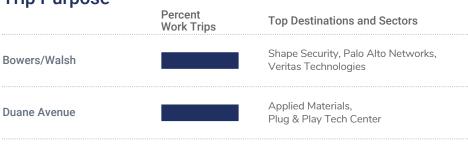


#### Communities with Concentrated Financial Need



Note: Households qualify for housing assistance if they earn less than 400% of the federal poverty level

#### **Trip Purpose**



Intel

Percent of Riders

#### **Rider Feedback: Priorities for Improvement**

Rider Feedback. Friorities for improvement						
Frequency	Reliability	Service Hours	Transfer Timing	Travel Time		

Mission College

## **Near-Term Job and Population Growth**

#### **New Developments**

(Approved or In Progress, Nov. 2019)

- Office Development
- Residential
   Development





#### Within 1/2 Mile of a Shuttle Stop

	Existing	Growth	Change
Jobs:	55,200	22,000	+40%
Population:	16,500	9,200	+56%

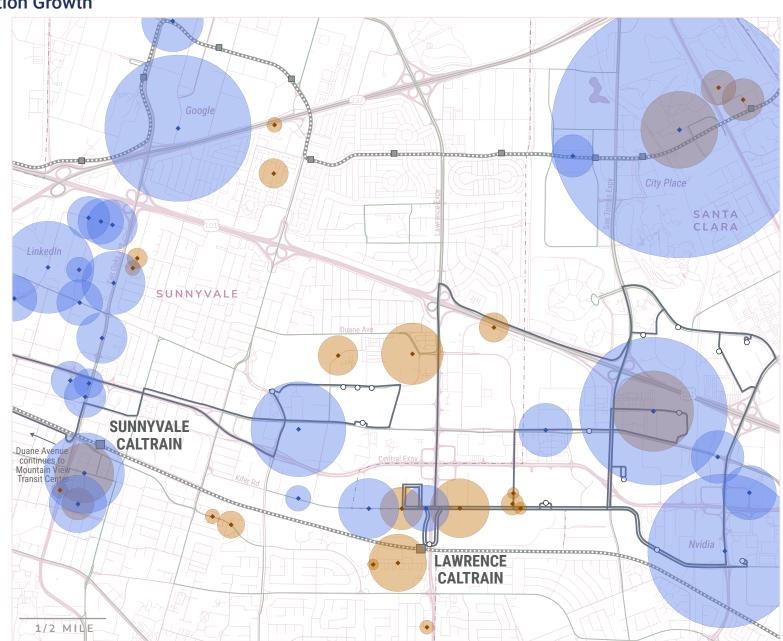
Other Nearby Growth

**Jobs**: 42,800 **Population**: 12,900

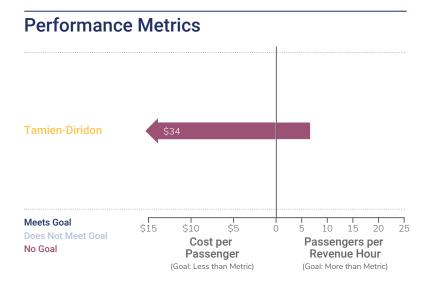
#### **Peak Hour Service Levels**

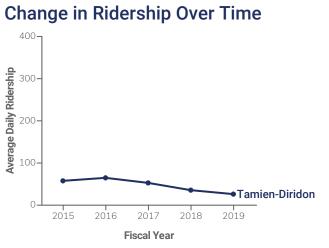
(Trains per Hour)

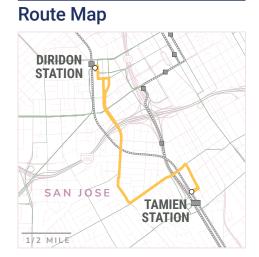
	Existing	Future
Sunnyvale Caltrain	4 (Peak Direction) 1 (Reverse Peak)	6 (Early 8 (Late 2020s)
Lawrence Caltrain	2	2 (Early 4 (Late 2020s)



Shuttle Overview				Service Levels Funding Source	Funding Sources	
Shuttle Route	Avg. Daily Ridership	Manager	Sponsor	Trips Weekend Span of Service Employers SMCTA TFC Caltrain SamTrans City	CA Employer y Funds Funded %	
Tamien-Diridon	27	Caltrain	Caltrain	22 0 000 00 000 00 000 00 000 00 00	0%	
Total Ridership:	27			8 AM 10 AM 12 AM 2 PM 4 PM 6 PM 8 PM 10 PM \$0 \$100K \$200K \$300K AM Midday PM Annual Fundir		



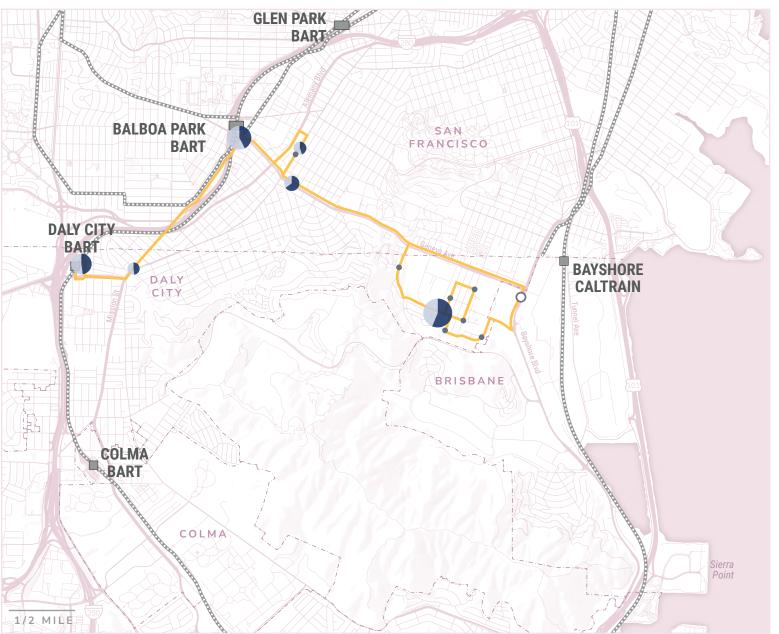




# **Appendix C: Route Ridership Profiles**

This section provides maps of shuttle ridership by route. Ridership was manually summarized from Fall 2019 ridership logs by shuttle drivers.

#### Average Daily Ridership by Shuttle Stop: Daly City Bayshore





Region: Brisbane-Daly City

Type: Community
Daily Ridership: 117

Note: Some stop-level data not available for Daly City Bayshore

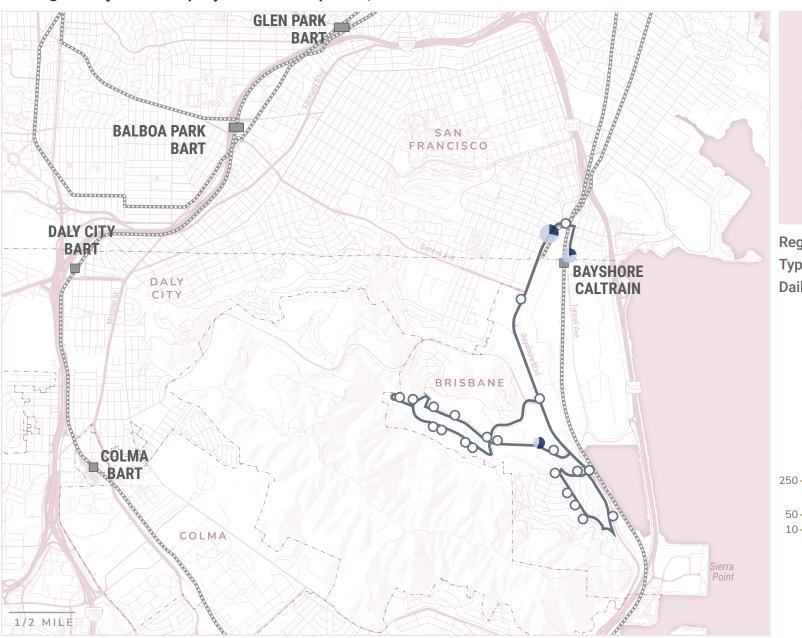


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Rail Track

**Bus Route** 

#### Average Daily Ridership by Shuttle Stop: Bayshore-Brisbane

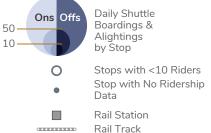




Region: Brisbane-Daly City

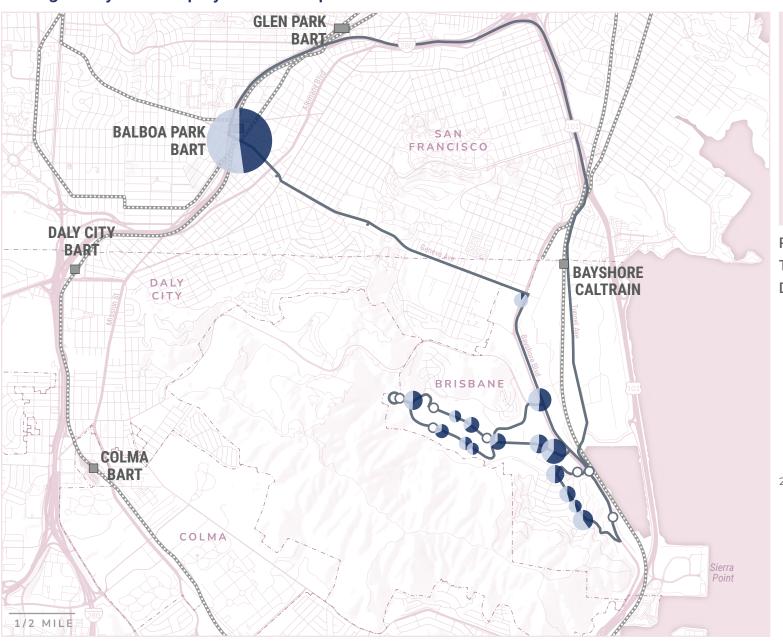
Type: Commuter

Daily Ridership: 49



**Bus Route** 

## Average Daily Ridership by Shuttle Stop: Crocker Park





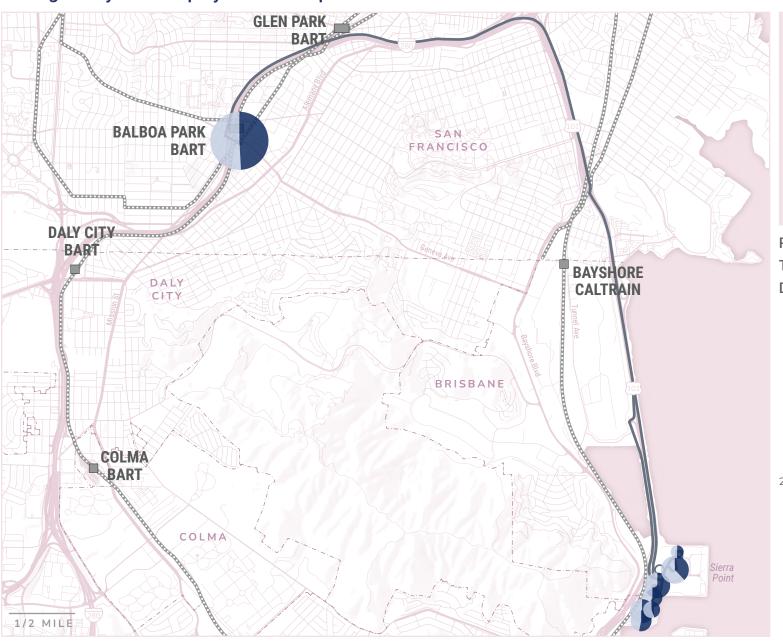
Region: Brisbane-Daly City

Type: Commuter

Daily Ridership: 332



## Average Daily Ridership by Shuttle Stop: Sierra Point BART





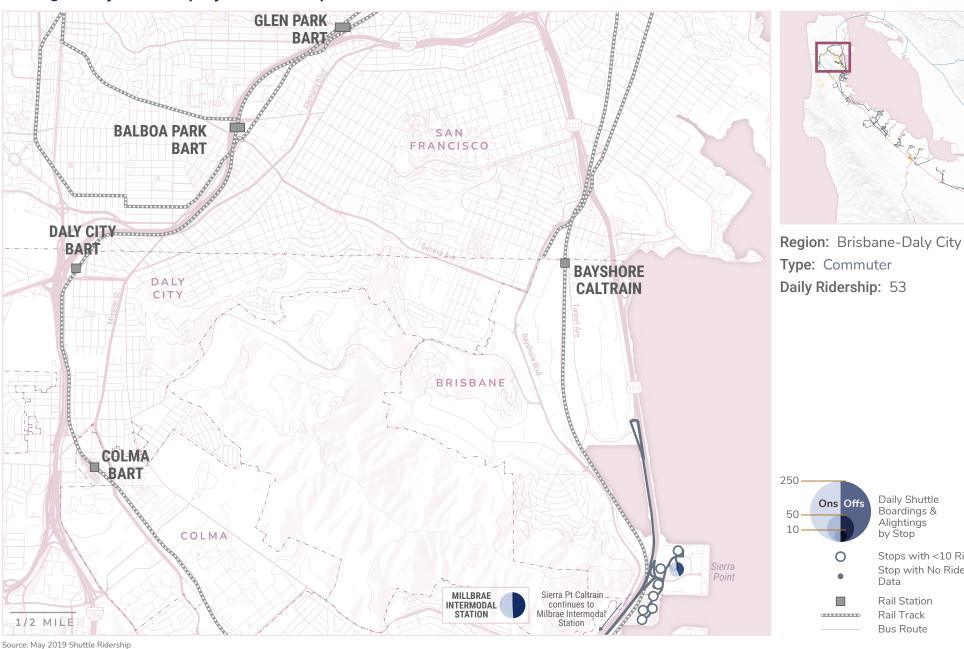
Region: Brisbane-Daly City

Type: Commuter

Daily Ridership: 247



#### Average Daily Ridership by Shuttle Stop: Sierra Point Caltrain



Rail Track ...... **Bus Route** 

Daily Shuttle

Boardings & Alightings by Stop

Data

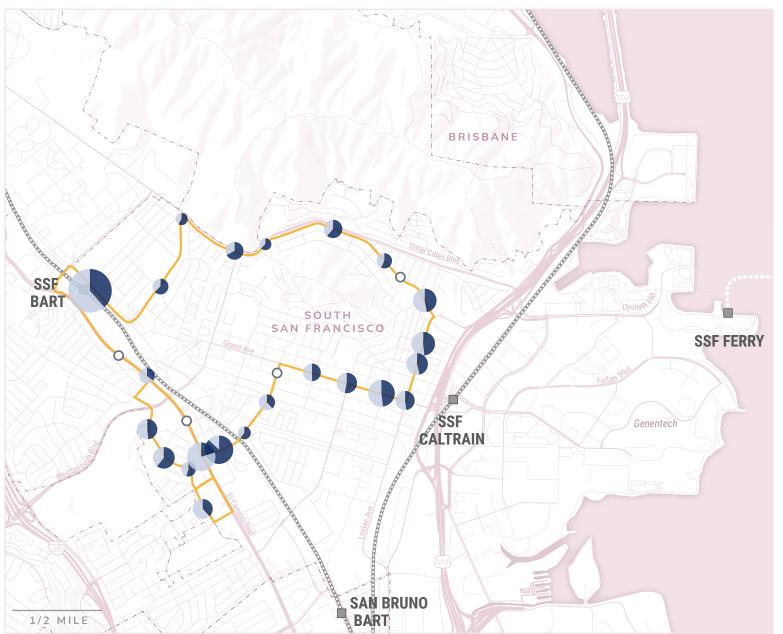
Rail Station

Stops with <10 Riders

Stop with No Ridership

Ons Offs

# Average Daily Ridership by Shuttle Stop: South City



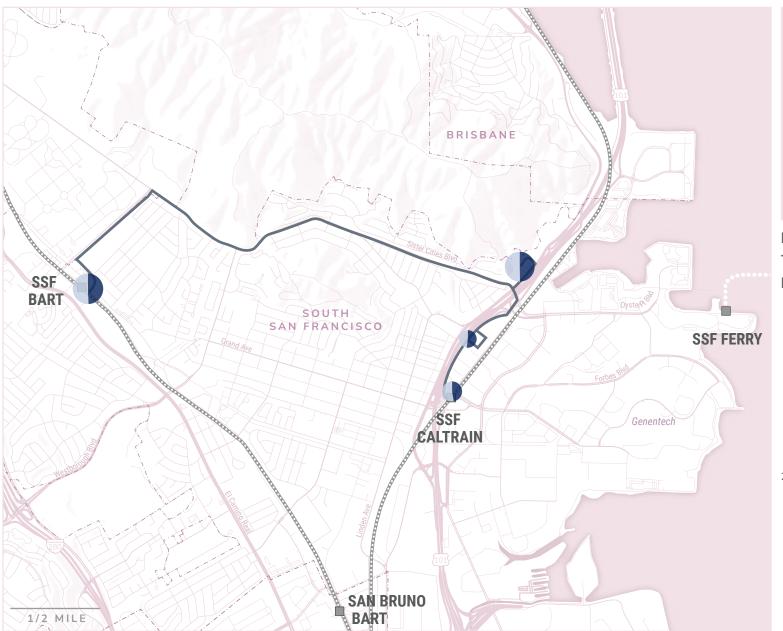


Region: South San Francisco

Type: Community
Daily Ridership: 301



# Average Daily Ridership by Shuttle Stop: One Tower Place





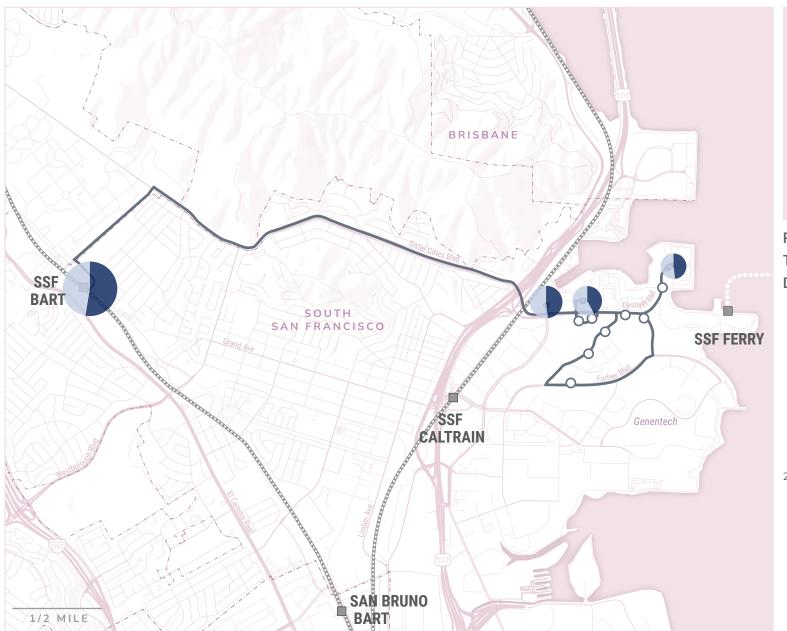
Region: South San Francisco

Type: Commuter

Daily Ridership: 90



# Average Daily Ridership by Shuttle Stop: Oyster Point BART





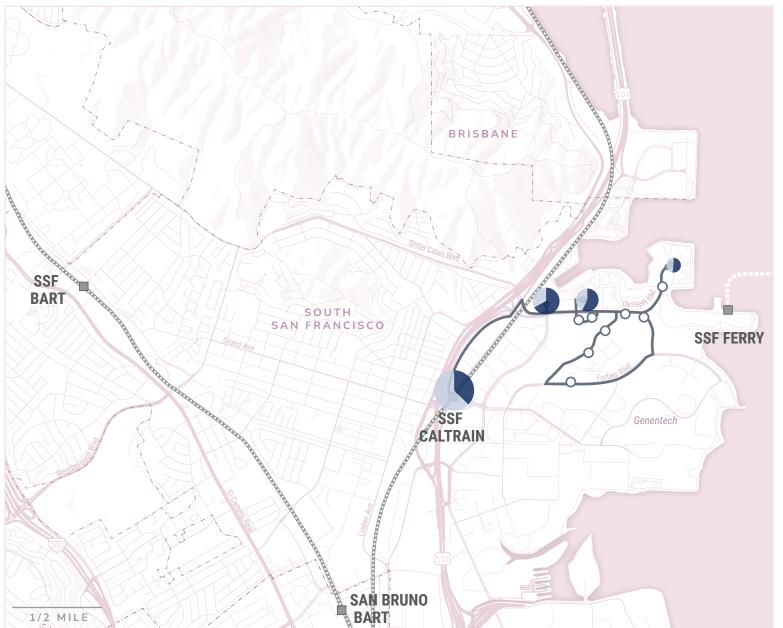
Region: South San Francisco

Type: Commuter

Daily Ridership: 217



# Average Daily Ridership by Shuttle Stop: Oyster Point Caltrain





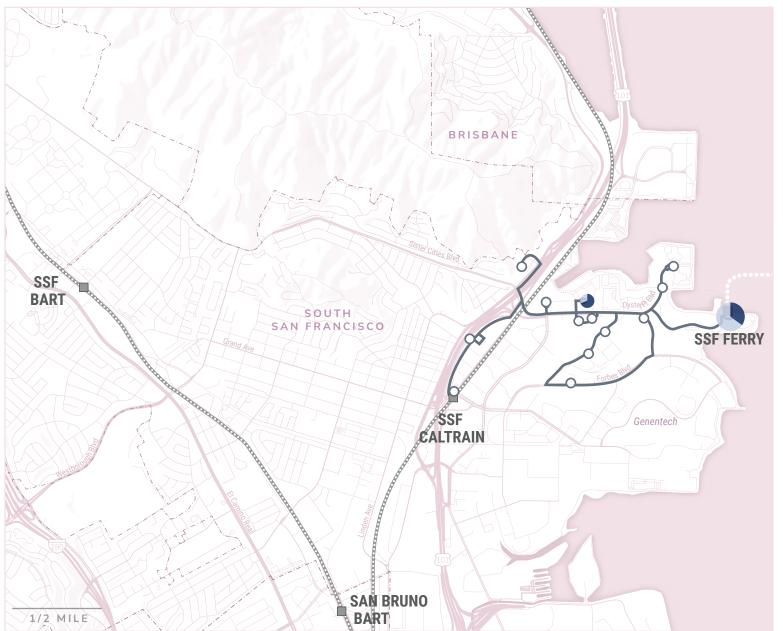
Region: South San Francisco

Type: Commuter

Daily Ridership: 121



# Average Daily Ridership by Shuttle Stop: Oyster Point Ferry





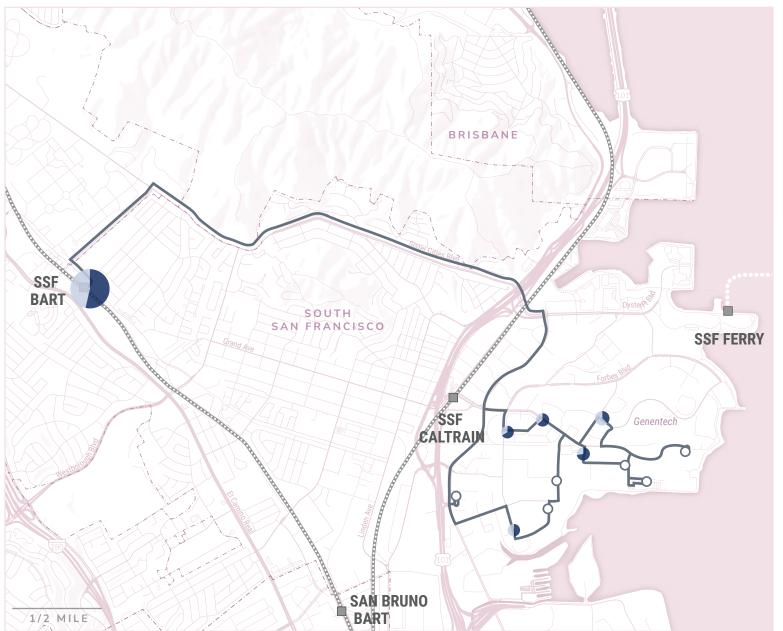
Region: South San Francisco

Type: Commuter

Daily Ridership: 58



# Average Daily Ridership by Shuttle Stop: Utah-Grand BART





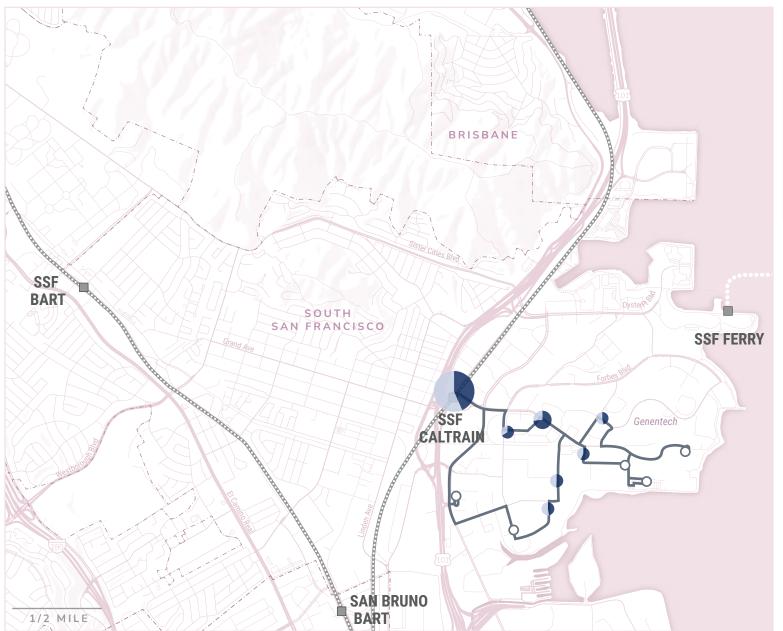
Region: South San Francisco

Type: Commuter

Daily Ridership: 102



# Average Daily Ridership by Shuttle Stop: Utah-Grand Caltrain





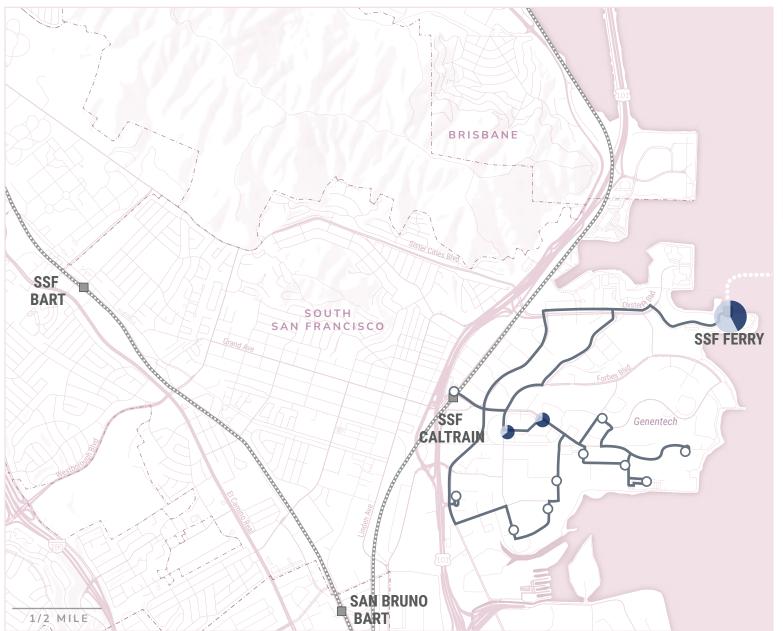
Region: South San Francisco

Type: Commuter

Daily Ridership: 126



# Average Daily Ridership by Shuttle Stop: Utah-Grand Ferry





Region: South San Francisco

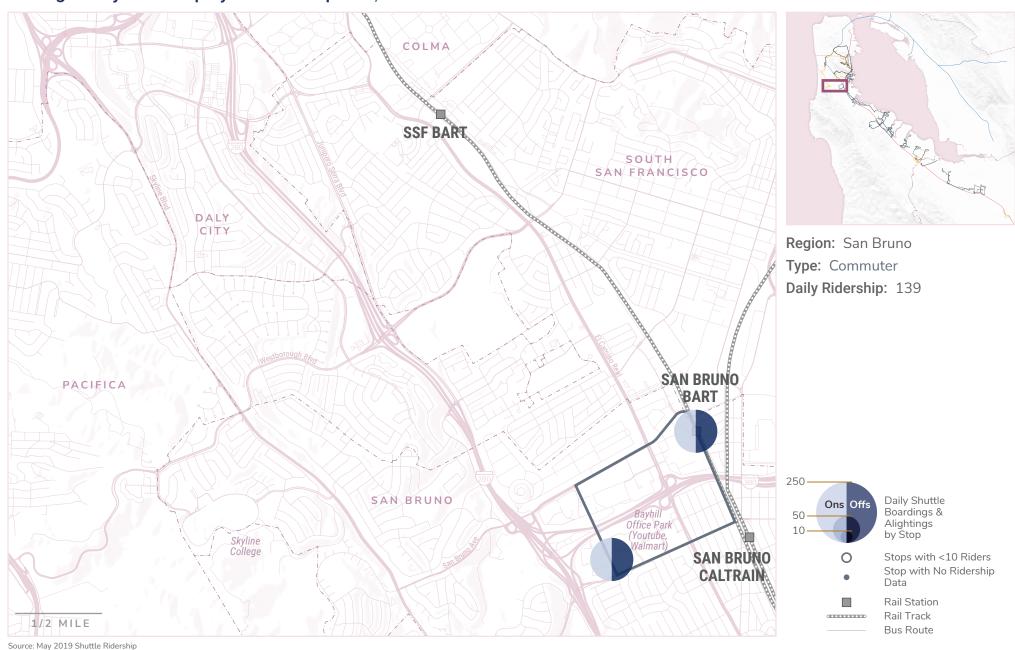
Type: Commuter
Daily Ridership: 62



#### Average Daily Ridership by Shuttle Stop: Skyline College



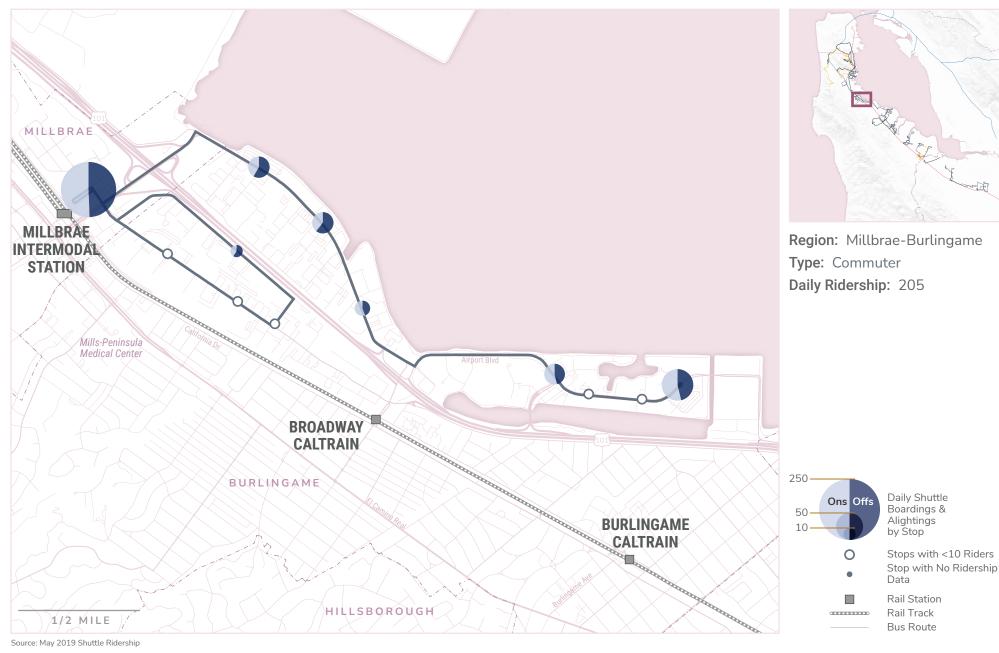
# Average Daily Ridership by Shuttle Stop: Bayhill BART



#### Average Daily Ridership by Shuttle Stop: Broadway-Millbrae



#### Average Daily Ridership by Shuttle Stop: Burlingame Bayside



#### Average Daily Ridership by Shuttle Stop: North Burlingame



Daily Shuttle

Boardings & Alightings by Stop

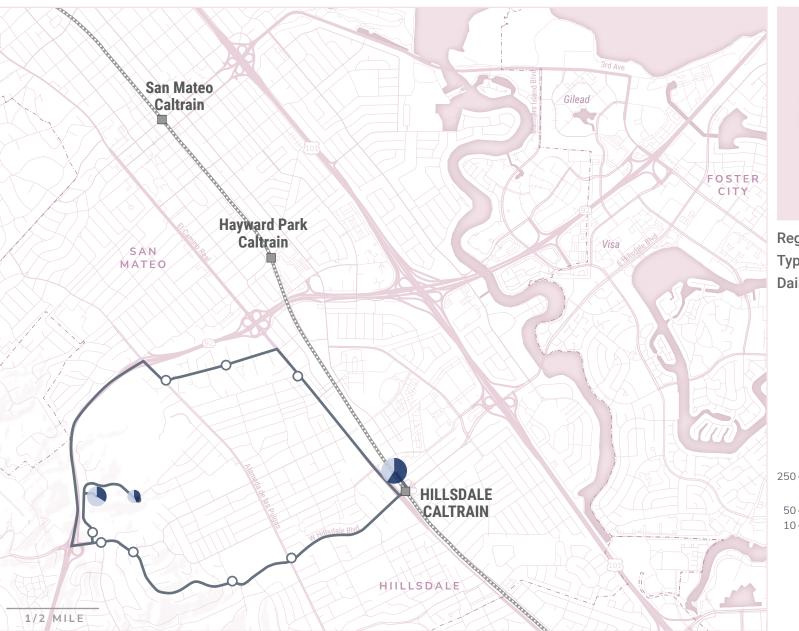
Data Rail Station

Rail Track

**Bus Route** 

Stops with <10 Riders Stop with No Ridership

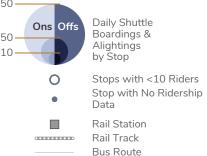
# Average Daily Ridership by Shuttle Stop: Campus Drive



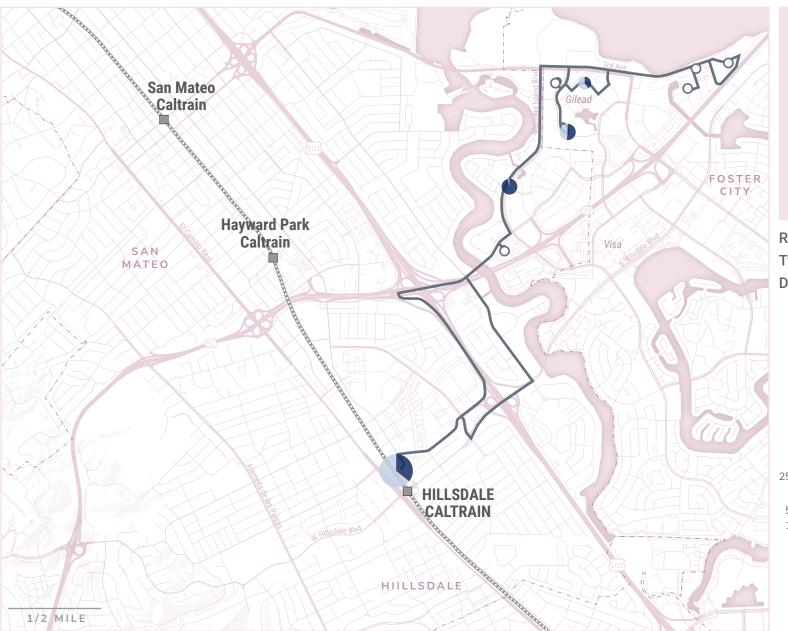


Region: San Mateo-Foster City

Type: Commuter
Daily Ridership: 65



## Average Daily Ridership by Shuttle Stop: Lincoln Centre



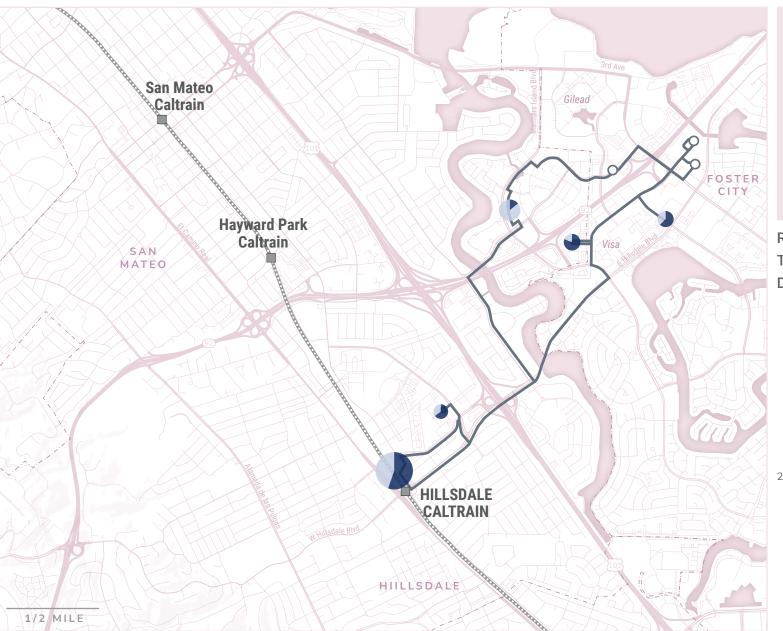


Region: San Mateo-Foster City

Type: Commuter
Daily Ridership: 84



# Average Daily Ridership by Shuttle Stop: Mariners' Island





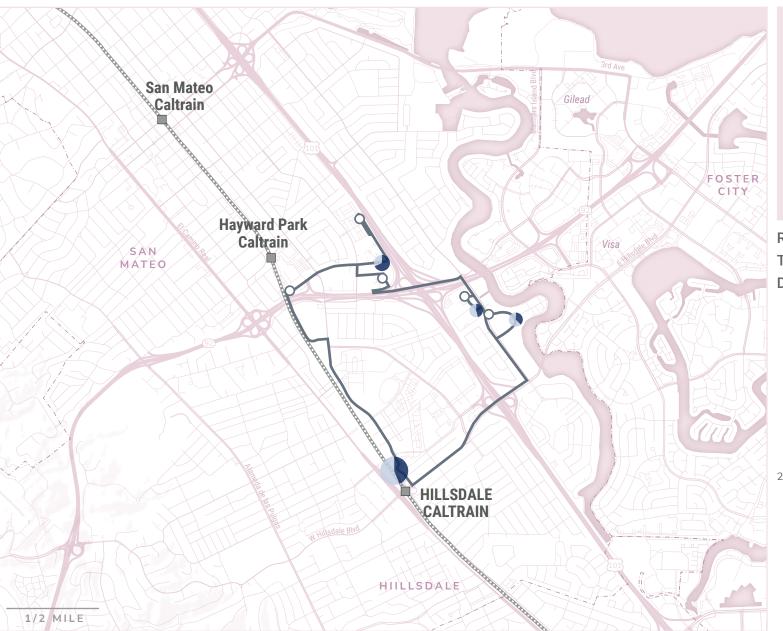
Region: San Mateo-Foster City

Type: Commuter

Daily Ridership: 104



# Average Daily Ridership by Shuttle Stop: Norfolk





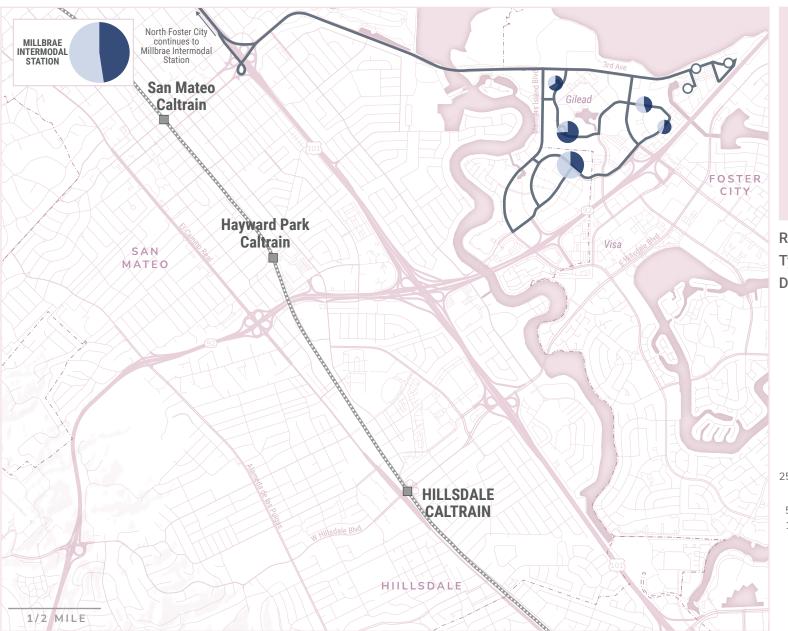
Region: San Mateo-Foster City

Type: Commuter

Daily Ridership: 59



## Average Daily Ridership by Shuttle Stop: North Foster City





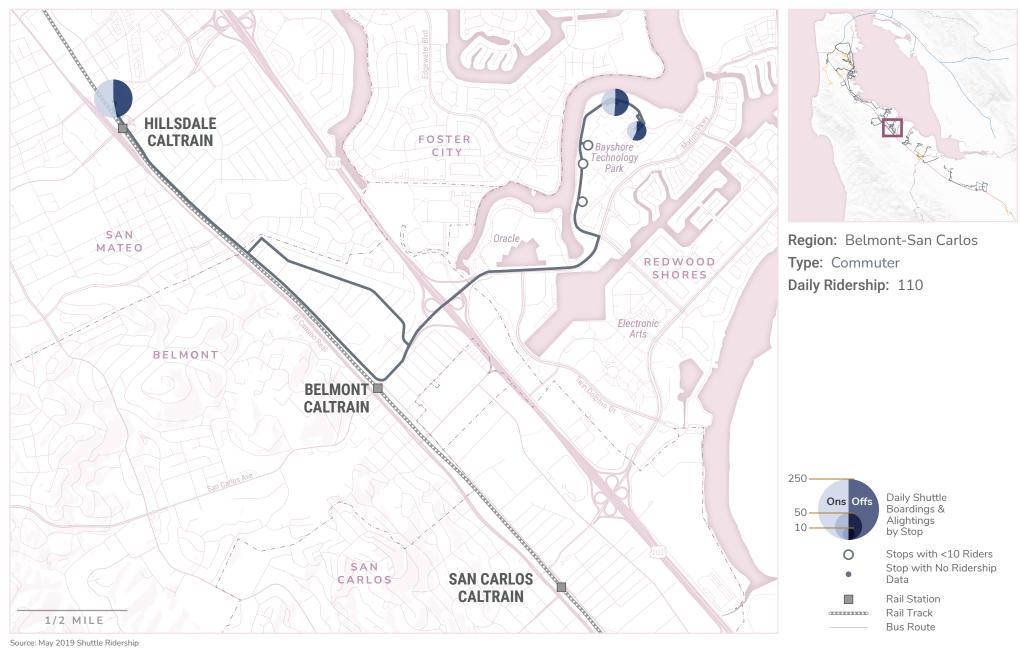
Region: San Mateo-Foster City

Type: Commuter

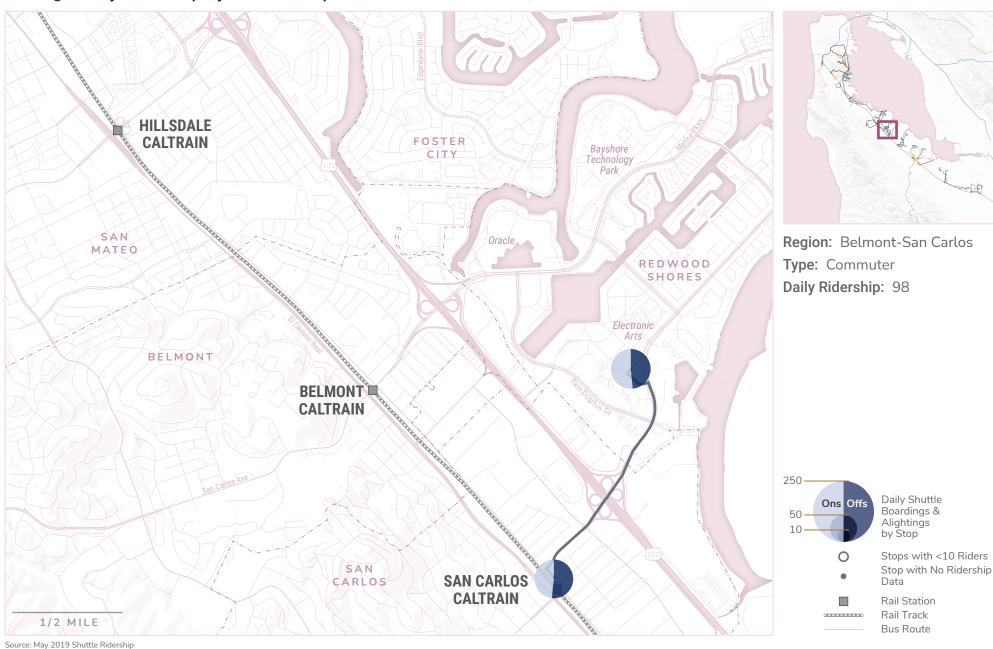
Daily Ridership: 142



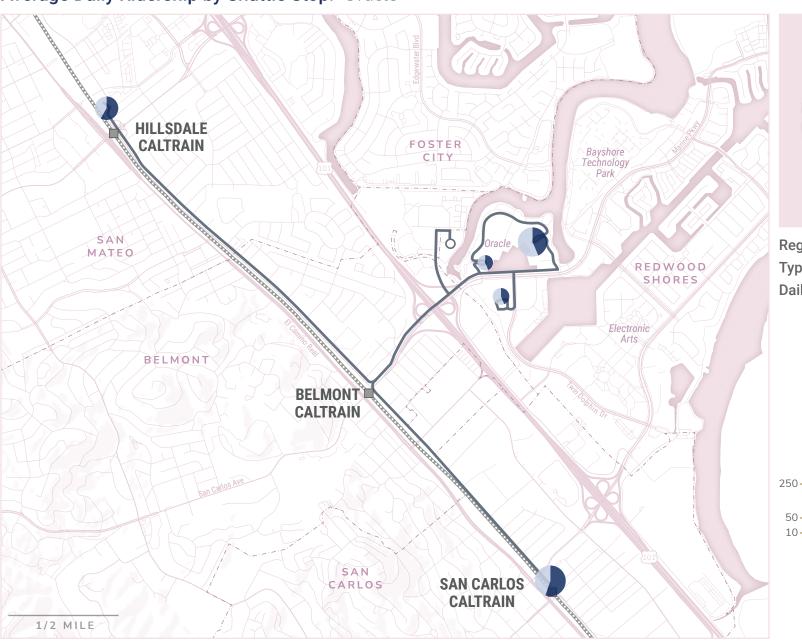
#### Average Daily Ridership by Shuttle Stop: Bayshore Technology Park



#### Average Daily Ridership by Shuttle Stop: Electronic Arts



# Average Daily Ridership by Shuttle Stop: Oracle





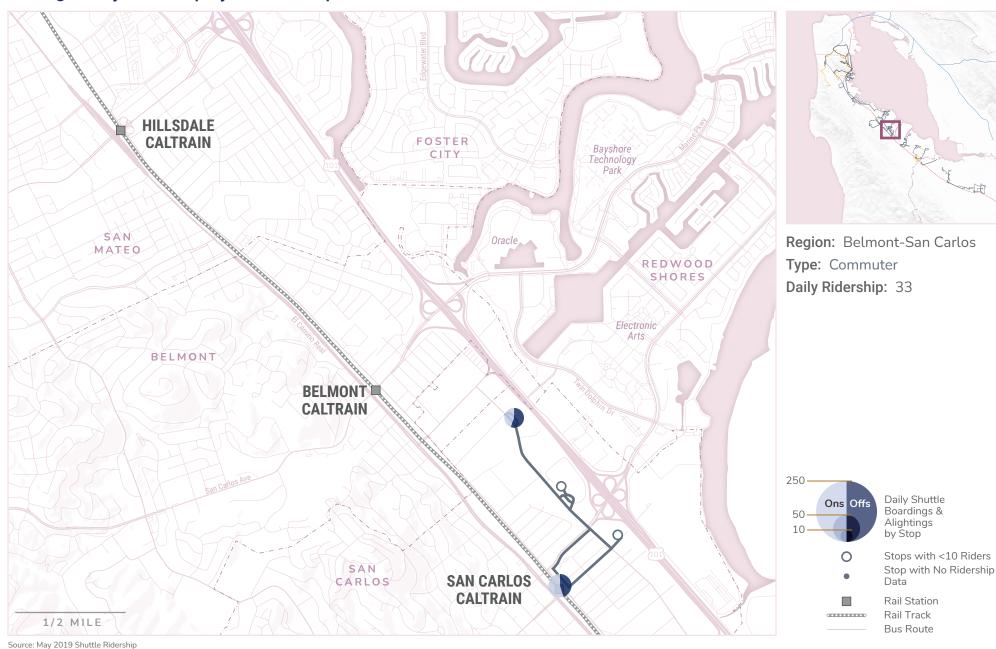
Region: Belmont-San Carlos

Type: Commuter

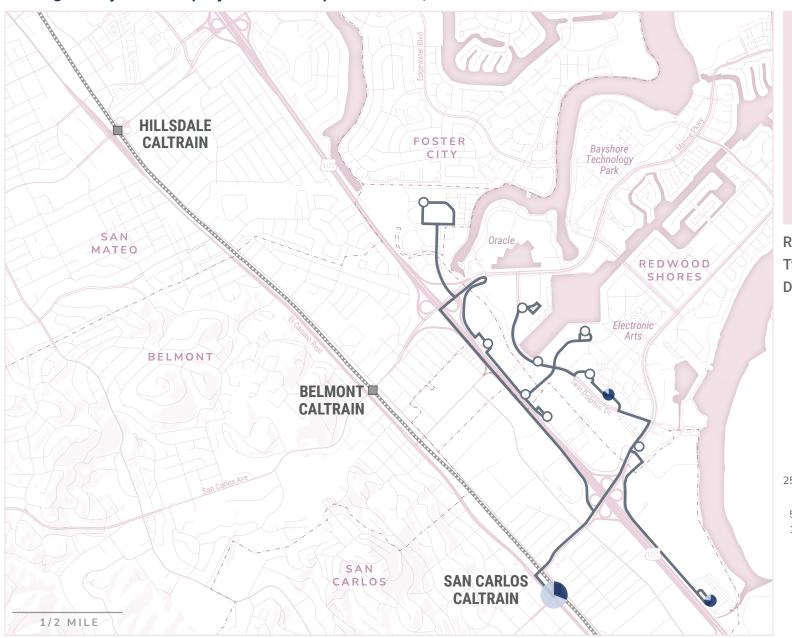
Daily Ridership: 96



# Average Daily Ridership by Shuttle Stop: San Carlos Commuter



# Average Daily Ridership by Shuttle Stop: Twin Dolphin



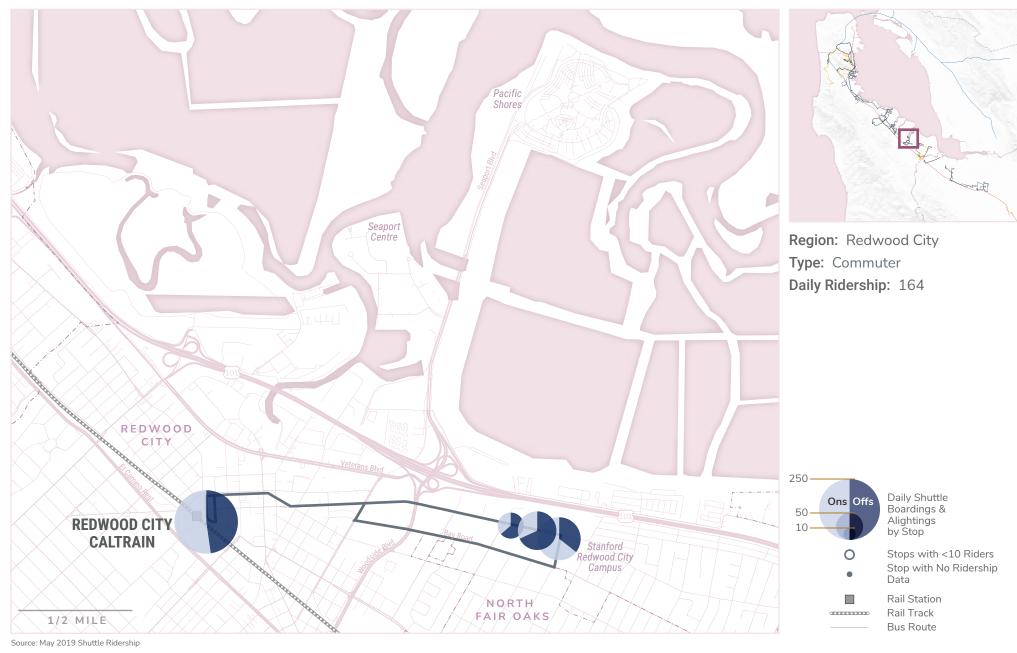


Region: Belmont-San Carlos

Type: Commuter Daily Ridership: 64



# Average Daily Ridership by Shuttle Stop: Midpoint



# Average Daily Ridership by Shuttle Stop: Pacific Shores





Region: Redwood City

Type: Commuter

Daily Ridership: 202



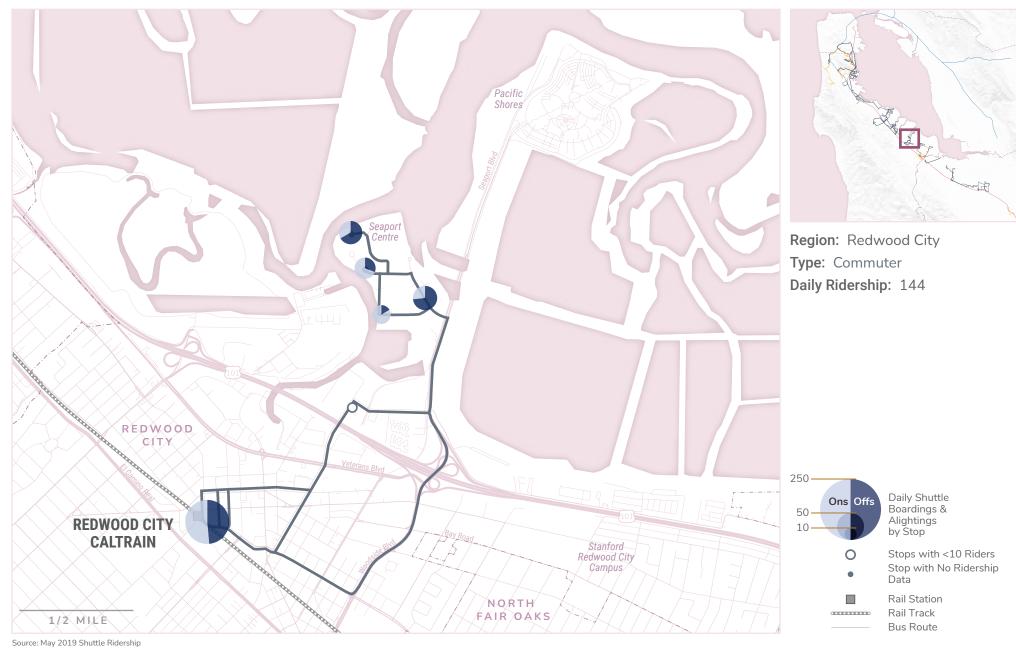
Stop with No Ridership Data

.....

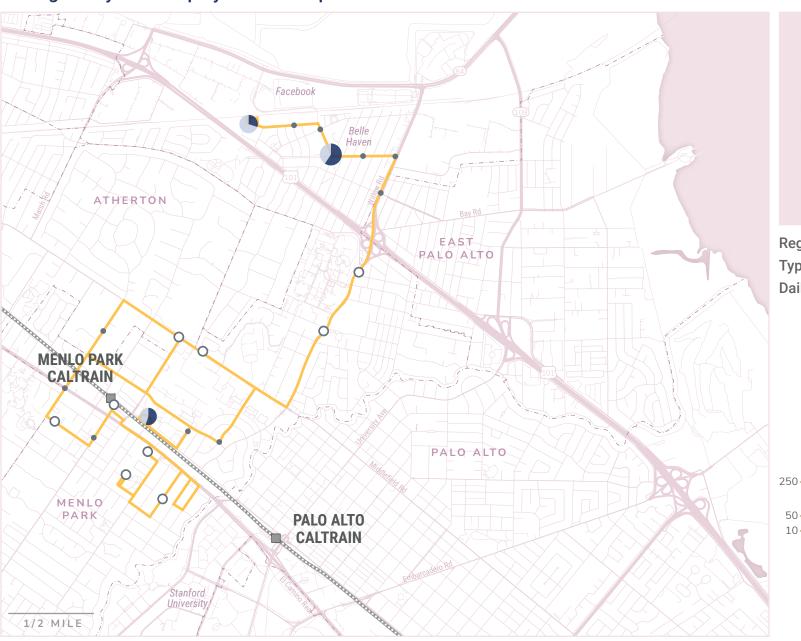
Rail Station Rail Track

**Bus Route** 

# Average Daily Ridership by Shuttle Stop: Seaport Centre



#### Average Daily Ridership by Shuttle Stop: Belle Haven



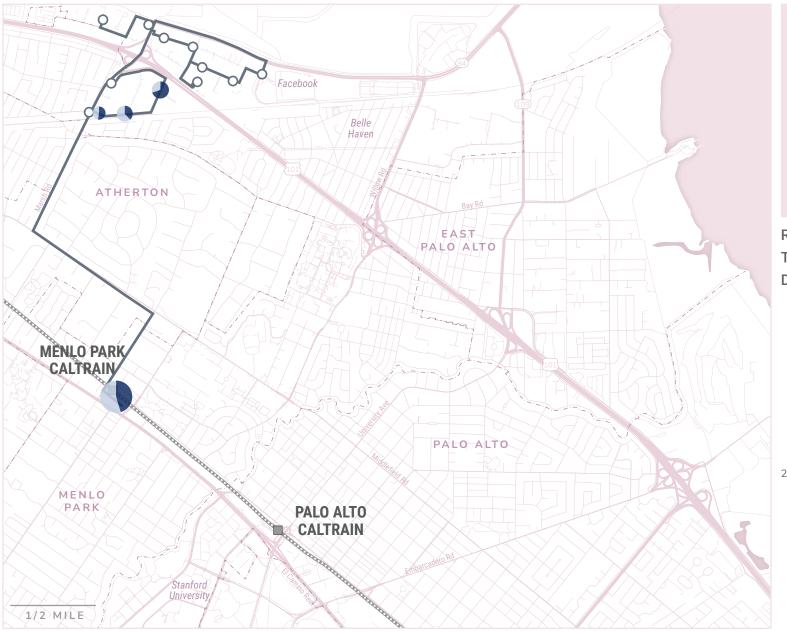


Region: Menlo Park-Palo Alto

Type: Community
Daily Ridership: 57



# Average Daily Ridership by Shuttle Stop: Marsh Road





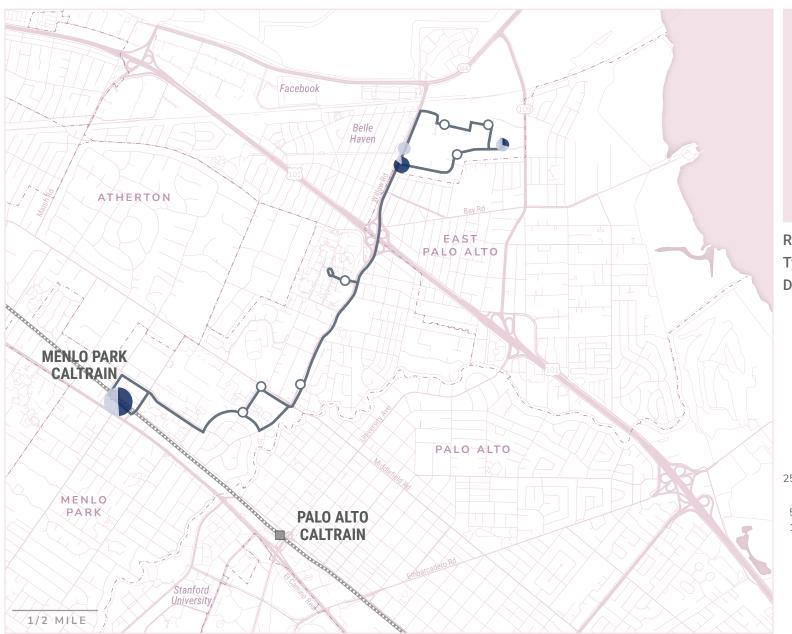
Region: Menlo Park-Palo Alto

Type: Commuter

Daily Ridership: 81



# Average Daily Ridership by Shuttle Stop: Willow Road



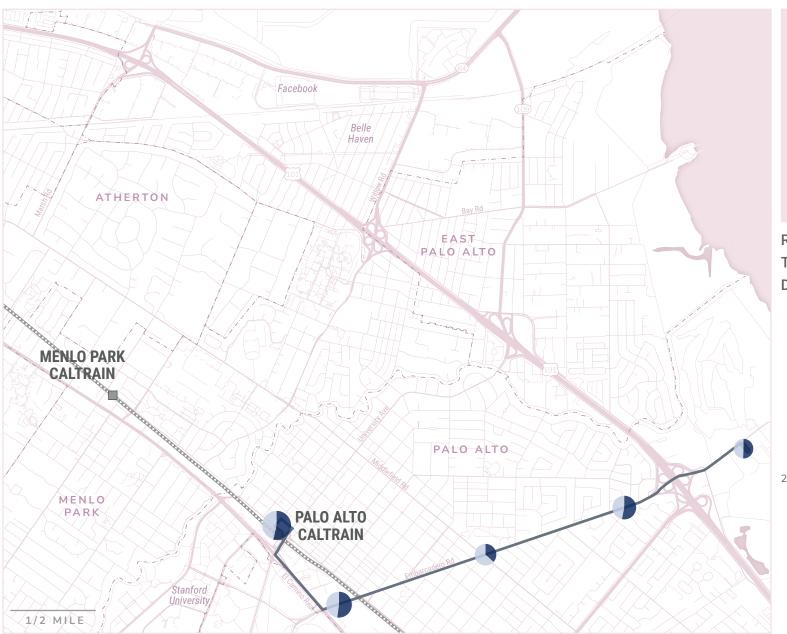


Region: Menlo Park-Palo Alto

Type: Commuter Daily Ridership: 56



# Average Daily Ridership by Shuttle Stop: Embarcadero





Region: Menlo Park-Palo Alto

Type: Commuter

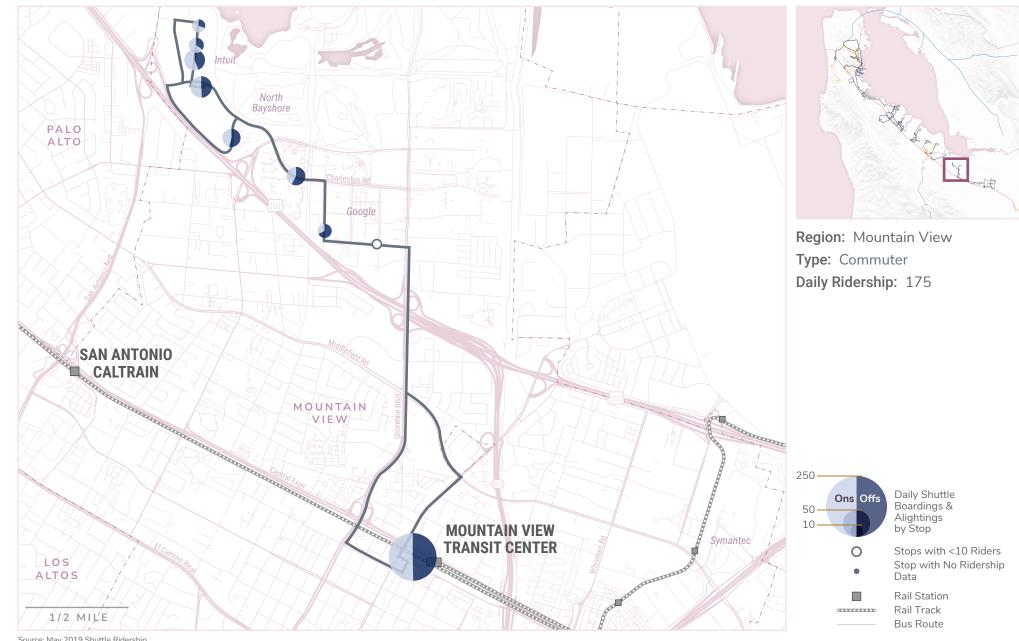
Daily Ridership: 139



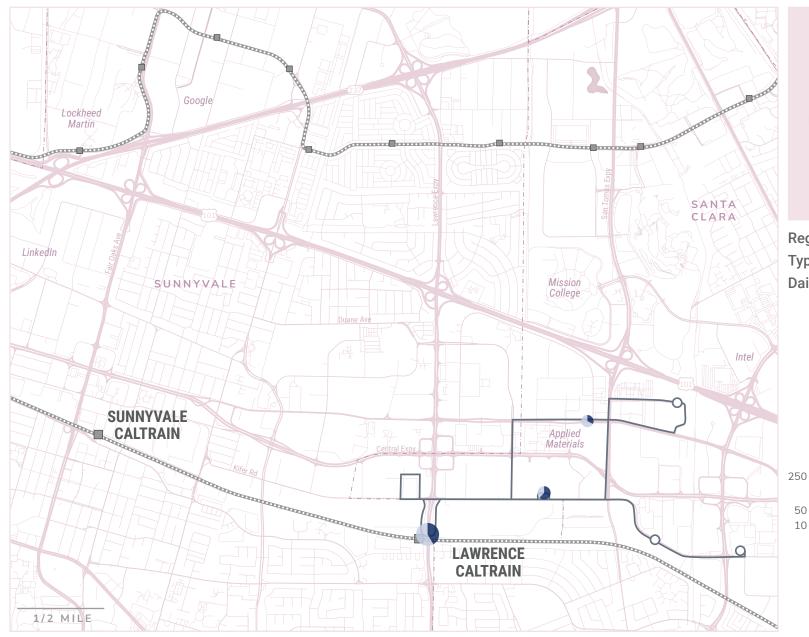
# Average Daily Ridership by Shuttle Stop: East Bayshore



#### Average Daily Ridership by Shuttle Stop: West Bayshore



#### Average Daily Ridership by Shuttle Stop: Bowers/Walsh



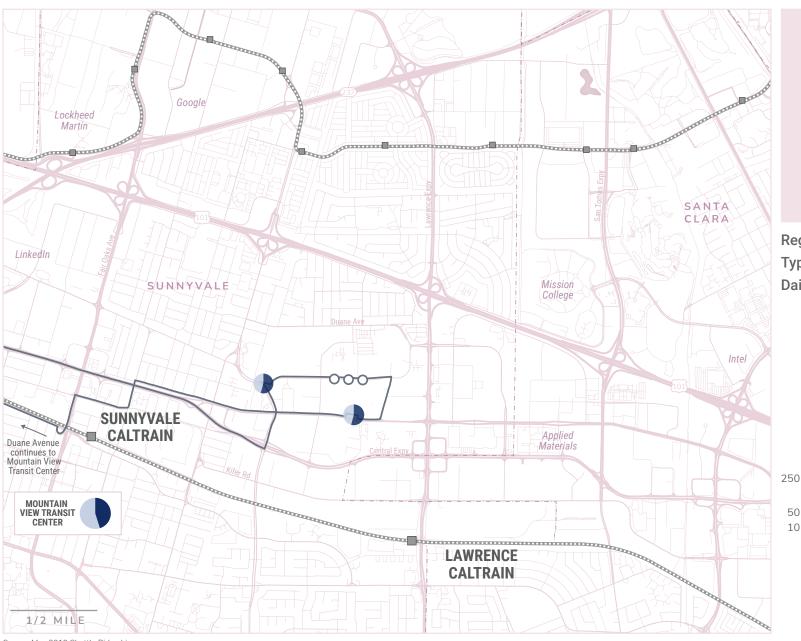


Region: Sunnyvale-Santa Clara

Type: Commuter Daily Ridership: 31



#### Average Daily Ridership by Shuttle Stop: Duane Avenue



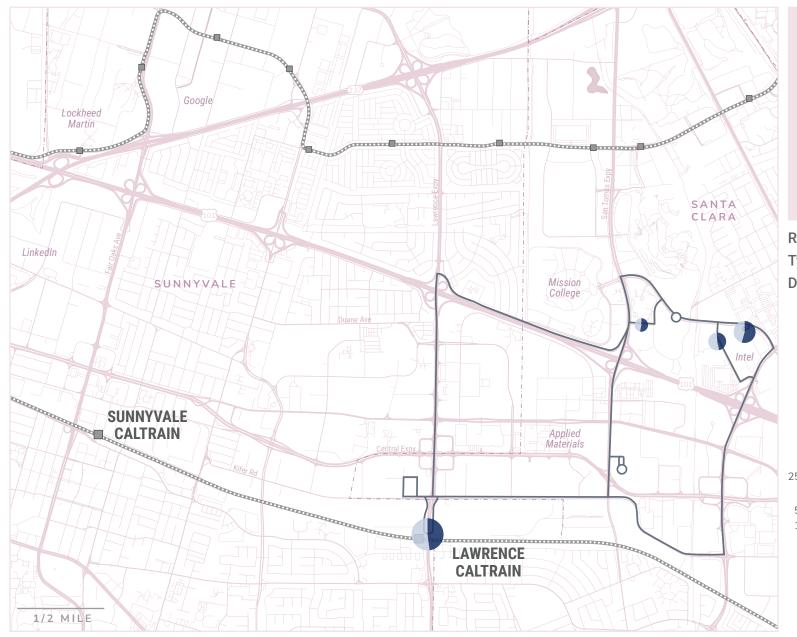


**Region:** Sunnyvale-Santa Clara

Type: Commuter
Daily Ridership: 51



#### Average Daily Ridership by Shuttle Stop: Mission College





Region: Sunnyvale-Santa Clara

Type: Commuter

Daily Ridership: 76



# Appendix D. Shuttle Program Data

This section provides backup data tables based on FY19 shuttle program data.

**Table D-1. Performance Metrics (2019)** 

Shuttle Type	Passengers Per Revenue Hour	Cost per Passenger
San Mateo Community	11.5	\$6.95
San Mateo Commuter	15.6	\$5.28
Santa Clara Commuter	9.6	\$8.65

Source: Fehr & Peers, 2021

Table D-2. Average Daily Ridership

Shuttle Type	2014	2015	2016	2017	2018	2019
San Mateo Community	28,252	47,955	84,393	159,356	165,480	177,161
San Mateo Commuter (BART)	308,577	343,632	390,936	380,715	341,071	337,583
San Mateo Commuter (Caltrain)	524,046	538,065	518,457	480,433	493,092	481,753
Santa Clara Commuter	203,372	190,879	215,959	192,053	168,974	143,975

Source: Fehr & Peers, 2021

Table D-3. Shuttle Funding Sources (2019)

Shuttle Type	Employers	SMCTA/ C/CAG	Caltrain	SamTrans	TFCA	Other City Funds	Total
San Mateo Community	\$131,000	\$703,000	-	\$29,000	-	\$416,000	\$1,279,000
San Mateo Commuter	\$1,788,000	\$2,555,000	\$91,000	\$32,000	\$341,000	\$154,000	\$4,961,000
Santa Clara Commuter	\$641,000	-	\$305,000	-	\$185,000	\$114,000	\$1,245,000
Total	\$2,560,000	\$3,258,000	\$396,000	\$61,000	\$526,000	\$684,000	\$7,485,000

Source: Fehr & Peers, 2021

**Table D-4. Annual Household Income Distribution** 

Shuttle Type	Less than \$50K	\$50K-\$75K	\$75K - \$100K	\$100K - \$150K	\$150K or more
San Mateo Community	44%	22%	6%	14%	13%
San Mateo Commuter	13%	14%	17%	23%	33%
Santa Clara Commuter	5%	9%	12%	23%	51%

Source: Fehr & Peers, 2021

Table D-5. Race/Ethnicity

Shuttle Type	White	Asian	Hispanic/Latino	Black	Other
San Mateo Community	31%	47%	7%	5%	10%
San Mateo Commuter	32%	46%	10%	5%	8%
Santa Clara Commuter	14%	35%	37%	3%	11%

Source: Fehr & Peers, 2021

**Table D-6. County of Residence** 

Shuttle Type	San Mateo	Santa Clara	San Francisco	Alameda	Contra Costa	Other
San Mateo Community	81%	4%	14%	0%	0%	1%
San Mateo Commuter (BART)	30%	16%	27%	14%	11%	2%
San Mateo Commuter (Caltrain)	26%	46%	26%	0%	0%	1%
Santa Clara Commuter	San Mateo	Santa Clara	San Francisco	Alameda	Contra Costa	Other

Source: Fehr & Peers, 2021

Table D-7. Average Daily Ridership by City of Boarding (2019)

Shuttle Type	Average Daily Ridership
San Francisco	340
Brisbane	260
South San Francisco	1,210
Daly City	143
San Bruno	227
Millbrae	345
Burlingame	249
San Mateo	352
Foster City	83
Belmont	6
San Carlos	156
Redwood City	759
Menlo Park	183
Palo Alto	100
Mountain View	267
Sunnyvale	75
Santa Clara	51
San Jose	25
Total	4,836

Source: Fehr & Peers, 2021